PALMDALE

a place to call home

PLANNING COMMISSION MEETING
CITY COUNCIL CHAMBER
38300 SIERRA HIGHWAY, SUITE B
PALMDALE, CA 93550
THURSDAY, OCTOBER 9, 2025
6:00 PM
www.cityofpalmdaleca.gov

WELCOME

PLANNING COMMISSION

DEAN HENDERSON, CHAIR
GETRO ELIZE, VICE CHAIR
DAVID LUJAN, COMMISSIONER
MATEO OLIVAREZ, COMMISSIONER
AYEASHA JONES, COMMISSIONER

1. **CALL TO ORDER**

2. **ROLL CALL**

   DEAN HENDERSON, GETRO ELIZE, DAVID LUJAN, MATEO OLIVAREZ, AYEASHA JONES

3. **PLEDGE OF ALLEGIANCE**

4. **PUBLIC COMMENTS**

   The public is allotted to speak a total of three (3) minutes on each section of the agenda, i.e., Consent Calendar. As specified in the Brown Act, a speaker utilizing a translator will receive twice the amount of time specified. Any person who would like to address the Planning Commission on any agendized item may complete a speaker card for the Clerk and identify the agenda item you would like to discuss.

5. **CONSENT CALENDAR**

All matters listed under the Consent Calendar will be enacted by one motion unless an item(s) is pulled by the Planning Commission, in which case the item(s) will be removed from the Calendar and will be considered separately following this portion of the Agenda.

5.A Waive full reading of the Resolution(s) to be considered and voted on at this meeting. (This allows for reading the title only in lieu of reciting the entire text).

5.B Approve the Planning Commission meeting minutes of September 11, 2025.

5.C Adopt Resolution No. PC-2025-021; a Resolution of the Planning Commission of the City of Palmdale, recommending City Council approval of the proposed Five-Year Capital Improvement Project Plan for Fiscal Years 2025-2026 through 2029-2030, finding that the plan is consistent with the Goals, Objectives, and Policies of the General Plan and State Law, and finding that the project is exempt from the environmental review.

SR Reso. No. PC-2025-021.docx
Reso. No. PC-2025-021.docx
Exh A CIP Five-Year Plan.pdf

6. **PUBLIC HEARINGS**

6.A Adopt Resolution No. PC-2025-020, a Resolution of the Planning Commission of the City of Palmdale, approving Conditional Use Permit 25-0002 and Site Plan Review 25-0005; an application by Summit Point Partners LLC, to construct a ministorage facility consisting of an office building and 14 storage buildings totaling 124,612 square feet on an approximately 13-acre site, located at the southwest corner of East Avenue S and Cemetery Road, and adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program prepared for the project.

SR Reso. No. PC-2025-020.docx
Reso. No. PC-2025-020.docx
EXH F.pdf
EXH G.pdf

6.B Adopt Resolution No. PC-2025-022, a Resolution of the Planning Commission of the City of Palmdale recommending City Council approval of General Plan Amendment 25-0002, Zoning Ordinance Amendment 25-0003, and Zone Change 25-0002, to amend the Zoning Ordinance and Land Use and Zoning Maps to address inconsistencies and streamline review procedures, and finding that the project is consistent with Program Environmental Impact Report 22-002, prepared and certified in conjunction with the City's General Plan (Palmdale 2045).

SR Reso. No. PC-2025-022.docx
Reso. No. PC-2025-022.docx

6.C Adopt Resolution No. PC-2025-023, a Resolution of the Planning Commission of the City of Palmdale, recommending the City Council approve a form of Agreement 25-0002, approving Site Plan Review 25-0011, to facilitate the construction of a 264-unit multi-family residential development on one vacant parcel totaling approximately 9.95 acres located on the west side of 15th street east and approximately 375 feet north of East Avenue Q, and find that the project is exempt from environmental review.

SR Reso. No. PC-2025-023.docx
Reso. No. PC-2025-023.docx
Density Bonus Agreement AGR 25-0002.docx

6.D Adopt Resolution No. PC-2025-015, a Resolution of the Planning Commission of the City of Palmdale, recommending City Council approval of a form of Agreement 25-0003 and approving Site Plan Review 25-0009, to facilitate the construction of a 272-unit multi-family residential development on two vacant parcels totaling approximately 9.8 acres located at the northwest corner of East Avenue Q and 25th Street East, and find that the project is exempt from environmental review.

SR Reso. No. PC-2025-015.docx
Reso. No. PC-2025-015.docx
Density Bonus Agreement AGR 25-0003.pdf

7. NON-AGENDA PUBLIC COMMENTS

Now is the time for public participation on items not listed on the agenda. Each speaker is allotted three (3) minutes total.

8. STAFF COMMUNICATIONS

9. COMMISSIONER REPORTS, ANNOUNCEMENTS AND REQUESTS FOR FUTURE AGENDA ITEMS

10. ADJOURNMENT

Adjourn the Planning Commission meeting to Thursday, November 13, 2025, at 6:00 p.m. in the City Hall Council Chamber located at 38300 Sierra Highway, Suite B, Palmdale, California.

Americans with Disabilities Act (ADA) Accommodations
In accordance with the Americans with Disabilities Act of 1990, if you require a disability-related modification or accommodation to participate in this meeting, please contact the

City Clerk’s Office at (661) 267-5151.

If you require oral Spanish translation, please contact the City Clerk’s Office at (661) 267-5151 at least 48 hours prior to the meeting.

Planning Commission Staff Report

DATE: **OCTOBER 9, 2025**

TO: **HONORABLE CHAIR AND PLANNING COMMISSIONERS**

FROM: **PUBLIC WORKS DEPARTMENT**
CAPITAL IMPROVEMENT PROGRAM DIVISION

APPLICANT: **CITY OF PALMDALE**

DISTRICT: **ALL**

SUBJECT: **ADOPT RESOLUTION NO. PC-2025-021; A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, RECOMMENDING CITY COUNCIL APPROVAL OF THE PROPOSED FIVE-YEAR CAPITAL IMPROVEMENT PROJECT PLAN FOR FISCAL YEARS 2025-2026 THROUGH 2029-2030, FINDING THAT THE PLAN IS CONSISTENT WITH THE GOALS, OBJECTIVES, AND POLICIES OF THE GENERAL PLAN AND STATE LAW, AND FINDING THAT THE PROJECT IS EXEMPT FROM ENVIRONMENTAL REVIEW**

RECOMMENDATION

Staff recommends that the Planning Commission adopt Resolution No. PC-2025-021, recommending City Council approval of the proposed Five-Year Capital Improvement Project (CIP) Plan for Fiscal Years (FY) 2025-2026 through 2029-2030, finding that the plan is consistent with the Goals, Objectives, and Policies of the General Plan and State Law, and finding that the project is exempt from environmental review.

BACKGROUND

Government Code Section 65103(c) requires that the City review its Five-Year CIP plan annually for consistency with the General Plan. The purpose of the consistency review is to ensure that Capital Improvement projects are not placed in locations that are designated for other purposes under the General Plan, and to ensure that the budgeted improvements are consistent with the goals, objectives, and policies of the General Plan.

ANALYSIS

The City's proposed Five-Year CIP plan is an effective tool used to determine the expenditure of resources for public infrastructure. It is a short-range, Five-Year plan, which identifies capital projects and related special studies, provides a planning schedule, and identifies options for financing. The planning document identifies the recommended

allocation of the City's limited resources for capital projects for FY 2025-2026 through 2029-2030.

The proposed Five-Year CIP plan is comprised of 73 proposed projects with an estimated total cost of $399,001,000. A copy of the project summary and descriptions are attached to this report as a reference.

TABLE 1 - FIVE-YEAR CIP ESTIMATED COST BY CATEGORY

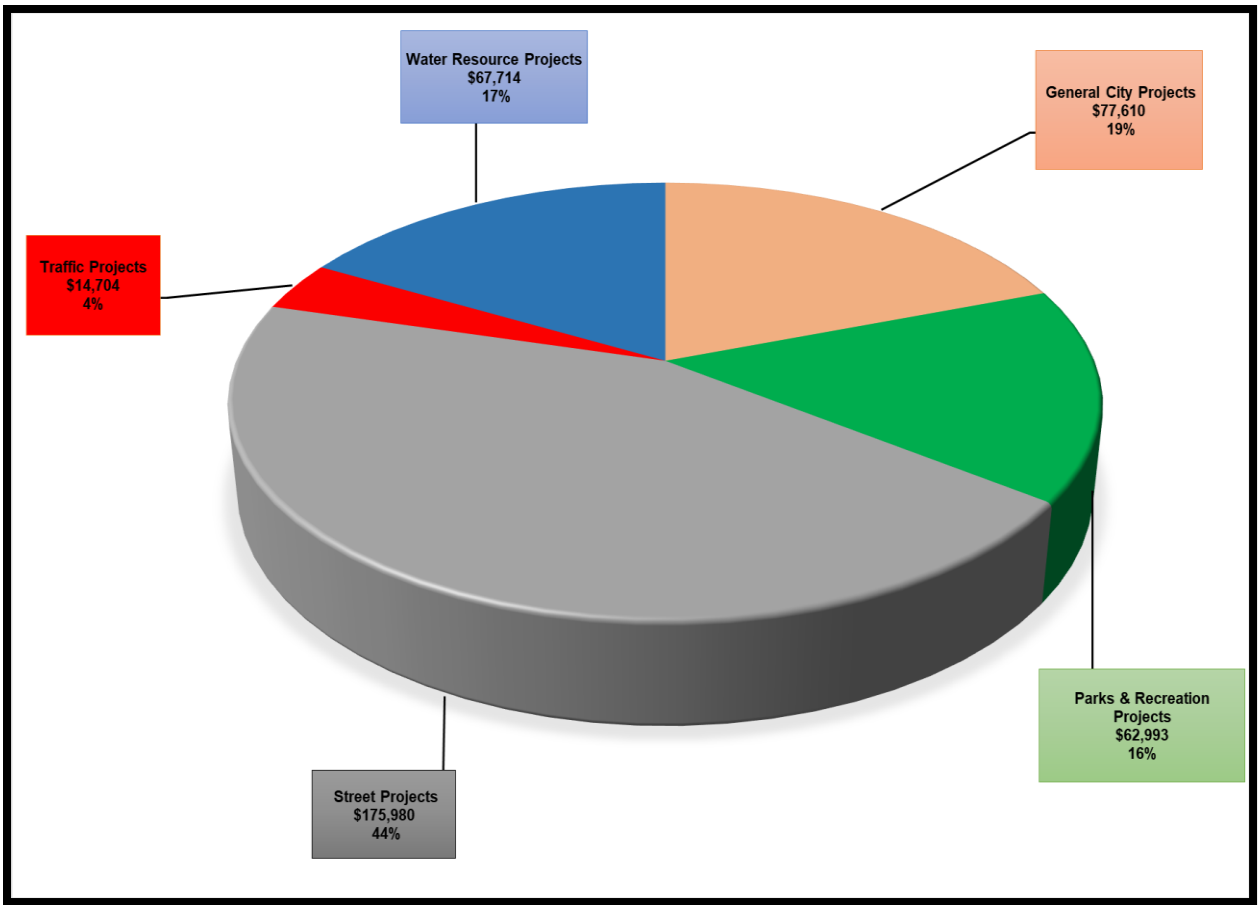
Category	Amount	Total Projects
General	$77,610,000	14
Parks & Recreations	$62,993,000	15
Streets	$175,980,000	23
Traffic	$14,704,000	10
Watershed/Drainage	$67,714,000	11
TOTAL	**$399,001,000**	**73**

TABLE 2 - ESTIMATED COST FOR EACH FISCAL YEAR

Fiscal Years	Total
FY 2025-26	$97,581,000
FY 2026-27	$64,946,000
FY 2027-28	$81,409,000
FY 2028-29	$77,487,000
FY 2029-30	$77,578,000
TOTAL	**$399,001,000**

The chart below shows the total funds allocated for FY 2025-2030 by percentage for the categories discussed in the plan.

FIGURE 1 - 2025 FIVE-YEAR FUNDING ALLOCATIONS



Staff reviewed each project listed and determined it to be consistent with the General Plan Land Use Map and the goals, policies, and objectives of the General Plan as discussed within Resolution No. PC-2025-021. All proposed drainage improvement projects conform to the Drainage Master Plan and the Safety Element of the Palmdale 2045 General Plan. The proposed Street improvements conform to the adopted Circulation Element and Street Classifications Map of the Palmdale 2045 General Plan. All proposed parks meet the locational criteria contained in the Open Space Element.

Once the Planning Commission has determined that the report is consistent with the Palmdale 2045 General Plan, it will be forwarded to the City Council for consideration and approval. This is consistent with the General Plan Policy, Public Facilities, Services and Infrastructure (PFSI) 6.10, requiring an annual update of the CIP plan to prioritize funding for public works projects in accordance with the General Plan.

ENVIRONMENTAL REVIEW

Review of the proposed Five-Year CIP plan is not an approval of the individual actions within the Plan; it is only a determination that the Plan is in conformance with the City's General Plan. The individual actions described in the proposed Five-Year CIP plan are speculative, and the determination of conformance does not commit funding to any specific project. Therefore, the proposed action is not a "Project" as defined in Section 15378(b)(4) of the CEQA Guidelines, which states that: *Project does not include: The creation of government funding mechanisms or other government fiscal activities, which do not involve any commitment to any specific project, which may result in a potentially significant impact on the environment.*

Therefore, it has been determined that the finding of conformance with the City's Palmdale 2045 General Plan is exempt from the requirements of the CEQA pursuant to the general rule [Section 15061(b)(3)] of the State CEQA Guidelines, which states that CEQA applies only to projects which have the potential for causing a significant physical effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant physical effect on the environment, the activity is not subject to CEQA.

Prepared by:	Leonardo Torres, P.E., Director of Public Works
	Jonathan Wu, P.E., Deputy Director of Public Works
Approved by:	Brenda Magaña, Planning Manager
Approved as to form:	Alexandria Severino, City Attorney

ATTACHMENTS

Resolution No. PC-2025-021

PLANNING COMMISSION
CITY OF PALMDALE, CALIFORNIA
RESOLUTION NO. PC-2025-021

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, RECOMMENDING CITY COUNCIL APPROVAL OF THE PROPOSED FIVE-YEAR CAPITAL IMPROVEMENT PROJECT PLAN FOR FISCAL YEARS 2025-2026 THROUGH 2029-2030, FINDING THAT THE PLAN IS CONSISTENT WITH THE GOALS, OBJECTIVES, AND POLICIES OF THE GENERAL PLAN AND STATE LAW, AND FINDING THAT THE PROJECT IS EXEMPT FROM ENVIRONMENTAL REVIEW

WHEREAS, The proposed Five-Year Capital Improvement Project (CIP) Plan as contemplated, proposes planned maintenance and improvement of public facilities for Fiscal Years (FY) 2025-2026 through 2029-2030*,* as set forth in Exhibit A; and,

WHEREAS*,* Government Code Section 65103(c) requires that the Planning Commission review the proposed Five-Year CIP Plan for consistency with the General Plan Palmdale 2045*;* and,

WHEREAS*,* On October 9, 2025, the Planning Commission of the City of Palmdale conducted a duly noticed public meeting on the application and concluded said meeting on that date; and,

WHEREAS*,* All legal prerequisites to the adoption of this Resolution have occurred.

NOW THEREFORE, BE IT RESOLVED, THE PLANNING COMMISSION OF THE CITY OF PALMDALE DOES HEREBY FIND, DETERMINE, RESOLVE AND ORDER AS FOLLOWS:

SECTION 1. The Planning Commission hereby specifically finds that all the facts set forth in the Recitals of this Resolution are true and correct.

SECTION 2. The Planning Commission hereby finds as follows with respect to the California Environmental Quality Act (CEQA):

A Pursuant to the CEQA and the City's local CEQA Guidelines, City staff determined that the proposed consistency findings are not a project according to CEQA pursuant to Section 15378, of the CEQA Guidelines, the individual actions described in the proposed Five-Year CIP work plan are speculative, and the determination of conformance does not commit funding to any specific project. Therefore, the proposed action is not a "Project" as defined in Section 15378(b)(4) of the CEQA Guidelines, which states that: Project does not include the creation of government funding mechanisms, or other government fiscal activities, which do not involve any commitment to

any specific project, which may result in a potentially significant impact on the environment.

B The custodian of records for the materials which constitute the record of proceedings upon which the Planning Commission's decision is based, is the Planning Manager of the City of Palmdale. These documents are available for public review in the Planning Division of the City of Palmdale located at 38250 Sierra Highway, Palmdale, California 93550, telephone (661) 267-5200.

SECTION 3. Based upon substantial evidence presented to this Commission during the above-referenced October 9, 2025, public meeting, including public testimony, and written and oral staff report, this Commission specifically finds that the proposed Five-Year CIP Plan for FY 2025-2026 through FY 2029-2030, as set forth in Exhibit A is consistent with Government Code Section 65103(c) and Palmdale 2045 because it conforms to the goals, objectives, policies, and maps of all applicable elements of the General Plan.

SECTION 4. The City Clerk shall certify the adoption of this resolution.

PASSED, APPROVED and **ADOPTED** this 9th day of October, 2025.

_____
Dean Henderson
Chair, Planning Commission

ATTEST:

_____
Sylvia Magallanes, Deputized Clerk

I, Sylvia Magallanes, Deputized Clerk of Palmdale, California, do hereby certify that the foregoing resolution was duly approved and adopted by the Planning Commission of the City of Palmdale at a regular meeting of said Commission held on the 9th day of October 2025, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____ ABSENT: _____

Date: _____ _____
Sylvia Magallanes, Deputized Clerk

EXHIBIT A

CITY OF PALMDALE

2025 Five-Year *Capital Improvement Plan*

Department of Public Works

CAPITAL IMPROVEMENT PROGRAM DIVISION

City Planning Commission General Plan
City Planning Commission Meeting on October 9, 2025
(Conformance with General Plan)
City Council Meeting on December 2, 2025 (Approval)









Five-Year Capital Improvement

PROGRAM TEAM

CITY MANAGER

Sal Mendez, Interim City Manager

Sara Gallagher, Deputy City Manager

Nardy Lopez, Deputy City Manager

CITY STAFF (MAJOR CONTRIBUTORS)

Lee Torres, P.E., Director of Public Works

Keri Smith, Director of Parks and Recreation

Jonathan Wu, P.E., Deputy Director of Public Works

Michael Livingston, Deputy Director of Public Works

Joyce Workman, Senior Management Analyst

Marc Zuber, Project Manager

CITY OF PALMDALE

Past Projects

THAT HAVE RECEIVED AWARDS

The Department of Public Works has won several **state and regional public works awards** for notable projects and programs such as the:

APWA High Desert Project of the Year 2024
Best Public Safety Improvement Award
Avenue R ATP Project

APWA High Desert Project of the Year 2022
Innovative Design of the Year- Courtney's Playground
Inclusive Play Area at Marie Kerr Park

APWA High Desert Project of the Year 2021
Outstanding Public Works Project of the Year - Rancho Vista Boulevard Widening Gap Closure

APWA High Desert Project of the Year 2019
Best Environmental Project - Upper Amargosa Creek Recharge Project

APWA Project of the Year 2019
Southern California Chapter - Recreation and Athletic Facilities - Pelona Vista Park Fitness Court

APWA Project of the Year 2018
Southern California Chapter - Creative and Innovative - City's Streetlight Acquisition and Retrofit Project

APWA High Desert Project of the Year 2018
Best Use of Technology - Palmdale Council Chamber Audio/Visual Upgrade

Table of *Contents*

04

INTRODUCTION

Summary
Chart: Funds Allocation
Project List
Project Planning & Development Processes

11

FUNDING

Funding Sources for Capital Projects

23

GENERAL

Overview
Project List
Individual Project Descriptions

42

Parks & Recreation

Overview
Project List
Individual Project Descriptions

62

STREETS

Overview
Project List
Individual Project Descriptions

90

TRAFFIC

Overview
Project List
Individual Project Descriptions

105

WATERSHED RESOURCES

Overview
Project List
Individual Project Descriptions

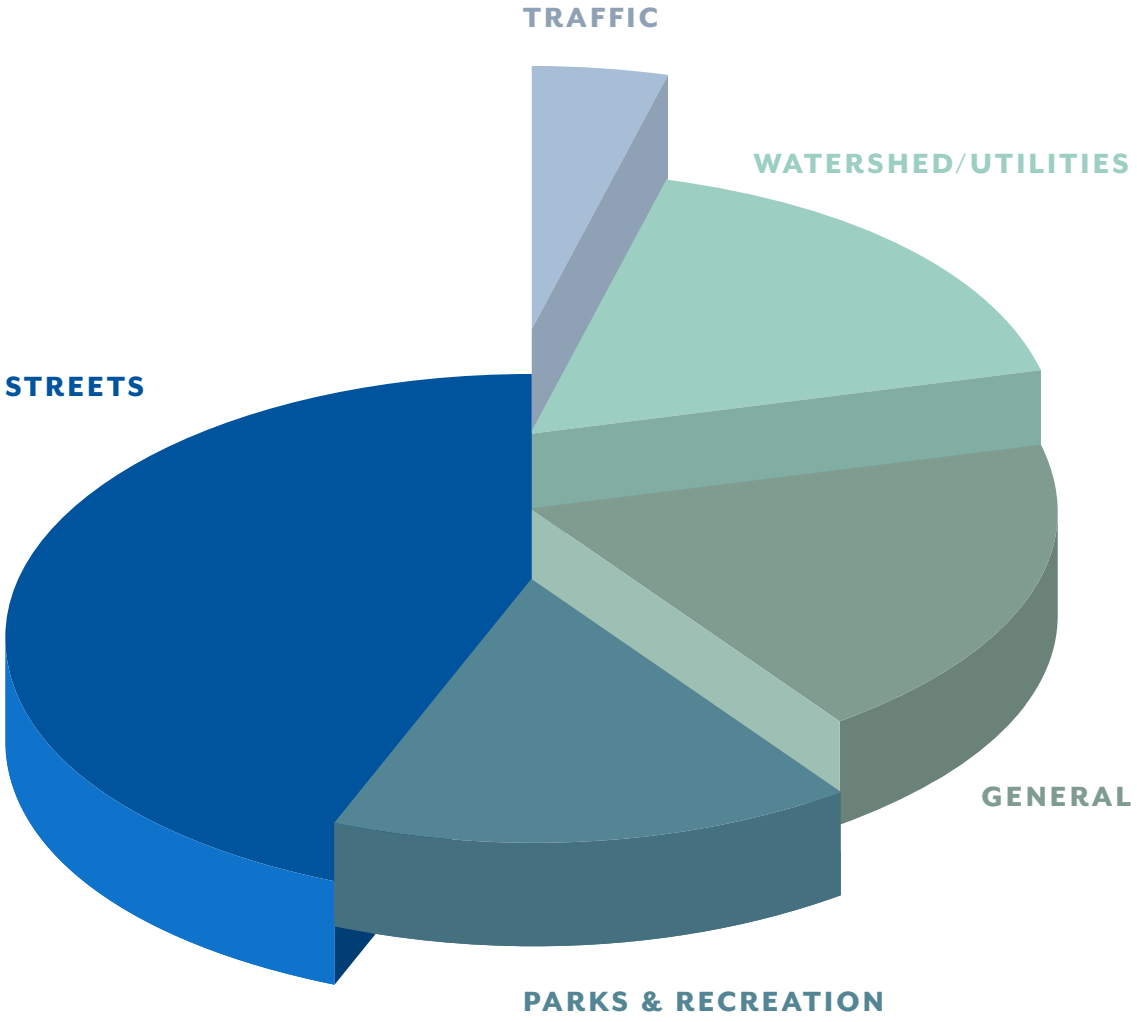
CITY OF PALMDALE

Introduction



Department of Public Works

CAPITAL IMPROVEMENT DIVISION



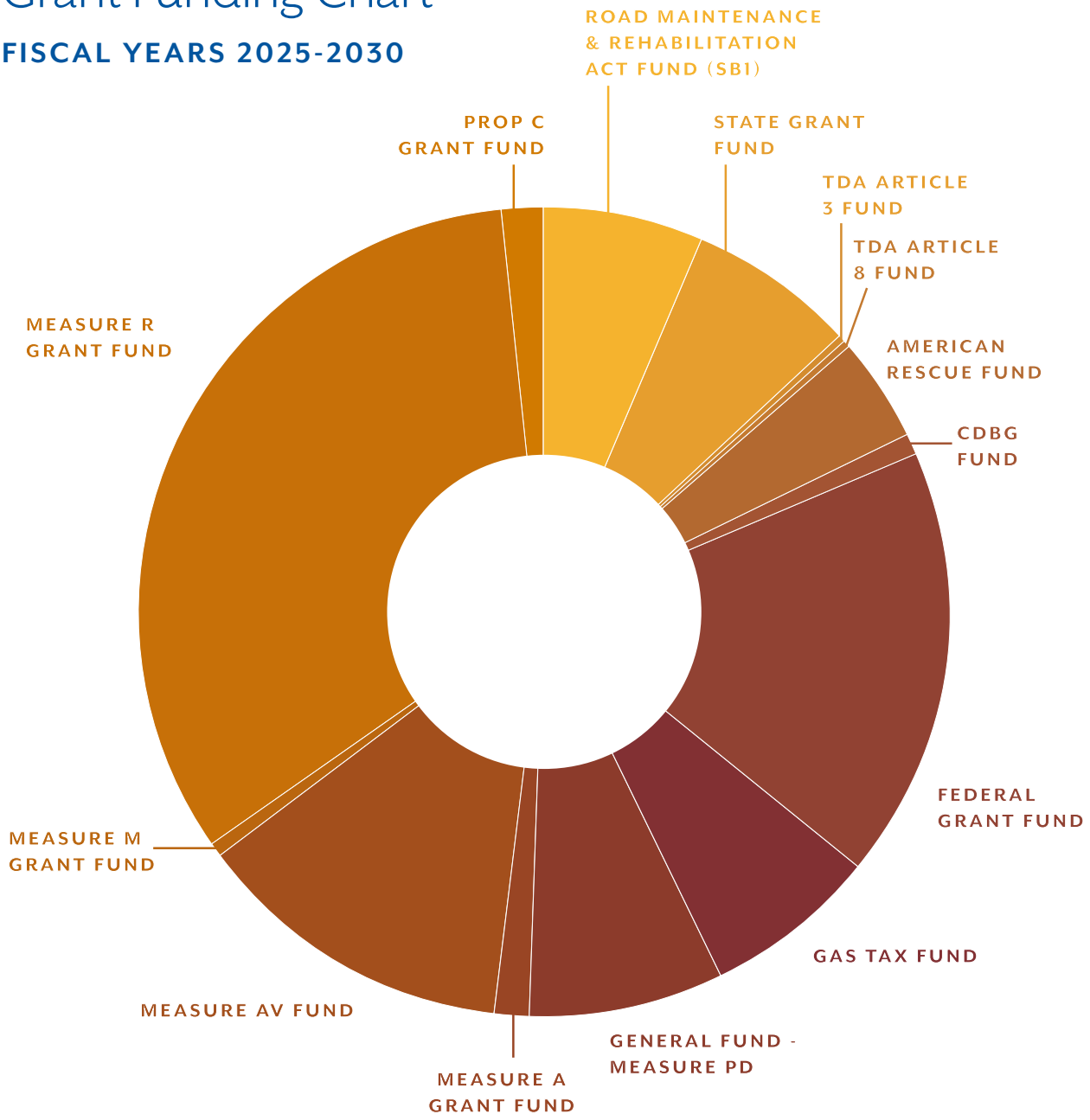
2025 FIVE-YEAR FUNDING ALLOCATIONS

(all figures below in thousands of dollars)

- Streets
  $175,980 | 44%
- Parks & Recreation
  $62,993 | 16%
- General
  $77,610 | 19%
- Watershed Resource
  $67,714 | 17%
- Traffic
  $14,704 | 4%

Grant Funding Chart

FISCAL YEARS 2025-2030



ESTIMATED TOTAL BUDGET

(all figures below in thousands of dollars)

- Road Maintenance & Rehabilitation Act Fund (SB1) **$15,393**
- State Grant Fund **$15,836**
- TDA Article 3 Fund **$605**
- TDA Article 8 Fund **$1,129**
- American Rescue Fund **$9,541**
- CDBG Fund **$1,189**
- Federal Grant Fund **$41,268**
- Gas Tax Fund **$16,438**
- General Fund - Measure PD **$18,000**
- Measure A Grant Fund **$3,498**
- Measure AV Fund **$30,556**
- Measure M Grant Fund **$1,156**
- Measure R Grant Fund **$78,329**
- Prop C Grant Fund **$3,816**

Five-Year *Funding Summary*

CIP Projects 2025-2030

(all figures below in thousands of dollars)

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
American Rescue Fund	$9,541	$—	$—	$—	$—	**$9,541**
CDBG Fund	$1,799	$100	$—	$—	$—	**$1,899**
Developer Contributions	$1,017	$—	$9,000	$6,000	$9,210	**$25,227**
Drainage Fund	$9,933	$547	$105	$105	$105	**$10,795**
Drytown Water Park Fund	$300	$—	$—	$—	$—	**$300**
Federal Grant Fund	$15,748	$3,520	$7,000	$7,000	$8,000	**$41,268**
Fire Facilities Fees	$—	$—	$3,000	$3,000	$2,070	**$8,070**
Gas Tax Fund	$11,438	$—	$—	$2,500	$2,500	**$16,438**
General Fund	$3,229	$—	$—	$—	$—	**$3,229**
General Fund-Measure PD	$—	$—	$4,000	$6,000	$8,000	**$18,000**
Landscape Maintenance District Fund	$791	$—	$—	$—	$—	**$791**
Measure A Grant Fund	$3,498	$—	$—	$—	$—	**$3,498**
Measure AV Fund	$17,854	$2,000	$3,500	$4,000	$3,202	**$30,556**
Measure M Grant Fund	$1,156	$—	$—	$—	$—	**$1,156**
Measure M Local Return Fund	$6,784	$1,000	$1,500	$—	$—	**$9,284**
Measure R Grant Fund	$78,329	$—	$—	$—	$—	**$78,329**
Measure R Local Return Fund	$1,551	$—	$—	$—	$—	**$1,551**
Park Development Fund	$375	$—	$—	$—	$—	**$375**
Prop A Local Return Fund	$7,822	$3,100	$100	$100	$100	**$11,222**
Prop C Grant Fund	$3,816	$—	$—	$—	$—	**$3,816**
Prop C Local Return Fund	$3,752	$—	$3,700	$4,500	$7,500	**$19,452**
Public Art Fund	$165	$—	$—	$—	$—	**$165**
Public Facilities Fund	$495	$100	$100	$147	$—	**$842**
Road Maintenance & Rehabilitation	$8,848	$2,245	$—	$2,300	$2,000	**$15,393**
Sewer Maintenance Assessment	$10,010	$1,020	$510	$510	$510	**$12,560**
Sewer Upgrade Fund	$424	$—	$—	$—	$—	**$424**
State Grant Fund	$3,836	$—	$—	$6,000	$6,000	**$15,836**
TBD	$200	$2,500	$19,750	$17,650	$16,750	**$56,850**
TDA Article 3 Fund	$205	$100	$100	$100	$100	**$605**
TDA Article 8 Fund	$1,129	$—	$—	$—	$—	**$1,129**
Traffic Impact Fund	$—	$400	$—	$—	$—	**$400**
Total	**$204,045**	**$16,632**	**$52,365**	**$59,912**	**$66,047**	**$399,001**

Project Planning & **Development Processes**

In fiscal year 2019/2020 the City transitioned from a ***Ten-Year Capital Improvement Plan*** to a ***Five-Year CIP Plan.***

FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM ANNUAL UPDATE

City Council members, Planning Commission members and City staff provided input on revisions to the current Capital Improvement Program and any new projects that have been identified. The Five-Year CIP Plan is presented to the Planning Commission for their determination as to whether it is consistent with the general plan goals and policies of the City annually. The new 5-year CIP document is then presented to the City Council for approval in conjunction with the adoption of the City's annual budget in May/June of each year.

ANNUAL CAPITAL IMPROVEMENT BUDGET PROCESS

The Annual Capital Improvement Budget (Annual CIP) process usually starts in January or February with the development of the overall City budget. However, due to staff shortage this year, the update to the 5-year CIP Plan was delayed. This process identifies all priority operational needs, as well as capital improvement needs. Once the budget is completed, it is recommended for adoption by the City Council prior to the beginning of the fiscal year, which begins in July. City management and the City Council are updated monthly on the status of CIP projects through status reporting and meetings.

PROJECT PHASES

Individual projects may take anywhere from a few weeks to a few years to complete depending on the complexity of the project and the source of project financing. Simple and small projects funded with discretionary City funds may sometimes be completed in as little as a few weeks or months. The largest and most complex projects involving a matrix of restricted funding sources with matching requirements from other outside sources may take several years to complete. Individual CIP projects may require any or all of the project phases listed on the next page. Each phase of a complex project is regulated by several layers of governmental agencies that may have jurisdiction over various aspects of a project. These agencies often have many legal restrictions and requirements to follow to complete a particular phase of a project.

Project Planning & **Development Processes**

The major phases of a City project are generally summarized *as follows:*

1. PRELIMINARY CONCEPT

This phase typically includes the involvement of several City staff and may include a design engineer, building architect, or landscape architect. The City Council is typically briefed on concepts for significant projects prior to moving forward into the design phase, such as the renovation of the Chimbole Cultural Center.

2. CONSULTANT SERVICES

The expertise of specialized consultants are utilized regularly for professional services involving: special studies; right-of-way acquisition; civil engineering design, building architectural design; geotechnical engineering studies; traffic engineering design and studies; landscape architectural design; environmental review and assessment; and special district formation. City Council approval is required for services over and above the City Manager's designated authority and any ongoing agreement limitations.

3. ENTITLEMENTS & APPROVALS

Some projects involve some type of entitlement or approval including: Planning Commission or Planning Official Site Plan Approval and conformance with the California Environmental Quality Act (CEQA) or federal equivalent, the National Environmental Protection Act (NEPA).

4. DESIGN REVIEW & APPROVALS

Design review and approvals may involve internal (Engineering and Building & Safety) approvals and/or external (outside agency) review and approvals (i.e., Palmdale Water District, City of Lancaster, Los Angeles County, Caltrans, federal agencies, etc.)

5. UTILITY COORDINATION

Many projects will involve coordination with outside utility agencies such as: Palmdale Water District, L.A. County Waterworks Districts, telecommunication companies, Southern California Gas, Southern California Edison, Los Angeles County Department of Public Works Sewer Maintenance Division, and the County Sanitation Districts of Los Angeles County.

6. ACQUISITIONS

Acquisitions may be made by "friendly" acquisition in which there is a willing buyer (City) and seller or by Eminent Domain, which involves a legal process and requires City Council approval.

Project Planning & **Development Processes**

7. CONSTRUCTION CONTRACT BID & AWARD

In 2010 the City of Palmdale adopted Ordinance 1398 containing specific provisions to allow added flexibility in contracting for public projects. This ordinance allows the City to consider criteria other than price (such as qualifications, schedule, experience and local preference) when awarding a contract. Other criteria in the ordinance have not changed: 1) Public works construction projects with a value of less than $30,000 may be selected by solicitation of binding quotes from three contractors. No formal selection process is required. 2) Public works construction projects with a value of $30,000 to $125,000 must be selected by an informal bid process, which includes, but limited to, a 10-day bid period, unsealed bids, and no published notice inviting bids. 3) Public works construction projects with a value of more than $125,000 must be publicly bid after public advertisement and state prevailing wages must be paid. In many cases, meeting state and federal legal requirements, may add an additional 10% to 25% to the project cost and require the formal bidding process.

8. CONSTRUCTION CONTRACT ADMINISTRATION

After a contract is executed between the City and a contractor, the assigned project manager and public works inspector will provide construction contract administration duties. The duration of project construction may be as little as a few days to more than a year for larger projects. The contract administration team ensures that the contractor adheres to all regulations and contract provisions required by federal, state and local law. Typically, for larger construction projects the City will use a consultant to provide construction management of the contractor and to assist project managers in keeping the project on schedule.

9. LEGAL

Legal services are required on most projects and may include: review of service agreements, bid protests, bidding process, sub-contractor stop notices, individual claims on projects during and after construction, contractor disputes, and acquisition related issues.

10. PROJECT CLOSE-OUT

Once the project construction is complete, there are often many financial, legal and other aspects to closing out a project file including: filing legal Notices of Completion, processing all final payments, preparing all grant or financing related project reports, and final organization and preparation of the file for future auditing.

CITY OF PALMDALE

Funding



Funding Sources for **Capital Projects**

FUND 101

General Fund

General Fund revenues include funds from many sources and may be spent on City operating or capital expenses. General fund revenues are derived from: sales tax; utility franchise fees for electricity, natural gas, waste disposal and cable television; plan checking fees; motor vehicle in-lieu/fees; interest earnings; building permit fees; property taxes; animal license fees; property tax; transient occupancy tax; business license tax; parking citations; recreation fees; facility rental charges; and donations.

Measure PD Fund

APPROVED BY PALMDALE TAXPAYERS

The Palmdale Essential Services Protection Measure is not a new tax. It simply requires that if another government agency ends or loses a sales tax, the taxpayers of Palmdale will automatically start collecting the increment that ended. This holds taxes steady and ensures the funds stay in Palmdale where we can invest in our community.

FUND 156

Public Art Fund

The Public Art fund was created in FY 2021 to hold all monies generated under the Public Art policy derived from gifts or donations for public art. Private and municipal development projects are required to contribute to the fund per PMC Section 15.01.020.

FUND 157

Measure AV Fund

APPROVED BY PALMDALE TAXPAYERS

A local ¾ cent transaction and use tax was passed by Palmdale voters on November 3, 2020. The revenues and expenditures from the tax are to be regularly reviewed by a Citizen's Advisory Committee to ensure the funds collected are expended for the purposes specified in the Measure AV ballot language. The Measure includes protecting Palmdale's long-term financial stability; maintaining essential services; repairing streets/potholes; addressing homelessness; maintaining 911 emergency response; keeping public areas safe/clean for all; retaining local businesses; protecting local water; maintaining veteran, senior, mental health, and community programs; by establishing a ¾-cent sales tax; requiring citizen oversight, public spending disclosures; all funds used locally in Palmdale).

Funding Sources for **Capital Projects**

FUND 158

American Rescue Fund

GRANT FUNDING SECURED BY CITY

The American Rescue Plan Act Fund was created in FY 2022 to hold monies received by the federal government through the American Rescue Plan Act. Monies in this fund must be spent in accordance with federal guidelines.

RESTRICTED REVENUE SOURCES

FUND 201

Gas Tax Fund

Gas Tax revenues are received on a per capita basis each year pursuant to Sections 2105, 2106, 2107 and 2107.5 of the California Streets and Highways Code. Gas Tax revenue is restricted and must be spent on street-related construction and/or maintenance projects.

FUND 203

Prop A Fund

In 1980, Los Angeles County voters adopted Proposition A, a ½ cent sales tax, to finance a county-wide transit development program. A portion of Proposition A required that 25% of the tax revenue generated be earmarked for local return programs for use by Los Angeles County cities and the County of Los Angeles in developing and/or improving local public transit, paratransit, and related transportation infrastructure.

FUND 204

Prop C Grant Fund

The Proposition C competitive grants program is a funding source in Los Angeles County, derived from a voter-approved ½ cent sales tax to support local transportation projects. Metro, the Los Angeles County Metropolitan Transportation Authority, uses these funds, alongside other transportation sales tax measures, for specific grant programs that are awarded competitively.

Funding Sources for **Capital Projects**

FUND 205

Air Quality Improvement Fund

Antelope Valley Air Quality Management District offers several grant programs for residents, businesses, public and private agencies, non-profit and community groups. The focus of the program is to eliminate and/or replace the operation of older polluting conventional fuel vehicles and equipment earlier than its normal lifecycle or regulatory requirements.

FUND 206

Local Transportation Development Fund (TDA) Article 3

Transportation Development Act, Article 3 funds are available to be used by cities within Los Angeles County for the planning and construction of bicycle and pedestrian facilities. Article 3 funds are administered by the Metropolitan Transit Authority (MTA). Funds are allocated annually on a per capita basis to both cities and the County of Los Angeles.

FUND 207

Local Transportation Development Fund (TDA) Article 8

Transportation Development Act (TDA) Article 8 was adopted by Metropolitan Transportation Authority in 2014. Article 8 provides that cities can use eligible funds of the County's Local Transportation Fund for local streets and road expenditures when the City's unmet transportation needs have been satisfied.

Funding Sources for **Capital Projects**

FUND 208

Measure R Grant Fund

The Measure M grant funds are restricted to various funding opportunities under Los Angeles County's Measure M sales tax. These funds will go towards eligible street and transit projects throughout the City.

FUND 209

Measure M Grant Fund

The Measure M grant funds are restricted to various funding opportunities under Los Angeles County's Measure M sales tax. These funds will go towards eligible street and transit projects throughout the City.

FUND 210

Road Maintenance and Rehabilitation Fund (SB1)

The City receives revenue from the Road Repair and Accountability Act of 2017 (SB1). Eligible projects may include maintenance and rehabilitation, safety projects, railroad grade separations, traffic control devices and complete street components.

FUND 211

Measure A Fund (City allocation & competitive grants)

GRANT FUNDING SECURED BY CITY

Measure A programs are funded by the property tax approved by LA County voters in 2016 to finance safe, clean neighborhood parks, open spaces, beaches, river protection, and water conservation. It authorizes the county to impose a parcel open space tax on improved property at a rate 1.5 cents per square foot of building area.

Funding Sources for **Capital Projects**

FUND 214

Prop C Local Return Fund

In 1990, Los Angeles County voters adopted Proposition C, the second of two ½ cent sales tax, to finance a county-wide transit development program. Proposition C funds are administered by the Metropolitan Transit Authority (MTA). Local Return funds are distributed monthly to jurisdictions on a per capita basis. Eligible expenditure includes developing and/or improving local public transit, paratransit, and related transportation infrastructure, as well as transit services and/or equipment purchases.

FUND 218

Measure M Grant Fund

The City is allocated 15% of revenues from the ½ cent sales tax increase passed in 2008 for comprehensive county transportation improvements. The Measure R local return revenues are restricted for projects such as pothole repairs, bikeways, major street resurfacing, left-turn signals, pedestrian improvements, streetscapes, traffic signal synchronization, and local transit services.

FUND 219

Measure M Local Return Fund

In 2016, Los Angeles County voters approved Measure M, a ½ cent sales tax, to fund improvement of traffic flow/safety, repair, potholes/sidewalks, repave local streets, earthquake retrofit bridges, synchronize signals, keep transit fares affordable, expand rail/subway/bus systems, improve job/school/airport connections, and create jobs. These funds will go towards street and transit projects throughout the City.

FUND 220

Park Development Impact Fees

Park impact fees are collected from developers to mitigate the impacts on the City's park system and to assist with the development and rehabilitation of City parks.

FUND 221

Traffic Impact Fees

Traffic impact fees are collected from developers to mitigate the impacts on the City's traffic control and safety systems. These fees are used for signals and street improvements identified in the Traffic Impact Fee Assessment and Master Traffic Level Maintenance Plan.

FUND 222, 223, 224, 225 and 230

Drainage Impact Fees

Drainage impact fees are collected from developers to mitigate the impact on drainage systems within six major contributory drainage areas in the City. The six separate funds for collecting drainage fees are Amargosa, Anaverde, Big Rock, Portal Ridge, Pearland, and Littlerock. The monies collected in each area can only be used for drainage improvements in that area as set forth in the Master Plan for Drainage.

Funding Sources for **Capital Projects**

FUND 227

Fire Facilities Impact Fees

Fire facilities impact fees are collected from developers to mitigate the impacts of new development on fire protection facilities.

FUND 229

Public Facilities Fund

Impact fees are collected from developers to mitigate the impacts on public facilities such as City Hall and libraries, and to assist with the development and rehabilitation of public facilities.

FUND 240

Federal Grants



Funds from the federal government, typically the U.S. Department of Transportation through the Federal Highway Administration and Federal Transit Administration. Usually requires local funding match.

FUND 241

STATE GRANT FUNDS (CALTRANS & CPUC)



Contributions from the State of California, Department of Transportation for cooperative transportation projects partly within the jurisdiction of the State of California. (Caltrans), State of California Public Utilities Commission (CPUC).

FUND 242

MISC. GRANT/ DEVELOPER CONTRIBUTIONS FUND

Misc. Grant and Developer Contribution Fund accounts for revenues and expenditures received from developers and local agencies for improvements.

FUND 250

Park Assessment Fund

The Park Assessment Fund collects citywide property assessments for debt service payments for the 2014 Certificates of Participation (COP) financing, 2017 Lease Revenue Bonds (LRB) financing, and new Parks and Recreation projects.

FUND 254

Sewer Maintenance Assessment Fund

Sewer Maintenance Assessment District Funds are used to account for the revenues and expenditures associated with maintenance services in the City.

Funding Sources for **Capital Projects**

FUND 252, 255, 256, 257

Street Lighting Assessment District Fund

Revenues consist of assessments levied against properties and are collected by Los Angeles County through the tax rolls. The properties assessed received benefits from street lighting within their neighborhoods. The City is currently in the process of taking over the operation and maintenance of the Southern California Edison Lights. Street Lighting Assessment District Funds are used to account for the revenue.

FUND 258

Enhanced Infrastructure Financing District

Enhanced Infrastructure Financing District (EIFD) in boundaries of the City of Palmdale and in incorporated Los Angeles County. These infrastructure improvements prioritized by the EIFD include key infrastructure projects that are cost prohibitive due to the significant cost to serve the sites and prevent new development from occurring. These infrastructure investments will assist the City's efforts to create jobs, provide housing opportunities, and invest in local and regional transportation.

FUND 280

Community Development Block Grant (CDBG)

The City of Palmdale is considered an entitlement city because its population exceeds 50,000. CDBG revenues are received directly from the U.S. Department of Housing and Urban Development (HUD). Funds are used for community activities and capital projects meeting the target area criteria.



Funding Sources for **Capital Projects**

County/Other Jurisdictions

Sewer Maintenance Assessment District Funds are used to account for the revenues and expenditures associated with maintenance services in the City.

PUC Rule 20A

These funds are collected from ratepayers by Southern California Edison and are applied to the City's Utility Undergrounding Program at the discretion of the City.

Lancaster/Other Jurisdictions

Contributions by the City of Lancaster for their fair share of cooperative projects with split jurisdiction.

Railroad Contributions

Contributions by any one of the railroad entities (Southern California Regional Rail/ Metrolink or Union Pacific Railroad) for their fair share of projects that benefit one of their facilities, as determined by the California Public Utilities Commission.

Funding Sources for **Capital Projects**

School Contributions

Contributions by any one of the school districts (Antelope Valley Union High School District, Keppel Union School District, Palmdale School District or Westside School District) for their fair share of projects that mitigate the effects of a school development or are a benefit to one of their facilities.

Special District

Funds from an approved special district such as an assessment district, a Mello-Roos district or a community facilities district for a specific voter-approved purpose.

LA County Sanitation Districts (LACSD)

Contributions by Sanitation Districts for their fair share of projects that benefit their facilities within Palmdale.

Water Agencies

Contributions by the various water agencies for their fair share of projects that benefit their facilities within Palmdale.

CITY OF PALMDALE

General City *Projects*



General City *Projects*

Five-Year Funding Budget Summary 2025-2030

(all figures below in thousands of dollars)

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total*
American Rescue Fund	$9,527	$—	$—	$—	$—	**$9,527**
GRANT FUNDING SECURED BY CITY CDBG Fund	$649	$100	$—	$—	$—	**$749**
Developer Contributions	$—	$—	$9,000	$6,000	$9,210	**$24,210**
Fire Facilities Fees	$—	$—	$3,000	$3,000	$2,070	**$8,070**
APPROVED BY PALMDALE TAXPAYERS General Fund-Measure PD	$—	$—	$4,000	$6,000	$8,000	**$18,000**
Federal Grant Fund	$3,055	$—	$—	$—	$—	**$3,055**
Landscape Maintenance District Fund	$791	$—	$—	$—	$—	**$791**
APPROVED BY PALMDALE TAXPAYERS Measure AV Fund	$2,513	$100	$100	$100	$100	**$2,913**
Prop A Fund	$448	$100	$100	$100	$100	**$848**
Public Facilities Fund	$495	$100	$100	$147	$—	**$842**
Sewer Maintenance Fund	$4,000	$—	$—	$—	$—	**$4,000**
TBD	$—	$2,000	$2,000	$—	$—	**$4,000**
TDA Article 3 Fund	$205	$100	$100	$100	$100	**$605**
TOTALS	**$21,683**	**$2,500**	**$18,400**	**$15,447**	**$19,580**	**$77,610**

CITY OF PALMDALE

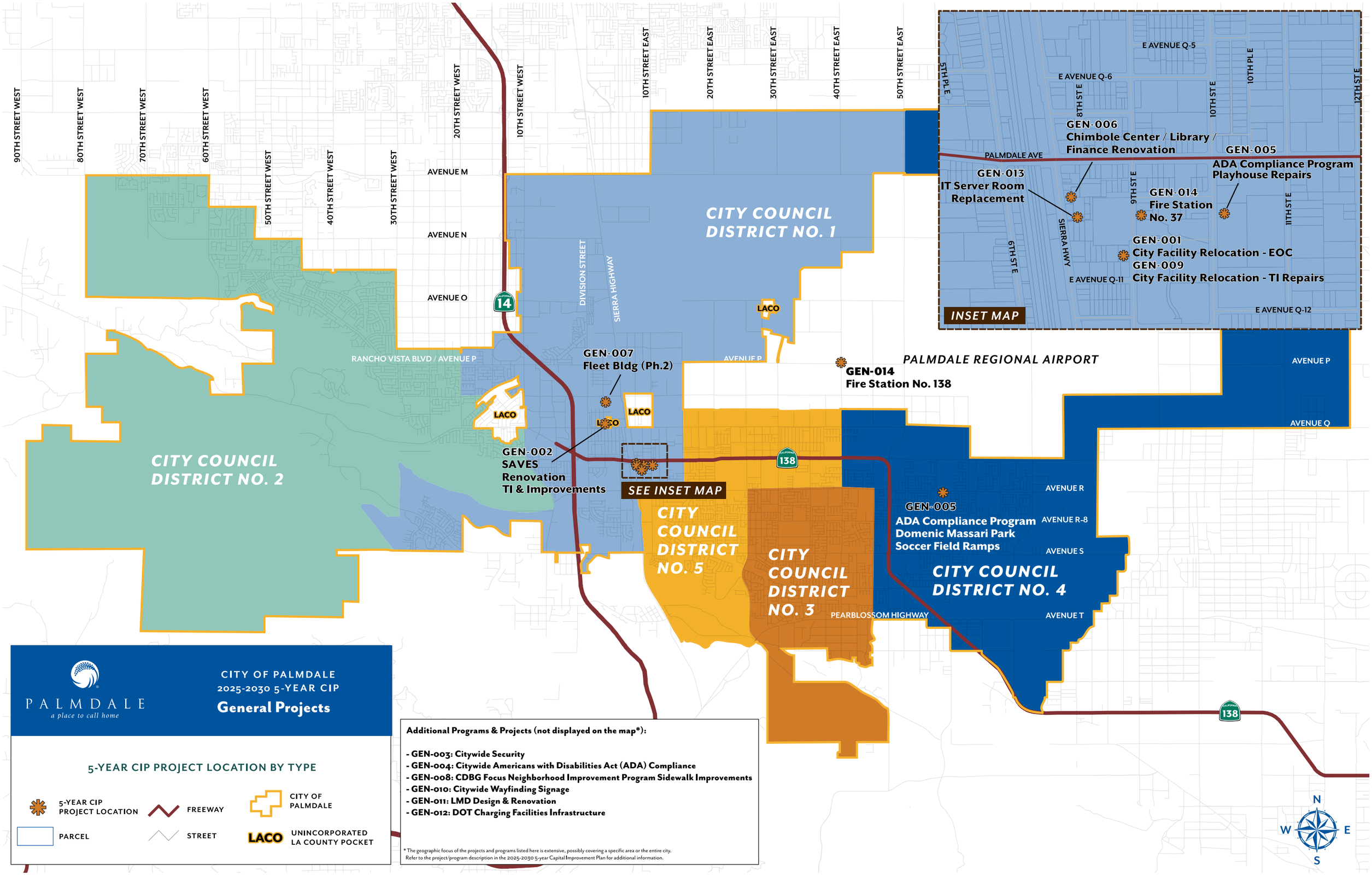
* The amount shown is a preliminary estimated budget for the anticipated total cost of the projects and is not intended to be an estimate of the anticipated amount of the revenue. Revenue estimates are calculated annually as part of the annual budget process and are considered before projects are approved as part of the City's annual budget.

General City Project List

FIVE YEAR CIP PROJECT #		CURRENT BUDGET FY 25-26	ESTIMATED EXPENDITURES FY 25-26	FUTURE BUDGET FY 26-30	ESTIMATED EXPENDITURES FY 26-30	TOTAL PROJECT COSTS (IN THOUSANDS)
GEN-001	City Facility Relocation - EOC	$5,013	$5,013	$0	$0	$5,013
GEN-002	SAVES Renovation - TI & Improvements	$1,436	$1,436	$100	$100	$1,536
GEN-003	Citywide Security	$650	$650	$400	$400	$1,050
GEN-004	Citywide Americans with Disabilities Act (ADA) Compliance Program	$395	$395	$400	$400	$795
GEN-005	ADA Compliance Program - Playhouse Repairs & Soccerfield Ramps	$205	$205	$347	$347	$552
GEN-006	Chimbole Center/Library/Finance Renovation	$5,816	$1,200	$18,000	$22,616	$23,816
GEN-007	Fleet Building (Phase II)	$4,000	$2,000	$0	$2,000	$4,000
GEN-008	CDBG Focus Neighborhood Improvement Program - Sidewalk Improvements	$649	$649	$0	$0	$649
GEN-009	City Facility Relocation - Tenant Improvement Repairs	$831	$831	$0	$0	$831
GEN-010	Citywide Wayfinding Signage	$53	$53	$400	$400	$453
GEN-011	Landscape Maintenance Districts (LMD) Design & Renovation	$791	$791	$0	$0	$791
GEN-012	DOT Charging Facilities Infrastructure	$1,844	$0	$0	$1,844	$1,844
GEN-013	IT Server Room Replacement	$0	$0	$4,000	$4,000	$4,000
GEN-014	Fire Stations 37 & Station O	$0	$0	$32,280	$32,280	$32,280
	TOTAL	$21,683	$13,223	$55,927	$64,387	$77,610

General City Expenditures

Project No.	Project Name	FY 2026 Adopted Budget (includes future budget requests)	FY 2026 Projected Expenditure	FY 2027 Projected Expenditure	FY 2028 Projected Expenditure	FY 2029 Projected Expenditure	FY 2030 Projected Expenditure
GEN-001	CITY FACILITY RELOCATION - EOC	$5,013	$5,013				
GEN-002	SAVES RENOVATION - TI & IMPROVEMENTS	$1,536	$1,436	$100			
GEN-003	CITYWIDE SECURITY	$1,050	$650	$100	$100	$100	$100
GEN-004	CITYWIDE ADA COMPLIANCE	$795	$395	$100	$100	$100	$100
GEN-005	ADA COMPLIANCE PROGRAM - PLAYHOUSE & SOCCER FIELD	$552	$205	$100	$100	$147	
GEN-006	CHIMBOLE CENTER/LIBRARY RENOVATION	$23,816	$1,200	$8,616	$6,000	$8,000	
GEN-007	FLEET BUILDING (PHASE II)	$4,000	$2,000	$2,000			
GEN-008	CDBG FOCUS NEIGHBORHOOD IMPROVEMENT PROGRAM	$649	$649				
GEN-009	CITY FACILITY RELOCATION - TENANT IMPROVEMENT REPAIRS	$831	$831				
GEN-010	CITYWIDE WAYFINDING SIGNAGE	$453	$53	$100	$100	$100	$100
GEN-011	LANDSCAPE MAINTENANCE DISTRICT (LMD) DESIGN & RENOVATION	$791	$791				
GEN-012	DOT CHARGING FACILITIES INFRASTRUCTURE	$1,844					$1,844
GEN-013	IT SERVER ROOM REPLACEMENT	$4,000		$2,000	$2,000		
GEN-014	FIRE STATIONS 37 & STATION O	$32,280			$12,000	$9,000	$11,280
	Total	**77,610**	**13,223**	**13,116**	**20,400**	**17,447**	**13,424**



PALMDALE
a place to call home

CITY OF PALMDALE
2025-2030 5-YEAR CIP
General Projects

5-YEAR CIP PROJECT LOCATION BY TYPE

- 5-YEAR CIP PROJECT LOCATION
- FREEWAY
- CITY OF PALMDALE
- PARCEL
- STREET
- LACO — UNINCORPORATED LA COUNTY POCKET

Additional Programs & Projects (not displayed on the map*):

- GEN-003: Citywide Security
- GEN-004: Citywide Americans with Disabilities Act (ADA) Compliance
- GEN-008: CDBG Focus Neighborhood Improvement Program Sidewalk Improvements
- GEN-010: Citywide Wayfinding Signage
- GEN-011: LMD Design & Renovation
- GEN-012: DOT Charging Facilities Infrastructure

* The geographic focus of the projects and programs listed here is extensive, possibly covering a specific area or the entire city. Refer to the project/program description in the 2025-2030 5-year Capital Improvement Plan for additional information.

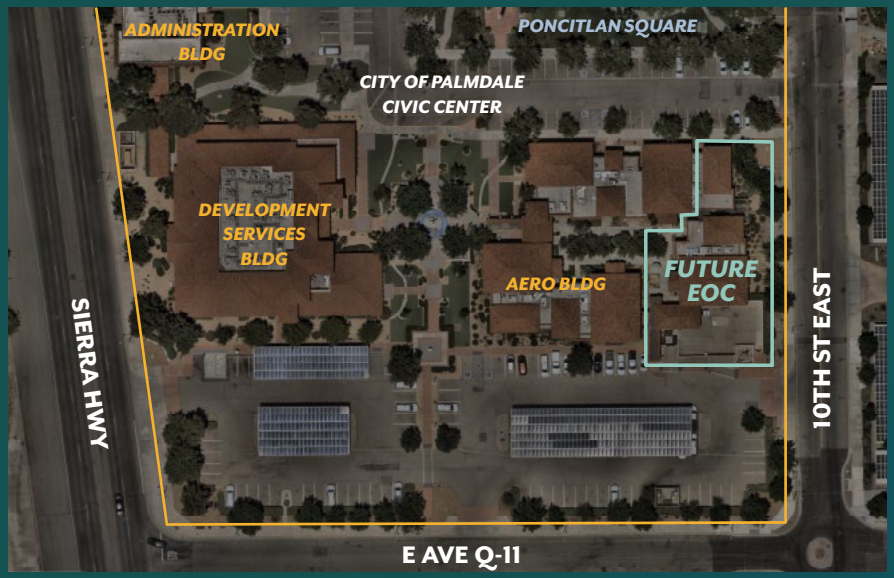
Five-Year **Capital Improvement Plan**

General City Projects

GEN-001

City Facility Relocation - *EOC*

Development of Emergency Operations Center in existing Aero Institute Building. Renovation of the City's Emergency Operations Center (EOC) and ancillary departments affected by the EOC.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
Developer Contributions	$3,802
Fire Facilities Fees	$1,211
Total	**$5,013**

Five-Year **Capital Improvement Plan**

General City Projects

GEN-002

SAVES Renovation - *TI & Improvements*

Relocation of the SAVES facility along with space for housing programs. City is doing a feasibility report for relocation properties. Costs includes TI improvements design for a 8,000 sf building.

GRANT FUNDING SECURED BY CITY



PROJECT COST ESTIMATE

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
American Rescue Fund	$1,436					**$1,436**
CDBG Fund		$100				**$100**
Total	**$1,436**	**$100**				**$1,536**

Five-Year **Capital Improvement Plan**

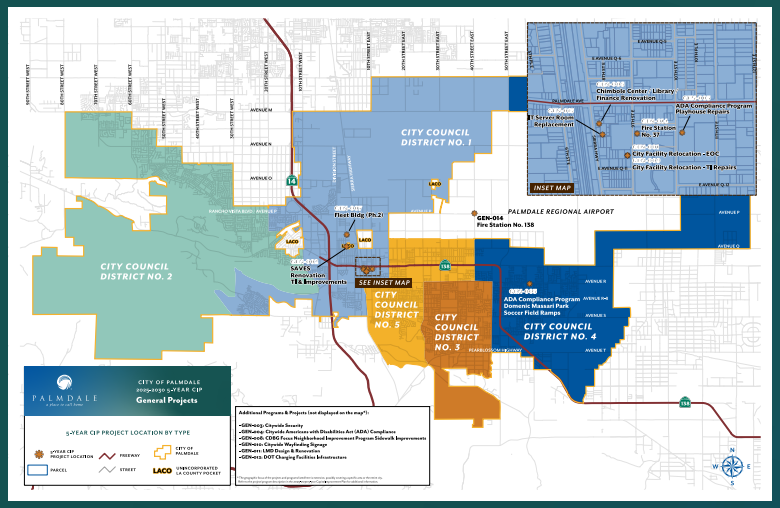
General City Projects

GEN-003

Citywide *Security*

APPROVED BY PALMDALE TAXPAYERS

The City will continue installation of security measures for all City facilities, including park and rides, parks, City buildings. This includes but is not limited to additional cameras and access controls.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV Fund	$650	$100	$100	$100	$100	**$1,050**
Total	**$650**	**$100**	**$100**	**$100**	**$100**	**$1,050**

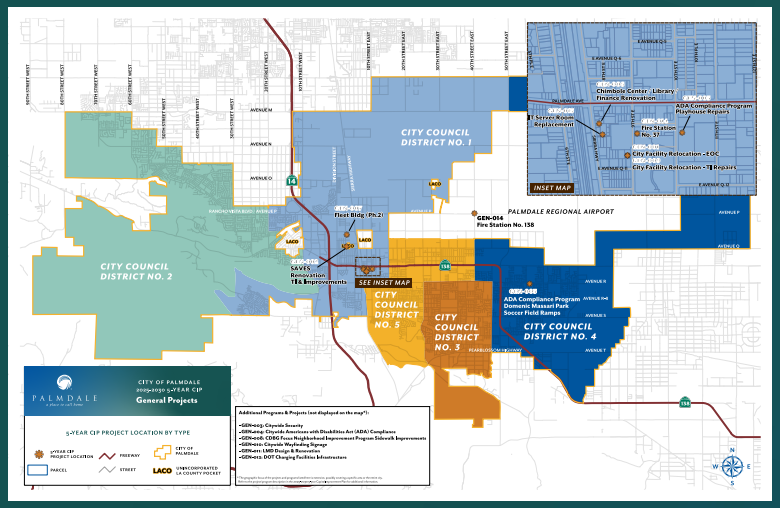
Five-Year **Capital Improvement Plan**

General City Projects

GEN-004

Citywide Americans with Disabilities Act (ADA) *Compliance Program*

Construction of improvements in order to comply with the Americans with Disabilities Act (ADA). Projects may include: upgrading existing handicap ramps, installation of truncated domes, ADA upgrade of City facilities.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Prop A Fund	$395					**$395**
TDA Article 3 Fund		$100	$100	$100	$100	**$400**
Total	**$395**	**$100**	**$100**	**$100**	**$100**	**$795**

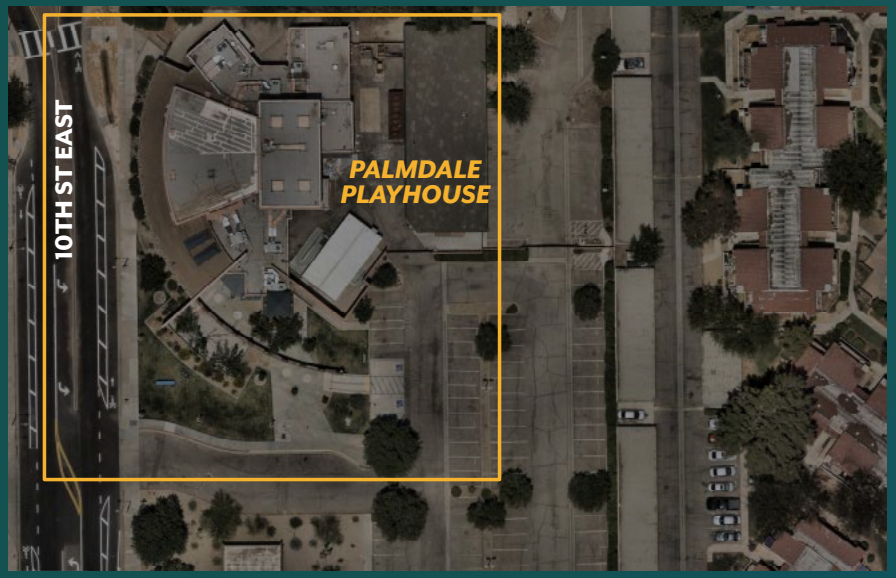
Five-Year **Capital Improvement Plan**

General City Projects

GEN-005

ADA Compliance Program - Playhouse Repairs & Soccer Field Ramps

Adding ADA seating, parking, ramps, and access to amenities.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Public Facilities Fund		$100	$100	$147		**$205**
TDA Article 3 Fund	$205					**$347**
Total	**$205**	**$100**	**$100**	**$147**		**$552**

Five-Year **Capital Improvement Plan**

General City Projects

GEN-006

Chimbole Center/Library *Renovation*

APPROVED BY PALMDALE TAXPAYERS

Phase 1
Chimbole Cultural Center - The exterior and interior renovations will include upgrades to all existing electrical, plumbing, and HVAC. A complete audiovisual package and security system will be installed. The exterior will also include accessibility, lighting, landscape improvements, and parking lot improvements.

Library - The breezeway between the Cultural Center and the Library will be eliminated to provide an addition to increase the square footage of the Cultural Center, and to provide a connection to the Library for added programming.

Phase 2 - The existing Library will be renovated to provide more up-to-date technology and programming. The approximate expansion is 4,000 square feet.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV Fund	$2,200	$1,000	$1,000	$811		**$5,011**
American Rescue Fund	$4,289					**$4,289**
Total	**$6,489**	**$1,000**	**$1,000**	**$811**		**$9,300**

Five-Year **Capital Improvement Plan**

General City Projects

GEN-007

Fleet Building *(Phase II)*

Phasing of improvements to the site: Proposed buildings for the site: Phase II - Fleet Building (12,000 sf); Phase III - Street Sweeper & Street Maintenance and westside mini operations; Phase IV - Park Maintenance and storage and eastside mini operation; Phase V - Traffic Signal Building.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Sewer Maintenance Fund	$4,000					**$4,000**
Total	**$4,000**					**$4,000**

Five-Year **Capital Improvement Plan**

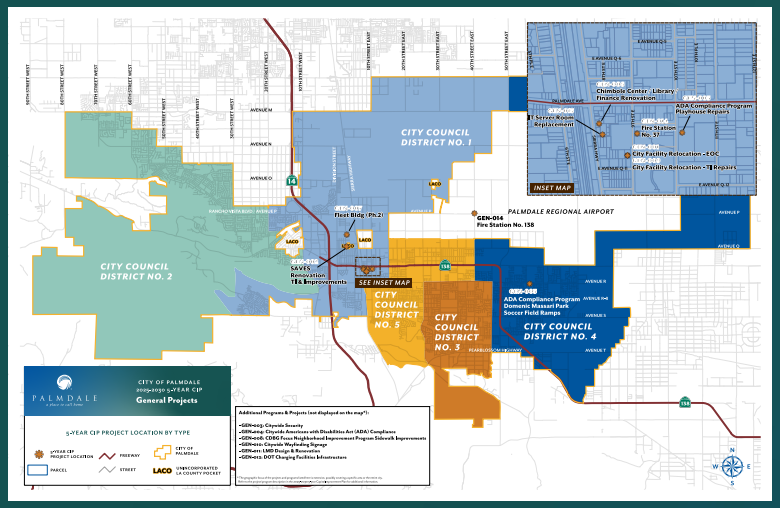
General City Projects

GEN-008

CDBG Focus Neighborhood Improvement Program - *Sidewalk Improvements*

Annual sidewalk improvements completed in designated eligible locations.

GRANT FUNDING SECURED BY CITY



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
CDBG Fund	$649
Total	**$649**

Five-Year **Capital Improvement Plan**

General City Projects

GEN-009

City Facility Relocation - *Tenant Improvement Repairs*

APPROVED BY PALMDALE TAXPAYERS

Tenant improvements in the Development Services building, and Emergency Operations Center (EOC) building for City Public Safety Department.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
Measure AV Fund	$336
Public Facilities Fund	$495
Total	**$831**

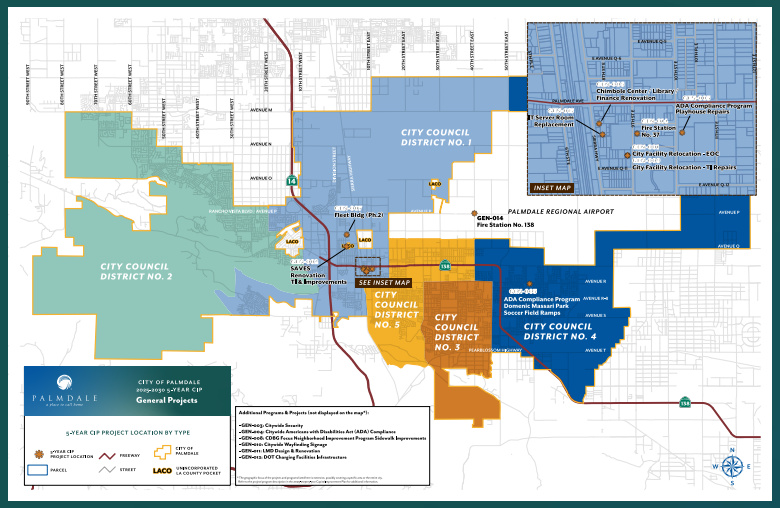
Five-Year **Capital Improvement Plan**

General City Projects

GEN-010

Citywide *Wayfinding Signage*

Continued upkeep of citywide directional wayfinding signs to City facilities and other locations.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Prop A Fund	$53	$100	$100	$100	$100	**$453**
Total	**$53**	**$100**	**$100**	**$100**	**$100**	**$453**

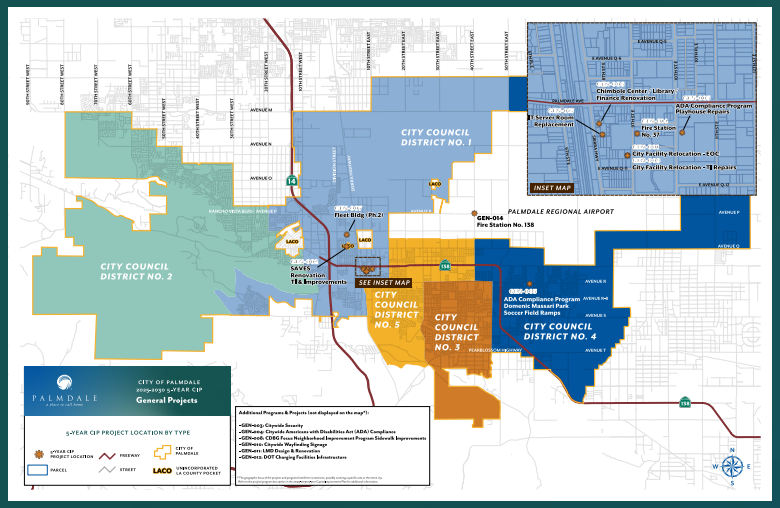
Five-Year **Capital Improvement Plan**

General City Projects

GEN-011

Landscape Maintenance Districts (LMD) *Design & Renovation*

The City's Landscape Assessment Districts (LAD) need wrought iron perimeter security fencing rehabilitation in their drainage basins. There are numerous LAD basins with aging fencing (25–30 years old) at the end of its service life that require replacement. The project will require complete removal and disposal of the existing wrought iron fencing, demolition of footings, fabrication and welding of replacement wrought iron fencing, painting, installation of posts, pouring of replacement post footings, and final installation of the fencing. The Public Works Landscape Maintenance team will provide project management and field inspections.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
Landscape Maintenance District Fund	$791
Total	**$791**

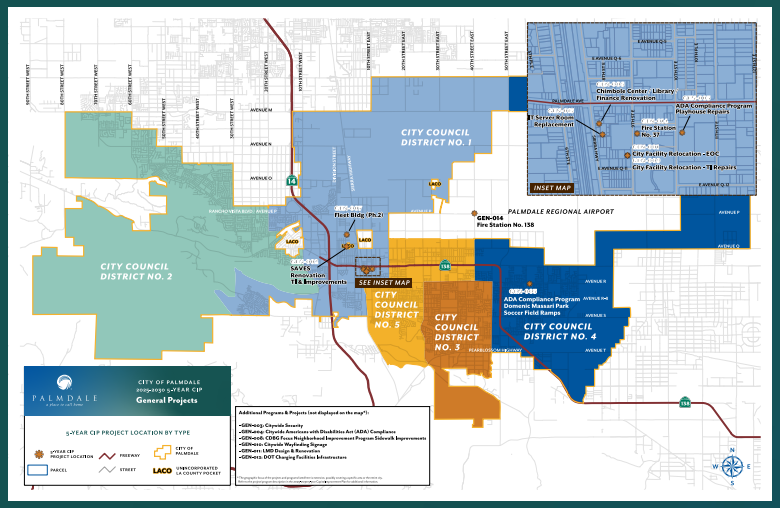
Five-Year **Capital Improvement Plan**

General City Projects

GEN-012

DOT Charging Facilities
Infrastructure

City received a Federal grant to install EV Charging Stations & Facilities in designated areas in the City. The grant is on hold as of September 2025.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Federal Grant Fund	$1,844
Total	**$1,844**

Five-Year **Capital Improvement Plan**

General City Projects

GEN-013

IT Server Room *Replacement*

This work will include demolition, framing, drywall, re-carpeting, painting, possible relocation of lighting and HVAC venting. Planning and design will begin in FY 25-26 and will be completed in future fiscal years.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Total
TBD		$2,000	$2,000			**$4,000**
Total		**$2,000**	**$2,000**			**$4,000**

Five-Year **Capital Improvement Plan**

General City Projects

GEN-014

Fire Stations 37 & *Station O*

Property acquisition and offsite infrastructure for future fire stations. Fire Station 37 (Sierra Highway - downtown area). Onsite improvements will be constructed by Los Angeles County.Northeast Palmdale Fire Station O (Avenue P @ 40th Street East). Onsite improvements will be constructed by Los Angeles County.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Developer Contributions			$9,000	$6,000	$9,210	**$24,210**
Fire Facilities Fees			$3,000	$3,000	$2,070	**$8,070**
Total			**$12,000**	**$9,000**	**$11,280**	**$32,280**

CITY OF PALMDALE

Parks & *Recreation*



Parks & Recreation *Projects*

Five-Year Funding Budget Summary 2025-2030

(all figures below in thousands of dollars)

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total Budget*
American Rescue Plan Act Fund	$14	$—	$—	$—	$—	**$14**
GRANT FUNDING SECURED BY CITY CDBG Fund	$500	$—	$—	$—	$—	**$500**
Developer Contributions	$275	$—	$—	$—	$—	**$275**
Drytown Waterpark Fund	$300	$—	$—	$—	$—	**$300**
General Fund	$3,229	$—	$—	$—	$—	**$3,229**
GRANT FUNDING SECURED BY CITY Measure A Grant Fund	$2,588	$—	$—	$—	$—	**$2,588**
APPROVED BY PALMDALE TAXPAYERS Measure AV Fund	$15,341	$1,900	$3,400	$3,900	$3,102	**$27,643**
Park Development Fund	$375	$—	$—	$—	$—	**$375**
Pearland Drainage Fund	$1,159	$—	$—	$—	$—	**$1,159**
Portal Ridge Drainage Fund	$1,000	$—	$—	$—	$—	**$1,000**
Prop A Local Return Fund	$4,599	$3,000	$—	$—	$—	**$7,599**
Public Art Fund	$75	$—	$—	$—	$—	**$75**
Sewer Maintenance Assessment District	$200	$—	$—	$—	$—	**$200**
State Grant Fund	$3,836	$—	$—	$6,000	$6,000	**$15,836**
TBD	$200	$500	$500	$500	$500	**$2,200**
TOTALS	**$33,691**	**$5,400**	**$3,900**	**$10,400**	**$9,602**	**$62,993**

* The amount shown is a preliminary estimated budget for the anticipated total cost of the projects and is not intended to be an estimate of the anticipated amount of the revenue. Revenue estimates are calculated annually as part of the budget process and are considered before projects are approved as part of the City's annual budget.

Parks & Recreation Project List

FIVE YEAR CIP PROJECT #		CURRENT BUDGET FY 25-26	ESTIMATED EXPENDITURES FY 25-26	FUTURE BUDGET FY 26-30	ESTIMATED EXPENDITURES FY 26-30	TOTAL PROJECT BUDGET (IN THOUSANDS)
PRK-001	Marie Kerr Park Swim Deck Expansion	$970	$970	$0	$0	$970
PRK-002	DryTown Dropslide Thrill Ride	$2,809	$2,809	$0	$—	$2,809
PRK-003	McAdam Park Renovations	$11,100	$1,475	$0	$9,625	$11,100
PRK-004	Courson Park Revitalization	$6,342	$3,050	$0	$3,292	$6,342
PRK-005	Marie Kerr Park and Ride Lot	$7,217	$5,533	$3,000	$4,684	$10,217
PRK-006	Best of the West Snack Bar Concession Stand	$766	$766	$0	$0	$766
PRK-007	Palmdale Oasis Park Improvements	$1,159	$0	$0	$1,159	$1,159
PRK-008	McAdam Garden Improvements & Cultural Art Installations	$300	$0	$0	$300	$300
PRK-009	Arnie Quinones Park Improvements	$300	$300	$12,000	$12,000	$12,300
PRK-010	ADA Playground at Boulders Mobile Home Park II	$500	$500	$0	$0	$500
PRK-011	General Park Improvement Projects	$1,928	$1,928	$7,600	$7,600	$9,528
PRK-012	DryTown Water Park Maintenance & Upgrades	$300	$300	$2,000	$2,000	$2,300
PRK-013	Sam Yellen Park Improvements	$0	$0	$500	$500	$500
PRK-014	Marie Kerr Park Pool Enclosure	$0	$0	$702	$702	$702
PRK-015	Domenic Massari Park Sportsfield Lighting	$0	$0	$3,500	$3,500	$3,500
	TOTAL	**$33,691**	**$17,631**	**$29,302**	**$45,362**	**$62,993**

Parks & Recreation Expenditures

Project No.	Project Name	FY 2026 Adopted Budget (includes future budget requests)	FY 2026 Projected Expenditure	FY 2027 Projected Expenditure	FY 2028 Projected Expenditure	FY 2029 Projected Expenditure	FY 2030 Projected Expenditure
PRK-001	MARIE KERR PARK SWIM DECK EXPANSION	$970	$970				
PRK-002	DRYTOWN WATER PARK DROP SLIDE THRILL RIDE	$2,809	$2,809				
PRK-003	MCADAM PARK RENOVATIONS	$11,100	$1,475	$2,407	$7,218		
PRK-004	COURSON REVITALIZATION GRNT	$6,342	$3,050	$3,292			
PRK-005	MARIE KERR PARK N RIDE LOT IMPROVEMENTS	$10,217	$5,533	$4,684			
PRK-006	BEST OF THE WEST SNACK BAR CONCESSION STAND	$766	$766				
PRK-007	OASIS PARK UPGRADE	$1,159		$1,159			
PRK-008	MCADAM GARDEN IMPROVEMENTS & CULTURAL ART	$300			$150	$75	$75
PRK-009	ARNIE QUINONES PARK	$12,300	$300			$6,000	$6,000
PRK-010	ADA COMPLIANCE PROGRAM - PLAYGROUND IMPR	$500	$500				
PRK-011	GENERAL PARK IMPROVEMENT PROJECTS	$9,528	$1,928	$1,900	$1,900	$1,900	$1,900
PRK-012	DRYTOWN WATER PARK MAINTENANCE & UPGRADES	$2,300	$300	$500	$500	$500	$500
PRK-013	SAM YELLEN PARK	$500					$500
PRK-014	MARIE KERR PARK POOL ENCLOSURE	$702					$702
PRK-015	DOMENIC MASSARI PARK SPORTSFIELD LIGHTING	$3,500			$1,500	$2,000	
	Total	**$62,993**	**$17,631**	**$13,942**	**$11,268**	**$10,475**	**$9,677**

90TH STREET WEST
80TH STREET WEST
70TH STREET WEST
60TH STREET WEST
50TH STREET WEST
40TH STREET WEST
30TH STREET WEST
20TH STREET WEST
10TH STREET WEST
10TH STREET EAST
20TH STREET EAST
30TH STREET EAST
40TH STREET EAST
50TH STREET EAST
60TH STREET EAST
70TH STREET EAST
80TH STREET EAST
90TH STREET EAST
100TH STREET EAST
110TH STREET EAST
120TH STREET EAST

AVENUE L
AVENUE M
AVENUE N
AVENUE O
AVENUE P
AVENUE Q

AVENUE M
AVENUE N
DIVISION STREET
SIERRA HIGHWAY
RANCHO VISTA BLVD / AVENUE P
AVENUE P
PEARBLOSSOM HIGHWAY AVENUE T

LACO

PRK-009
Arnie Quinones Park Improvements

PRK-010
ADA Playground at Boulders Mobile Home Park II

PRK-006
Best of the West Snack Bar & Concession Stand

PRK-005
Marie Kerr Park Park & Ride Lot

PRK-001
Marie Kerr Park Swim Deck Expansion

PRK-014
Marie Kerr Park Pool Enclosure

PRK-003
McAdam Park Renovations

PRK-008
McAdam Park Garden Improvements & Cultural Art Installations

PRK-004
Courson Park Revitalization

PRK-015
Domenic Massari Park Sportsfield Lighting

PRK-013
Sam Yellen Park Improvements

PRK-002
Drytown Dropslide Thrill Ride

PRK-007
Palmdale Oasis Park Improvements

PRK-012
Drytown Water Park Maintenance & Upgrades

PALMDALE
a place to call home

CITY OF PALMDALE
2025-2030 5-YEAR CIP

Parks Projects

5-YEAR CIP PROJECT LOCATION BY TYPE

- 5-YEAR CIP PROJECT LOCATION
- FREEWAY
- STREET
- CITY OF PALMDALE
- LACO — UNINCORPORATED LA COUNTY POCKET

Additional Programs & Projects (not displayed on the map):

- PRK-011: General Park Improvement Projects

N
W
E
S

Five-Year **Capital Improvement Plan**

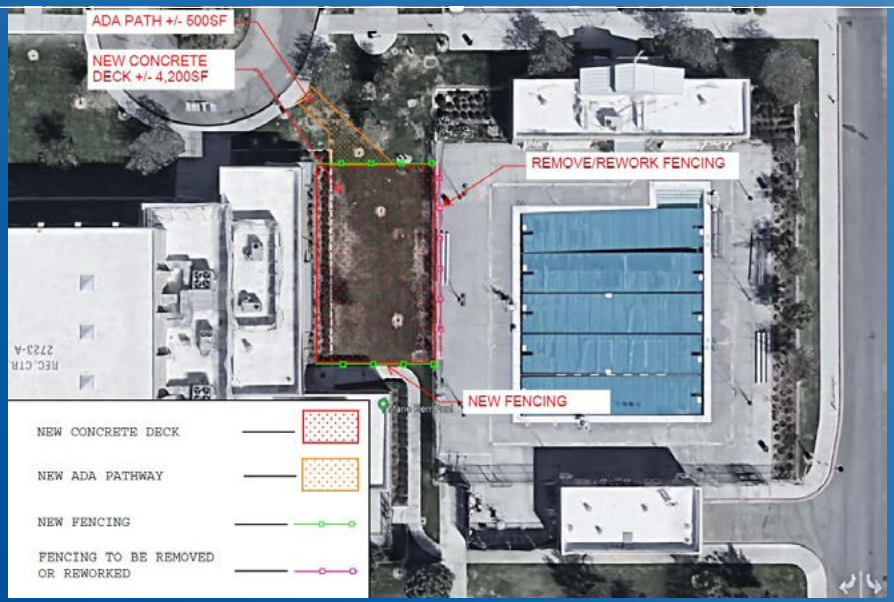
Parks & Recreation Projects

PRK-001

Marie Kerr Park
Swim Deck Expansion

GRANT FUNDING SECURED BY CITY

Phase I: Expand pool deck, change fence alignment and relocate gates.
Begin the design planning phase for the proposed pool enclosure in spring 2026.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Measure A Grant Fund	**$970**
Total	**$970**

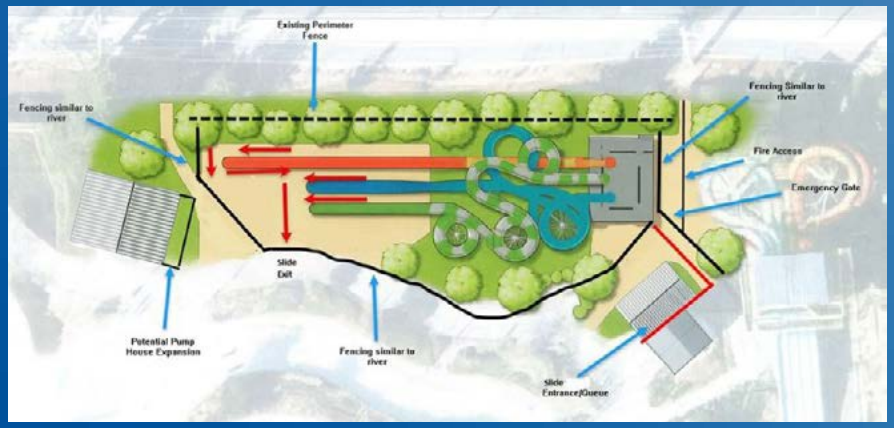
Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-002

Drytown Dropslide *Thrill Ride*

Construct Thrill Ride that includes slide tower for three new slides, new pump house, and site improvements at the DryTown Water Park. This design-build project is currently in the design phase with construction slated to be completed by Summer 2026.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
General Fund	$2,809
Total	**$2,809**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

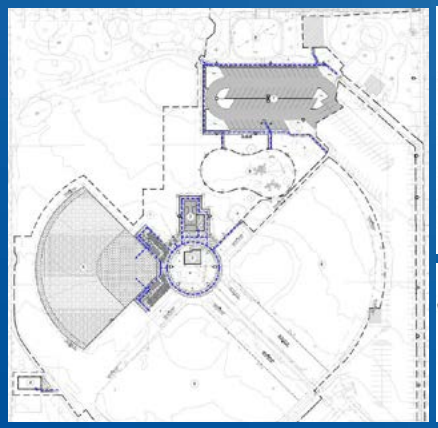
PRK-003

McAdam Park *Renovations*

APPROVED BY PALMDALE TAXPAYERS

Phase 1: Project proposes to renovate McAdam Park, including but not limited to, replacing the playground, replacing the existing restroom with a restroom and concession unit, replacing the maintenance storage building with a new structure, updating sports field lighting with new LED lighting, installing a new softball field with sports field lighting, expand the parking lot, resurfacing the existing parking lot and re-stripe, and installing a new park monument sign. Phase 1 is slated to begin construction spring 2026.

Phase 2: Project proposes repairing the Old Schoolhouse to include roof, wood siding, and upgrading hardscape surroundings. It will also include repairing and painting existing pavilions. Phase 2 is slated to begin construction by end of calendar year 2025.







PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY 25-26	FY 26-27	FY 27-28	Estimated Total
Developer Contributions	$275			$275
TBD	$200			$200
Measure AV Fund	$1,000	$2,407	$7,018	$10,425
Sewer Maintenance Assessment District			$200	$200
Total	**$1,475**	**$2,407**	**$7,218**	**$11,100**

Five-Year **Capital Improvement Plan**

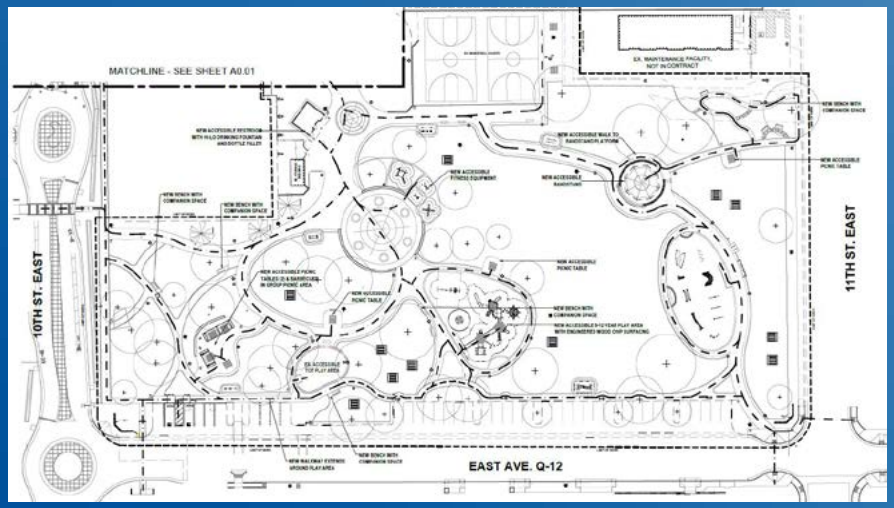
Parks & Recreation Projects

PRK-004

Courson Park *Revitalization*

APPROVED BY PALMDALE TAXPAYERS

Project proposes to renovate Courson Park, including but not limited to install new landscaping and irrigation system, replace and construct new playground, add fitness equipment, obstacle course, walking path, and new mural. The project is slated to begin spring 2026.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY 25-26	FY 26-27	FY 27-28	Estimated Total
General Fund	$150			**$150**
Measure AV Fund	$1,000	$1,358		**$2,358**
State Grant	$1,900	$1,936		**$3,836**
Total	**$3,050**	**$3,294**		**$6,344**

Five-Year **Capital Improvement Plan**

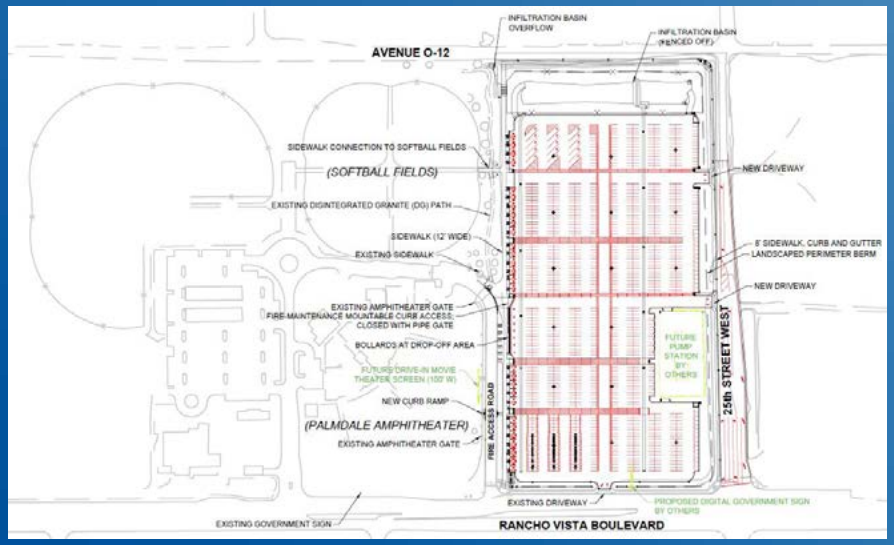
Parks & Recreation Projects

PRK-005

Marie Kerr
Park and Ride Lot

GRANT FUNDING SECURED BY CITY

The project proposes constructing a new 20-acre park and ride located east of the Palmdale Amphitheater at Marie Kerr Park and a new bioretention basin. Construction is slated to begin Summer 2026.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY27-28	Estimated Total
Measure A Grant Fund	$800		**$1,618**
Portal Ridge Drainage Fund	$500		**$1,000**
Prop A Local Return Fund	$4,233		**$7,599**
Total	**$5,533**		**$10,217**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-006

Best of the West *Snack Bar Concession Stand*

Project proposes constructing a new concessions building to serve the Best of the West softball fields at Marie Kerr Park and ADA improvement along parking and to Rancho Vista Boulevard. This project is anticipated to be completed by end of 2025.

APPROVED BY PALMDALE TAXPAYERS

GRANT FUNDING SECURED BY CITY



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
American Rescue Plan Act Fund	$14
General Fund	$270
Measure AV Fund	$482
Total	**$766**

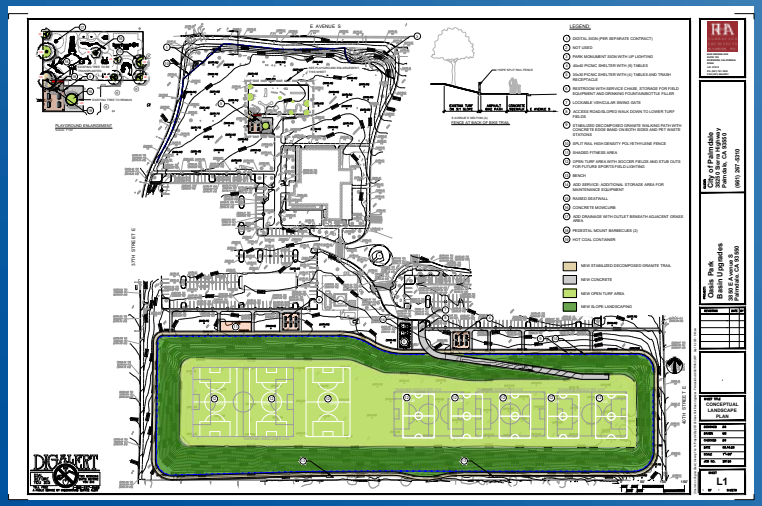
Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-007

Palmdale Oasis Park *Improvements*

Project proposes to renovate Oasis Park, to include but not limited to a new multipurpose sports field, fencing, trail, public art, exercise equipment, restroom for the playfields, stubbing out for sports field lighting, and drainage improvements. The design is anticipated to be completed by spring 2026. Staff is seeking construction funding.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Pearland Drainage Fund	**$1,159**
Total	**$1,159**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-008

McAdam Garden *Improvements* & Cultural Art *Installations*

APPROVED BY PALMDALE TAXPAYERS

Project proposes to construct a new garden area (about 54,000 sq. ft) between pool and tennis/pickleball courts, remove and install new landscaping, benches and seating areas, and cultural art pieces.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV			$150			**$150**
Park Development				$75		**$75**
Public Art Fund					$75	**$75**
Total			**$150**	**$75**	**$75**	**$300**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-009

Arnie Quinones Park *Improvements*

Project proposed constructing and expanding 7.5 acres of the undeveloped portion of Arnie Quinones Park located located along 50th Street West, north of Avenue N-8, The proposed project, will include but not limited to, walking paths, sports courts, open playing field, safety lighting, restrooms, a playground, dog park, covered picnic areas, a challenge course, irrigation, utilies, fencing, and public art. Planning and design is anticipated to begin Summer 2026. Staff is currently seeking grant funding to supplement design cost and constuction.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Park Development Fund	$300					$300
State Grant Fund				$6,000	$6,000	$12,000
Total	**$300**			**$6,000**	**$6,000**	**$12,300**

Five-Year **Capital Improvement Plan**

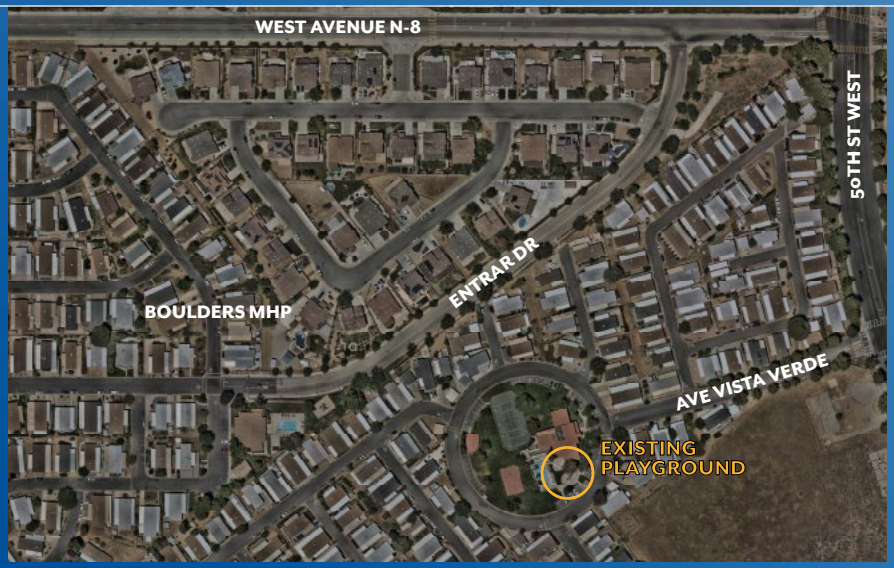
Parks & Recreation Projects

PRK-010

ADA Playground at Boulders Mobile Home Park II

Project proposes site work and installation of ADA playground slated to be completed by spring 2026.

GRANT FUNDING SECURED BY CITY



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
CDBG Fund	$500
Total	**$500**

Five-Year **Capital Improvement Plan**

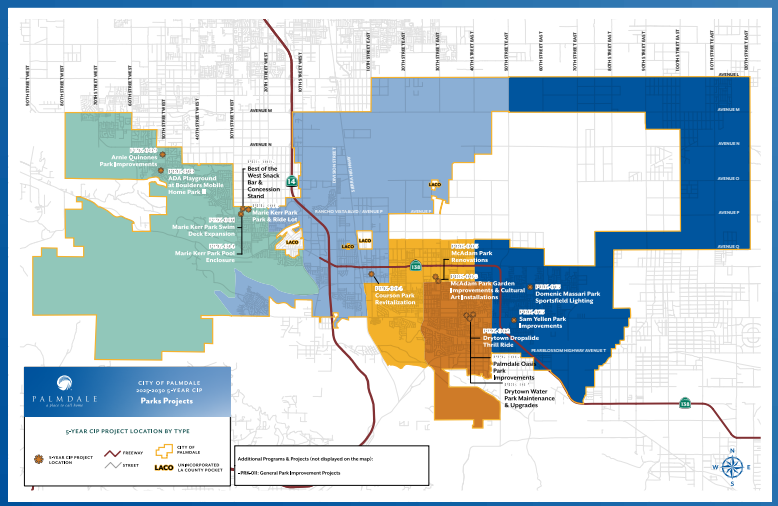
Parks & Recreation Projects

PRK-011

General Park *Improvement Projects*

APPROVED BY PALMDALE TAXPAYERS

Provide ongoing upgrades and improvements to existing parks. Work would involve upkeep of landscape, pathways, playgrounds, signage, sportsfields, perimeter security, courts/skate parks, and facilities.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV Fund	$1,928	$1,900	$1,900	$1,900	$1,900	**$9,528**
Total	**$1,928**	**$1,900**	**$1,900**	**$1,900**	**$1,900**	**$9,528**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-012

DryTown Water Park *Maintenance & Upgrades*

General maintenance at DryTown Water Park, to include but not limited to, replacement of exterior pathway light fixture and bulb, Tower A splash pool plaster, Tower B mechanical replacement, installing public address system, and main restroom building renovation. Additional improvements such as main kitchen renovation, lazy river plaster replacement, bridge repair, and Tower B UV filtration components are also slated as future projects.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
DryTown Water Park Fund	$300					**$300**
TBD		$500	$500	$500	$500	**$2,000**
Total	**$300**	**$500**	**$500**	**$500**	**$500**	**$2,300**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-013

Sam Yellen Park *Improvements*

APPROVED BY PALMDALE TAXPAYERS

Proposed future projects at Yellen Park are to develop the unimproved area adjacent to the futsal courts as a new multipurpose field and/or maintenance building.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV Fund					$500	**$500**
Total					**$500**	**$500**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-014

Marie Kerr Park *Pool Enclosure*

Phase II proposes to complete construction of an enclosure for the associated new mechanical equipment.

APPROVED BY PALMDALE TAXPAYERS



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV Fund					$702	**$702**
Total					**$702**	**$702**

Five-Year **Capital Improvement Plan**

Parks & Recreation Projects

PRK-015

Domenic Massari Park *Sportsfield Lighting*

APPROVED BY PALMDALE TAXPAYERS

Upgrade Domenic Massari Park sports field lighting with new LED field lighting.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure AV Fund			$1,500	$2,000		**$3,500**
Total			**$1,500**	**$2,000**		**$3,500**

CITY OF PALMDALE

Streets



Streets *Projects*

Five-Year Funding Budget Summary 2025-2030

(all figures below in thousands of dollars)

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total Budget*
GRANT FUNDING SECURED BY CITY — CBDG Fund	$650	$—	$—	$—	$—	**$650**
Developer Contribution	$742	$—	$—	$—	$—	**$742**
Federal Grant Fund	$6,911	$3,520	$7,000	$7,000	$8,000	**$32,431**
Gas Tax Fund	$11,438	$—	$—	$2,500	$2,500	**$16,438**
Measure M Grant Fund	$1,156	$—	$—	$—	$—	**$1,156**
Measure M Local Return Fund	$2,125	$1,000	$1,500	$—	$—	**$4,625**
Measure R Grant Fund	$78,329	$—	$—	$—	$—	**$78,329**
Measure R Local Return Fund	$924	$—	$—	$—	$—	**$924**
Prop A Local Return Fund	$2,775	$—	$—	$—	$—	**$2,775**
Prop C Grant Fund	$3,816	$—	$—	$—	$—	**$3,816**
Prop C Local Return Fund	$3,752	$—	$3,700	$4,500	$7,500	**$19,452**
Road Maintenance & Rehabilitation Act Fund (SB1)	$8,848	$—	$—	$2,300	$2,000	**$13,148**
Sewer Assessment District Fund	$365	$—	$—	$—	$—	**$365**
TDA Article 8 Fund	$1,129	$—	$—	$—	$—	**$1,129**
TOTALS	**$122,960**	**$4,520**	**$12,200**	**$16,300**	**$20,000**	**$175,980**

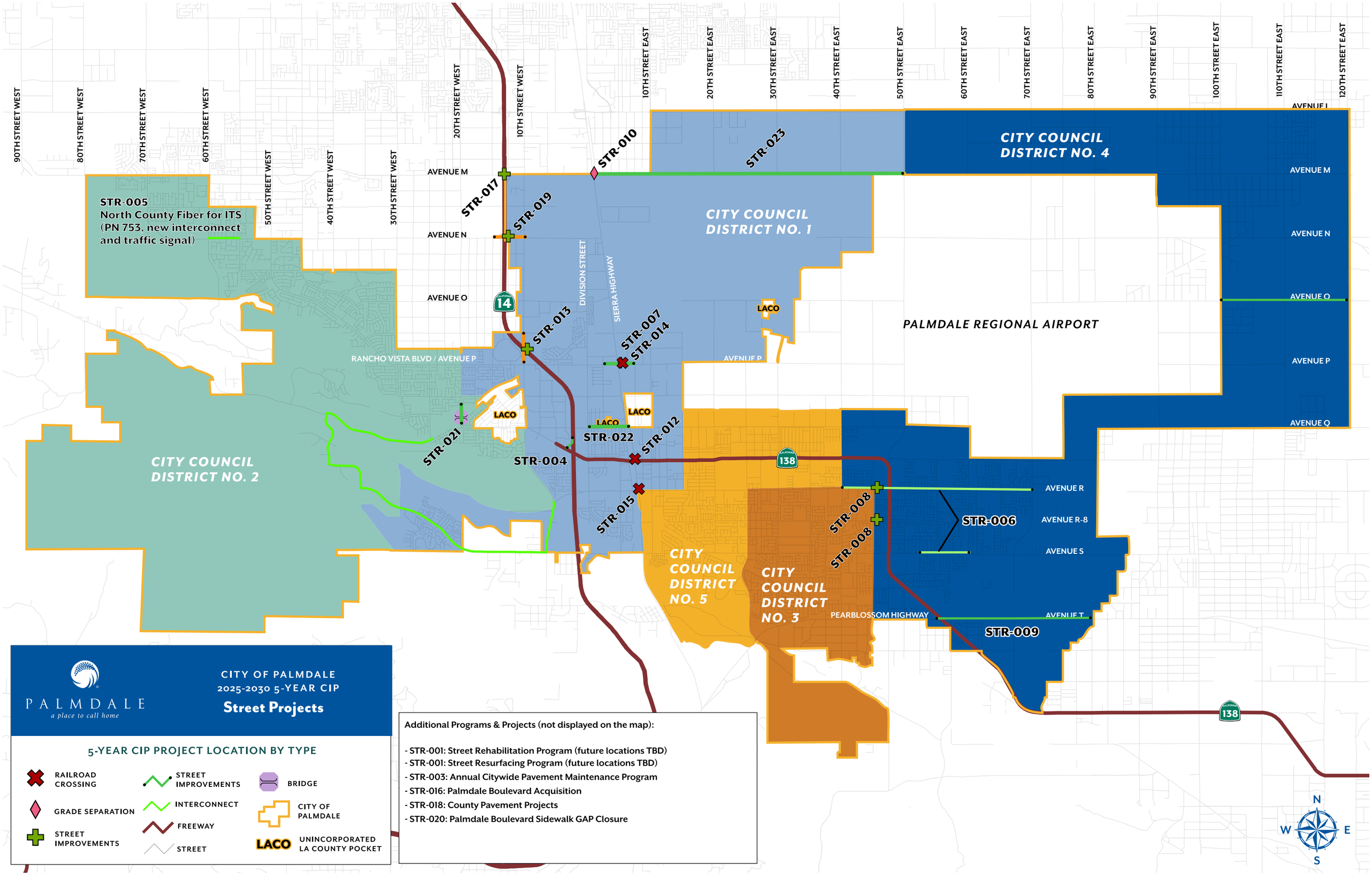
* The amount shown is a preliminary estimated budget for the anticipated total cost of the projects and is not intended to be an estimate of the anticipated amount of the revenue. Revenue estimates are calculated annually as part of the annual budget process and are considered before projects are approved as part of the City's annual budget.

Streets Project List

FIVE YEAR CIP PROJECT #		CURRENT BUDGET FY 25-26	ESTIMATED EXPENDITURES FY 25-26	FUTURE BUDGET FY 26-30	ESTIMATED EXPENDITURES FY 26-30	TOTAL PROJECT BUDGET (IN THOUSANDS)
STR-001	Street Rehabilitation Program	$7,797	$3,797	$10,000	$14,000	$17,797
STR-002	Street Resurfacing Program	$6,271	$6,271	$10,000	$10,000	$16,271
STR-003	Annual Citywide Pavement Maintenance Program	$5,000	$5,000	$5,000	$5,000	$10,000
STR-004	SR 138/Palmdale Boulevard SB 14 Ramp	$23,721	$23,721	$—	$—	$23,721
STR-005	North County Fiber for ITS	$3,127	$3,127	$—	$—	$3,127
STR-006	Avenue R ITS Signal Synchonization	$3,464	$584	$—	$2,880	$3,464
STR-007	Rancho Vista Boulevard Grade Separation Ph II	$1,394	$1,394	$24,020	$24,020	$25,414
STR-008	45th Street East Improvements	$500	$500	$2,500	$2,500	$3,000
STR-009	Avenue T Street Improvements (Design & Environmental)	$2,496	$1,000	$—	$1,496	$2,496
STR-010	Avenue M and Sierra Hwy Grade Separation	$2,300	$—	$—	$2,300	$2,300
STR-011	ADA Sidewalks	$650	$650	$—	$—	$650
STR-012	SR 138 Palmdale Boulevard 5th-10th Street East	$19,445	$645	$—	$18,800	$19,445
STR-013	SR 138/10th Street West Interchange	$23,447	$647	$—	$22,800	$23,447
STR-014	Rancho Vista Boulevard/Sierra Hwy Railroad Safety Crossing	$3,634	$300	$—	$3,334	$3,634
STR-015	Avenue R/Sierra Hwy Railroad Safety Crossing	$777	$600	$—	$177	$777
STR-016	Palmdale Boulevard Acquisition	$498	$100	$—	$398	$498
STR-017	Avenue M Interchange Improvements	$6,870	$—	$—	$6,870	$6,870
STR-018	County Pavement Projects	$3,020	$951	$—	$2,069	$3,020
STR-019	SR 138/Avenue N Overcrossing	$6,257	$500	$—	$5,757	$6,257
STR-020	SR 138/Palmdale Boulevard Sidewalk Gap Closure	$550	$—	$—	$550	$550
STR-021	20th Street West Bridge	$742	$—	$—	$742	$742
STR-022	Avenue Q Complete Streets and Crossing	$1,000	$—	$—	$1,000	$1,000
STR-023	Avenue M Corridor (Sierra Hwy to 50th St East)	$—	$—	$1,500	$1,500	$1,500
	TOTAL	**$122,960**	**$49,787**	**$53,020**	**$126,193**	**$175,980**

Streets Expenditures

Project No.	Project Name	FY 2026 Adopted Budget (includes future budget requests)	FY 2026 Projected Expenditure	FY 2027 Projected Expenditure	FY 2028 Projected Expenditure	FY 2029 Projected Expenditure	FY 2030 Projected Expenditure
STR-001	STREET REHABILITATION PROGRAM	$17,797	$3,797	$4,000	$3,700	$4,300	$2,000
STR-002	STREET RESURFACING PROGRAM	$16,271	$6,271			$5,000	$5,000
STR-003	ANNUAL CITYWIDE PAVEMENT MAINTENANCE PROGRAM (ACPMP)	$10,000	$5,000				$5,000
STR-004	SR 138/PLMDL BLVD SB 14 RAMP	$23,721	$18,000	$5,721			
STR-005	NORTH COUNTY ITS	$3,127	$3,127				
STR-006	AVENUE R ITS SIGNAL SYNC	$3,464	$584	$2,880			
STR-007	RANCHO VISTA GRADE SEP PH II	$25,414	$1,394	$2,020	$7,000	$7,000	$8,000
STR-008	45TH STREET EAST IMPROVEMENTS	$3,000	$500	$1,000	$1,500		
STR-009	AVE T DESIGN & ENVIRONMENTAL	$2,496	$1,000	$1,496			
STR-010	AVE M GRADE SEPARATION EARMARK	$2,300		$500	$1,800		
STR-011	ADA COMPLIANCE - SIDEWALKS	$650	$650				
STR-012	SR 138 PALMDALE BLVD 5TH/10TH	$19,445	$645	$3,800	$5,000	$5,000	$5,000
STR-013	SR 138/10TH ST W INTERCHANGE	$23,447	$647	$4,800	$5,000	$5,000	$8,000
STR-014	RANCHO VISTA BLVD SIERRA HIGHWAY RR SAFETY CROSSING	$3,634	$300	$1,334	$2,000		
STR-015	AVE R SIERRA HIGHWAY RR SAFETY CROSSING	$777	$600	$177			
STR-016	PALMDALE BLVD ACQUISITION	$498	$100	$398			
STR-017	AVE M INTERCHANGE IMPROVEMENTS & PUBLIC ART	$6,870				$3,000	$3,870
STR-018	COUNTY PAVEMENT PROJECTS	$3,020	$951		$2,069		
STR-019	SR138 AVENUE N STREET IMPROVEMENTS	$6,257	$500	$500	$2,757	$2,500	
STR-020	SR138 PALMDALE BLVD SIDEWALK GAP CLOSURE	$550			$550		
STR-021	20TH STREET WEST BRIDGE	$742					$742
STR-022	AVENUE Q COMPLETE STREETS AND CROSSING	$1,000		$500	$500		
STR-023	AVENUE M CORRIDOR (SIERRA HWY TO 50TH STREET EAST	$1,500		$1,500			
	Total	**$175,980**	**$49,787**	**$24,905**	**$31,876**	**$31,800**	**$37,612**



PALMDALE
a place to call home

CITY OF PALMDALE
2025-2030 5-YEAR CIP

Street Projects

5-YEAR CIP PROJECT LOCATION BY TYPE

- RAILROAD CROSSING
- GRADE SEPARATION
- STREET IMPROVEMENTS
- STREET IMPROVEMENTS
- INTERCONNECT
- FREEWAY
- STREET
- BRIDGE
- CITY OF PALMDALE
- LACO — UNINCORPORATED LA COUNTY POCKET

Additional Programs & Projects (not displayed on the map):

- STR-001: Street Rehabilitation Program (future locations TBD)
- STR-001: Street Resurfacing Program (future locations TBD)
- STR-003: Annual Citywide Pavement Maintenance Program
- STR-016: Palmdale Boulevard Acquisition
- STR-018: County Pavement Projects
- STR-020: Palmdale Boulevard Sidewalk GAP Closure

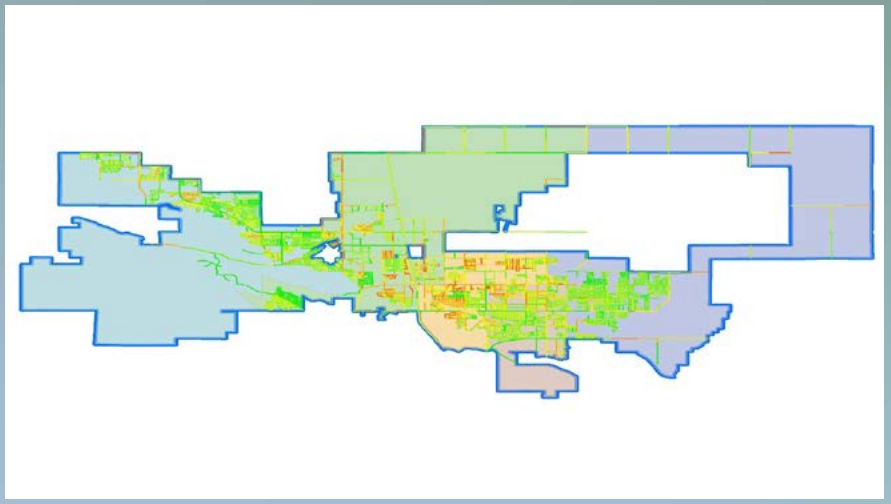
Five-Year **Capital Improvement Plan**

Streets Projects

STR-001

Street Rehabilitation *Program*

Application of asphalt pavement overlays and roadway reconstruction to local and arterial streets to prolong the life of the existing asphalt pavement. The Pavement Management System is utilized to prioritize streets to be included in the program.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Prop C Local Return Fund	$1,788		$3,700	$2,000		**$7,488**
Road Maintenance & Rehabilitation Act Fund (SB1)	$2,009	$4,000		$2,300	$2,000	**$10,309**
Total	**$3,797**	**$4,000**	**$3,700**	**$4,300**	**$2,000**	**$17,797**

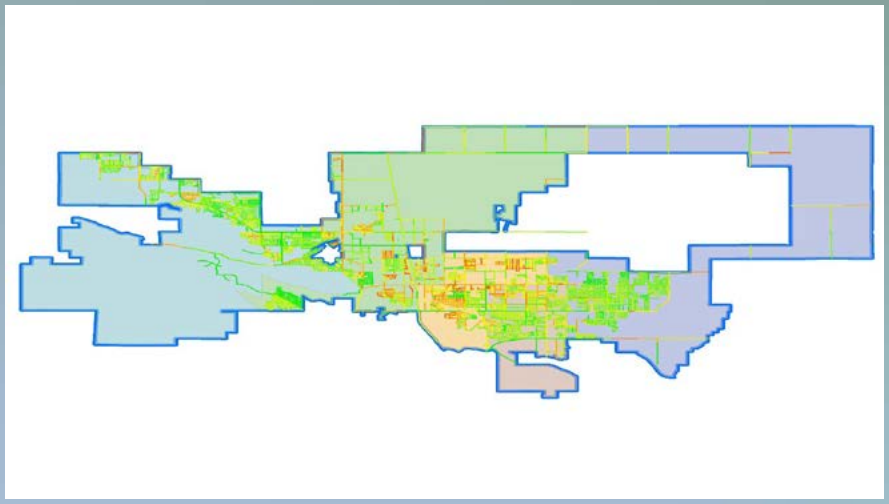
Five-Year **Capital Improvement Plan**

Streets Projects

STR-002

Street Resurfacing *Program*

Application of asphalt pavement overlays and roadway reconstruction to local and arterial streets to prolong the life of the existing asphalt pavement. The Pavement Management System is utilized to prioritize streets to be included in the program.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Gas Tax Fund	$3,721			$2,500	$2,500	**$8,721**
Prop C Local Return Fund	$1,664			$2,500	$2,500	**$6,664**
TDA Article 8 Fund	$886					**$886**
Total	**$6,271**			**$5,000**	**$5,000**	**$16,271**

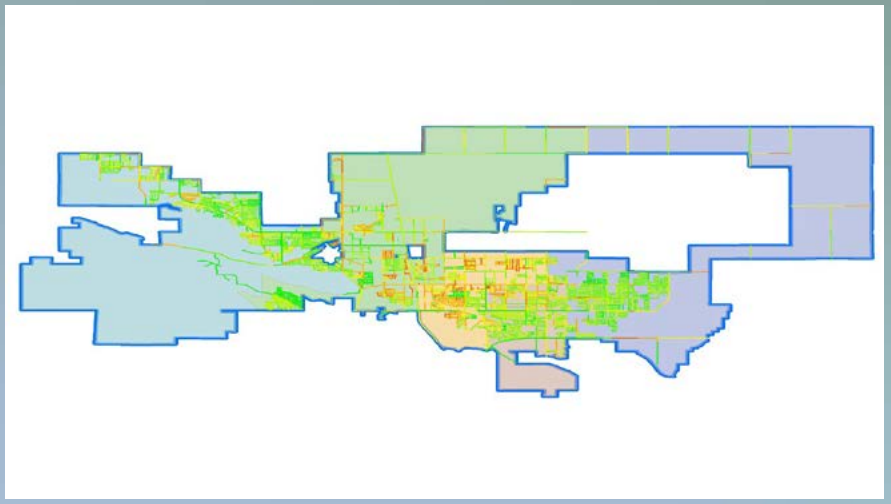
Five-Year **Capital Improvement Plan**

Streets Projects

STR-003

Annual Citywide Pavement *Maintenance Program*

Providing all necessary pavement engineering services to create and update the City's Pavement Management System (PMS). This includes, but is not limited to, evaluating the condition of City streets and alleys, updating PMS software and graphical information systems (GIS) products, evaluating street maintenance and repair techniques, integrating data into new PMS software and developing a street maintenance capital improvement plan.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Prop C Local Return Fund	$5,000					**$5,000**
Road Maintenance & Rehabilitation Act Fund (SB1)					$5,000	**$5,000**
Total	**$5,000**				**$5,000**	**$10,000**

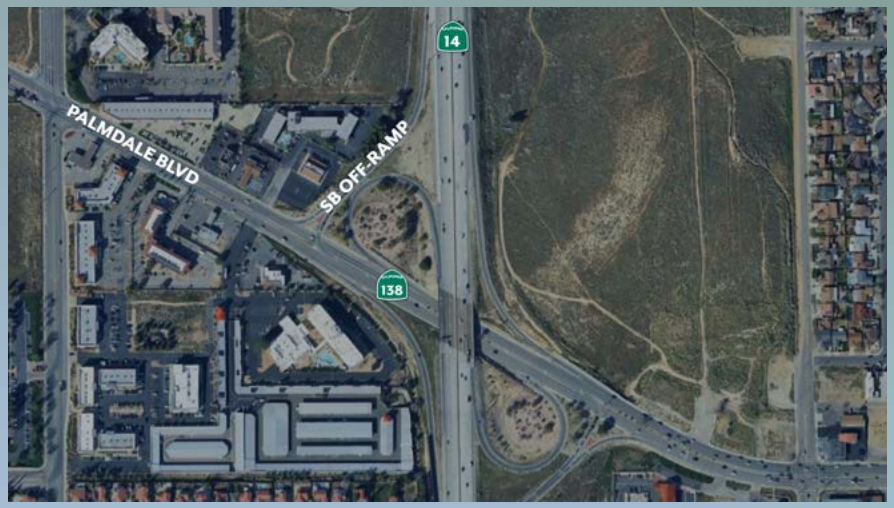
Five-Year **Capital Improvement Plan**

Streets Projects

STR-004

SR 138/Palmdale Boulevard and SR 14 On-Off Ramp *Improvement Project*

On-off-ramp at SR 138 (SR 14) and Palmdale Blvd widening including monuments and landscaping.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
Measure M Grant Fund	**$1,156**
Measure R Grant Fund	**$22,565**
Total	**$23,721**

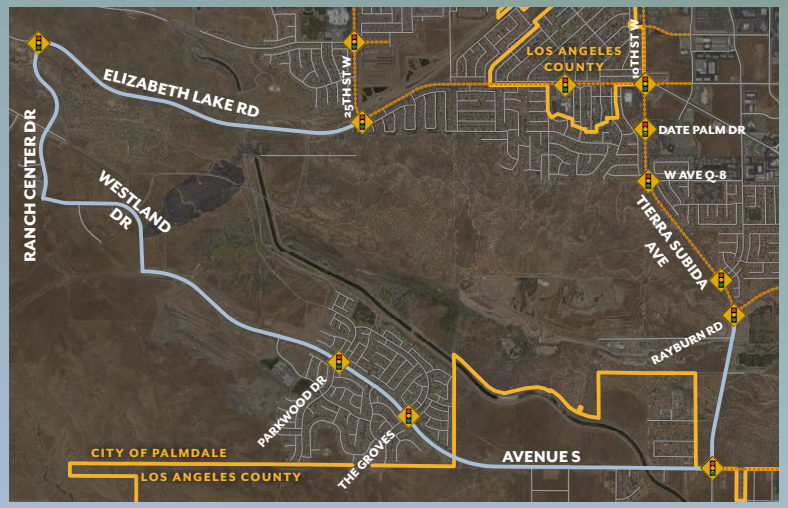
Five-Year **Capital Improvement Plan**

Streets Projects

STR-005

North County Fiber for *ITS*

The North County ITS Signal Synchronization project provides continued traffic signal fiber optic lines, signals and CCTV communication. This phase will consist of the installation of new HDPE fiber conduit in various locations: 10th Street West/Rayburn Road to Avenue S; Avenue S/ Tierra Subida Avenue to Parkwood Drive and The Groves traffic signals; Avenue S/Parkwood Drive and The Groves traffic signals to Westland Drive; Westland Drive/Avenue S to Ranch Center Drive; Ranch Center Drive/Westland Drive to Elizabeth Lake Road; Elizabeth Lake Road/25th Street West to Ranch Center Drive; Avenue N from 55th Street West to 60th Street West, and installation of a new traffic signal at Avenue N and 60th West along with the installation of various CCTV surveillance cameras. This phase will also include installation of a new hub at Avenue S and Tierra Subida Avenue.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
Prop A Local Return Fund	$2,191
Prop C Grant Fund	$936
Total	**$3,127**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-006

Avenue R ITS Signal *Synchonization*

The project is the expansion of ITS infrastructure, which includes the extension of the existing fiber optic line along Avenue R and construction of traffic signals and installation of CCTVs.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY 25-26	FY 26-27	Estimated Total
Prop A Local Return Fund	$584		**$584**
Prop C Grant Fund		$2,880	**2880**
Total	**$584**	**2880**	**$3,464**

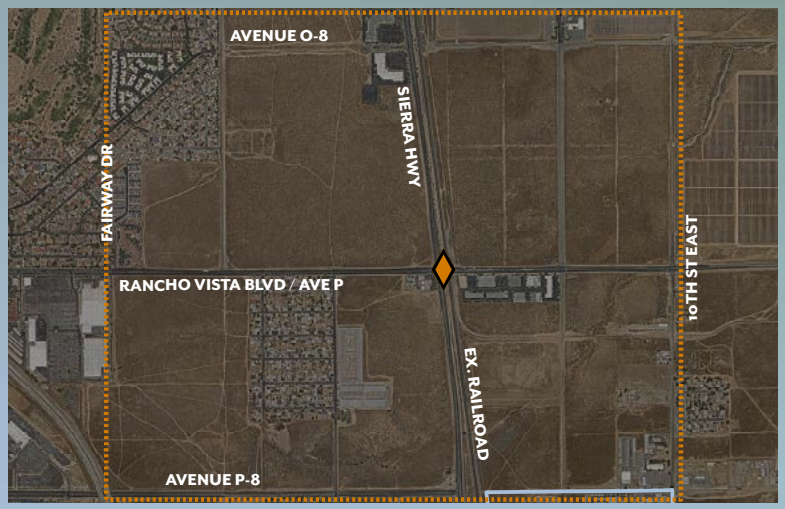
Five-Year **Capital Improvement Plan**

Streets Projects

STR-007

Rancho Vista Boulevard *Grade Separation Phase II*

Construct a railroad grade separation of Rancho Vista Boulevard at both Sierra Highway and the double-track at-grade crossing of the Southern California Regional Rail Authority (SCRRA), Metrolink and Union Pacific Railroad (UPRR) tracks. The project extends easterly on Rancho Vista Boulevard from Fairway Drive to 10th Street East and southerly on Sierra Highway from approximately 400 feet north of East Avenue O-8 to Avenue P-8.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Federal Grant Fund		$1,020				**$1,020**
Federal Grant Fund		$1,000	$7,000	$7,000	$8,000	**$23,000**
Measure R Local Return Fund	$500					**$500**
Gas Tax Fund	$894					**$894**
Total	**$1,394**	**$2,020**	**$7,000**	**$7,000**	**$8,000**	**$25,414**

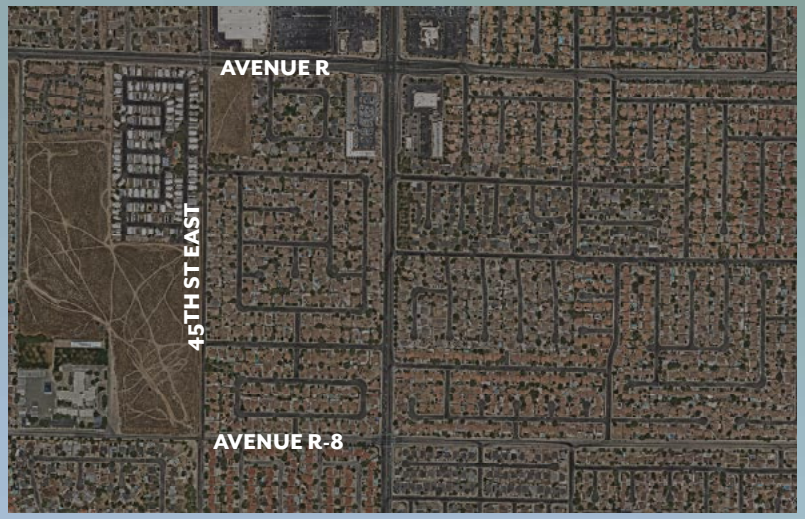
Five-Year **Capital Improvement Plan**

Streets Projects

STR-008

45th Street East *Improvements*

Design gap closure along East Avenue R and Avenue R-8 to mitigate the surface flow of storm water on 45th Street East.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Total
Measure M Local Return Fund	$500	$1,000	$1,500			**$3,000**
Total	**$500**	**$1,000**	**$1,500**			**$3,000**

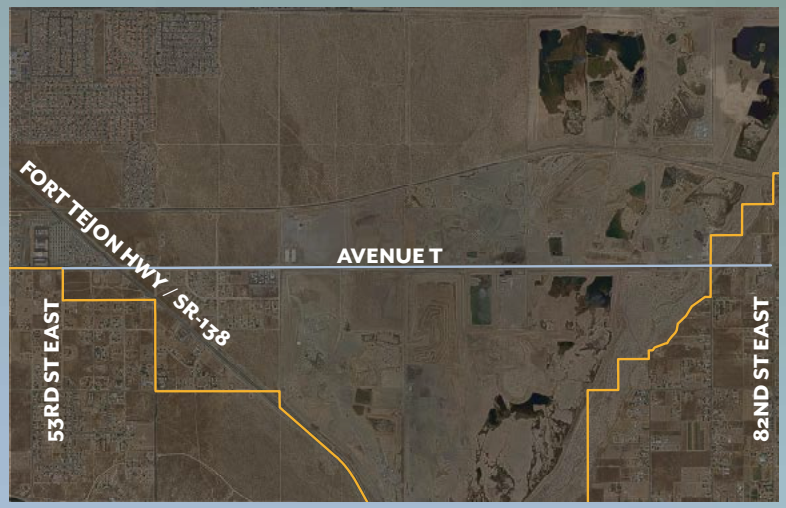
Five-Year **Capital Improvement Plan**

Streets Projects

STR-009

Avenue T Street Improvements *(Design & Environmental)*

Complete removal and replacement of the street section on Avenue T from Fort Tejon (SR 138) to 82nd Street East, including minor drainage improvements and signal upgrades at the intersection.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY 25-26	FY 26-27	FY 27-28	Estimated Total
Road Maintenance & Rehabilitation Act Fund (SB1)	$1000	$1496		**$2496**
Total	**$1000**	**$1496**		**$2**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-010

Avenue M and Sierra Hwy *Grade Separation*

The project proposes construction of a Railroad Grade Separation of Avenue M at the double-track at-grade crossing of the Southern California Regional Rail Authority (SCRRA), Metrolink, Union Pacific Railroad, and California High-Speed Rail right-of-way.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Federal Grant Fund		$500	$1,000			**$1,500**
Measure M			$500			**$500**
Prop C			$300			**$300**
Total	**$0**	**$500**	**$1,800**	**$0**	**$0**	**$2,300**

Five-Year **Capital Improvement Plan**

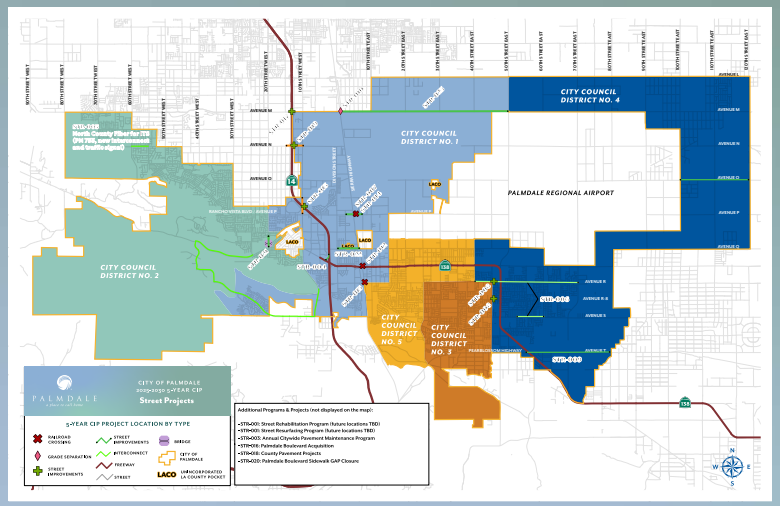
Streets Projects

STR-011

ADA *Sidewalks*

GRANT FUNDING SECURED BY CITY

Annual ADA sidewalk improvements in designated CDBG areas around the City. Current FY 25-26 project will construct ADA-compliant sidewalks and ramps on 3rd Street East and within the neighborhood to the west, improving accessibility and connectivity to local parks and City facilities.



PROJECTED COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
CBDG Fund	$650
Total	**$650**

Five-Year **Capital Improvement Plan**

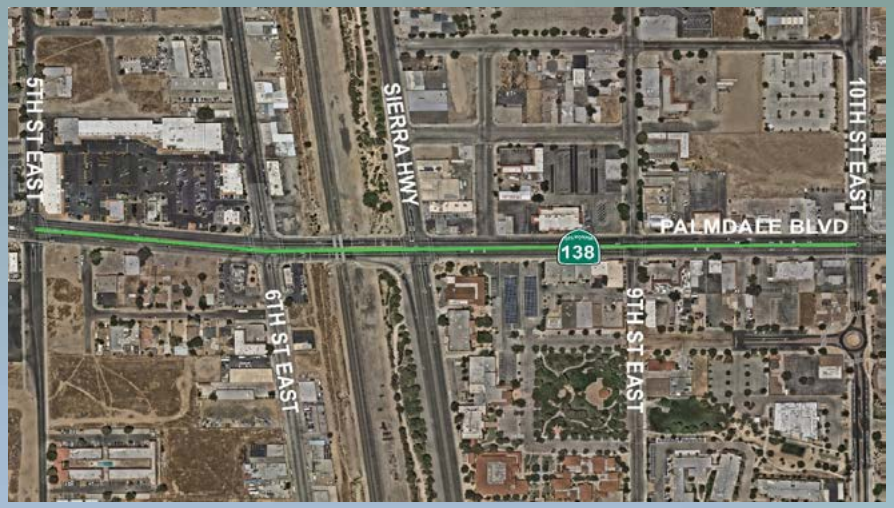
Streets Projects

STR-012

SR 138 Palmdale Boulevard *5th Street East-10th Street East*

Phase 1 - construct interim improvements between 6th Street East and 9th Street East along SR 138 (Palmdale Blvd) that will include roadway improvements and improvements to the at-grade railroad crossing.

Phase 2 - complete the remainder of the improvements, as described in the approved Project Report, between 5th Street East and 10th Street East along SR 138 (Palmdale Blvd) between Avenue Q and Avenue R along Sierra Highway.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure R	$645	$3,800	$5,000	$5,000	$5,000	**$19,445**
Total	**$645**	**$3,800**	**$5,000**	**$5,000**	**$5,000**	**$19,445**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-013

SR 138/10th Street West *Interchange*

Widening of 10th Street West from Rancho Vista Boulevard to Avenue O-8 and offramp improvements.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Total
Measure R	$647	$4,800	$5,000	$5,000	$8,000	**$23,447**
Total	**$647**	**$4,800**	**$5,000**	**$5,000**	**$8,000**	**$23,447**

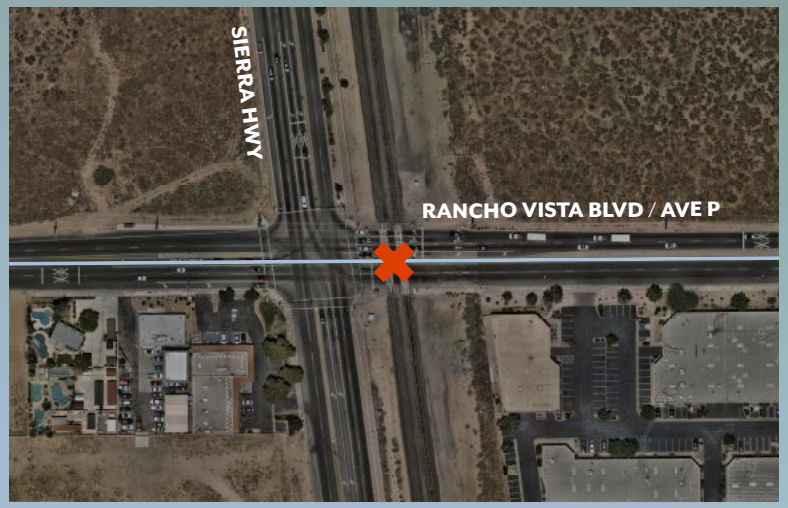
Five-Year **Capital Improvement Plan**

Streets Projects

STR-014

Rancho Vista Boulevard Sierra Hwy Railroad *Safety Crossing*

This project will provide for the upgrade of the existing railway system at the intersection of Rancho Vista Boulevard and Sierra Highway. The California Public Utilities Commissions (CPUC) Rail Crossings and Engineering Branch has proposed safety improvements to the existing railway system that will be funded under the Railroad-Highway Grade Crossing Program (RHGCP), Section 130 funds.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Federal Grant Fund	$300	$1,334	$2,000			**$3,634**
Total	**$300**	**$1,334**	**$2,000**	**$0**	**$0**	**$3,634**

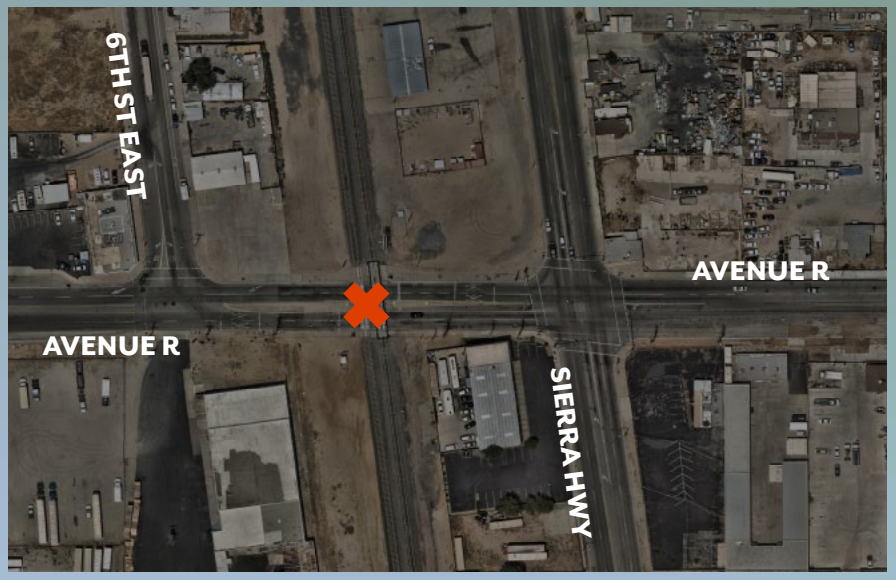
Five-Year **Capital Improvement Plan**

Streets Projects

STR-015

Avenue R Sierra Hwy Railroad *Safety Crossing*

The crossing consists of a four-lane, east-west oriented highway and two tracks including one SCRRA Valley Subdivision track and one UPRR Los Angeles Division. The roadway has a width of 56 feet and intersects with the track at a I 00-degree crossing angle. The pedestrian/bicycle sidewalk approach at the north quadrants has a width of 10 feet; there is no sidewalk approach at the south quadrants. The track surfacing consists of concrete panels with a width of 88 feet. The crossing is equipped with two CPUC Standard No. 9 automatic gate type warning devices.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY 25-26	FY 26-27	Total
Federal Grant Fund	$600	$177	**$777**
Total	**$600**	**$177**	**$777**

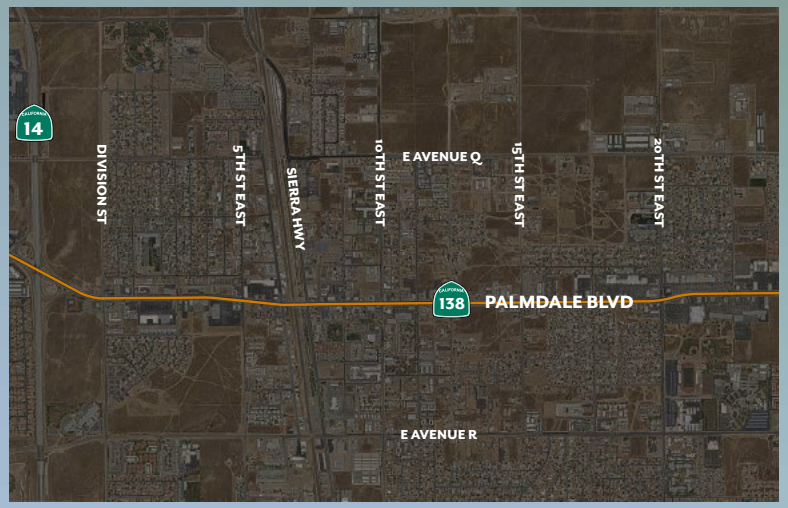
Five-Year **Capital Improvement Plan**

Streets Projects

STR-016

Palmdale Boulevard *Acquisition*

Relinquishment of Palmdale Boulevard from Caltrans, to include upgrades to the existing roadway where it is currently substandard. Some funding would likely be secured from Caltrans.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY 25-26	FY 26-27	Estimated Total
Gas Tax	$100	$398	**$498**
Total	**$100**	**$398**	**$498**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-017

Avenue M Interchange *Improvements*

The City continues to work through co-op agreements with the City of Lancaster and the County. This will be evaluated further as final design is confirmed and completed prior to construction. City of Lancaster has put this project on hold due to funding. City of Palmdale will contribute funds towards the project. Project includes public art in interchange roundabouts.



PROJECTED BUDGET

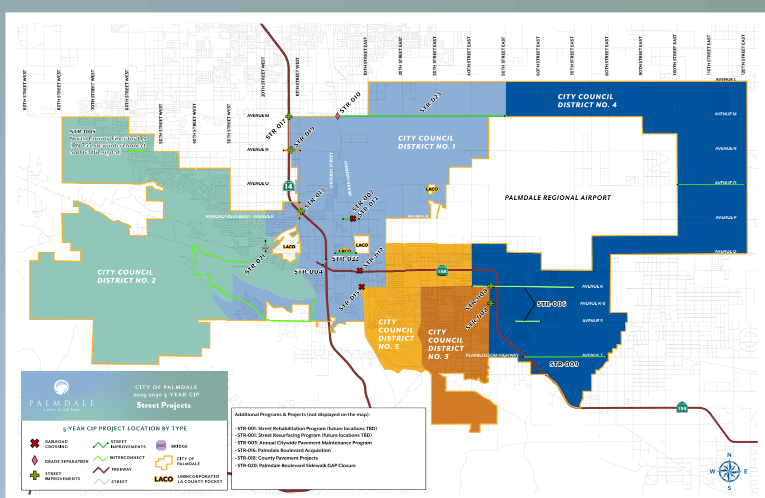
All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Measure R Grant Fund	$6,615
Measure R Local Return Fund	$225
Total	**$6,870**

STR-018

County Pavement *Projects*

The City continues to work with the Los Angeles Public Works Department on joint street projects throughout the City.



PROJECTED BUDGET

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Gas Tax Fund	$1,325
Measure M Local Return Fund	$575
Measure R Local Return Fund	$169
Road Maintenance & Rehabilitation Act Fund (SB1)	$343
Sewer Assessment District Fund	$365
TDA Article 8 Fund	$243
Total	**$3,020**

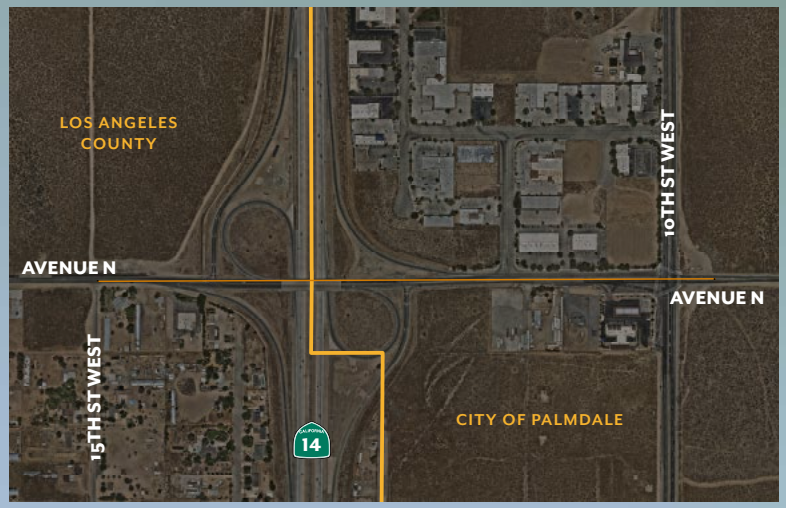
Five-Year **Capital Improvement Plan**

Streets Projects

STR-019

SR 138/Avenue N *Overcrossing*

Interchange improvements at northbound off-ramp at SR 138 (SR 14) and Avenue N; widening of Avenue N from 15th St West to west of 10th St West.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Measure R Grant Fund	$6,257
Total	**$6,257**

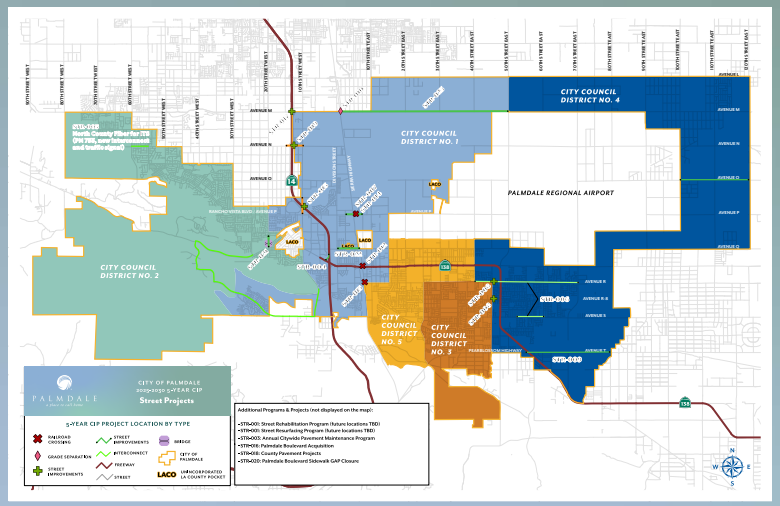
Five-Year **Capital Improvement Plan**

Streets Projects

STR-020

SR 138/Palmdale Boulevard *Sidewalk Gap Closure*

Street improvments improvements and sidewalk gap closure.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Measure M Local Return Fund	$550
Total	**$550**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-021

20th Street *West Bridge*

Improvements to 20th Street bridge.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Developer Contribution	$742
Total	**$742**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-022

Ave Q Complete Street and Crossings

GRANT FUNDING SECURED BY CITY

This project includes traffic calming measures such as landscaped medians, curb extensions, speed humps, raised crosswalks, and pedestrian refuge islands, all aimed at improving safety and visibility. The redesign will incorporate multimodal infrastructure, featuring continuous, protected bike lanes, ADA-compliant sidewalks, upgraded bus stops with shelters and seating, and increased street lighting to enhance safety conditions after dusk and in the early morning hours.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Federal Grant Fund	**$1,000**
Total	**$1,000**

Five-Year **Capital Improvement Plan**

Streets Projects

STR-023

Avenue M Corridor *(Sierra Hwy to 50th East)*

GRANT FUNDING SECURED BY CITY

The project includes much needed street infrastructure improvements to Avenue M; a primary access corridor serving US Air Force Plant 42. Avenue M is a designated regional arterial roadway/military access road and is currently heavily impacted by traffic congestion and has a poor level of service, especially during peak travel times. The project will improve the level of service, operations, and safety, ultimately benefiting US Air Force Plant 42 and the surrounding areas.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Federal Grant Fund	$1,500
Total	**$1,500**

CITY OF PALMDALE

Traffic



Traffic *Projects*

Five-Year Funding Budget Summary 2025-2030

(all figures below in thousands of dollars)

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total Budget*
GRANT FUNDING SECURED BY CITY — Federal Grant Fund	$5,782	$—	$—	$—	$—	**$5,782**
Measure R Local Fund	$627	$—	$—	$—	$—	**$627**
RMRA (SB1) Fund	$—	$2,245	$—	$—	$—	**$2,245**
TBD	$—	$—	$2,250	$2,150	$1,250	**$5,650**
Traffic Impact Fund	$—	$400	$—	$—	$—	**$400**
TOTALS	**$6,409**	**$2,645**	**$2,250**	**$2,150**	**$1,250**	**$14,704**

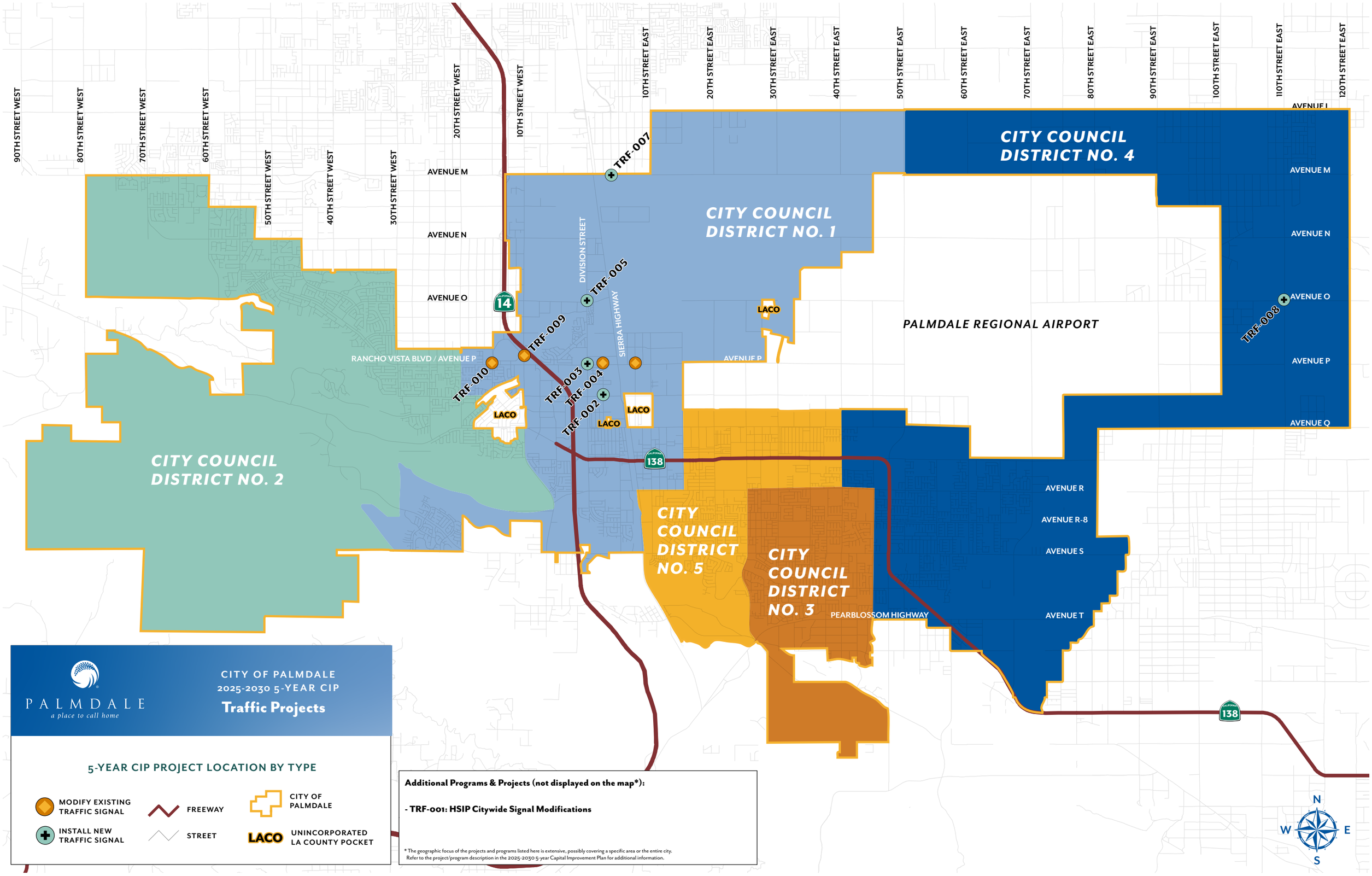
* The amount shown is a preliminary estimated budget for the anticipated total cost of the projects and is not intended to be an estimate of the anticipated amount of the revenue. Revenue estimates are calculated annually as part of the annual budget process and are considered before projects are approved as part of the City's annual budget.

Traffic Project List

FIVE YEAR CIP PROJECT #		CURRENT BUDGET FY 25-26	ESTIMATED EXPENDITURES FY 25-26	FUTURE BUDGET FY 26-30	ESTIMATED EXPENDITURES FY 26-30	TOTAL PROJECT COSTS (IN THOUSANDS)
TRF-001	HSIP Citywide Signal Modifications	$6,409	$6,409	$—	$—	$6,409
TRF-002	Traffic Signal - Technology Drive at 3rd Street East	$1,150	$—	$350	$1,500	$1,500
TRF-003	Traffic Signal - Rancho Vista Blvd at Division St.	$745	$—	$—	$745	$745
TRF-004	Traffic Signal - Left-turn Phasing (Rancho Vista Blvd at 3rd Street East)	$100	$—	$300	$400	$400
TRF-005	Traffic Signal - Avenue O at Division Street	$—	$—	$1,500	$1,500	$1,500
TRF-006	Traffic Signal - Rancho Vista Blvd at Lockheed Way	$—	$—	$750	$750	$750
TRF-007	Traffic Signal - Avenue M at 4th Street East	$—	$—	$1,500	$1,500	$1,500
TRF-008	Traffic Signal - Avenue O at 110th Street East to 120th Street East	$—	$—	$750	$750	$750
TRF-009	Traffic Signal - 10th Street West at AV Mall Drive	$—	$—	$650	$650	$650
TRF-010	Traffic Signal - Rancho Vista Blvd at 15th Street West	$—	$—	$500	$500	$500
	TOTAL	**$8,404**	**$6,409**	**$6,300**	**$8,295**	**$14,704**

Traffic Expenditures

Project No.	Project Name	FY 2026 Adopted Budget (includes future budget requests)	FY 2026 Projected Expenditure	FY 2027 Projected Expenditure	FY 2028 Projected Expenditure	FY 2029 Projected Expenditure	FY 2030 Projected Expenditure
TRF-004	TRAFFIC SIGNAL LEFT PHASING (RANCHO VISTA BLVD AT 3RD ST	$400		$400			
TRF-003	RVB & DIVISION ST TRAFFIC	$745		$745			
TRF-001	HSIP CITYWIDE SIGNAL MODERNIZATION	$6,409	$6,409				
TRF-002	TRAFFIC SIGNAL TECHNOLOGY DR & 3 ST E	$1,500		$1,500			
TRF-005	Traffic Signal - Avenue O at Division Street	$1,500			$1,500		
TRF-006	Traffic Signal - Rancho Vista Blvd at Lockheed Way	$750					$750
TRF-007	Traffic Signal - Avenue M at 4th Street East	$1,500				$1,500	
TRF-008	Traffic Signal - Avenue O at 110th Street East to 120th Street East	$750			$750		
TRF-009	Traffic Signal - 10th Street West at AV Mall Drive	$650				$650	
TRF-010	Traffic Signal - Rancho Vista Blvd at 15th Street West	$500					$500
	Total	**$14,704**	**$6,409**	**$2,645**	**$2,250**	**$2,150**	**$1,250**



PALMDALE
a place to call home

CITY OF PALMDALE
2025-2030 5-YEAR CIP

Traffic Projects

5-YEAR CIP PROJECT LOCATION BY TYPE

- MODIFY EXISTING TRAFFIC SIGNAL
- INSTALL NEW TRAFFIC SIGNAL
- FREEWAY
- STREET
- CITY OF PALMDALE
- LACO — UNINCORPORATED LA COUNTY POCKET

Additional Programs & Projects (not displayed on the map*):

- TRF-001: HSIP Citywide Signal Modifications

* The geographic focus of the projects and programs listed here is extensive, possibly covering a specific area or the entire city. Refer to the project/program description in the 2025-2030 5-year Capital Improvement Plan for additional information.

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-001

HSIP Citywide Signal *Modifications*

Upgrade signal head with current standard and replace pedestrain crosswalks and pedestrian push buttons.
Repair and replace wiring inside signal heads.

GRANT FUNDING SECURED BY CITY







PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Federal Grant Fund	$5,782
Measure R Local Fund	$627
Total	$6,409

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-002

Traffic Signal: Technology Drive at 3rd Street East

Install four-way traffic signals to enhance safety and traffic operations of the intersection.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
RMRA (SB1) Fund		$1,500				$1,500
Total		**$1,500**				**$1,500**

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-003

Traffic Signal: Rancho Vista Blvd & Division St.

Install four-way traffic signals to enhance safety and traffic operations of the intersection.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
RMRA (SB1) Fund		$745				**$745**
Total		**$745**				**$745**

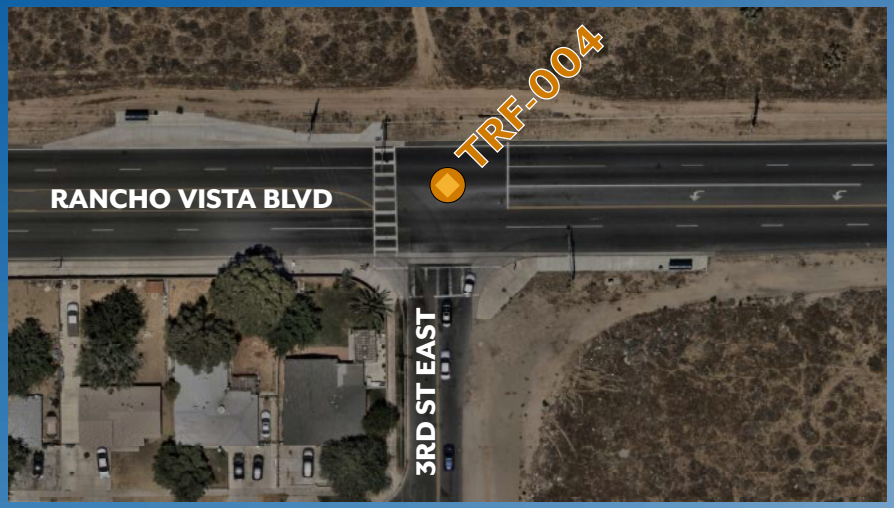
Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-004

Traffic Signal: Left Turn Phasing (Rancho Vista Blvd at 3rd St East)

Add a left turn phase to westbound Rancho Vista Boulevard to enhance safety and traffic operations.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Traffic Impact Fund		$400				**$400**
Total		**$400**				**$400**

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-005

Traffic Signal: Avenue O at Division Street

Install four-way traffic signals to enhance safety and traffic operations of the intersection.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
TBD			$1,500			$1,500
Total			**$1,500**			**$1,500**

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-006

Traffic Signal: Rancho Vista Blvd at Lockheed Way

Install four-way traffic signals to enhance safety and traffic operations of the intersection.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
TBD					$750	$750
Total					**$750**	**$750**

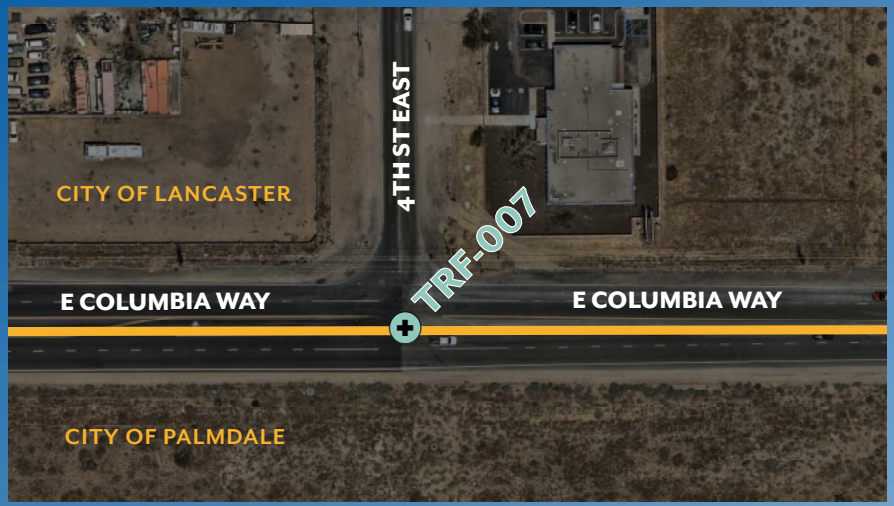
Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-007

Traffic Signal: Avenue M at 4th Street East

Install three-way traffic signals to enhance safety and traffic operations of the intersection.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
TBD				$1,500		$1,500
Total				**$1,500**		**$1,500**

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-008

Traffic Signal: Avenue O at 110th St East to 120th St East

Installation of a new traffic signal and intersection roadway improvements.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
TBD			$750			$750
Total			**$750**			**$750**

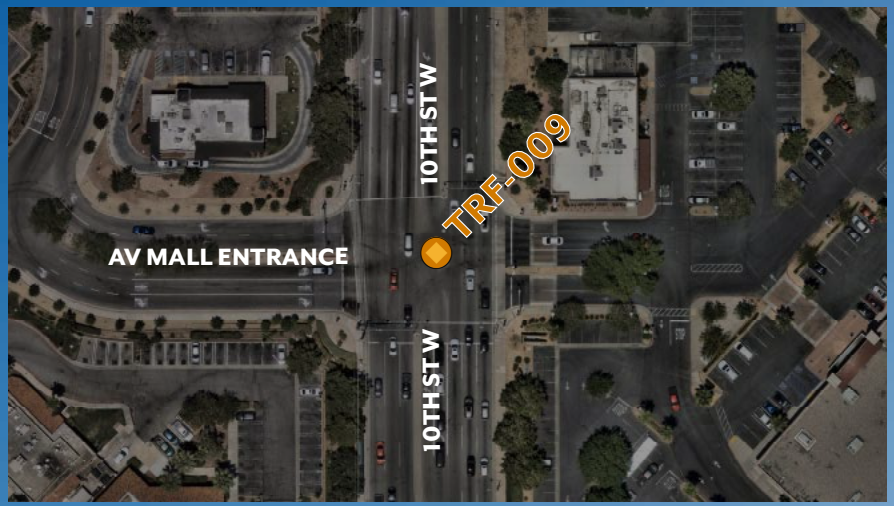
Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-009

Traffic Signal: 10th St West at AV Mall Drive

Modification of existing traffic signal and intersection roadway improvements.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
TBD				$650		$650
Total				**$650**		**$650**

Five-Year **Capital Improvement Plan**

Traffic Projects

TRF-010

Traffic Signal: Rancho Vista Blvd at 15th St West

Modification of existing traffic signal and intersection roadway improvements.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
TBD					$500	$500
Total					**$500**	**$500**

CITY OF PALMDALE

Watershed *Resources*



Watershed *Resources*

Five-Year Funding Budget Summary 2025-2030

(all figures below in thousands of dollars)

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total Budget*
Drainage Fund	$7,774	$547	$105	$105	$105	**$8,636**
GRANT FUNDING SECURED BY CITY Measure A Grant Fund	$910	$—	$—	$—	$—	**$910**
GRANT FUNDING SECURED BY CITY Measure M Local Return Fund	$4,659	$—	$—	$—	$—	**$4,659**
Public Art Fund	$90	$—	$—	$—	$—	**$90**
Sewer Maintenance Assessment Fund	$5,445	$1,020	$510	$510	$510	**$7,995**
Sewer Upgrade Fund	$424	$—	$—	$—	$—	**$424**
TBD	$—	$—	$15,000	$15,000	$15,000	**$45,000**
TOTALS	**$19,302**	**$1,567**	**$15,615**	**$15,615**	**$15,615**	**$67,714**

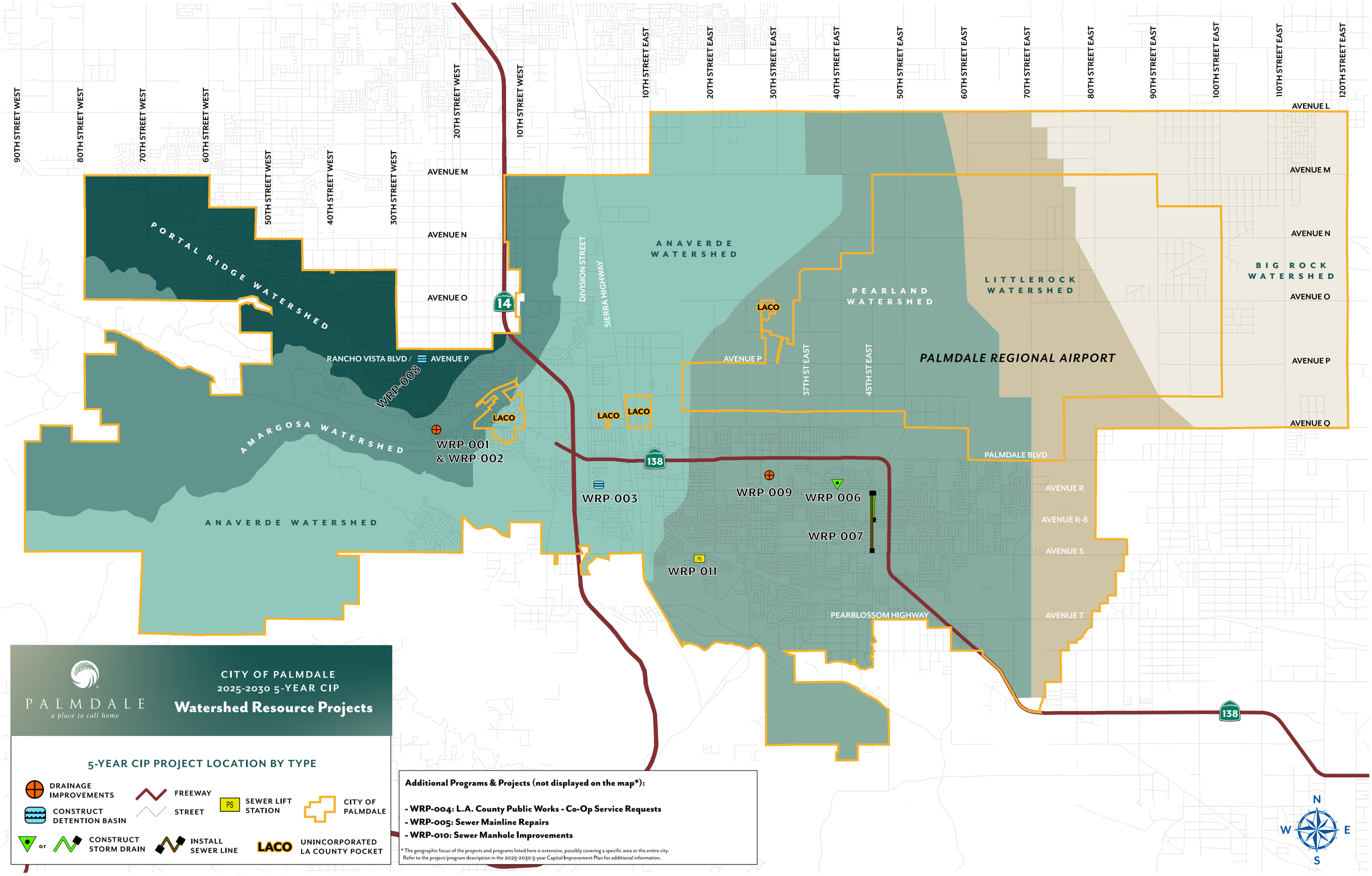
* The amount shown is a preliminary estimated budget for the anticipated total cost of the projects and is not intended to be an estimate of the anticipated amount of the revenue. Revenue estimates are calculated annually as part of the annual budget process and are considered before projects are approved as part of the City's annual budget.

Watershed Resources **Project List**

FIVE YEAR CIP PROJECT #		CURRENT BUDGET FY 25-26	ESTIMATED EXPENDITURES FY 25-26	FUTURE BUDGET FY 26-30	ESTIMATED EXPENDITURES FY 26-30	TOTAL PROJECT COSTS (IN THOUSANDS)
WRP-001	Upper Amargosa Creek Recharge Basin/Habitat Mitigation	$2,316	$2,316	$420	$420	$2,736
WRP-002	Upper Amargosa Creek Recharge Basin Trail Enhancement	$1,000	$1,000	$—	$—	$1,000
WRP-003	Avenue R Regional Basin Design and Construction	$1,659	$1,000	$45,000	$45,659	$46,659
WRP-004	Los Angeles County Public Works - Co-op Service Requests	$365	$365	$—	$—	$365
WRP-005	Citywide Sewer Mainline Repairs	$250	$250	$1,300	$1,300	$1,550
WRP-006	40th St East/Ave R Storm Drain Improvements	$2,258	$1,000	$442	$1,700	$2,700
WRP-007	45th St East Sewer & Storm Drain Improvements	$8,324	$3,400	$—	$4,924	$8,324
WRP-008	Marie Kerr Park and Ride Lot - Drainage Basin	$1,000	$1,000	$—	$—	$1,000
WRP-009	McAdam Park Renovations - Utility Connections	$200	$200	$—	$—	$200
WRP-010	Sewer Manhole Improvements	$—	$—	$1,250	$1,250	$1,250
WRP-011	Sewer Lift Station Elimination Study	$1,930	$—	$—	$1,930	$1,930
	TOTAL	**$19,302**	**$10,531**	**$48,412**	**$57,183**	**$67,714**

Watershed Resources Expenditures

Project No.	Project Name	FY 2026 Adopted Budget (includes future budget requests)	FY 2026 Projected Expenditure	FY 2027 Projected Expenditure	FY 2028 Projected Expenditure	FY 2029 Projected Expenditure	FY 2030 Projected Expenditure
WRP-001	AMARGOSA CRK UPPER RECHG PROJ HABITAT MITIGATION	$2,736	$2,316	$105	$105	$105	$105
WRP-002	AMARGOSA CRK UPPER RECHG PROJ TRAIL ENHANCEMENT	$1,000	$1,000				
WRP-006	40TH E/AVE R DRAINAGE IMPRV	$2,700	$1,000	$1,700			
WRP-008	MARIE KERR PARK N RIDE LOT - (DRAINAGE BASIN)	$1,000	$1,000				
WRP-009	MCADAM PARK RENOV	$200	$200				
WRP-003	AVE R REGIONAL BASIN INFRASTRUCTURE	$46,659	$1,000	$659	$15,000	$15,000	$15,000
WRP-004	COUNTY PAVEMENT PROJECT	$365	$365				
WRP-007	45TH STREET STORM DRAIN UPGRADE	$8,324	$3,400	$4,924			
WRP-011	LIFT STATION ELIM SEWER REPAIR	$1,930		$1,930			
WRP-005	CITY WIDE SEWER REPAIR	$1,550	$250	$520	$260	$260	$260
WRP-010	SEWER MANHOLE IMPROVEMENTS	$1,250		$500	$250	$250	$250
	Total	**$67,714**	**$10,531**	**$10,338**	**$15,615**	**$15,615**	**$15,615**



PALMDALE
a place to call home

CITY OF PALMDALE
2025-2030 5-YEAR CIP

Watershed Resource Projects

5-YEAR CIP PROJECT LOCATION BY TYPE

- DRAINAGE IMPROVEMENTS
- CONSTRUCT DETENTION BASIN
- FREEWAY
- STREET
- SEWER LIFT STATION (PS)
- CITY OF PALMDALE
- CONSTRUCT STORM DRAIN (or)
- INSTALL SEWER LINE
- LACO — UNINCORPORATED LA COUNTY POCKET

Additional Programs & Projects (not displayed on the map*):

- **WRP-004: L.A. County Public Works - Co-Op Service Requests**
- **WRP-005: Sewer Mainline Repairs**
- **WRP-010: Sewer Manhole Improvements**

* The geographic focus of the projects and programs listed here is extensive, possibly covering a specific area or the entire city. Refer to the project/program description in the 2025-2030 5-year Capital Improvement Plan for additional information.

Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-001

Upper Amargosa Creek Recharge Basin/ *Habitat Mitigation*

The project consists of planting, irrigation and erosion control to preserve the watershed area and will continue providing for environmental monitoring of the site for recharging of the aquifer and also provide for the mitigation and habitat restoration of the land as required by the State Water Resource Board.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Drainage Fund	$2,316	$105	$105	$105	$105	**$2,736**
Total	**$2,316**	**$105**	**$105**	**$105**	**$105**	**$2,736**

WRP-002

Upper Amargosa Creek Recharge Basin Trail *Enhancement*

GRANT FUNDING SECURED BY CITY

Grant funds received for trail enhancement are essential for providing connectivity to the recharge basin and habitat to allow for public access and use.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT FISCAL YEAR BUDGET	FY 25-26
Measure A Grant Fund	$910
Public Art Fund	$90
Total	**$1,000**

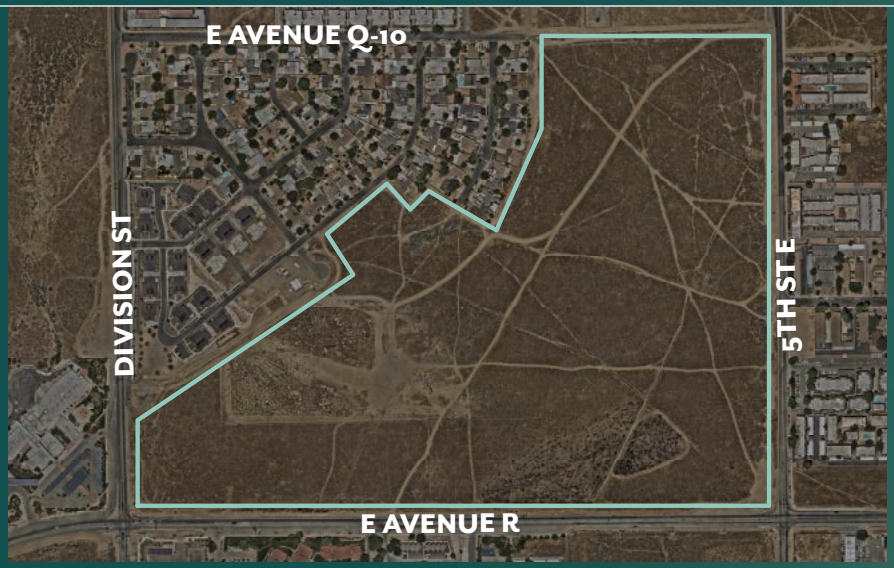
Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-003

Avenue R Regional Basin Design and *Construction*

Design and construction of a series of basins and overflow channels at Avenue R and Division Street.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Measure M Local Return Fund	$1,659					**$1,659**
TBD			$15,000	$15,000	$15,000	**$45,000**
Total	**$1,659**	**$0**	**$15,000**	**$15,000**	**$15,000**	**$46,659**

Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-004

Los Angeles County Public Works - Co-op *Service Requests*

The City partners with Los Angeles County Public Works to complete sewer and drainage projects.



CITY OF PALMDALE

Public Works LOS ANGELES COUNTY

PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Sewer Maintenance Assessment Fund	$365
Total	**$365**

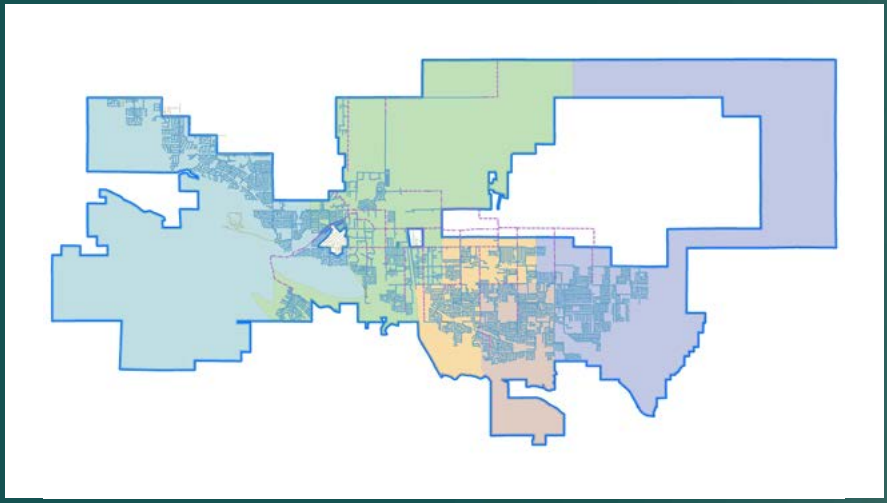
Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-005

Citywide Sewer Mainline *Repairs*

Miscellaneous sewer repairs throughout the City including but not limited to repair and replace linings, and spot repairs.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Sewer Maintenance Assessment Fund	$250	$520	$260	$260	$260	**$1,550**
Total	**$250**	**$520**	**$260**	**$260**	**$260**	**$1,550**

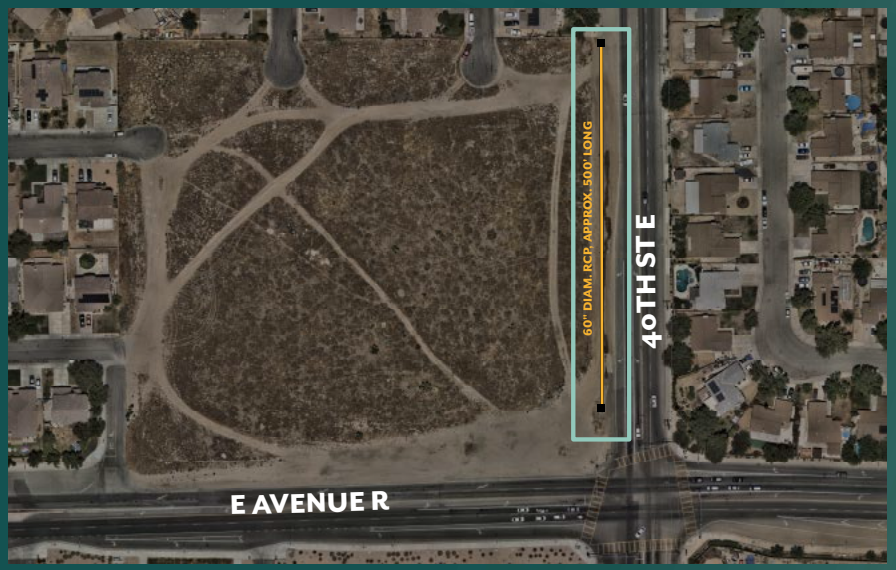
Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-006

40th St East/Ave R Storm Drain *Improvements*

This project will address the flooding at this intersection, extend the existing 60' diameter pipe northerly until stormwater can be released to the street instead of the dirt shoulder as it currently does.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Drainage Fund	$1,000	$1,700	$0	$0	$0	**$2,700**
Total	**$1,000**	**$1,700**	**$0**	**$0**	**$0**	**$2,700**

Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-007

45th St East Sewer & Storm Drain *Improvements*

GRANT FUNDING SECURED BY CITY

Project proposes to contruct a new 18" relief trunk sewer along 45th Street between Avenue S and Avenue R to increase sewer capacity and provide a relief during peak flows in the area; construction of a new 78" RCP storm drain along 45th Street between Avenue R-8 and Avenue R; and street resurfacing full width between Avneue R and Avenue S.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Drainage Fund	$700	$1,500				**$2,200**
Measure M	$1,500	$1,500				**$3,000**
Sewer Maintenance Assessment	$1,000	$1,700				**$2,700**
Sewer Upgrade Fund	$200	$224				**$424**
Total	**$3,400**	**$4,924**	**$0**	**$0**	**$0**	**$8,324**

Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-008

Marie Kerr Park and Ride Lot - *Drainage Basin*

The project will provide overflow parking for the park events, construct an infiltration basin, provide the location for a future pump station, and accommodate the use of the parking lot.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Drainage Fund	$1,000
Total	**$1,000**

Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-009

McAdam Park Renovations - *Utility Connections*

Project proposes to renovate McAdam Park replacing the existing restroom with a restroom & concession unit also connecting the restroom facility to sewer line.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Sewer Maintenance Assessment Fund	$200
Total	**$200**

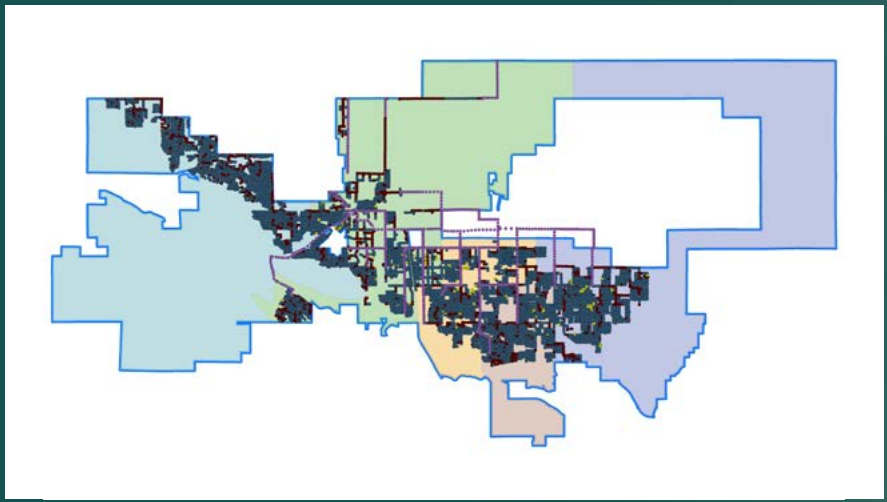
Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-010

Sewer Manhole *Improvements*

Repair and replace sewer manholes and collars as needed.



PROJECTED BUDGET

All figures below in thousands of dollars

Fund Source	FY25-26	FY26-27	FY27-28	FY28-29	FY29-30	Estimated Total
Sewer Maintenance Assessment Fund		$500	$250	$250	$250	$1,250
Total		**$500**	**$250**	**$250**	**$250**	**$1,250**

Five-Year **Capital Improvement Plan**

Watershed Resources Projects

WRP-011

Sewer Lift Station Elimination *Study*

Elimination of the sewer lift station along Avenue S at Casa Verde Drive.



PROJECT COST ESTIMATE

All figures below in thousands of dollars

CURRENT BUDGET FISCAL YEAR	FY 25-26
Sewer Maintenance Assessment Fund	**$1,931**
Total	**$1,931**

CITY OF PALMDALE

Department of Public Works

38250 Sierra Highway
Palmdale, CA 93550

661-267-5300
cityofpalmdaleca.gov

Planning Commission Staff Report

DATE: **OCTOBER 9, 2025**

TO: **HONORABLE CHAIR AND PLANNING COMMISSIONERS**

FROM: **ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION**

APPLICANT: **SUMMIT POINT PARTNERS LLC**

DISTRICT: **5**

SUBJECT: **ADOPT RESOLUTION NO. PC-2025-020; A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE APPROVING CONDITIONAL USE PERMIT 25-0002 AND SITE PLAN REVIEW 25-0005; A REQUEST TO CONSTRUCT A MINISTORAGE FACILITY CONSISTING OF AN OFFICE BUILDING AND 14 STORAGE BUILDINGS TOTALING 124,612 SQUARE FEET ON AN APPROXIMATLEY 13-ACRE SITE, LOCATED AT THE SOUTHWEST CORNER OF EAST AVENUE S AND CEMETERY ROAD, AND ADOPTING THE MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM PREPARED FOR THE PROJECT**

RECOMMENDATION

Staff recommends that the Planning Commission adopt Resolution No. PC-2025-020, a Resolution of the Planning Commission of the City of Palmdale approving Conditional Use Permit (CUP) 25-0002 and Site Plan Review (SPR) 25-0005 and adopting the Mitigated Negative Declaration (MND) (SCH No. 2025071273) and Mitigation Monitoring and Reporting Program (MMRP) prepared for the project.

BACKGROUND

The applications were submitted on January 30, 2025, reviewed by staff, and deemed incomplete on February 6, 2025. The environmental document prepared for the project was reviewed and circulated for public comment from July 29, 2025, through August 29, 2025, in accordance with California Environmental Quality Act (CEQA) Guidelines and the California Code of Regulations, Title 14, Chapter 3. After resolution of completeness items, the applications were deemed complete on September 9, 2025, and scheduled for the October 9, 2025, Planning Commission meeting.

Noticing/Agency Comments

TABLE 1 - AFFECTED AGENCIES

	Agency	Comments
Water Service:	Palmdale Water District (PWD)	The project must comply with all of PWD's requirements.
School District(s):	Antelope Valley Union High School District	None received
	Palmdale School District	None received
Other:	Los Angeles County Fire Department	The project must comply with all Los Angeles County Fire Department regulations.
	Antelope Valley Air Quality Management District (AVAQMD)	The project must comply with all applicable AVAQMD requirements.
	Antelope Valley Transit Authority (AVTA)	The project must coordinate with AVTA regarding existing transit service along the project frontage and provide the determination of required accommodations.
	Southern California Edison (SCE)	The project must comply with all applicable SCE requirements.

FIGURE 1 - AERIAL MAP



ANALYSIS

The proposed project includes the construction of a ministorage facility consisting of an office building and 14 storage buildings totaling approximately 124,000 square feet. The facility will have 695 storage units, dedicated parking for on-site storage of recreational vehicles (RVs) and boats, a storm drainage basin, supporting infrastructure (roads, sidewalks, curbs and gutters, and utilities), and approximately 59,000 square feet of landscaping. The mini-storage facility is permitted within the Office Flex (OFX) zone with the approval of a CUP for the proposed use and an SPR for the proposed development.

TABLE 2 - EXISTING LAND USE / ZONING / GENERAL PLAN

	Land Use	Zoning	General Plan
Subject Site	Vacant land and private road	Office Flex (OFX) and Open Space (OS)	Employment Flex (EMPX) and Open Space (OS)
North	Existing single-family residences and open space, north of East Avenue S	Single-family Residential 3 (SFR 3) and Open Space (OS)	Single-family Residential 3 (SFR 3) and Open Space (OS)
South	Existing single-family Residences and Southern Pacific railroad tracks	Single-family Residential 3 (SFR 3) and Utilities (U)	Single-family Residential 3 (SFR 3) and Utilities (U)
East	Existing single-family residences	Single-family Residential 3 (SFR 3)	Single-family Residential 3 (SFR 3)
West	Vacant land	Utilities (U)	Utilities (U)

TABLE 3 - GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use and Community Design	LUD-4.6: Require four-sided architecture – all facades of a building are designed with quality, care, and visual interest - in the urban core. Encourage four-sided architecture in other areas.	Yes	The proposed project involves developing a new industrial use that incorporates a combination of materials and architectural features on all sides of the building to ensure that the development is designed with quality, care, and visual interest. The project features stone veneer along the base, embossed stucco panels adding variation and depth, decorative light fixtures, aluminum storefront windows, metal awnings that help create horizontal articulation that breaks up the building mass and wrought iron accents that provide visual interest and a sense of refinement.
Conservation	CON-8.5: Conduct Native American consultation consistent with the applicable regulation when new development is proposed in potentially culturally sensitive areas.	Yes	Outreach and consultation for the project were carried out with Native American tribes in accordance with Assembly Bill (AB) 52 and during the public review of the environmental document. As a result, mitigation measures and language identified through this process have been included in the final environmental document to ensure that any cultural resources discovered will be properly protected. Additionally, the consultation process helps maintain and strengthen the positive relationship with local tribes, promoting long-term collaboration and trust for all future development.

**Justification is based on a review of the plans date stamped 'Received August 28, 2025'.*

TABLE 4 - PMC STANDARDS

	Standard	Standard Met?	Justification*
Setbacks	Front: 10 feet Street side: 10 feet Interior side: 10 feet; 20 feet when abutting a residential zone. Rear: 10; 20 abutting a residential zone (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The front setback at the closest point from Buildings One and Three is approximately 10 feet from East Avenue S. The setback on the eastern property line at the nearest point is approximately 110 feet from the proposed office building, which abuts existing single-family residences. The setback on the western side of the property is roughly 600 feet from proposed Building Four. The rear setback for proposed Buildings Seven through Eight at the closest point is approximately 338 feet from the southern property line, which abuts the existing railroad tracks and is adjacent to the existing single-family residences.
Building Height	Maximum: 50 feet or four stories Maximum height for accessory structures: 25 feet (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The proposed office building stands about 20 feet tall, with the storage buildings reaching approximately 13 feet, and the trash enclosure approximately eight feet.

TABLE 4 - PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Floor Area Ratio (FAR)	Maximum FAR: one (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The project proposes roughly 124,000 square feet of building space on a 390,190 square foot portion of the 598,336 square foot lot, with a FAR of 0.31, which is below the maximum limit.
Landscape	A minimum of 10 percent of the entire lot must be landscaped. (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The project site will include 59,109 square feet of landscape, which is 15 percent of the lot.
Off-Street Parking	One space for every 75 storage units, plus three spaces for every 1,000 square feet of office area. A minimum of 5 spaces shall be provided. (PMC Table 17.87.060-1, Required Number of Vehicle Parking Spaces)	Yes	The project will have 695 storage units and a 1,050-square-foot office building. Based on the project's details, the site will require 15 parking spaces. The project will provide 15 spaces, which include 10 standard spaces, one American with Disabilities Act (ADA) space, and four electric vehicle compact spaces.
	Short-term bicycle parking: 10 percent of the required parking. A minimum of two spaces per development. Long-term bicycle parking: Any establishment with 15 or more full-time equivalent employees shall provide long-term bicycle parking for five percent of the required automobile spaces; minimum one space.	Yes	The project will provide two bicycle racks and one bike locker.

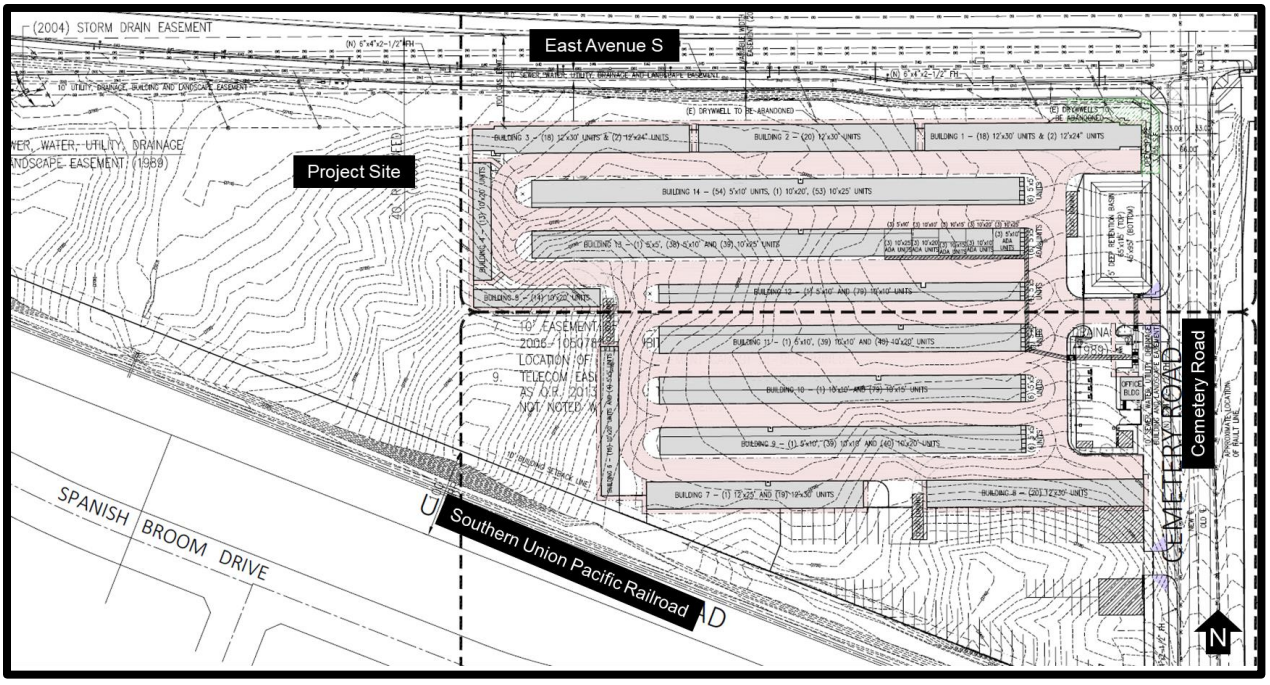
TABLE 4 - PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Open Space	A minimum of three percent of the lot must be publicly accessible. (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The project must provide 3,665 square feet of open space, and will provide 3,755 square feet, exceeding the requirement by approximately 90 square feet.

**Justification is based on a review of the plans date stamped 'Received August 28, 2025'.*

Site Layout

FIGURE 2 - SITE PLAN



Access

Access to the proposed site will be provided via Cemetery Road, located east of the project site. The project has been reviewed by the Los Angeles County Fire Department and Engineering Division, and it has been determined to have adequate access to ensure safe vehicular flow. Additionally, the site will fully comply with ADA.

Architecture

The exterior of the proposed buildings incorporates a combination of materials and architectural features on all sides of the building to ensure that the development is

designed with quality, care, and visual interest. The project features stone veneer along the base, embossed stucco panels adding variation and depth, decorative light fixtures, aluminum storefront windows, metal awnings that help create horizontal articulation that breaks up the building mass and wrought iron accents that provide visual interest and a sense of refinement, as shown in Figure 3.

FIGURE 3 - ELEVATIONS



NORTH ELEVATION



EAST ELEVATION

Use

CUP 25-0002 is a request to construct a ministorage facility with an office and 14 storage buildings totaling approximately 124,000 square feet, on approximately 13 acres. The facility will have a total of 695 storage units. This use is permitted with the approval of a CUP application within the OFX zone, as specified within PMC Chapter 17.47 (Land Use Regulations). The proposed ministorage will be open seven days a week, with hours of operation from Monday through Saturday, 7:00 am to 9:00 pm, and Sunday from 9:00 am to 9:00 pm, which is consistent with the hours of operation for similar ministorage facilities located adjacent to residential uses. Furthermore, the site anticipates having five employees present on-site during operating hours.

Draft Conditions of Approval have been included to address potential impacts on adjacent properties from the ministorage facility. The site will feature ample lighting to ensure visibility that complies with PMC Section 17.86.030 (Outdoor Lighting). For example, all outdoor lighting shall be designed, located, installed, directed downward or toward structures, fully shielded, and maintained in order to prevent glare, light trespass, and light pollution, and away from adjoining properties and public rights-of-way, so that no light fixture directly illuminates an area outside of the project site intended to be illuminated. Security cameras for additional monitoring, a keypad box at the entry gate, and an option for individually alarmed units will also be included. Therefore, the proposed project is not expected to adversely affect nearby properties.

ENVIRONMENTAL REVIEW

Pursuant to the CEQA, an IS/MND was prepared for CUP 25-0002 and SPR 25-0005 to determine whether the Project will have any significant effect on the environment. The IS/MND analyzed the potential for environmental impacts, and all topics were found to have either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Mitigation measures for biological, cultural, geology and soils, and tribal cultural resources were included to reduce impacts within these topics to a less than significant level. As such, an MND and MMRP was prepared and circulated from July 29, 2025, to August 29, 2025, in accordance with CEQA Guidelines and the California Code of Regulations, Title 14, Chapter 3.

Prepared by:	Juan Lopez, Assistant Planner
Approved by:	Brenda Magaña, Planning Manager
Approved as to form:	Alexandra Severino, City Attorney

ATTACHMENT

Resolution No. PC-2025-020

PLANNING COMMISSION
CITY OF PALMDALE, CALIFORNIA
RESOLUTION NO. PC-2025-020

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, APPROVING CONDITIONAL USE PERMIT 25-0002 AND SITE PLAN REVIEW 25-0005; AN APPLICATION BY SUMMIT POINT PARTNERS LLC, TO CONSTRUCT A MINISTORAGE FACILITY CONSISTING OF AN OFFICE BUILDING AND 14 STORAGE BUILIDINGS TOTALING 124,612 SQUARE FEET ON AN APPROXIMATELY 13-ACRE SITE, LOCATED AT THE SOUTHWEST CORNER OF EAST AVENUE S AND CEMETERY ROAD, AND ADOPTING THE MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM PREPARED FOR THE PROJECT

WHEREAS, Summit Point Partners, LLC has filed an application requesting the approval of Conditional Use Permit (CUP) 25-0002 and Site Plan Review (SPR) 25-0005, described herein (hereinafter referred to as “Application”); and,

WHEREAS*,* the Application applies to a parcel located at the southwest corner of East Avenue S and Cemetery Road, as indicated on the Los Angeles County Assessor roll as Assessor Parcel Numbers 3053-007-046 and -908, legally described on Exhibit A hereto and shown on the map attached hereto as Exhibit B; and,

WHEREAS*,* on October 9, 2025, the Planning Commission of the City of Palmdale conducted a duly noticed public hearing on the Application and concluded said hearing on that date.

NOW THEREFORE, BE IT RESOLVED, THE PLANNING COMMISSION OF THE CITY OF PALMDALE DOES HEREBY FIND, DETERMINE, RESOLVE AND ORDER AS FOLLOWS:

SECTION 1. The Planning Commission hereby specifically finds that all the facts set forth in the Recitals of this Resolution are true and correct.

SECTION 2. The Planning Commission hereby finds as follows with respect to the environmental document.

A Pursuant to the California Environmental Quality Act (CEQA), an Initial Study, to determine whether the project would have a significant effect on the environment, has been prepared for the proposed project. The Initial Study analyzed the potential for environmental impacts, and all topics were found to have either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Mitigation measures for

biological, cultural, geology and soils, and tribal cultural resources were included to reduce impacts to a less than significant level. As such, a Mitigated Negative Declaration (MND) and Mitigation Monitoring and Reporting Program (MMRP) were prepared in accordance with CEQA Guidelines and the California Code of Regulations, Title 14, Chapter 3.

B The custodian of records for all other materials which constitute the record of proceedings upon which the Planning Commission's decision is based, is the Planning Manager of the City of Palmdale. These documents are available for public review in the Planning Division of the City of Palmdale, located at 38250 Sierra Highway, Palmdale, California 93550, telephone (661) 267-5200.

SECTION 3. Based upon substantial evidence presented to this Commission during the above-referenced October 9, 2025, public hearing, including public testimony, and written and oral staff report, this Commission specifically finds as follows:

A The proposed use is consistent with the goals, policies, and objectives of the General Plan; (CUP)

B The proposed use is beneficial and desirous to the community and is consistent with the purpose, intent and standards of this Title and other applicable ordinances and codes adopted by the City; (CUP)

C The design and layout of the proposed project is consistent with the City's General Plan and any applicable Specific Plan. (SPR)

D The design and layout of the proposed project is consistent with all of the development standards set forth in this Title. (SPR)

E The design and layout of the proposed project is consistent with any applicable design guidelines. (SPR)

The project is consistent with the policies and objectives of the General Plan and Development Standard Table shown in Exhibits C and D. The subject site is within the Employment Flex (EMPX) General Plan land use designation and Office Flex (OFX) zone. The proposed use is a request to construct an approximately 13-acre vacant parcel with a ministorage facility consisting of an office building and 14 buildings totaling approximately 124,000 square feet. The request for the proposed use is permitted under the Palmdale Municipal Code (PMC) Section 17.47.020 (Allowed uses - Commercial/Office Zones), subject to the approval of a CUP application. As described in Exhibit D (Development Standards), the project complies with

the setback, building height, off-street parking, and landscaping requirements. Furthermore, the exterior of the proposed buildings incorporates a combination of materials and architectural features on all sides of the building to ensure that the development is designed with quality, care, and visual interest. The project features stone veneer along the base, embossed stucco panels adding variation and depth, decorative light fixtures, aluminum storefront windows, metal awnings that help create horizontal articulation that breaks up the building mass and wrought iron accents that provide visual interest and a sense of refinement, assisting its smooth transition to the surrounding area

Additionally, the site will feature ample lighting to ensure visibility that complies with PMC Section 17.86.030 (Outdoor Lighting). For example, all outdoor lighting shall be designed, located, installed, directed downward or toward structures, fully shielded, and maintained in order to prevent glare, light trespass, and light pollution, and away from adjoining properties and public rights-of-way, so that no light fixture directly illuminates an area outside of the project site intended to be illuminated. Security cameras for additional monitoring, a keypad box at the entry gate, and an option for individually alarmed units will also be included.

F The proposed use and the ongoing operation of the use will not have a substantial adverse effect on abutting property or the allowed use thereof, and will not generate excessive noise, vibration, traffic, or other disturbances, nuisances, or hazards. (CUP)

The proposed ministorage facility will serve as a low-impact, low-traffic use. It will provide a valuable service to local residents and businesses by offering secure storage options while maintaining compatibility through thoughtful design, appropriate scale, and enhanced landscaping buffers that minimize visual and operational impacts to adjacent residential properties, and is consistent with the General Plan as shown in Exhibit C.

G The site for the proposed use has adequate pedestrian and vehicular access. (CUP)

Access to the proposed site will be provided via Cemetery Road, located east of the project site. The project has been reviewed by the Los Angeles County Fire Department and Engineering Division, and it has been determined to have adequate access to ensure safe vehicular and pedestrian flow. The project will also provide connecting sidewalks, enhancing the overall pedestrian connectivity and walkability for the site and the surrounding area.

SECTION 4. Based on the findings and conclusions set forth in Sections 1, 2, and 3 above, this Commission hereby approves CUP 25-0002 and SPR 25-0005 subject to the Conditions of Approval as set forth in Exhibit E, and adopts the MND and MMRP for the proposed project, as set forth in Exhibits F and G.

SECTION 5. The Deputized Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED and **ADOPTED** this 9th day of October 2025.

_____
Dean Henderson
Chair, Planning Commission

ATTEST:

_____
Sylvia Magallanes, Deputized Clerk

I, Sylvia Magallanes, Deputized Clerk of Palmdale, California, do hereby certify that the foregoing resolution was duly approved, and adopted by the Planning Commission of the City of Palmdale at a regular meeting of said Commission held on the 9th day of October 2025, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____ ABSENT: _____

Date: _____ _____
Sylvia Magallanes, Deputized Clerk

EXHIBIT A

LEGAL DESCRIPTION FOR CUP 25-0002 AND SPR 25-0005

APN: 3053-007-046

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

LOT 3 IN THE NORTHWEST QUARTER OF THE SECTION 1, TOWNSHIP 5 NORTH, RANGE 12 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE CITY OF PALMDALE, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE APRIL 22, 1880.

EXCEPT THEREFROM THAT PORTION THEREOF CONVEYED TO THE EDISON SECURITIES COMPANY, BY DEED RECORDED FEBRUARY 20, 1924 AS INSTRUMENT NO. 1992-1224 IN BOOK 3062, PAGE 82 OFFICIAL RECORDS AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTH LINE OF SAID SECTION 1, WHICH POINT IS SOUTH 89° 45' WEST, MEASURED ALONG THE NORTH LINE OF 1351.8 FEET FROM THE NORTHEAST CORNER OF SAID LOT 3; THENCE SOUTH 0° 18' 12" WEST 660 FEET TO A POINT; THENCE SOUTH 89° 46' WEST 330 FEET TO A POINT; THENCE NORTH 0° 18' 12" EAST 660 FEET TO A POINT IN THE NORTH LINE OF SAID SECTION 1; THENCE NORTH 89° 45' EAST ALONG SAID NORTH LINE 330 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THE WEST 20 ACRES OF SAID LOT 3, CONVEYED TO KARL A. CEKADA AND WIFE, BY DEED RECORDED JANUARY 9, 1950 AS INSTRUMENT NO. 1950-171 IN BOOK 31907, PAGE 227 OFFICIAL RECORDS. ALSO EXCEPT THAT PORTION CONVEYED TO KARL A. CEKADA AND WIFE, BY DEED RECORDED OCTOBER 15, 1951 AS INSTRUMENT NO. 1951-1010 IN BOOK 37411, PAGE 221 OFFICIAL RECORDS AND DESCRIBED AS FOLLOWS:

A PARCEL OF LAND HAVING AN AREA OF 27.54 ACRES IN LOT 3 IN THE NORTHWEST QUARTER OF SECTION 1, TOWNSHIP 5 NORTH, RANGE 12 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF THE SURVEY OF SAID LAND ON FILE IN THE BUREAU OF LAND MANAGEMENT, BOUNDED ON THE WEST BY THE EAST LINE OF THE WEST 20 ACRES OF SAID LOT 3, GRANTED TO KARL A. CEKADA AND WIFE BY DEED RECORDED JANUARY 9, 1956 AS INSTRUMENT NO. 1956-171 IN BOOK 31907, PAGE 227 OFFICIAL RECORDS OF SAID COUNTY; BOUNDED ON THE SOUTH BY THE SOUTH LINE OF SAID LOT 3 BOUNDED ON THE NORTH IN PART OF THE NORTH LINE OF SAID LOT 3 AND IN PART BY THE SOUTH LINE OF THE PARCEL OF LAND DESCRIBED IN THE DEED TO EDISON SECURITIES COMPANY, RECORDED FEBRUARY 20, 1924 AS INSTRUMENT NO. 1924-1224 IN BOOK 3062, PAGE 82 OFFICIAL RECORDS; AND BOUNDED ON THE EAST IN PART BY THE WEST LINE OF THE LAND DESCRIBED IN THE LAST MENTIONED DEED AND IN PART BY A LINE PARALLEL WITH THE WEST LINE OF SAID LOT 3, SAID PARALLEL LINE TO BE SO LOCATED AS TO INCLUDE EXACTLY 27.54 ACRES IN THE PARCEL HEREIN DESCRIBED:

ALSO EXCEPT THAT PORTION OF SAID LAND LYING SOUTHWESTERLY OF THE NORTHEASTERLY LINE OF THAT CERTAIN STRIP OF LAND, 100 FEET WIDE DESCRIBED IN THE DEED TO THE SOUTHERN PACIFIC COMPANY, RECORDED SEPTEMBER 12, 1956 AS INSTRUMENT NO. 1956-4161 IN BOOK 52269, PAGE 99 OFFICIAL RECORDS.

APN: 3053-007-908

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

THE WESTERLY 100 FEET OF LOT 3 IN THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 5 NORTH, RANGE 12 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE, APRIL 22, 1880.

EXCEPTING THEREFROM ANY PORTION CONTAINED WITHIN THE LINES OF ANY PUBLIC ROAD.

ALSO EXCEPTING THEREFROM THAT PORTION LYING SOUTH OF A STRIP OF LAND, 100 FEET IN WIDTH, LYING EQUALLY 50.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTER LINE:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 3, DISTANT THEREON SOUTH 0° 13' 56" EAST 815.90 FEET FROM THE NORTHWEST CORNER OF SAID LOT 3; THENCE SOUTH 68° 37' 11" EAST 107.56 FEET TO A POINT IN A LINE PARALLEL WITH AND DISTANT 100 FEET EASTERLY, MEASURED AT RIGHT ANGLES, FROM SAID WEST LINE OF LOT 3 IN THE NORTHEAST QUARTER OF SAID SECTION 1.

THE SIDE LINES OF THE ABOVE DESCRIBED 100 FOOT WIDE STRIP OF LAND TERMINATE IN SAID WEST LINE OF LOT 3 AND IN SAID PARALLEL LINE.

NOTE: THIS COMPANY HAS PROVIDED SAID DESCRIPTION AS AN ACCOMMODATION FOR THE PURPOSE OF FACILITATING THIS REPORT. SAID DESCRIPTION IS NOT AN INSURABLE PARCEL PURSUANT TO THE SUBDIVISION MAP ACT OF THE STATE OF CALIFORNIA AND SHOULD NOT BE RELIED UPON TO CONVEY OR ENCUMBER SAID LAND, UNTIL APPROVED BY THE APPROPRIATE GOVERNING AGENCY.

EXHIBIT B

AERIAL MAP FOR
CUP 25-0002 AND SPR 25-0005



EXHIBIT C

GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use and Community Design	LUD-4.6: Require four-sided architecture – all facades of a building are designed with quality, care, and visual interest - in the urban core. Encourage four-sided architecture in other areas.	Yes	The proposed project involves developing a new industrial use that incorporates a combination of materials and architectural features on all sides of the building to ensure that the development is designed with quality, care, and visual interest. The project features stone veneer along the base, embossed stucco panels adding variation and depth, decorative light fixtures, aluminum storefront windows, metal awnings that help create horizontal articulation that breaks up the building mass and wrought iron accents that provide visual interest and a sense of refinement.
Conservation	CON-8.5: Conduct Native American consultation consistent with the applicable regulation when new development is proposed in potentially culturally sensitive areas.	Yes	Outreach and consultation for the project were carried out with Native American tribes in accordance with Assembly Bill (AB) 52 and during the public review of the environmental document. As a result, mitigation measures and language identified through this process have been included in the final environmental document to ensure that any cultural resources discovered will be properly protected. Additionally, the consultation process helps maintain and strengthen the positive relationship with local tribes, promoting long-term collaboration and trust for all future development.

**Justification is based on a review of the plans date stamped 'Received August 28, 2025'.*

EXHIBIT D

DEVELOPMENT STANDARD TABLE

	Standard	Standard Met?	Justification*
Setbacks	Front: 10 feet Street side: 10 feet Interior side: 10 feet; 20 feet when abutting a residential zone. Rear: 10; 20 abutting a residential zone (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The front setback at the closest point from Buildings One and Three is approximately 10 feet from East Avenue S. The setback on the eastern property line at the nearest point is approximately 110 feet from the proposed office building, which abuts existing single-family residences. The setback on the western side of the property is roughly 600 feet from proposed Building Four. The rear setback for proposed Buildings Seven through Eight at the closest point is approximately 338 feet from the southern property line, which abuts the existing railroad tracks and is adjacent to the existing single-family residences.
Building Height	Maximum: 50 feet or four stories Maximum height for accessory structures: 25 feet (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The proposed office building stands about 20 feet tall, with the storage buildings reaching approximately 13 feet, and the trash enclosure approximately eight feet.
Floor Area Ratio (FAR)	Maximum FAR: one (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The project proposes roughly 124,000 square feet of building space on a 390,190 square foot portion of the 598,336 square foot lot, with a FAR of 0.31, which is below the maximum limit.

DEVELOPMENT STANDARD TABLE (CONTINUED)

	Standard	Standard Met?	Justification*
Landscape	A minimum of 10 percent of the entire lot must be landscaped. (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The project site will include 59,109 square feet of landscape, which is 15 percent of the lot.
Off-Street Parking	One space for every 75 storage units, plus three spaces for every 1,000 square feet of office area. A minimum of 5 spaces shall be provided. (PMC Table 17.87.060-1, Required Number of Vehicle Parking Spaces)	Yes	The project will have 695 storage units and a 1,050-square-foot office building. Based on the project's details, the site will require 15 parking spaces. The project will provide 15 spaces, which include 10 standard spaces, one American with Disabilities Act (ADA) space, and four electric vehicle compact spaces.
	Short-term bicycle parking: 10 percent of the required parking. A minimum of two spaces per development. Long-term bicycle parking: Any establishment with 15 or more full-time equivalent employees shall provide long-term bicycle parking for five percent of the required automobile spaces; minimum one space.	Yes	The project will provide two bicycle racks and one bike locker.
Open Space	A minimum of three percent of the lot must be publicly accessible. (PMC Table 17.48.010-1, Development Standards – Commercial/Office Zones)	Yes	The project must provide 3,665 square feet of open space, and will provide 3,755 square feet, exceeding the requirement by approximately 90 square feet.

**Justification is based on a review of the plans date stamped 'Received August 28, 2025'.*

EXHIBIT E

DRAFT

CONDITIONS OF APPROVAL FOR
CONDITIONAL USE PERMIT 25-0002 AND SITE PLAN REVIEW 25-0005

APPROVAL DATE: OCTOBER 9, 2025
EFFECTIVE DATE: OCTOBER 9, 2025
USE INAUGURATION DATE: OCTOBER 21, 2028

These Conditions of Approval apply to Conditional Use Permit 25-0002 and Site Plan Review 25-0005; a request to develop an approximately 13-acre vacant parcel with a ministorage facility consisting of an office building and 14 buildings totaling 124,612 square feet, located at the southwest corner of East Avenue S and Cemetery Road (APNs: 3053-007-046 and -908). Any proposed change of use or expansion of the area, or modifications to the site plan or structures, shall be submitted to the Planning Division, along with the required application and fee, for review. For the purpose of these conditions, the term "applicant" shall also mean the developer, the owner or any successor(s) in interest to the terms of this approval. For the purposes of these conditions, an * indicates that the condition is a mitigation measure.

GENERAL CONDITIONS:

1 Conditional Use Permit 25-0002 and Site Plan Review 25-0005 shall be inaugurated within three years, or it shall automatically expire on October 21, 2028. This approval is based on the plans date stamped, 'Received August 28, 2025'. The CUP and SPR shall be considered inaugurated if applicable grading and/or building permits have been issued, construction is initiated and on-going. Cessation of construction activity for over 180 days will result in lapse of this approval. (P)

2 This approval shall not become effective for any purposes until any appeal period has passed and the applicant has filed at the office of the Planning Division their notarized affidavit stating that they agree to and accept all of the Conditions of Approval as approved by the Reviewing Authority as set forth in Resolution No. PC-2025-020. (P)

3 Should this project not be inaugurated during the initial approval period, an extension of time not to exceed an additional two years for the project may be granted by the Review Authority. Applications for time extensions must be filed a minimum of 90 days prior to the expiration date. Requests for time extensions must be accompanied by a formal application, all required exhibits and plans, and required application fees. (P)

4 Immediately upon approval of this project by the Review Authority, the applicant shall submit to the City a cashier's check or check, payable to Los Angeles County Clerk in the amount of $3,043.75 for the environmental filing fee in compliance with the California Environmental Quality Act (CEQA) Guidelines. Furthermore, if the California Department of Fish and Wildlife (CDFW) determines that this project is

not exempt from a filing fee imposed pursuant to Fish and Wildlife Code Section 711.4 because the project has more than a de Minimis impact on fish and wildlife, then the applicant shall also pay to CDFW any fee and any fine which the Department determines to be owed (P)

5 The applicant shall defend, indemnify, and hold harmless the City its elected and appointed officials, officers, employees, and agents from and against any claim, action, or proceeding against the City, its elected and appointed officials, officers, employees, or agents to attack, set aside, void, or annul any approval or condition of approval of the City concerning this project, including but not limited to any approval or condition of approval of the Review Authority. The City shall promptly notify the applicant of any claim, action, or proceeding concerning the project and the City shall cooperate fully in the defense of the matter. The City reserves the right, at its own option, to choose its own attorney to represent the City, its elected and appointed officials, officers, employees, and agents in the defense of the matter. (P)

6 Pursuant to Government Code Section 66020(a), any party may protest the imposition of any fees, dedications, reservations, or other exactions imposed on this development project. Required fees must be paid in full or arrangements must be made to pay the fee when due. Written notice of payment under protest must be filed with the City at the time of approval or conditional approval of this project or within 90 days after the date of the imposition of the fees, dedications, reservations, or other exactions imposed on this project. (P)

7 The applicant shall be responsible for informing all subcontractors, consultants, engineers, or other business entities providing services related to the project of their responsibilities to comply with all pertinent requirements in the Palmdale Municipal Code (PMC), including the requirement that a business license be obtained by all entities doing business in the City. (P)

8 The use shall meet the standards and shall be developed within the limits established by the PMC as related to emissions of noise, odor, dust, vibration, wastes, fumes, or any public nuisances arising or occurring incidental to the establishment or operation. (P)

9 The applicant shall be responsible for the ongoing maintenance and upkeep of the site, in accordance with the property maintenance requirements as set forth in the PMC Chapter 8.36 (Regulation of Property Maintenance). (P)

10 When exhibits and written Conditions of Approval are inconsistent, the written conditions shall prevail. (P)(E)

11 Off-site public improvements (streets, drainage, sewers, etc.) may be necessary to adequately serve this subdivision/development. If off-site public improvements are required, said improvements shall be located within public easements. This CUP

and SPR approval is subject to the applicant's acceptance of the City requirements for acquisition of said public easements, at the sole cost and expense of the applicant. The City Engineer shall have the authority to withhold approval of any affected improvement plans for failure to satisfy this Condition. (E)

12 The applicant shall participate in such on-site and off-site water service improvements or wells as may be required by the serving water purveyor/master. (E)

13 Coordination with utility companies by the applicant's engineer during design shall be required to ensure that required public improvements are not in conflict with existing or proposed utilities. (E)

14 Transmission or distribution lines less than 50kV and all other utility lines, existing and proposed, shall be installed underground in accordance with the PMC Chapter 12.04 (Underground Utilities). (E)

15 All plans, specifications, studies, reports, calculations, maps, notes, legal documents, and designs, shall be prepared, signed, and stamped (when required) only by those individuals legally authorized to do so. Development plans must be prepared, signed, and stamped by a California Registered Civil Engineer. (E)

16 The applicant shall provide standard street improvements for the half of Cemetery Road across the project frontage. The design shall be based on a 66 foot right-of-way and an acceptable centerline profile extending a minimum of 300 feet beyond the project, where applicable, according to the General Plan designation for that street. These improvements shall consist of: (E)

16.1 Curb and gutter;

16.2 Sidewalk (width = five feet);

16.3 Roadway grading and paving, overlay and or match-up, as directed by City Engineer;

16.4 Traffic control signs and devices as required by the City Engineer;

16.5 Pavement transition from the project boundaries to the satisfaction of the City Engineer;

16.6 Wheelchair ramp(s) at all walk returns;

16.7 Roadway drainage device(s);

16.8 Streetlights;

16.9 Dedicate and construct a four-foot-wide minimum ADA by-pass at all proposed driveway approaches and,

16.10 Replace the existing driveway approach with a full curb and gutter and sidewalk.

17 Sign approval for the project is a separate process requiring the issuance of a sign permit and building permits and shall be subject to review and approval by the Planning Division and Building and Safety Division. (P)(B&S)

18 Left-turn ingress and/or egress at all access locations shall be subject to approval of the City Engineer and may be restricted in the future due to traffic operational or safety concerns. Alternatives to such restrictions may be considered. (TE)

19 Intersection sight distance and stopping sight distance shall be shown to meet the required standards both horizontally and vertically at all vehicular ingress/egress locations, including consideration for walls, landscaping, grading, and vegetation. (TE)

THE FOLLOWING CONDITIONS SHALL BE ADDRESSED WITH THE SUBMITTAL OF GRADING PLANS OR PRIOR TO ISSUANCE OF A GRADING PERMIT:

20 The applicant shall submit the final site plan, floor plans, architectural elevation(s), and photometric lighting plans to the Planning Division for review and approval along with required fee(s) for plan check review through the Accela Citizen Access portal. Such plans shall be fully dimensioned and in substantial conformance with those approved by the Review Authority. Plans shall address the following: (P)(TE)(BS)(PS)

Screening

20.1 Utility and transformer boxes, backflow devices, and other similar equipment facilities shall be placed underground, unless otherwise specified and approved. Screening shall be compatible with main structures and include landscaping where appropriate. All electrical switchgear shall be located within an electrical or utility room within the building which may be accessible from an exterior door or doors. Exterior surface mounted switchgear shall be prohibited.

20.2 The location of all devices required by the water district shall be shown on the site plan. All such devices shall be screened with a low-profile wall to match the building, or other method as approved by the Planning Manager.

20.3 The location and method of screening for all roof-mounted equipment shall be demonstrated, including but not limited to air conditioning and heating units, plumbing flues and vents. All equipment shall be screened from public view. All roof-mounted equipment shall be screened from view by parapet walls or other architectural means. The applicant shall demonstrate to the satisfaction of the Planning Manager that no roof-mounted equipment will be visible from the public right-of-way. A line of-sight drawing showing full screening of the roof-mounted equipment by the building parapets shall be submitted to the satisfaction of the Planning Manager.

20.4 Exterior ladders providing roof access and exterior downspouts shall be prohibited. Access to the roof and all gutters/downspouts shall be concealed within buildings.

20.5 Any proposed bollards shall include a decorative cover consistent with the architectural style of the associated building. Safety yellow colored pipe style bollards shall only be permitted in areas hidden from the public right-of-way.

20.6 The location and enclosure details of refuse containment areas are to be in compliance with PMC Chapter 17.85.020 (Refuse and Recycling). Refuse and recycling enclosures shall be screened by a six-foot decorative masonry block wall/material compatible with the main structure(s). A self-closing gate constructed of solid metal material painted to match the enclosure and a solid decorative roof treatment shall be provided. Refuse enclosures shall be designed to meet or exceed the minimum capacity requirements of the development as determined by PMC Chapter 15.30 (CALGreen Recycling Requirements), PMC Chapter 17.85 (Utilities and Services), and waste hauler. Enclosures shall be located to provide unobstructed 24-hour access to refuse collection vehicles.

Lighting

20.7 The photometric lighting plan for parking areas shall comply with applicable standards contained in the PMC Section 17.86.030 (Outdoor Lighting).

20.8 All exterior lighting shall be decorative and appropriate for the architecture of the associated building. Light fixtures shall comply with PMC Section 17.86.030 (Outdoor Lighting) and shall not project above the fascia or roof line of the building.

20.9 Buildings shall have exterior security lighting fixtures or wall packs installed that are protected by a weather and vandal-resistant covering. Security lighting must follow the specifications of the PMC Section 17.86.030 (Outdoor Lighting).

20.10 Parking lot lighting shall comply with applicable standards contained in the PMC and shall not be obstructed by trees or other landscaping.

20.11 Pedestrian walkways shall have sufficient decorative pathway lighting.

20.12 Exterior door, perimeter, canopy, and parking area lights shall be controlled by photocell and shall be left on during hours of darkness or diminished lighting.

20.13 All parking lots, aisles, and grounds contiguous to buildings shall be provided with sufficient lighting to provide adequate illumination for the safety and security of vehicles and pedestrians using the site during the hours of darkness or diminished lighting. Such lighting shall be equipped with vandal and weather-resistant covers/lenses and comply with specifications of the PMC.

Architectural Design

20.14 Architectural elevations shall note proposed materials, colors, height, dimensions, windows, roof, and treatments for all four sides of proposed structure(s).

20.15 If glass skylights are installed on the roof, they shall be provided with rated burglary resistant glass or glass like acrylic material. Iron bars of at least one-half inch round or by one-fourth inch flat steel material spaced no more than five inches apart or a steel grill of at least one-eighth inch material or two-inch mesh, shall be securely fastened over the skylight to prevent entry.

20.16 Iron bars or steel grills, with the same specifications as for skylights, shall be used on air ducts or air vent openings exceeding eight inches by 12 inches located on the roof or exterior walls to prohibit access by unauthorized persons.

Circulation/Parking Safety and Loading Areas

20.17 The site plan shall identify the interior traffic flow pattern.

20.18 The site plan shall indicate the alignment of all adjacent streets, turn lanes, medians, bus turnouts, the location of project entrance(s), drive aisles, traffic control devices, sidewalks, landscape setbacks, and the location of other infrastructure.

20.19 The site plan shall indicate the location and method of operation of any vehicle restricting gates. The gates shall be subject to the approval of the City Engineer and the Los Angeles County Fire Department. Where

utilized, a portion of the guest spaces shall be accessible without passing through a security entrance and residents shall not be required to pay additional costs to receive devices to open a security gate.

20.20 The site plan shall note the location and dimensions for all assigned, guest, bicycle, and ADA standard features for the site, and shall be in compliance with the latest version of Title 24 of the California Code of Regulations. A minimum of 15 parking spaces, of which a maximum of 25 percent may be compact spaces, shall be provided on the site. A minimum of two bicycle spaces and one bike locker shall be provided on the site.

20.21 All walkways perpendicular to parking stalls shall be a minimum of seven feet in width.

20.22 The site plan shall clearly indicate no parking areas and fire lanes and indicate how such areas will be designated on the site.

20.23 The site plan shall provide a Building Code Analysis showing the occupancy of each building, the allowable area of the buildings, and the proposed areas of the building.

21 The applicant must coordinate with Antelope Valley Transit Authority (AVTA) regarding existing transit service along the project frontage and provide the determination of required accommodations (e.g. bus shelter and pull-out facility) to the City including any necessary right-of-way. (E)

Subdivision/Development Landscaping Requirements

22 The landscape plans shall comply with all provisions of PMC Chapter 14.05 (Water Efficient Landscape and City Landscaping Standards). (E)

23 The applicant shall submit landscape and irrigation plans for all project landscaping improvements to the Engineering Division for review and approval, through the Accela Citizen Access Portal. The applicant is responsible to pay all plan review fees for the improvements reflected on the landscape plans prior to the plans being reviewed. All landscape permit and inspection fees shall be paid prior to the issuance of a landscape permit. These plans shall include, but not be limited to, the following items: (P)(E)(PS)

23.1 Trees in the parkways shall not exceed a spacing approved by the City Engineer for the species proposed.

23.2 Where trees are incorporated into the landscape design of common or open areas, all trees shall be a minimum one-inch caliper in a 15-gallon or larger container size. Fifty percent of the trees shall be a minimum two-inch caliper in a 24-inch box size or larger container. Twenty percent of the trees shall

be a minimum two-and-a-half-inch caliper in a 36-inch box size or larger container. The trunk caliper shall be measured four and a half feet above the root crown. Any Washingtonia spp. or similar palm trees proposed shall have a minimum of 12 feet of brown trunk height.

23.3 All shrubs shall be a minimum five-gallon size. If one-gallon plants are proposed to be used as a ground cover (i.e., with drip irrigation), such planting shall be supplemented with additional five-gallon plant material to provide variation in texture and height.

23.4 All plant material shall be indicated on the landscape plans with symbols that are 75 percent of a diameter of the mature size of the plant. When determining mature plant size, the lower end of the size range shall be used (for example, if a plant is indicated to have a mature size of six to -ten feet, a six-foot diameter shall be used when graphically indicating the plant material on the plan).

23.5 All landscape areas shall be enclosed by a six inch raised concrete curb. Differences in planting areas or landscaping ground cover materials shall be separated by approved landscape edging or concrete mow strips.

23.6 All slopes steeper than 3:1 shall be landscaped for erosion control per the Engineering Design Standards.

23.7 Backflow devices shall be screened with a solid Le Meur cover or equivalent and landscaping.

23.8 All plant material sizes and calipers shall conform to the American Standard for Nursery Stock, ANSI (Z60.1) 2014.

23.9 Landscaping shall be provided within parking areas so that at least 15 percent of the surface area of the parking lot is landscaped (excluding perimeter and front setback landscaping). Landscaping shall be dispersed throughout the parking lot to provide shade throughout the lot.

23.10 A minimum of one canopy tree for every four parking stalls (or eight parking stalls when two rows of four share a common frontage) shall be provided.

23.11 A minimum 50 percent of the parking lot trees shall be a minimum 24-inch box size and with a minimum two-inch caliper. Twenty percent of the trees shall be a minimum two and a half inch caliper in a 36-inch box size or larger container.

23.12 Landscape planters shall be a minimum of six feet in width (inside dimension), except that tree wells located between parking rows and

spaces may be a minimum of four feet in width (inside dimension). All landscaping and planting within paved areas shall be contained within raised planters surrounded by six inch concrete curbs. Tree areas shall be planted a minimum of five feet from walls, walkways, or buildings. To protect the hardscape and encourage deep root development, root barriers shall be installed during planting operations.

23.13 Wheel stops or curbs shall be placed a minimum of 30 inches away from the trunk of any tree.

23.14 Landscape islands, a minimum 10 feet in width with minimum aisle turning radii of 10 feet shall be provided at the end of all parking rows, except where parking rows directly abut buildings, sidewalks, wall, or similar features.

23.15 Parking rows containing 15 or more spaces shall contain one landscape island within the interior of the parking row for each 15 parking spaces in addition to the required row end landscape islands.

23.16 Landscape islands shall not extend closer than three feet from the aisle end of the adjacent parking space(s).

23.17 Landscape islands shall be designed with a six inch curb and a minimum one-foot paved area where abutting the side of parking stalls. Paved areas of landscape islands shall not be counted toward fulfilling landscape requirements.

23.18 All landscape islands, which are located at the front of head-in parking spaces, shall be designed with a minimum two and a half foot area free from vegetation where the front of a vehicle may overhang the island. The overhang area shall be surfaced with non-living landscape material such as gravel or rock. Two and a half feet of the overhang area may be counted as part of the overall parking space length.

23.19 Parking areas located adjacent to Cemetery Road shall contain a low-profile wall, berm, or lowered parking area, at least three feet in height, designed to screen vehicles from the adjacent street.

23.20 Landscaping located within the vehicle sight distance triangle shall be designed and maintained in a manner that does not block the view at driveways and adjacent intersections. Landscaping shall not exceed three feet in height within the sight distance triangle.

23.21 On-site landscaping should not provide hiding places. Limit surrounding landscaping to low-growth plants no higher than two feet.

23.22 Trees that will not block area surveillance or light distribution shall be utilized. Tree canopies shall be no lower than six feet.

23.23 Landscaping located beneath a window shall be no taller than the windowsill and maintained at this standard. Barrier plants shall be used below and to the sides of windows, when feasible.

24 Slope erosion control and street trees shall be installed to the satisfaction of the City Engineer. (E)

25 If western Joshua trees (*Yucca Brevifolia*) are present on the site and impacted by the proposed project, the applicant shall comply with all Joshua Tree requirements as required by the California Department of Fish and Wildlife. (P)

Project Grading/Wall/Fences Requirements

26 The applicant shall submit a current Title Report for the subject property, dated within six months of the date for civil plan submittal. This submittal shall include a declaration of all easement of record and copies of all easements/declaration instruments referenced within the report. (E)

27 Grading and wall plans shall be submitted for review and approval to the Engineering Division, through the Accela Citizen Access Portal. Approval by both the City Engineer and Planning Manager shall be obtained prior to the issuance of a Grading Permit. Final grading and wall concepts shall be in substantial conformance with those shown on the approved site plan, conceptual grading plan, and in accordance with the following: (P)(E)(B&S)

27.1 Northerly Boundary - The applicant shall provide a decorative wall up to twelve feet max.

27.2 Southerly Boundary - The applicant shall provide a six-foot-high non-climbing security fencing adjacent to the existing railroad tracks.

27.3 Easterly Boundary - The applicant shall provide an eight-foot-high decorative wall or fence constructed of wrought iron.

27.4 Westerly Boundary - The applicant shall provide a 12-foot-high decorative wall and a six-foot-high non-climbing security fencing.

27.5 If a wall is not proposed, where commercial or industrial property share a property line with a commercially or industrially designated property, a minimum of a six-inch wide concrete mow strip shall be provided.

27.6 All corner lots shall contain a decorative masonry block wall on the street side of the lot.

27.7 All interior property line walls, if proposed, shall be constructed of masonry, wrought iron, durable vinyl, or other similar durable materials as approved by the Planning Manager.

27.8 Proposed retaining walls or engineered free standing walls shall be submitted to Building and Safety Division for review and approval. Said installed wall types shall require a building permit prior to construction.

28 In all cases where a required wall is to be located adjacent to the top of a 2:1 or greater slope the wall shall be set back a minimum two and a half feet from the crest of that slope on the level side. All slope and wall configurations shall meet the setback requirements of the City Building Code. (P)(E)(B&S)

29 The exterior face and footings of all project perimeter walls shall be located no more than two inches from the property line on the subject property except where appropriate off-site easements have been obtained. (P)(E)

30 Double boundary walls between developments are prohibited except as approved by the Planning Manager and City Engineer. (P)(E)

31 The final grading plan shall indicate that all rear and interior side yard slopes are up slopes to property lines as indicated on the tentative map and approved grading plans. (P)(E)

32 The applicant shall incorporate into the project design all existing easements within the project boundaries or obtain abandonment of said easements from the affected easement holder(s). If this requirement cannot be accomplished, the project shall be redesigned accordingly to the satisfaction of the Planning Manager, City Engineer, or the Review Authority. (P)(E)

33 The applicant shall obtain off-site easements from the affected property owner(s) for all proposed off-site improvements (i.e., slopes and related grading activities, street improvements, walls drainage, etc.). If said easements cannot be obtained, the project shall be redesigned to incorporate these improvements entirely within the project boundary to the satisfaction of the Planning Manager or the Review Authority. The City Engineer shall have the right to withhold approval of the affected improvement plans for failure to satisfy this condition. (P)(E)

34 All manufactured slopes on or adjacent to project boundaries shall meet the setback requirements of the current City Building Code. A recorded off-site Slope Acceptance Letter from all affected property owners shall be submitted to the City Engineer prior to approval of grading plans for any off-site slope not meeting these

requirements. In addition, all slopes are required to meet City Standards with respect to erosion control. (E)

35 The applicant shall submit a temporary erosion control and sedimentation plan for approval by the City Engineer prior to grading plan approval and grading permit issuance when grading activity will occur between October 1st and April 15th. Said erosion control plan shall provide appropriate dust control measures per City and Antelope Valley Air Quality Management District (AVAQMD) Standards to minimize nuisance from dust at all times. (E)

35.1 The applicant shall submit a dust control plan to AVAQMD for review and shall obtain clearance from said agency prior to issuance of a City grading permit. The applicant shall provide proof of compliance with all AVAQMD requirements and applicable fees. (E)

36 This project shall be designed and constructed in accordance with the stormwater pollution control requirements of the Lahontan Region of the California Regional Water Quality Control Board. Prior to the issuance of a grading permit, the applicant shall file a Notice of Intent with the Lahontan Region of the California Regional Water Quality Control Board to comply with the applicable National Pollution Discharge Elimination System (NPDES) requirements. The applicant shall submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the City Engineer. (E)

37 A drainage acceptance letter from each affected property owner shall be submitted to the City Engineer when the pre-developed storm runoff onto any adjacent property is increased, concentrated, diverted, or changed in any form as required by State law. (E)

38 A final hydrology study and hydraulics report shall be prepared for this project and approved by the City Engineer. The hydrology study and hydraulics report shall address on-site and off-site conditions and impacts, based on the City of Palmdale adopted Storm Water Management Policy. (E)

39 Based on the findings of the final hydrology and hydraulics report, the applicant shall be responsible for any and all improvements imposed on the project by the Engineering Department to the satisfaction of the City Engineer. (E)

40 All nuisance water generated from this development shall be mitigated on-site in accordance with City's Design Standards requirements. (E)

41 An on-site storm drainage basin (detention) shall be required for this development as directed by the City Engineer. Such basin(s) shall be granted in easement to the City (for emergency maintenance only), but regular maintenance shall be the responsibility of the applicant. (E)

42 This development shall be designed in accordance with the City's Floodplain Management Ordinance, Master Plan of Drainage, and related criteria within the Engineering Design Standards. (E)

43 The applicant shall submit geotechnical reports, prepared in accordance with the City's Engineering Design Standards, to the City Engineer for review and approval prior to the approval of a grading permit. (E)

44 The applicant shall enter into a Development Improvement Agreement and post securities for grading operations with the City and pay all applicable fees. Grading activities extending beyond phase boundaries shall require approval of the City Engineer and Planning Manager. Such grading activity shall be reflected in the Development Improvement Agreement of the phase which request such grading. (E)

45 Grading shall be designated "Engineering Grading" per City Building Code and shall be done in accordance with an approved grading plan. All grading work shall be performed in one continuous operation, or in phases as approved by the Planning Manager and the City Engineer. (E)

46 *The applicant will be required to prepare either a Lot Line Adjustment or a Voluntary Lot Merger to reconcile the discrepancy between the existing property line and the new right-of-way on Cemetery Road. (E)

47 *The applicant shall be required to dedicate the frontage of Cemetery Road as a public street to the satisfaction of the City Engineer. (E)

48 The applicant shall submit a fault rupture study prepared in accordance with the City's Engineering Design Standards, to the City Engineer for review and approval prior to the approval of a grading permit. The applicant will be responsible for the cost of professional peer reviews of both the geotechnical and fault studies. (E)

49 A sanitary sewer-area study for this project shall be prepared and submitted to the City Engineer for review and approval. A public sanitary sewer system is to be dedicated to the City, The system shall be designed and installed as the only method of sewage disposal for this subdivision. Coordination and clearance must be obtained from Los Angeles County Sanitation District prior to issuance of a sewer permit. (E)

50 *Prior to ground disturbing activities, a preconstruction survey for bumble bees shall be conducted. If any bumble bees are detected, a focused survey for Crotch's bumble bee will be conducted, or an Incidental Take Permit (ITP) will be applied for. If any bumble bees are detected, consultation with CDFW will be conducted. (P)

51 *Removal of vegetation shall occur outside the breeding season for migratory birds. Breeding generally lasts from February to July, but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests or 50 feet (15 m) around smaller active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances. (P)

52 *Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey shall be accomplished no more than 14 days prior to ground disturbance activities to ensure that no owls have moved into the study site (CDFG 2012). If burrowing owls are discovered during the preconstruction surveys, consultation with CDFW will be required. (P)

53 *Prior to development, the project proponent shall translocate short joint beavertail cactus into peripheral areas not prone to disturbance from construction activities. (P)

54 *Worker Environmental Awareness Program (WEAP) Training: Prior to the start of construction, a qualified cultural or tribal monitor shall be retained by the project applicant and shall conduct WEAP training for construction personnel regarding the aspects of Tribal/Cultural Resources to include procedures for notifying the Fernandeño Tataviam Band of Mission Indians should Tribal/Cultural Resources be discovered by construction personnel. (P)

55 *Full-Time Monitoring: The project applicant shall retain a qualified Cultural or Tribal Monitor to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity during the initial pass (the first disturbance of all soil to the total depth of which it will be disturbed). If Cultural Resources (any not already noted in Cultural Report as not significant) are not encountered after observing the initial pass of all ground-disturbance, additional monitoring is not required. If Cultural Resources (any not already noted in Cultural Report as not significant) are encountered during the initial pass, Monitor(s) shall observe all remaining ground disturbing activities, no matter the depth or frequency to which the soil was previously observed, until all ground-disturbing activities are complete. (P)

56 *Inadvertent Discovery: If cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease, and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant shall assess the find. Work on the portions of the project outside of the buffered area may continue during this assessment period. The Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted about any pre-contact and/or post-contact finds and be provided information after the

archaeologist makes their initial assessment of the nature of the find, to provide Tribal input with regards to significance and treatment. The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities. (P)

57 *Treatment and Disposition Plan: A Treatment and Disposition Plan (TDP) shall be established, in consultation with the Fernandeño Tataviam Band of Mission Indians, in the event of inadvertent discover is of cultural resources are found. The TDP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin. (P)

58 *Consistent with the “geotechnical and fault hazard reports findings” the design of the leasing office foundation shall incorporate seismic safety measures exceeding California Building Code Standards. The design shall address strong ground shaking and potential aseismic deformation related to the San Andres Fault Zone. (P)

59 *In the event that paleontological resources are encountered, all work shall stop at the discovery site. At that time, a qualified paleontological monitor shall be consulted to evaluate the find. Construction activities shall be temporarily redirected to another location on-site (minimum of 100 feet from the location of the find) so that the monitor can recover any specimens encountered during excavation. All fossils/specimens collected during this work shall be deposited in a City of Palmdale-approved museum repository for curation and storage. (P)

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO OR IN CONJUNCTION WITH RECORDATION OF THE FINAL MAP OR ANY PHASE THEREOF:

60 The applicant shall provide written evidence to the Planning and Engineering Divisions that approval has been obtained from the Los Angeles County Fire Department. (F)(P)(E)

61 The applicant shall enter into a Development Improvement Agreement and post securities with the City and pay all applicable fees at the time of subdivision approval for those improvements necessary to support this subdivision, as determined by the City Engineer. If any transfer of ownership/title of land within this proposed development takes place prior to release of all agreements and securities, the new applicant shall be required to enter into a separate Development Improvement Agreement with the City and pay all applicable fees. Agreement and securities with the prior applicant will be released after the agreement and securities with the new applicant take effect. (E)

62 Access rights shall be granted to the City for the purpose of allowing access over private drives within the development for all City vehicles, including police, fire, and other emergency vehicles. The document(s) recording this access shall be prepared by the applicant for review and approval by the City Engineer. (E)

63 A preliminary title report and subdivision guarantee shall be submitted showing all fee interest holders, all interest holders whose interest could ripen into a fee, all trust deeds, together with the names of the trustee and all easement holders. (E)

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO OR IN CONJUNCTION WITH ISSUANCE OF BUILDING PERMITS:

64 The applicant shall pay all fees at the time fees are determined payable and comply with all requirements of the applicable Federal, State, and local agencies including, but not limited to, the following:(P)(E)(F)(B&S)

Antelope Valley Air Quality Management District
Antelope Valley Union High School District
Los Angeles County Consolidated Fire District
Los Angeles County Department of Health Services
Palmdale School District
Palmdale Water District
Westside Union School District
Regional Water Resources Control Board

The duty of inquiry as to such requirements shall be upon the applicant. Receipt and proof of payment shall be provided to the Building and Safety Division prior to issuance of any building permits.

67 The applicant shall submit detailed plans for all building construction and obtain plan approval from all agencies/departments as required. (B&S)(F)(P)

68 All agency approvals for permit issuance shall be on file with the Building and Safety Division. (B&S)(F)

69 The applicant shall provide a striping and signing plan for all roadway improvements, subject to the approval of the City Engineer as part of the approval of the street improvement plans. (TE)

70 The applicant shall comply with all applicable development regulations and requirements prior to the issuance of any building permits on the subject property. (P)(E)(B&S)

71 The project shall comply with all requirements of PMC Chapter 13.05 (Sewer Collection Service Charges). (E)

72 Water mains shall be designed to meet or exceed the total flow requirements determined from domestic flow and fire flow for this development. Required domestic flow shall be calculated by the applicant's engineer. Fire flow shall be determined by the Los Angeles County Fire Department. (E)

73 The plans and specifications for the water delivery system shall be submitted for approval to the responsible water purveyor prior to final approval of this development by the City Engineer. In all cases where water system facilities have not been installed prior to filing this development with the City Engineer for final approval, the applicant shall submit a Labor and Materials bond in addition to one of the following: (E)

73.1 An Agreement and Faithful Performance bond in the amount approved by the City Engineer to be sufficient to guarantee installation of the improvements; or

73.2 An Agreement and evidence satisfactory to the City Engineer showing that the applicant has entered into a contract with the serving water utility for establishing a security guaranteeing payment for the installation of the improvements.

74 Street lighting plans shall be reviewed and approved separate of the approval of the street improvement plans. Street lighting plans and electrical plans shall be submitted to the City Engineer for review and approval and to Southern California Edison (SCE) for reference. Electrical plans shall be prepared by a Registered California Electrical Engineer. (E)

75 The applicant shall petition the City to annex to the City's Community Facilities District for the maintenance of streetlights and appurtenant facilities. Such annexation shall be completed at the sole cost and expense of the applicant, and the applicant's deposit of the estimated costs thereof shall be required prior to such actions by the City. If the City is unsuccessful in the annexation to the Community Facilities District, the Developer shall propose and receive approval for an alternative maintenance entity. The developer shall remain solely responsible for the maintenance of the streetlights and appurtenant facilities until such time that an alternative maintenance entity assumes the maintenance. All costs associated with the formation of an alternative maintenance entity shall be paid by the Developer. (E)

76 Easements for all on-site utilities, public and private, shall be granted and recorded for maintenance and upkeep. Such easements may include, but are not limited to, sewer, water, electric, gas, telephone, storm drains, detention basins, and landscaping. (E)

77 All sanitary sewer mains to be dedicated to the City area required to submit as-built plans, and have TV video inspection prior to final acceptance for maintenance. (E)

78 At completion of rough grading, the applicant shall submit appropriate reports and statements (Certifications) to the City Engineer, for review and approval, prior to release of rough grading. The City of Palmdale Building Code requires these reports from the field or supervising grading engineer, the soils engineer, the geologist, and the grading contractor. (E)(B&S)

79 The applicant shall obtain addresses by the Building and Safety Division upon application for a building permit. (E)(B&S)

80 The applicant shall dedicate the right to restrict vehicle access along East Avenue S. (TE)

81 All project driveways shall have a clear throat distance to accommodate the design for vehicle access without interfering with circulation aisles. (TE)

82 All driveways shall have a minimum radius of 15 feet. (TE)

83 The applicant shall be required to dedicate the full 66 feet of right-of-way and provide standard street improvements on Cemetery Road along the project frontage. (TE)

Impact Fees

84 In accordance with the PMC Section 15.01.020 (Public Art in Private and Municipal Development Project Contribution Requirements) for projects with a building permit valuation of $500,000 or more, the applicant shall devote an amount not less than one-half percent for the acquisition and installation of public art on the development site. This amount shall be the program allocation with a cap of $250,000 allocated for single construction projects. This contribution requirement shall apply to mixed-use and residential projects that create five or more units. All nonprofit and affordable housing developments and structures shall be exempt from this requirement. In lieu of public art on the development site, the applicant may place a public art in-lieu contribution in an amount equal to the program allocation prior to the issuance of a building permit for the project on the development site. (PA)

85 The public art that may be used to satisfy the requirements shall comply with applicable standards contained in PMC Section 15.01.040 (Public Art in Private and Municipal Development Project Compliance Standards). (PA)

86 The applicant has the option of proposing public art incorporating on-site artwork into the development or may elect to deposit the full amount in the public art fund as required under PMC Section 15.01.020 (Public Art in Private and Municipal Development Project Contribution Requirements). In any event, ten percent of the amount required under PMC Section 15.01.20 (Public Art in Private and Municipal

Development Project Contribution Requirements) shall be deposited into the public art fund. (PA)

87 In conjunction with an application for a building permit, the applicant shall submit to the City a concept public art project plan for on-site artwork, and follow the specifications of PMC Section 15.01.080 (Application and Approval Procedures for Public Art). The City's Public Art Guidelines for Developers will be furnished upon request. (PA)

88 This development is located within the Pearland Natural Drainage Area/Basin as defined by the City's Master Drainage Plan and approved by Resolution 89-75. The applicant shall comply with the provisions of PMC Chapter 3.38 (Drainage Fee Requirements). The applicant shall pay the applicable drainage fees to the Engineering Division in the amount that is in effect at the time such fees are to be collected. Payment of drainage fees for all areas within the map boundaries which are disturbed by grading are due upon submittal of rough grade certification, prior to building permit issuance. (E)

89 The applicant shall comply with the provisions of PMC Chapter 3.40 (Traffic Impact Fee Requirements). The applicant shall pay the applicable traffic impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected pursuant to the provisions of PMC Chapter 3.40(Traffic Impact Fee Requirements). (TE)

90 The applicant shall comply with the provisions of PMC Chapter 3.45 (Public Facility Development Impact Fee Requirements). The applicant shall pay the applicable public facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

91 The applicant shall comply with the provisions of PMC Chapter 3.42 (Fire Facility Impact Fee Requirements). The applicant shall pay the applicable fire facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

92 The applicant shall comply with the provisions of PMC Chapter 3.45 (Public Facility Development Impact Fee Requirements). The applicant shall pay the applicable public facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

THE FOLLOWING CONDITIONS SHALL BE MET WHILE CONSTRUCTION ACTIVITIES ARE ON-GOING:

93 Adequate sanitary disposal facilities shall be required on-site during all phases of construction. (E)(B&S)

94 From the beginning of the first ground disturbing activity until on 100 percent of the lots for the entire development have been released for occupancy, the following are required of the applicant: 1) have erosion control measures, per an approved Erosion Control and Sedimentation Plan, in place during the rainy season (October 1 - April 15); 2) provide appropriate dust control measures, per City Standards, to minimize nuisance from dust at all times. (E)(B&S)

95 The applicant shall provide solid waste disposal containers on-site during all phases of construction. The accumulation of refuse and debris which may constitute an unsightly/unsafe public nuisance to surrounding properties is not permitted. (P)

96 Grading shall be done in accordance with a grading plan prepared by the applicant's Registered Civil Engineer. All grading work shall be performed in one continuous operation or in phases as approved by the Planning Manager and the City Engineer. (P)(E)

97 In the event of an unforeseen encounter of subsurface materials suspected to be of an archaeological or paleontological nature, all grading or excavation shall cease in the immediate area, and the find left untouched until a qualified professional archaeologist or paleontologist, whichever is appropriate, is contacted and called in to evaluate the find and make recommendations as to disposition, mitigation, and/or salvage. The applicant shall be liable for costs associated with the professional investigation. (P)

98 The City Engineer shall be notified a minimum of 60 days prior to anticipated opening of any street to public travel. (TE)(E)

99 All existing utilities interfering with the new construction shall be relocated at the developer's expense. (E)

100 The applicant shall comply with all City and State guidelines and requirements for traffic control during construction and prior to final project acceptance. (TE)

101 Installation of signing and striping shall be provided for all roadway improvements. (TE)

102 Signal modifications at the intersection(s) of East Avenue S and Cemetery Road shall be designed and constructed. Plans shall be subject to the approval of the City Engineer. (TE)(E)

THE FOLLOWING CONDITIONS SHALL BE MET PRIOR TO OCCUPANCY OF THIS PROJECT:

103 The applicant shall contact the Planning Division a minimum of two weeks prior to final inspection by the Building and Safety Division to make arrangements for a final walk-through inspection by the Planning Division. (P)

104 All public improvements shall be completed and accepted by the City. (E)

105 At completion of final grading, the applicant shall submit appropriate statements (Certifications) to the City Engineer prior to release of final grading. The City requires that these be submitted by the field or supervising grading engineer, and/or the landscape architect. (E)

106 Any broken, damaged or non-compliance curb, gutter, sidewalk, and pavement on streets within or along the frontage of the development shall be repaired. Any existing driveways that are not to be used shall be replaced with standard curb, gutter, and sidewalk. (E)

107 The applicant shall improve any private street(s) or access drives for this project according to the plans approved by the City Engineer. (E)

108 The project shall be constructed in accordance with all the approved plans, including but not limited to site plans, grading plans, wall plans, landscape/irrigation plans, lighting plans, and elevations. (P)(E)

109 Street name signs shall be purchased and installed in accordance with City. The number and location of signs will be as directed by the City Engineer. (TE)

110 Appropriate bicycle parking accommodations shall be provided as required within PMC Section 17.87.210. Please note that long-term bicycle parking and short-term bicycle parking differentiate in best accommodations (e.g. bike lockers versus inverted-u). (TE)(P)

111 Street name signs shall be purchased and installed in accordance with City of Palmdale standards. The number and location of signs will be as directed by the City Engineer. (TE)(E)

112 Payment of the public art in-lieu contribution or installation of the public art in accordance with the final public art project plan submitted shall be demonstrated by the applicant in compliance with the PMC Section 15.01.090 (Public Art in Private Development). (PA)

THE FOLLOWING CONDITIONS SHALL BE MET AS AN ON-GOING ELEMENT OF THE PROJECT:

113 A valid business license obtained from HdL Business Support Center shall be maintained while the use is in operation. (P)

114 The operation of the business shall comply fully with all the rules and regulations of the PMC. Failure to comply with the PMC shall be subject to PMC Section 1.12.010 (Misdemeanors – Infractions – Administrative Citations), which specifies the

violation is a misdemeanor, and subject to penalties specified in PMC Section 1.12.020 (Punishment). (P)

115 If problems arise as a result of business practices or operations that are detrimental to public health, safety, or welfare, the Review Authority may review the CUP and, if after review, the Review Authority deems that there is sufficient evidence that the business practices or operations are detrimental to public health, safety, or welfare then the Review Authority, subsequent to a public hearing, may revoke the CUP pursuant to PMC Section 17.22.070 (Post Decision Procedures). (P)

116 Pursuant to PMC Section 17.22.050 (Approval Requirements and Conditions), the CUP approval shall apply only to the property for which the application was made and shall apply to that property as long as the use for which approval was granted is in effect, regardless of changes in ownership. (P)

117 Revisions or modifications to an approved CUP such as, but not limited to, expansions or intensification of the use, may be requested by the applicant. Such requests shall be processed through the proper application, as determined by the Review Authority. (P)

118 All parking facilities shall be maintained in good condition in accordance with the provisions of PMC Chapter 17.87 (Off-Street Parking and Loading). The maintenance thereof may include, but shall not be limited to, the repaving, oiling, and striping of a parking area and the repair, restoration and/or replacement of any parking area design features when deemed necessary by the Planning Manager to ensure the health, safety, and welfare of the general public. (P)(E)

119 The applicant shall be responsible for the establishment, maintenance, and upkeep of the landscape area and all landscape vegetation. All landscape vegetation shall be maintained in a manner to ensure proper growth. Trees and other landscape vegetation shall be pruned as needed to ensure proper growth and give a maintained appearance. Trees shall not be “topped” or pruned excessively. (P)

120 All owners, future owners, heirs, or assigns of the property shall be required to maintain all private drainage facilities in good working condition, as determined by the City Engineer, and shall be responsible for any damages associated with the private drainage facilities and for any costs incurred by the City for emergency maintenance, repairs, and any other efforts to keep the private drainage facilities in good working condition and/or to insure the health, safety, and welfare of the general public. The developer shall record a covenant upon the property regarding said maintenance. (E)

121 The applicant shall fully cooperate with any adjacent property development to provide improved site access in the future including, but not limited to, the closure, removal, sharing, or relocation of project parking, landscaping, driveways, and drive-aisles. (TE)

122 The installation of speed bumps or humps as a means to control speed on the site shall be prohibited as required by PMC Section 10.04.100 (Regulation of Speed Bumps on Private Streets, Easements and Fire Lanes). If any of these devices are installed while this ordinance is in effect, the owner shall be required to remove these devices at their own expense. (TE)

123 The premises, while open or closed for business after dark, shall be sufficiently lighted by the use of interior night lights. (PS)

124 Storage rooms, roof access doors, maintenance, mechanical, electrical, and other room doors that contain property that may be susceptible to theft, shall be covered by a silent intrusion alarm system. These systems may terminate at the front desk. (PS)

125 Establishments shall be required to register in the City of Palmdale Business Watch Program and receive training through the Public Safety Department. To schedule enrollment and training, contact Public Safety at (661) 267-5170 / publicsafety@cityofpalmdaleca.gov. (PS)

126 Window signage shall be limited to no more than 25 percent coverage of window area provided visibility into the building is maintained as stated in PMC Section 17.88.070 (Exemptions to Sign Permit Requirements). (PS)

127 The premises shall always be properly maintained and kept in a neat and orderly condition. This includes, but is not limited to, building and parking lot lighting and trash and debris removal as stated in PMC Section 8.36.020 (Findings and Purpose. (PS)

128 Graffiti shall be removed by the owner within 72 hours of discovery as specified within PMC Section 9.30.080 (Graffiti Removal from Private Property by Owner). Consider graffiti mitigation measures such as vining/climbing and barrier plants along block walls. (PS)

129 Trash enclosures shall be kept locked when not in use to discourage illegal dumping and other improper uses. (PS)

130 Outside electrical outlets and water spigots/hose bibs shall be secured to prevent unauthorized use. (PS)

131 Outside hinges on all exterior doors shall be provided with non-removable pins when pin-type hinges are used or shall be provided with hinge studs, to prevent removal of doors. (PS)

132 Roll-up doors and individual storage space doors shall be equipped with locking hardware including metal flanges on the lock bolts to protect the padlock shackle from being cut. (PS)

133 Overhead roll-up doors shall be so secured on the inside that the lock cannot be defeated from the outside and shall also be secured with a cylinder lock or padlock from the inside. (PS)

134 Primary building address numbers shall be located on the building side where the main entrance is located. The development shall display an additional set of numbers on the secondary frontage (street side) when the building does not front on the street of address. Numbers shall be no less than eight inches in height, if located less than 100 feet from the centerline of the addressed street or 12-inches in height if placed further than 100 feet from the centerline of the addressed street. Numbers shall be of a color contrasting to the background to which they are affixed. (PS)

135 All entrances to the parking area shall be posted with appropriate signs per California Vehicle Code Section 22658(a) to assist in removing vehicles at the property. (PS)

136 Landscaping shrubs or bushes shall be no higher than two (2) feet, and tree canopies no lower than six (6) feet. (PS)

137 A means of access for fire department and law enforcement purposes shall be provided by the agency's requested method. The Los Angeles County Sheriff's Department requires a keypad. (PS)

138 The applicant shall restrict tenant access to the property outside of normal business hours. Tenants requiring after-hours access shall submit an advance request to management to help minimize on-site activity during off-hours. (PS)

139 Install alarms on all gates to alert on-site management or alarm monitor to unauthorized entry or exit. (PS)

140 The applicant shall have adequate lighting throughout the project site and consider installing motion-activated lights in low-visibility areas or locations that may be vulnerable to unauthorized access. (PS)

Key to Departmental Conditions:

(B&S) Building and Safety Division (661-267-5353)
(E) Engineering Division (661-267-5272)
(F) Los Angeles County Fire Department (661-949-6319)
(P) Planning Division (661-267-5200)
(PA) Public Art (661-267-5686)
(PS) Public Safety Division (661-267-5170)
(SCE) Southern California Edison (661-726-5617)
(TE) Traffic Engineering (661-267-5300)

EXHIBIT F

MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM

UNDER SEPARATE COVER

EXHIBIT G

APPENDICES

UNDER SEPARATE COVER

EXHIBIT F

Initial Study/Mitigated Negative Declaration

Mini Storage
Conditional Use Permit (CUP) 25-0002 Site Plan Review (SPR) 25-0005
(APNs 3053-007-046 and 908)

8 July 2025
Revised 4 September 2025
Public Comments Section Added -11 September 2025

Prepared by:

Mark Hagan, Wildlife Biologist
44715 17th Street East
Lancaster, CA 93535

661.433.9956 (M)
661.723.0086

Prepared for: City of Palmdale
38300 Sierra Highway
Palmdale, California 93550

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Hazards & Hazardous Materials		Public Services
	Agriculture Resources		Hydrology/Water Quality		Recreation
	Air Quality/GHG/Energy		Land Use/Planning		Transportation/Traffic
	Biological Resources		Mineral Resources		Utilities/Service Systems
	Cultural Resources		Noise		Mandatory Findings of Significance
	Geology/Soils		Population/Housing		

DETERMINATION: (To be completed by the Lead Agency). On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a “potentially significant impact” or potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Date

Brenda Magaña
Planning Manager

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in its explanation following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e. g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation incorporated, or less than significant. "Potentially Significant Impact' is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, "Earlier Analysis," may be cross-referenced).
5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:
   (a) Earlier Analysis Used. Identify and state where they are available for review.
   (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address the site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
   (a) The significance criteria or threshold, if any, used to evaluate each question; and
   (b) The mitigation measure identified, if any, to reduce the impact to less than significant.

Distribution List

See Appendix M

Table of Contents

A. Environmental Checklist 6
B. Environmental Analysis .....
1. Aesthetics 11
2. Agriculture 13
3. Air Quality 15
4. Biological Resources 17
5. Cultural Resources 22
6. Energy 23
7. Geology and Soils 24
8. Greenhouse Gas Emissions 28
9. Hazards and Hazardous Materials 30
10. Hydrology and Water Quality 33
11. Land Use and Planning 35
12. Mineral Resources 36
13. Noise 37
14. Population and Housing 39
15. Public Services 40
16. Recreation 41
17. Transportation 42
18. Tribal Cultural Resources 44
19. Utilities and Service Systems 46
20. Mandatory Findings of Significances 48

C. References 50

D. Comments and Responses……51

Figures and Table
Table 1 Existing and Surrounding Land Use, Zoning, General Plan Designations . 7

Figure 1 Vicinity Map 8
Figure 2 Aerial Photograph of Site and Surrounding Area ……....9
Figure 3 Zone Map Excerpt 10
Figure 4 EnviroStor Site Map 31

Appendices
Appendix A: Site Plan
Appendix B: Site and Surrounding Area Photographs
Appendix C: Air Quality Study
Appendix D: Biological Resource Assessment
Appendix E: Monitoring Mitigation Reporting Plan
Appendix F: Cultural Resource Study
Appendix G: Geotechnical Engineering Reports
Appendix H: Hydrology Report
Appendix I: Noise Evaluation
Appendix J: Sewer Report
Appendix K: VMT Analysis
Appendix L: Public Comment Letters
Appendix L: Distribution List

Environmental Checklist

1. PROJECT TITLE: Mini Storage, Conditional Use Permit (CUP) 25-0002, Site Plan Review (SPR) 25-0005 (APNs 3053-007-046 and 908)

2. Initial Study/Mitigated Negative Declaration

3. LEAD AGENCY NAME AND ADDRESS:

   City of Palmdale
   Economic and Community Development Department
   Planning Division
   38250 Sierra Highway, Palmdale, California, 93550

4. CONTACT PERSON AND PHONE NUMBER:

   Brenda Magaña, Planning Manager, 661.267.5293

   Juan Lopez, Assistant Planner, 661.267.5219

5. PROJECT LOCATION: An approximately 15 acre (6 ha) area located south of Avenue S and west of Cemetery Road, APNs: 3053-007-046 and 908 as depicted in Figures 1 and 2.

6. PROJECT SPONSOR'S NAME AND ADDRESS:

   Shawna Ricker
   661.952.7918
   shawna@duke-engineering.com
   Duke Engineering
   759 W. Lancaster Boulevard
   Lancaster, California 93534

7. GENERAL PLAN DESIGNATION (Figure 3): Employment Flex (3053-007-046) and Open Space (3053-007-908)

8. ZONING: Office Flex (OF)(3053-007-046) and Open Space (3053-007-908)

9. DESCRIPTION OF PROJECT: The project proposes to develop a mini-storage facility consisting of fifteen (15) storage buildings of varying sizes with a total of 695 storage units, recreational vehicle (RV) storage parking, retention basin, and an approximately 1,050 square foot office building. The self-storage building space will be approximately 123,962-square-feet. The facility will include approximately 96 parking spaces (15 public and 81 vehicle storage) and supporting infrastructure (roads, utilities), landscape. The facility will disturb approximately 8 acres of the approximately 15 acre site (Appendix A).

10. SURROUNDING LAND USES AND SETTING: The project is proposed within the City of Palmdale on a site that is surrounded by residential development, disturbed vacant parcels, and railroad tracks (Table 1: Existing and Surrounding Land Use, Zoning, and General Plan Designations). The site is bounded by Avenue S, railroad tracks, and housing. Photographs of the site and surrounding area are provided in Appendix B.

Table 1. Existing and Surrounding Land Use, Zoning, and General Plan Designations

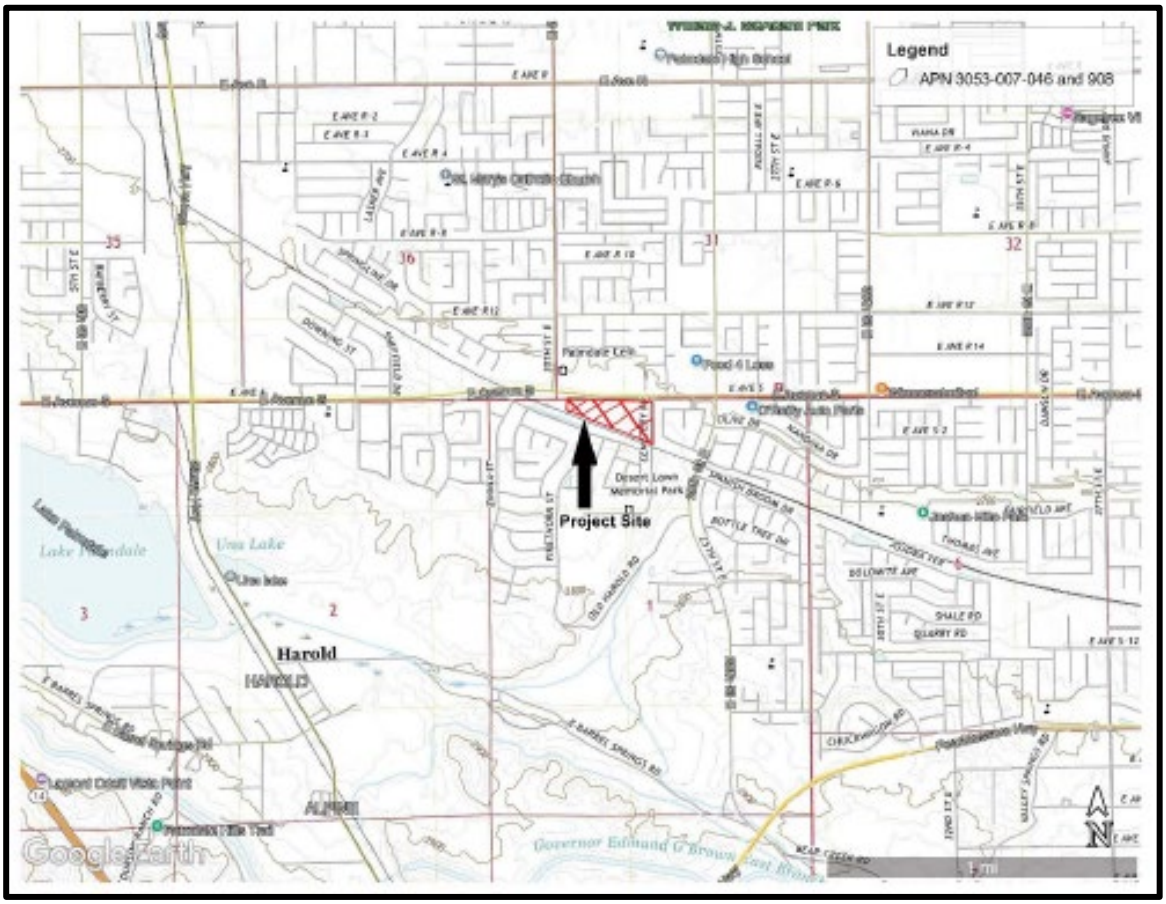
	Land Use	Zoning	General Plan
Subject Site	Vacant land and private road	OF - Office Flex, OS- Open Space	Employment Flex, Open Space
North	Existing single-family residences and open space adjacent to Avenue S	SFR3 (Single Family Residential 3) Open Space	SFR3 (Single Family Residential 3) Open Space
South	Existing railroad tracks and single-family residences	U - Utilities SFR3 (Single Family Residential 3)	U - Utilities SFR3 (Single Family Residential 3)
East	Existing single- family residences	U – Utilities SFR3 (Single Family Residential 3)	U – Utilities SFR3 (Single Family Residential 3)
West	Vacant land	U - Utilities	U - Utilities

11. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement). Distribution of this document is appropriate, but not limited, to the following agencies:
    Lahontan Regional Water Quality Control Board
    Antelope Valley Air Quality Management District
    Los Angeles County Sanitation District 20 Palmdale
    Palmdale Water District
    California Department of Fish and Wildlife
    Los Angeles County Fire Department
    City of Palmdale Engineering Permits
    City of Palmdale Building Permits

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1?

    The City of Palmdale notified the California Native American tribes traditionally and culturally affiliated with the project which had requested consultation. Responses were reviewed and incorporated into this document under Tribal Cultural Resources and the Mitigation, Monitoring, and Reporting Plan as appropriate.

Figure 1. Vicinity Map

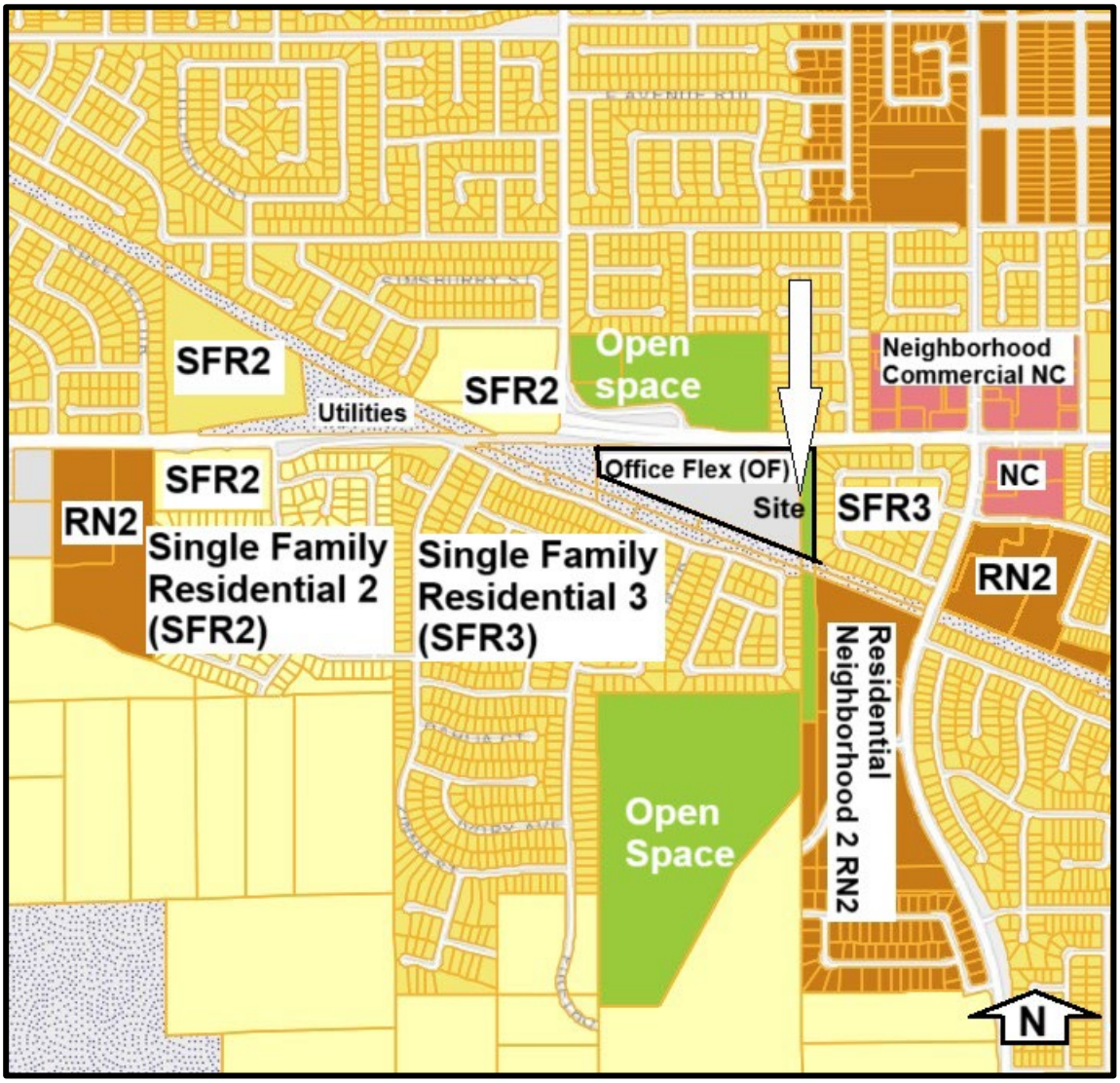


Approximate location of proposed Mini Storage, CUP25-0002 and SPR25-0005 (APNs 3053-007-046 and 908), note red hatching, as depicted on excerpt from USGS Quadrangle Palmdale, Calif., 7.5', 2021.

Figure 2. Aerial Photograph of proposed Mini Storage, CUP25-0002 and SPR25-0005 (APNs 3053-007-046 and 908) and Surrounding Area (Google Earth 2022)



Figure 3. Zone Map Excerpt



Excerpt of map from Palmdale General Plan 2045. Black polygon indicates proposed Mini Storage, CUP25-0002 and SPR25-0005 (APNs 3053-007-046 and 908). Designations were added to indicate zoning and general plan codes.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
1. **Aesthetics.** Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings? Would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Project Impacts and Mitigation Measures

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. The project site is not located next to a state scenic highway and the area is not considered a scenic resource. The closest vista that could be considered "scenic" would be the Lamont Odett Vista Point overlooking Lake Palmdale from State Highway 14. This overlook is approximately six (6) miles from the project site. Furthermore, the proposed project is located in an area built out with residential development and would be subject to City review to ensure conformance with existing design regulations (project setbacks, height, scale, landscaping, etc.) and compatibility with surrounding land uses. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are necessary.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The project site is not located along a state scenic highway and does not contain any rock outcroppings, historic buildings, or western Joshua tree. No impact would occur.

Mitigation Measures: No mitigation measures are necessary.

c) *Would the project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

No Impact. The project site exists within an urbanized area zoned office flex. Storage facilities permitted in office/flex designations along with mixed development and supportive services such as retail and commercial uses.

Mitigation Measures: No mitigation measures are necessary.

d) *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

No Impact. This project would create new sources of light, however it is already substantially surrounded by urban development with their own sources of lighting. The storage facility lighting would only merge with existing lighting and would not make a substantial impact over what already exists. Lighting for this project would comply with all outdoor lighting requirements as noted within Palmdale Municipal Code Section 17.86.030.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
2. **Agriculture Resources.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X

Project Impacts and Mitigation Measures

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

No Impact. This project site is not considered prime, unique, or farmland of statewide importance based on the Farmland Mapping and Monitoring Program (Department of Conservation 2023). The project site is appropriately zoned for this use and not considered agricultural (City of Palmdale 2022).

Mitigation Measures: No mitigation measures are necessary.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is not zoned for agricultural use and is not under a Williamson Act contract (Rincon 2022).

Mitigation Measures: No mitigation measures are necessary.

c-d) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? Result in the loss of forestland or conversion of forestland to non-forest use?

No Impact. There are no forests or timberland located within the City of Palmdale, therefore, no loss of forest land or the conversion of forest land to non-forest land would occur as a result of this project.

Mitigation Measures: No mitigation measures are necessary.

e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in the conversion of Farmland to nonagricultural use or the conversion of forestland to non-forest use?

No impact. There is no noted farmland nearby, and therefore, no conversion of farmland to non-agricultural use could occur. The project site and adjacent properties are zoned for single-family residential development.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3. **Air Quality.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?				X
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

Project Impacts and Mitigation Measures

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Less than Significant Impact. The project site is located within the Antelope Valley Air Quality Management District (AVAQMD) and the Mojave Desert Air Basin (MDAB). Development and operation of this project will comply with all applicable district rules and regulations, and proposed control measures as required by the AVAQMD. By complying with these rules, regulations, and measures the project would not conflict with or obstruct implementation of the Air Quality Plan. CalEEMod, Version 2022.1.1.24 was used to model potential air emissions (M.S. Hatch Consulting 2025, Appendix C). The estimated emissions of criteria pollutants and greenhouse gases from the construction and total operational emissions from the project are below the applicable thresholds (M.S. Hatch Consulting 2025).

Mitigation Measures: No mitigation measures are necessary.

b) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Less than Significant Impact. The Antelope Valley is in an ozone and particulate matter nonattainment region (M.S. Hatch Consulting 2025). As specified within the air quality study, the project's estimated construction and total operational emissions are below the applicable AVAQMD thresholds of significance and will be required to comply with applicable AVAQMD requirements. As long as development and operations are able to follow those required measures, they cannot cause a cumulatively considerable increase in any criteria for which a region is in nonattainment (M.S. Hatch Consulting 2025). Dust controls as further noted in Appendix L, are incorporated into the construction process and are monitored by the city and AVAQMD.

Mitigation Measures: No mitigation measures are necessary.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

No Impact. The proposed project is not considered one of the project types that the AVAQMD CEQA Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations (M.S. Hatch Consulting 2025).

Mitigation Measures: No mitigation measures are necessary.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact. The proposed project does not contain land uses that would typically be associated with significant odor emissions such as agricultural uses, landfills, and sewage treatment facilities. Typical construction odors would be temporary and are not expected to affect a substantial number of people.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
4. **Biological Resources.** Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Project Impacts and Mitigation Measures

a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service?*

Less than Significant Impact with Mitigation. The biological report for this project site indicated that no sensitive wildlife species or sensitive habitats were observed or expected (Hagan 2024 [Appendix D]). One plant species, short joint beavertail cactus was observed during the field study (Hagan 2024). No more than approximately 15 individual clusters were observed throughout the full 15 acre study area with most occurring outside of the eight (8) acre impact area.

The California Native Plant Society (CNPS) lists the short joint beavertail cactus with a Rare Plant Rank 1B.2, meaning that the group considers it rare, threatened or endangered in California and elsewhere. The degree of threat to it is believed to be moderately threatened in California (20–80 percent of occurrences threatened/moderate degree and immediacy of threat). The state of California has not, itself, listed the species as endangered, threatened, rare or a candidate for those classifications.

Burrowing owls were provided candidate status in October 2024 while awaiting a decision on a petition to list the species under the California Endangered Species Act. Cover sites for burrowing owls were not observed within the study site and they are not expected to occupy the project site due to the presence of free-roaming dogs and use of the area for as a homeless encampment area. The urban uses surrounding the site further eliminates the likelihood of future use by burrowing owls. California ground squirrel burrows were observed within the impact area and can provide potential future cover sites for burrowing owls. Although it is not expected that burrowing owls would use this site it is recommended that a preconstruction survey be accomplished to further ensure no impacts to burrowing owls.

Potential nesting habitat for other migratory birds was present within the site (shrubs, two ornamental trees). Preconstruction surveys should be accomplished prior to ground disturbing activities if they take place during nesting season.

Crotch's bumble bee was listed as a candidate for endangered status in 2019 under the California Endangered Species Act (CESA). Candidate species must be treated as listed until a final decision is rendered.

The Palmdale California Natural Diversity Database (CNDDB) quadrangle was reviewed for documented observations of Crotch's bumble bee. Bumblebee Watch and iNaturalist were also reviewed for documented observations of Crotch's bumble bee. Even though these last two sites are citizen science sites they can lend insight into the species but must be viewed with that understanding.

The October 2024 CNDDB search listed two observations on the Palmdale Quadrangle, one in 1931 and one in 1945. The 1931 observation was located two (2) miles northwest of the project site. The 1945 observation was in Little Rock. The Little Rock observation was considered too distant to consider for this project site. The 1931

observation was determined to be interesting historical data. Given the level of development in the area of the observation and the area between the project site it is unlikely the habitat which was available in 1931 is still present.

Both Bumblebee Watch and iNaturalist had observations from 2018 to 2024. Consistent observations were within and around high floristic resource areas such as the Poppy Preserve and the Phacelia Wildlife Sanctuary. None of the observations in the Bumblebee Watch or iNaturalist were within Palmdale.

Crotch's bumble bee occurs in grasslands and desert scrub, nesting in ground cavities such as rodent burrows, and hibernating in loose soil, tufts of grass, and leaf litter, where the queen can burrow with a few centimeters of covering. The range historically stretched from the Central Valley down to Mexico in coastal areas to the edges of the desert.

This species has a life cycle based on the survival of the queens produced each year. The colony completely dies out each year except for the new queens. The new queens hibernate and restart individual colonies in the spring. Having enough floristic resources during a colony's entire life span is imperative to ensuring the new queen's survival to mate, hibernate, and start a new colony. If flowers have died out and no perennials are blooming at any time between February and October the colony is left with no way to persist. Typical urban landscaping with ornamental plantings (varietal plants) many times have no nectar available or insufficient amounts. Crotch's bumble bees have a specialized method of sex determination which requires the new queen to mate outside of her colony to avoid inbreeding. This requirement along with the life cycle of the colony makes habitat fragmentation a serious issue to their continued persistence. Fragmented habitats less than 1,500 hectare (ha) can produce problems with "inbreeding depression" leading to nonviable offspring to include sterility in the males. Crotch's bumble bee colonies are believed to require 330 to 1,000 ha to be successful.

Honey bees which are widespread within our urban environments, are thought to have a competitive advantage to the Crotch's bumble bee and are believed to potentially carry disease/virus' which can infect and eliminate colonies.

Although there does appear to be suitable vegetation and wintering opportunity is available, the site has several drawbacks that make the presence of Crotch's bumble bee unlikely. This project site is considered too small to sustain a Crotch's bumble bee colony, lacks the sufficient floristic resources, landscaping with varietal floristic resources would not be expected to provide enough nectar and pollen for bumble bee use, there is little to no connection potential for the queens to find another colony to mate with given the sea of development around the site, and the lack of recent or consistent sightings within eight (8) miles of the project site. These factors support the lack of any expectation that Crotch's bumblebees are present or will immigrate into the site. Even so a preconstruction survey should be completed prior to ground disturbing activities to ensure no impact. Prior to ground disturbing activities a preconstruction survey for bumble bees should be conducted. If any bumble bees are detected a focused survey for Crotch's bumble bee will be conducted or an Incidental Take Permit (ITP) will be applied for. If any bumble bees are detected consultation with CDFW will be conducted.

With incorporation of Mitigation Measures, below and in Appendix E**,** potentially significant impacts would be reduced to a less than significant level.

Mitigation Measures:

BIO-1: Prior to ground disturbing activities a preconstruction survey for bumble bees will be conducted. If any bumble bees are detected a focused survey for Crotch's bumble bee will be conducted or an Incidental Take Permit will be applied for. If any bumble bees are detected consultation with CDFW will be conducted.

BIO-2: Removal of vegetation will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests or 50 feet (15 m) around smaller active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

BIO-3: Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey will be accomplished no more than 14 days prior to ground disturbance activities to ensure no owls have moved into the study site (CDFG 2012). If burrowing owls are discovered during preconstruction surveys, consultation with CDFW will be required.

BIO-4: Prior to development, the project proponent will translocate short joint beavertail cactus into peripheral areas not prone to disturbance from construction activities.

b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No Impact. Although a wash was noted in the biological resources assessment (Hagan 2024), this area is not being impacted by the development. There are no riparian habitats or sensitive natural communities present on the project site.

Mitigation Measures: No mitigation measures are necessary.

c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. There are no wetland features within the site.

Mitigation Measures: No mitigation measures are necessary.

d) Would the project Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nesting sites?

No Impact. There is no evidence of any movement corridors or nursery sites within this project area. This project will not interfere with the movement of fish or wildlife species, migratory corridors, or wildlife nursery sites.

Mitigation Measures: No mitigation measures are necessary.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Palmdale has a Native Vegetation Ordinance, Palmdale Municipal Code (PMC), Chapter 14.04 - Joshua Tree and Native Desert Vegetation Preservation) that addresses California junipers. There were California junipers within the western portion of the study site but there are no California junipers present within the impact area.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is not located within or near lands that are governed by an adopted habitat conservation plan, natural community conservation plan, or other approved habitat conservation plan.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
5. **Cultural Resources.** Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

Project Impacts and Mitigation Measures

a-b) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5? Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in Public Resources Code Section 21083.2 and 21084.1, and CEQA Guidelines Section 15064.5, respectively?

Less than Significant Impact with Mitigation. A Cultural Resources Report was completed for the project site. " Results of the survey found five (5) small historic period refuse deposits dating to the 1950s. These were determined "not significant." Since there are no significant cultural resources on the property, no adverse impacts to significant cultural resources are anticipated as a result of future development. No further cultural resource work is recommended" (RT Factfinders 2024, Appendix F).

Mitigation Measures:

See Tribal Cultural Resources Element TRIB-1 through TRIB-4

c) Would the project disturb any Native American tribal cultural resources or human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation. No indication of human remains was observed on the project site; however, **Mitigation Measure TRIB-3** will be employed in the event resources or remains are discovered during construction.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
6. **Energy.** Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficient?				X

Project Impacts and Mitigation Measures

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. Construction would be temporary and in compliance with AVAQMD regulations, Environmental Protection Agency (EPA) and California Air Resources Board (CARB) emissions standards. Buildings will be constructed to comply with Title 24 Building Efficiency Standards.

Mitigation Measures: No mitigation measures are necessary.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. This project will comply with applicable regulations and City of Palmdale General Plan (Palmdale 2045) policies to prevent wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation. The project will construct and operate in a manner consistent with energy efficiency goals contained in the City of Palmdale Energy Action Plan. Construction and operation would comply with CALGreen and Title 24 of the California Energy Code requirements (City of Palmdale 2022, Rincon 2022).

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
7. **Geology and Soils.** Would the project:				
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42 ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?		X		
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

Project Impacts and Mitigation Measures –

a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:

i-iv) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. Strong seismic ground shaking? Seismic related ground failure including liquefaction? Landslides?

Bruin Geotechnical Services, Inc., has performed both and a "Geotechnical Engineering Report, 2025a and a "Fault Rupture Hazard Investigation" for a proposed new self storage facility located at APN: 3053-007-046 East Avenue S in the City of Palmdale, County of Los Angeles, California, 2025b. Both reports are provided in Appendix G. Results of the hazard investigation is provided below. The Fault Rupture Hazard Investigation report should be reviewed in addition to the conclusion below. The hazard investigation report provides great detail and clarity as to the methodology and reasoning for their conclusion and should be reviewed for a full understanding.

Due to the importance and preciseness of the investigation, further understanding of how the investigators came to their conclusions should come directly from the report itself (Appendix G).

Less than Significant Impact with Mitigation. It was determined the proposed site is within the State of California Earthquake Fault Zone as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map. Specifically the Cemetery Fault which is a strand off the San Andreas Fault Zone runs across the site from approximately southeast to the northwest. Most of the construction consists of storage facilities which is not considered "human-occupied" structures and therefore were not part of the hazard investigation. The investigation centered on the leasing office building location proposed for the northeastern corner of the facility.

The final conclusion of the hazard investigation is as follows' (italics and bolding are the Initial Study author's clarification/emphasis to the text being relayed):

This fault rupture hazard investigation for the leasing office of a proposed self storage facility has found no faults traversing the area investigated on the subject property. The presence of multiple continuous Pleistocene stratigraphic soil horizons developed into overlapping alluvial fan and stream terrace deposits provides compelling evidence to demonstrate the absence of active faulting beneath the area investigated. Because no active faults were found to traverse the site within the limits of the investigation's boundaries, the proposed leasing office of a proposed self storage facility development is not exposed to the hazard of surface fault rupture.

There remains an undefined potential for surface rupture just beyond the northern and southern limits of the trench exposure (*the exposed formations within the trench was the specific area of investigation – see Figure 8, page 37 of the report*).

Accordingly small fault setback distances or "no-build" zones, drawn parallel to the boundaries of the EFZ (*Earthquake Fault Zone*) lie 50 feet in from the northern and southern limits of the trench exposure…….. These setback zones do not impact the current plans for the leasing office of a proposed self storage facility. Any development plans must observe the designated setback and include a foundation design that can account for intense ground shaking and potential associated aseismic deformations.

The Cemetery Fault strand of the San Andreas Fault Zone is located south of the area investigated. While the area explored in our study is not subject to the hazard of surface faulting, **a future earthquake on the San Andreas Fault Zone will likely produce very strong, near-field ground motions at the project site that could possibly exceed the provisions set forth in the current building codes**.

Analysis of the investigative boring results indicated liquefaction issues were negligible (Bruin Engineering 2025a). Site topography was considered relatively flat and hazards from landslides would be negligible (Bruin Engineering 2025a).

Mitigation Measures:

GEO-1. Develop engineering design above current building codes to protect occupants in the leasing office during a future earthquake of the San Andreas Fault.

b-c) Would the project result in substantial soil erosion or the loss of topsoil? Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. The subject site drainage occurs by minor sheet flow and course flow and erosion could occur. Appropriate analysis, grading and drainage design and site maintenance should minimize the sheet flow erosion potential (Bruin Engineering 2025a). Due to requirements in the Stormwater Pollution Prevention Plan (SWPP), which will be part of the construction, these actions will not result in substantial soil erosion or loss of topsoil.

Mitigation Measures: No mitigation measures are necessary.

d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

No Impact. The expansion index tests indicate that the site soils are considered to be within the “very low“ expansion category (Bruin Engineering 2025). Therefore, no substantial risks to life or property would be expected due to expansive soils.

Mitigation Measures: No mitigation measures are necessary.

e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. No septic tanks or alternative wastewater disposal systems are planned.

Mitigation Measures: No mitigation measures are necessary.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than Significant Impact with Mitigation. There were no indication of any paleontological resources and no unique geologic features present or expected; however, in the event of encountering unknown paleontological resources, Mitigation Measure GEO-2 is included to ensure impacts are reduced to a less than significant level.

Mitigation Measures:

GEO-2: In the event that paleontological resources are encountered all work shall stop at the discovery site. At that time, a qualified paleontological monitor shall be consulted to evaluate the find. Construction activities shall be temporarily redirected to another location on-site (minimum of 100 feet from the location of the find) so that the monitor can recover any specimens encountered during excavation. All fossils/specimens collected during this work shall be deposited in a City of Palmdale-approved museum repository for curation and storage.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
8. **Greenhouse Gas Emissions.** Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Project Impacts and Mitigation Measures

a) Would the project generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment?

No Impact. The estimated emissions of criteria pollutants and greenhouse gases from the construction and total operational emissions from the project were estimated using CalEEMod 2022.1.1.24 (Appendix C). The evaluation indicates that estimated emissions from the project are below the applicable AVAQMD thresholds of significance (M.S. Hatch Consulting 2025).

Mitigation Measures: No mitigation measures are necessary.

b) Would the project conflict with an applicable plan, policy, or regulation adoption for the purpose of reducing the emission of greenhouse gases?

No Impact. The proposed project would not result in an increase of either population or emissions sources beyond what has been planned for in the City of Palmdale's General Plan (Palmdale 2045). As the greenhouse gas emissions would be well below the applicable AVAQMD Significant Emissions Thresholds, no conflict would occur (M.S. Hatch Consulting 2025). The project will comply with energy-efficiency and green building standards as detailed within the California Building Standards Code and the City of Palmdale General Plan (Palmdale 2045).

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
9. **Hazards and Hazardous Materials.** Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Project Impacts and Mitigation Measures

a-b) Would the project create a significant hazard to the public or the environment through the routine transport, use, emission or disposal of hazardous materials and create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact. During construction, common hazardous materials such as gas, diesel, oil, etc. used in construction equipment would be present. Long term, minor amounts of hazardous materials would be expected for maintaining cleanliness in the facility similar to household products such as bleach, pesticides, etc. Standard best management practices for transportation, storage, minor spills or leaks, will be used to ensure that this would not create a significant hazard to the public or environment.

Mitigation Measures: No mitigation measures are necessary.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The project site is not located within one-quarter mile of a school.

Mitigation Measures: No mitigation measures are necessary.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. A search for a half mile radius around the storage facility project site was completed (Figure 4, Map of EnviroStor search). The search indicated no hazardous materials sites were within the study area.

Mitigation Measures: No mitigation measures are necessary.

e) Would the project be located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. This project site located approximately four miles southwest of the Palmdale Regional Airport/ US Plant 42 and is not located within an airport land use plan.

Mitigation Measures: No mitigation measures are necessary.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. Development of this project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Roads within the project would be constructed to allow emergency vehicle access to the residences. Construction vehicles would be parked within the project site avoiding obstacles to emergency vehicles on surrounding existing roads.

Mitigation Measures: No mitigation measures are necessary.

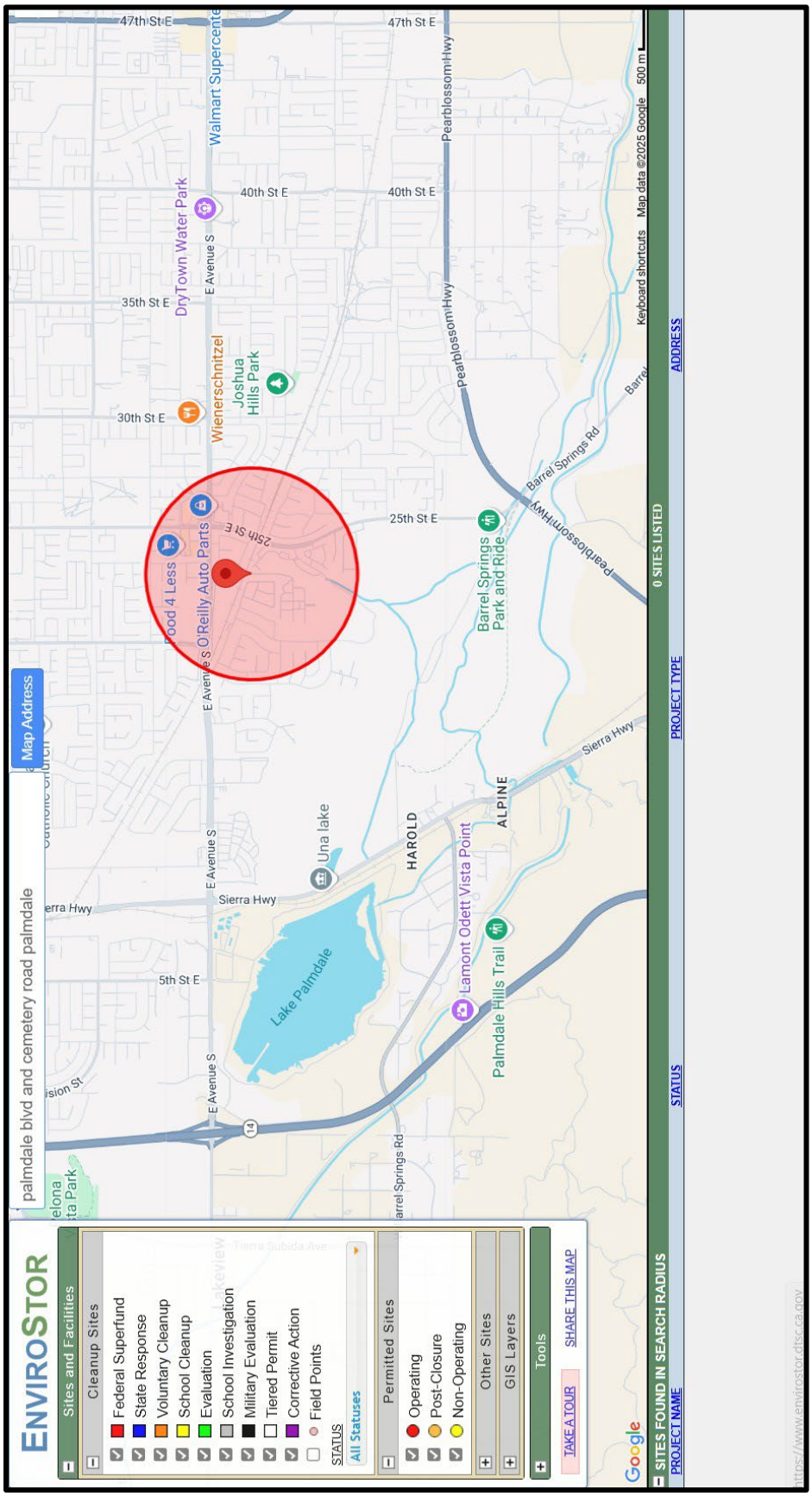


Figure 4. Map of EnviroStor search. No concerns were documented within half mile of the Mini Storage, CUP25-0002 and SPR25-0005 (APNs 3053-007-046 and 908) as noted at the bottom of map.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project area is not located within a wildfire hazard zone (Palmdale 2022).

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
10. **Hydrology and Water Quality.** Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?				X
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) Result in substantial erosion or siltation on- or off-site? ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site? iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
d) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Project Impacts and Mitigation Measures

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No Impact. The project will apply National Pollutant Discharge Elimination System (NPDES) best management practices to ensure water quality standards and waste discharge requirements are met. The required Stormwater Pollution Prevention Plan (SWPPP) further ensures no violations would occur.

Mitigation Measures: No mitigation measures are necessary.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. Due to the small size and type of this development, the water demand would not be enough to substantially deplete groundwater supplies or interfere with groundwater recharge. The project will be required to comply with City ordinances and regulations related to construction water use.

Mitigation Measures: No mitigation measures are necessary.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course or a stream or river or through the addition of impervious surfaces, in a manner that would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

Less than Significant Impact. Best management practices as required by both NPDES and the SWPPP as overseen by Lahontan Water Quality Control Board ensures control of erosion and siltation during construction. Being a storage site most of the site will consist of impervious surfaces with a portion around the storage facility landscaped. As noted in the hydrology report “The site has been assessed and stormwater runoff has been quantified to sufficiently size proposed storm drain improvements.”(Appendix H). Stormwater within the site will move from the southwest primarily to the northeast through ribbon gutters which will then enter a curb and gutter system. Pre construction runoff is calculated to be 1.13 cfs whereas post construction runoff is calculated to be 7.1 requiring the planned appropriately sized storm drain improvements.

Mitigation Measures: No mitigation measures are necessary.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact.. The project site is not coastal, within a floodplain, or within high-risk flood area (Palmdale 2045).

Mitigation Measures: No mitigation measures are necessary.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The proposed project is being developed within an already evaluated area zoned for this use. This development is small, normal construction, and normal operations consistent with the General Plan land use designation and zone (City of Palmdale 2022).

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
11. **Land Use and Planning.** Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Would the project conflict with any applicable conservation plan or natural community conservation plan?				X

Project Impacts and Mitigation Measures

a) Would the project physically divide an established community?

No Impact. The proposed storage facility is consistent with the adjacent land uses, the General Plan land use designation and zone of the property, and would not physically divide an established community.

Mitigation Measures: No mitigation measures are necessary.

b) Would the project conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project site is zoned appropriately for the planned project and would not conflict with any applicable plans or regulations.

Mitigation Measures: No mitigation measures are necessary.

c) Would the project conflict with any applicable conservation plan or natural community conservation plan?

No Impact. Currently, there are no habitat conservation or natural community conservation plans that cover this area.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
12. **Mineral Resources.** Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Project Impacts and Mitigation Measures

a-b) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state and result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The project site is not located within or near the Mineral Resources Extraction zone and development of the site would not result in the loss of known mineral resources. The nearest source of mineral resources of concern are located east of 62nd Street East (City of Palmdale 2022).

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
13. **Noise.** Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Project Impacts and Mitigation Measures

The Noise Study that was accomplished by MD Acoustics, LLC in December 2024 for this project addressed elements a through b in detail and is provided below as it was discussed in the report (MD Acoustics, LLC. 2024, Appendix I).

(a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise Code, or applicable standards of other agencies?

Less than Significant Impact

Transportation Noise Impacts

The main source of noise due to traffic near the project site is due to traffic from East Avenue S. It takes a change in noise level of three (3) dB for the human ear to perceive a difference, which takes a doubling of traffic. The project is not anticipated to double traffic volumes along East Avenue S. Thus, the impact is not perceptible and the **impact is less than significant**.

Stationary Noise Sources

Stationary noise impacts would be considered significant if they result in exceedances of 65 dBA CNEL at residential uses according to Policy N-1.3 of the General Plan Noise Element. Implementation of the proposed project may result in stationary noise related to HVAC Systems. The projected noise level at the nearest residential uses will be 44 dBA CNEL and will be below the City's residential noise standard. Thus, **the project is less than significant**.

Construction Noise and Vibration

Construction is anticipated to occur during the permissible hours as described in the City's Municipal Code Section 8.28.030 – Construction Noise Prohibited in Residential Zones. Construction noise is considered a short-term impact and would be considered significant if construction occurs outside the allowable times as described in the City's Municipal Code.

The site preparation and grading phases of on-site construction activities will generate the highest temporary noise levels. The loudest construction equipment on the site will be tractors, graders, scrapers, rollers, and dozers. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three or four minutes at lower power settings. Construction at the nearest residential uses will be up to 69 dBA Leq. This does not take into account the property line wall, which would decrease the construction noise at the residential uses. The construction noise will occur during the allowable times, thus, the **impact is less than significant**.

b) Generate excessive ground-borne vibration or ground-borne noise levels?

Less than Significant Impact. Construction vibration will be significant if vibration exceeds levels that would result in structural damage to existing buildings. All proposed construction is at least 85 feet from any existing structures. At a distance of 85 feet, a vibrational roller would yield a worst-case 0.055 PPV (in/sec), which may be perceptible but is below the threshold of any risk of damage. Therefore, the **impact is less than significant**.

Mitigation Measures: No mitigation measures are necessary.

c) Would the project be located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. This site is not located in the vicinity of an airstrip or airport. The nearest airport, Palmdale Regional, is approximately four miles northeast of the project site.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
14. **Population and Housing.** Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Project Impacts and Mitigation Measures

a-b) *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed project is consistent with the General Plan land use designation and zone of the property and is surrounded by residential development. Due to the small size of the development, the project would not generate substantial population growth.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
15. **Public Services.** Would the project:				
Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				X
Fire Protection?				X
Police Protection?				X
Schools, parks, other public facilities?				X

Project Impacts and Mitigation Measures

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services; fire or police protection, schools, parks, other public facilities?*

No Impact. The proposed development is a storage facility. This type of development is expected to be used by already existing residences in the area and have not expected to have a significant impact on existing public facilities. The applicant will pay appropriate impact fees to mitigate the impacts of the development if any.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
16. **Recreation.**				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Project Impacts and Mitigation Measures

a,b) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? Does the project include recreational facilities or require the construction of recreational facilities which might have an adverse physical effect on the environment?

No Impact. There would be no need for expansion of existing recreational facilities to accommodate the development and no additional recreational facilities are proposed.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
17. **Transportation.** Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				X
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Project Impacts and Mitigation Measures

a) Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. This storage facility would not be expected to change or intensify the uses allowed within the zone. The development is not anticipated to change the forecasted traffic volumes in the surrounding area as the site was intended for the type and intensity of the proposed use. Therefore, no significant impacts to traffic are anticipated. A temporary but less than significant impact to the circulation pattern within the surrounding area would be expected from the ingress and egress of construction related vehicles and equipment. This could cause slight delays during workhour commutes.

Mitigation Measures: No mitigation measures are necessary.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

No Impact. A VMT analysis as described in **"**Trip Generation and Vehicle Miles Traveled Analysis for Proposed Self-Storage Warehouse in Palmdale, CA" (Parks 2025) dated 28 August 2025, was used to evaluate the impact of the project.

The City of Palmdale Guidelines which contain "screening thresholds" for identifying whether a land use project should be expected to result in a less than significant transportation impact were used to determine this project's impact on transportation. The screening threshold which pertains to small projects under Palmdale Guidelines states that "…any other exclusive land use projects or a combination of multiple land uses that in total produce less than 3,000 metric tons of CO2 equivalent emissions…" are presumed to cause a less-than-significant impact.

A CalEEMOD model was run using the project trip generation. Results of this indicated the project is anticipated to generate 784 metric tons of CO2 per year. This is below the threshold of 3,000 metric tons of CO2 per year; therefore, the project is expected to have a less-than significant VMT impact (Parks, 2025).

Mitigation Measures: No mitigation measures are necessary.

c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curve or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Impact. No hazardous street designs are planned and no incompatible uses.

Mitigation Measures: No mitigation measures are necessary.

d) *Would the project result in inadequate emergency access?*

No Impact. The project designs will comply with applicable standards for emergency vehicle access.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
18. **Tribal Cultural Resources.** Would the project cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)		X		
b) A resource determined by the lead agency, in its discretion and is supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.		X		

Project Impacts and Mitigation Measures

a-b) *Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) to Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Less than Significant with Mitigation. There are no resources present on this site listed in the California Register of Historical Resources or in a local register. However, to ensure no impacts occur due to hidden resources the following measures will be employed.

Mitigation Measures:

TRIB-1: Worker Environmental Awareness Program (WEAP) Training:

Prior to the start of construction, a qualified cultural or tribal monitor will be retained by the project applicant, and shall conduct WEAP training for construction personnel regarding the aspects of Tribal/Cultural Resources to include procedures for notifying the Fernandeño Tataviam Band of Mission Indians should Tribal/Cultural Resources be discovered by construction personnel.

TRIB-2: Full Time Monitoring

The project applicant shall retain a qualified Cultural or Tribal Monitor to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity during the initial pass (the first disturbance of all soil to the total depth of which it will be disturbed). If Cultural Resources (any not already noted in Cultural Report as not significant) are not encountered after observing the initial pass of all ground-disturbance, additional monitoring is not required. If Cultural Resources (any not already noted in Cultural Report as not significant) are encountered during the initial pass, Monitor(s) shall observe all remaining ground-disturbing activities, no matter the depth or frequency to which the soil was previously observed, until all ground-disturbing activities are complete.

TRIB-3: Inadvertent Discovery

If cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant shall assess the find. Work on the portions of the project outside of the buffered area may continue during this assessment period. The Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted about any pre-contact and/or post-contact finds and be provided information after the archaeologist makes their initial assessment of the nature of the find, to provide Tribal input with regards to significance and treatment.

The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

TRIB-4: Treatment and Disposition Plan

A Treatment and Disposition Plan (TDP) shall be established, in consultation with the Fernandeño Tataviam Band of Mission Indians, in the event of inadvertent discoveries of cultural resources are found. The TDP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
19. **Utilities and Service Systems.**				
a) Require or result in the relocation or construction or new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impact the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Project Impacts and Mitigation Measures

a-b) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects and have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The proposed project would require utilities such as water, wastewater treatment, electrical and natural gas. No impediments are anticipated for these services to be extended to the storage facility. The project is within the Palmdale Water District who would supply potable water to the development. Water would be provided to the project in accordance with the Palmdale Water District's rules and regulations. The project shall comply with city standards for stormwater management. A Sewer Report was accomplished which indicated that there is sufficient capacity to serve the projected demand for this project (Duke 2025, Appendix J).

Mitigation Measures: No mitigation measures are necessary.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No impact. A Sewer Report was accomplished which indicated that there is sufficient capacity to serve the projected demand for this project (Duke 2025, Appendix J).

Mitigation Measures: No mitigation measures are necessary.

d-e) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impact the attainment of solid waste reduction goals? Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. During site grubbing and clearance, green waste would be generated and disposed of in the local Class III landfill. Trash and debris generated during construction of the project would also be disposed of at a Class III landfill. The Antelope Valley Landfill is the closest landfill to the project site. Fees for disposing of green waste and non-hazardous waste will be paid by the project proponent. Once the project has been constructed, household trash will also be disposed of at the Antelope Valley Landfill. The anticipated waste generated is not expected to exceed the capacity of the local trash conveyors or the local landfill.

The project will comply with all federal, state, local management and reduction statutes/regulations for solid waste to include the National Emissions Standards for Hazardous Air Pollutants (NESHAP) as enforced through the AVAQMD for demolition of structures.

Mitigation Measures: No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
20. **Mandatory Findings of Significance**				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

The following are Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

No Impact. There are no valuable habitats, or wildlife within this project site and no examples of California history or prehistory. The presence of short joint beavertail will be mitigated. Preconstruction surveys will ensure no impacts to nesting birds, burrowing owls, or Crotch's bumble bee. No history, prehistory, or natural features exist within the site.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

No Impact. No cumulatively considerable impacts are expected from this project. The project has a small footprint, and consistent with the impacts evaluated within the General Plan (City of Palmdale 2022, Rincon 2022). Furthermore, there are no known additional planned projects within the vicinity of the site.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. As noted in the individual elements of this checklist there are no significant impacts in any of the categories or unusual project characteristics that would cause substantial adverse effects on human beings.

References

Bruin Geotechnical Services, Inc. 2025a. Geotechnical Engineering Report, Proposed Self-Storage Facility, Vicinity of Avenue S and Cemetery Road, Palmdale, Los Angeles County, California APN 3053-007-046. Bruin Geotechnical Services, Inc., 44732 Yucca Avenue, Lancaster, California, 93534. 29pp. + attachments

Bruin Geotechnical Services, Inc. 2025b. Fault Rupture Hazard Investigation for a Proposed New Self Storage Facility Located at APN: 3053-007-046 Avenue S in the City of Palmdale, County of Los Angeles, California. Bruin Geotechnical Services, Inc., 44732 Yucca Avenue, Lancaster, California, 93534. 37pp.

Caltrans 2023. Scenic Highway Systems List. Scenic Highways | Caltrans. 1pp.

City of Palmdale. 2024. Development Advisory Board Review of Pre-Application 24-0042; a Request to Develop a Single-Story Mini-Storage Facility Consisting of Six Buildings Totaling Approximately 120,190 square feet and a 2,000-square-foot office Building on an Approximately 13-acre Vacant Parcel Located on the Southwest Corner of East Avenue S and 20th Street East (APN: 3053-007-046). City of Palmdale 38300 Sierra Highway Palmdale, California, 93550. 36pp.

City of Palmdale. 2022. General Plan 2045. Palmdale 2045 Accessed February 2023. Department of Conservation. 2023.

California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/

Duke Engineering 2024. Hydrology Study, Proposed Office Flex Site APN 3053-007-046, Avenue S and 25th St E., Palmdale, CA 93550. Duke Engineering, 44732 Yucca Avenue, Lancaster, California, 93534. 5pp. + appendices

Duke Engineering 2025. Sewer Study, Office Flex Development, Ave S and 25th Street East, Palmdale, CA 93550. Duke Engineering, 44732 Yucca Avenue, Lancaster, California, 93534. 4pp. + appendices

EnviroStor. 2025. Envirostor, Palmdale, California. https://dtsc.ca.gov/your-envirostor/ Accessed 29 January 29, 2025.

Hagan, M. 2024. Biological Resource Assessment of APNs 3053-007-046 and 3053-007-908, Palmdale, California. Mark Hagan, 44715 17th Street East, Lancaster, California 93535. 15pp.

MD Acoustics, LLC. 2024. Mini-Storage Facility Project, Noise Impact Study, City of Palmdale, CA. MD Acoustics, LLC. 1197 Los Angeles Ave, Ste C-256, Simi Valley, CA 93065. 27pp. + appendices

M. S. Hatch Consulting, LLC 2025. Air Quality Study – Mini Storage, APN 3053-007-046, Palmdale, C. M.S. Hatch Consulting, LLC, 11440 West Bernardo Court Suite 300, PMB #282, San Diego, California, 92127. 7pp. + appendices

Parks, I. 2025. Trip Generation and Vehicle Miles Traveled Analysis for Proposed Self-Storage Warehouse in Palmdale, CA. Ian Parks, 1518 Mill Rock Way, Suite 100, Bakersfield, CA 93311-1351. 28pp.

Rincon 2022. City of Palmdale 2045 General Plan Update Final Environmental Impact Report SCH# 2021060494. https://static1.squarespace.com/static/5c7dc93065a707492aca3e47/t/631fa8d1f119fa360cd7f0ee/1 521pp.

RT Factfinders 2025. Phase I Cultural Resource Investigation for 13 Acres on the South Side of East Avenue S Near its Intersection with 20th Street East, Palmdale, Los Angeles County, California. RT Factfinders, 4933 Cloudcroft Lane, Florence, Oregon, 97439. 9pp. + appendices

Public Comments and Responses

A. Introduction

The Initial Study/Mitigated Negative Declaration was circulated to the public and public agencies for a 30-day public review from 29 July 2025 to 29 August 2025. The comments received regarding the Initial Study/Mitigated Negative Declaration are included in this document. Five letters were received. Letters are in Appendix L.

- Ft. Yuma Quechan Tribe Historic Preservation Office, 29 July 2025
- AT&T, 6 August 2025
- Antelope Valley Air Quality Management District, 11 August 2025
- California Department of Transportation, 28 August 2025
- Fernandeño Tataviam Band of Mission Indians, 3 September 2025

Minor revisions to the Initial Study/Mitigated Negative Declaration were required in the process of responding to the comments. None of the comments or responses constitute "significant new information" that would require recirculation of the Mitigated Negative Declaration or the necessity to prepare an Environmental Report under CEQA Guidelines Section 15073.5.

B. Response to Comments

- Ft. Yuma Quechan Tribe Historic Preservation Office

  No Response Required
- AT&T

  No Response Required
- Antelope Valley Air Quality Management District

  Comments made are already reflected in the Air Quality Section.
- California Department of Transportation

  The suggestions made are appreciated but not feasible for the project.
- Fernandeño Tataviam Band of Mission Indians (FTBMI)

  Modifications to mitigation measures requested by FTBMI were added to Tribal Cultural Resource element and the MMRP replacing those in the July 2025 Initial Study.

C. Revisions to the Draft Mitigated Negative Declaration

The changes to the draft MND are listed by section and page number. Text which has been removed is shown in this section with a strikethrough line, while text that has been added is shown in italics and underlined.

Section 5. Cultural Resources, Page 22.

Mitigation Measures:

[Note: All cultural mitigation was moved to Tribal Cultural Resources in rewrite]

~~**CUL-1**: The project applicant shall retain a professional Tribal Monitor procured by the Fernandeño Tataviam Band of Mission Indians (FTBMI) and/or the Yuhaaviatam of San Manuel Nation (YSMN) to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity. Tribal Monitoring Services will continue until confirmation is received from the project applicant, in writing, that all scheduled activities pertaining to Tribal Monitoring are complete. If the Project's scheduled activities require the Tribal Monitor to leave the Project for a period of time and~~

~~return, confirmation shall be submitted to the Tribe by Client, in writing, upon completion of each set of scheduled activities and 5 days' notice (if possible) shall be submitted to the Tribe by project applicant, in writing, prior to the start of each set of scheduled activities.~~
~~If cultural resources are encountered, the Tribal Monitor will have the authority to request that ground-disturbing activities cease within 60 feet of discovery and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant as well as the Tribal Monitor shall assess the find. The YSMN and the FTBMI shall be contacted, as detailed within TCR-1, regarding any pre- contact finds. They will be provided information after the archaeologist makes the initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to both Tribes for review and comment, as detailed within TCR-1. The Tribal Monitor/archaeologist shall monitor the remainder of the project and implement the Plan accordingly.~~

~~**CUL-2:** If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.~~

See Tribal Cultural Resources Element TRIB-1 through TRIB-4

c) Would the project disturb any Native American tribal cultural resources or human

Less than Significant Impact with Mitigation. No indication of human remains was observed on the project site; however, ~~Mitigation Measure CUL-2~~ will be employed in the event resources or remains are discovered during construction.

Replaced with:
Less than Significant Impact with Mitigation. No indication of human remains was observed on the project site; however, ***Mitigation Measure TRIB-3*** will be employed in the event resources or remains are discovered during construction.

Section 15. Tribal Cultural Resources, Page 45.

Mitigation Measures:
~~Trib-1: The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) and the Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted, as detailed in CR-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN and FTBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents both Tribes for the remainder of the project.~~

~~Trib-2: The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI and YSMN on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities. Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN and FTBMI. The Lead Agency and/or applicant shall, in good faith, consult with FTBMI throughout the life of the project.~~

~~Trib-3: Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.~~

Replaced with:

TRIB-1: Worker Environmental Awareness Program (WEAP) Training:

Prior to the start of construction, a qualified cultural or tribal monitor will be retained by the project applicant, and shall conduct WEAP training for construction personnel regarding the aspects of Tribal/Cultural Resources to include procedures for notifying the Fernandeño Tataviam Band of Mission Indians should Tribal/Cultural Resources be discovered by construction personnel.

TRIB-2: Full Time Monitoring

The project applicant shall retain a qualified Cultural or Tribal Monitor to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity during the initial pass (the first disturbance of all soil to the total depth of which it will be disturbed). If Cultural Resources (any not already noted in Cultural Report as not significant) are not encountered after observing the initial pass of all ground-disturbance, additional monitoring is not required. If Cultural Resources (any not already noted in Cultural Report as not significant) are encountered during the initial pass, Monitor(s) shall observe all remaining ground-disturbing activities, no matter the depth or frequency to which the soil was previously observed, until all ground-disturbing activities are complete.

TRIB-3: Inadvertent Discovery

If cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant shall assess the find. Work on the portions of the project outside of the buffered area may continue during this assessment period. The Fernandeño Tataviam Band of Mission Indians

(FTBMI) shall be contacted about any pre-contact and/or post-contact finds and be provided information after the archaeologist makes their initial assessment of the nature of the find, to provide Tribal input with regards to significance and treatment.

The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

TRIB-4: Treatment and Disposition Plan

A Treatment and Disposition Plan (TDP) shall be established, in consultation with the Fernandeño Tataviam Band of Mission Indians, in the event of inadvertent discoveries of cultural resources are found. The TDP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered

non-funerary resources. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

The MMRP reflects the above changes.

EXHIBIT G

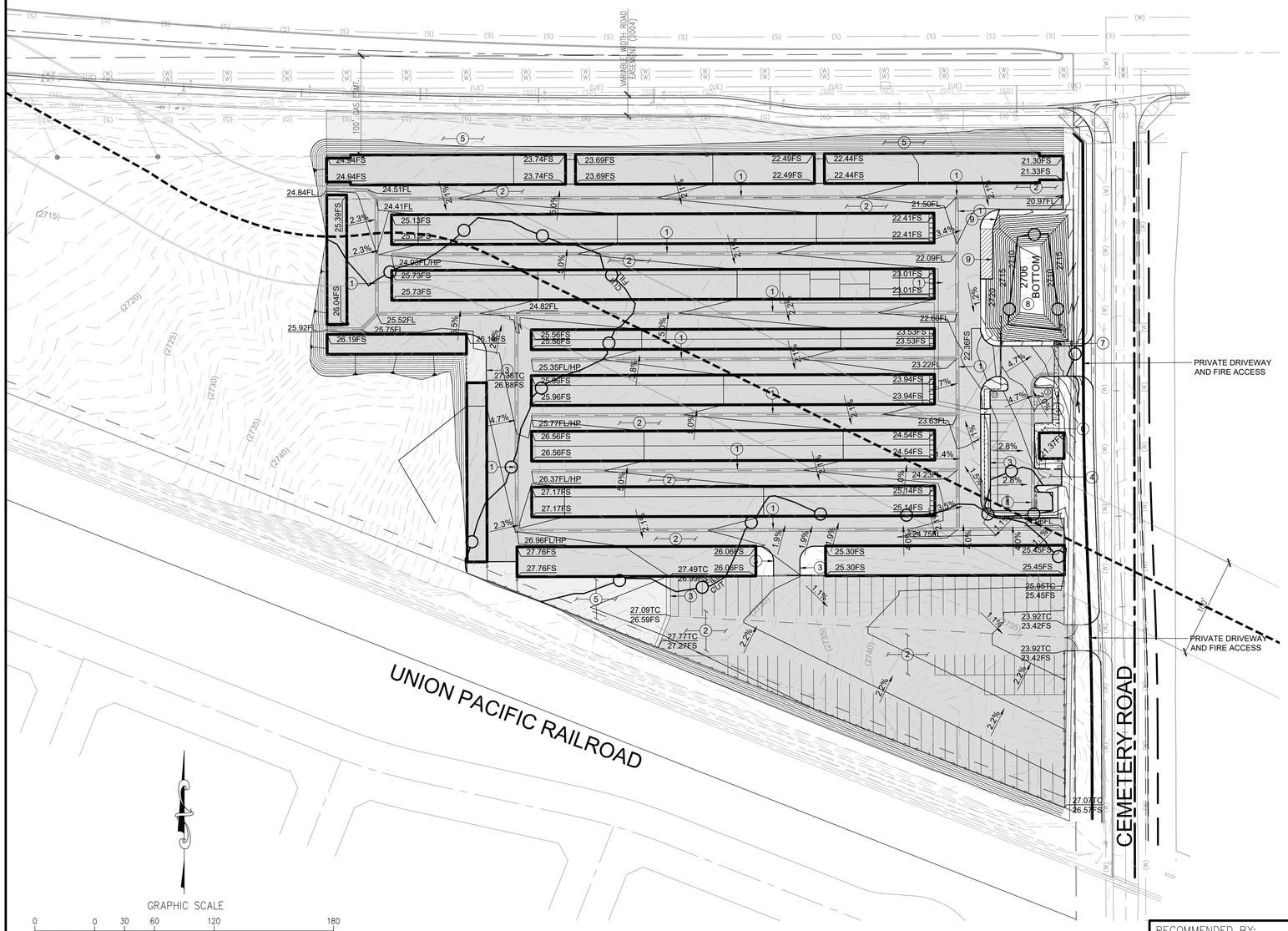
Appendix A: Site Plan

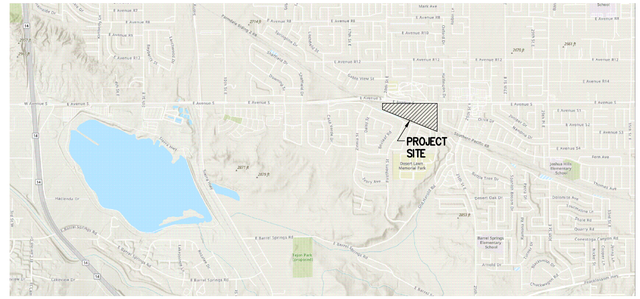


Project site to be developed is outlined in blue. The rest of the study site will be unimpacted.

Conceptual Site Plan

CITY OF PALMDALE
APN: 3053-007-046
PROPOSED STORAGE BUILDINGS
CONCEPTUAL GRADING PLAN





VICINITY MAP
NTS

CONSTRUCTION NOTES:

1. 3" RIBBON GUTTER.
2. 4" THICK AC PAVEMENT OVER 6" AGGREGATE BASE.
3. 6" PCC CURB PER SPPWC 120-2, A1-6 (150)
4. TRASH ENCLOSURE.
5. LANDSCAPING PER SEPARATE LANDSCAPING PLAN.
6. 4" PCC SIDWALK.
7. ADA RAMP.
8. RETENTION BASIN.
9. EXTENDED FOOTING.

PROJECT INFO

BUIDABLE LOT AREA:	3051-019-030 & 112 8.81 ACRES
ZONE:	OFFICE FLEX
DEVELOPMENT TYPE:	STORAGE BUILDINGS & OFFICE
SIZE OF UNITS:	12' X 30' 10' X 20' 10' X 15' 10' X 10'
TOTAL NUMBER OF UNITS:	695
TOTAL STORAGE SQUARE FOOTAGE:	129,395 SF
TOTAL NUMBER OF OFFICES:	1
TOTAL OFFICE SQUARE FOOTAGE:	1,050 SF

SUMMARY OF EARTHWORK QUANTITIES

ITEM	A CUT/CUBIC YDS..	B FILL/CUBIC YDS.
1. LAND DEVELOPMENT PROGRAM FOR PURE VOLUME (RAW) – ONSITE	33,505	27,055
2. SUBSIDENCE LOSS – 0.04' 27,055 * 0.04 / 27		40
3. OVEREXCAVATION – PAD 3' OVEREXCAVATION 121,012* 3 / 27	13,446	13,446
4. SUBTOTALS	46,951	40,541
5. SHRINKAGE @10% 40541 /.90 – 40541		4505
6. TOTALS	46,951	45,046
7. SUBTOTAL	1,905	

GRADING CONTRACTOR TO DETERMINE HIS/HER OWN EARTHWORK QUANTITIES. EARTHWORK VOLUMES ARE LISTED FOR CITY PERMIT PURPOSES ONLY. QUANTITIES SHOWN ARE NOT FOR BIDDING PURPOSES. CONTRACTOR SHOULD NOTE THAT TRUCKED MATERIAL VOLUMES WILL DIFFER FROM THE COMPACTED FILL VOLUME STATED HERE.

EARTHWORK VOLUMES SHOWN HERE ARE PRELIMINARY AND SUBJECT TO CHANGE AS SITE DESIGN IS DEVELOPED.

LEGEND

R/W
P/L
C/L
EASEMENT
SETBACK
CURB, GUTTER, & WALK
FAULT LINE
SPRR TRACK
BUILDING
LANDSCAPE

RECOMMENDED BY:
NTS DATE

COMPLIANCE WITH CONDITIONS OF APPROVAL FOR SPR-__-__
PLANNING DEPT. DATE

Underground Service Alert
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

PROJECT OWNER
MARKUS JONES

MARKUSNJONES@GMAIL.COM
(385) 229-7709

ENGINEER OF RECORD
759 WEST LANCASTER BLVD
LANCASTER, CA 93534
(661) 952-7918

DUKE ENGINEERING

REGISTERED PROFESSIONAL ENGINEER RYAN DUKE EXP 12-31-25 CIVIL STATE OF CALIFORNIA

RECORD RCE			REVISION BLOCK	CITY	
REV #	APPR.	DATE	REVISION DESCRIPTION	APPR.	DATE
△					

ACCEPTED BY CITY ENGINEER:
HAMED HASHEMIAN RCE 59494 DATE

CHECKED BY:
PLAN CHECK ENGINEER DATE

CITY OF PALMDALE
CONCEPTUAL GRADING PLAN
PROPOSED STORAGE BUILDINGS
APN: 3051-019-030 & 112

SCALE: PER PLAN
DESIGNED: RD
DRAWN: VP
CHECKED: RD
DUKE ENG 24116
SHEET NO.
1 OF 2

Appendix B: Site and Surrounding Area Photographs



View looking east across the site.



View looking southeast across the site.



View looking across impact area to the northeast.



View of the impact area looking towards the north.





Top photo is view looking east off the site. Bottom of photo is view looking northeast off the sight.





Top photo is view looking north to northwest off the site. Bottom of photo is view looking south off the sight.





Top photo is view looking south. Bottom of photo is view looking west off the sight.

Appendix C: Air Quality Study

Date: June 12, 2025
To: Ms. Stephany Lamas, Project Manager, Duke Engineering.
From: M. S. Hatch Consulting, LLC
Subject: Revised Air Quality Study – Mini Storage, APN 3053-007-046, Palmdale, CA

M. S. Hatch Consulting, LLC (MSHC) appreciates the opportunity to prepare the air quality study for the proposed construction and operation of the mini storage facility on Assessor Parcel Number (APN): 3053-007-046 for Duke Engineering (Duke). The project involves the construction of storage and office buildings totaling approximately 123,312 square feet on an approximately 13.74-acre vacant lot in the City of Palmdale. The total area to be developed during the project is approximately 8.96 acres. This air quality study estimates the criteria pollutant and greenhouse gas emissions from the construction and operation of the proposed project.

Executive Summary

Table 1 and Table 2 compare the estimated annual and maximum daily emissions summaries from the construction and operation of the proposed mini storage facility to the significant emission thresholds in the Antelope Valley Air Quality Management District (AVAQMD) California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, dated August 2016, included in Attachment A. The estimated emissions of criteria pollutants and greenhouse gases for each year of construction and the total operational emissions **are below the applicable thresholds**. The proposed project is not considered one of the project types that the AVAQMD CEQA and Federal Conformity Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations. As such, hazardous air pollutant (HAP) emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors. Since the construction and operational emissions are below the significance thresholds, emissions mitigation measures are not required.

Table 1. Annual Emissions Summary and Significance Thresholds

Emissions Source	Total Emissions (tons per year)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e (MT/year)
Year 1 Construction Emissions (2025)	0.09	0.78	1.03	<0.01	0.07	0.04	188
Year 2 Construction Emissions (2026)	0.49	0.68	1.07	<0.01	0.08	0.03	205
Total Operational Emissions	0.96	0.60	4.06	0.01	0.78	0.21	1,609
Significant Emissions Threshold	25	25	100	25	15	12	100,000
Threshold Exceedance (Yes/No)	No	No	No	No	No	No	No

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent; MT: metric ton. Due to rounding, some of the values do not match identically with the CalEEMod output file.

Table 2. Maximum Daily Emissions Summary and Significance Thresholds

Emissions Source	Total Emissions (pounds per day)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
Year 1 Construction Emissions (2025)	3.41	31.70	31.90	0.05	1.59	1.31	5,570
Year 2 Construction Emissions (2026)	39.60	10.80	18.00	0.03	1.24	0.56	3,773
Total Operational Emissions	6.24	3.55	32.20	0.06	4.90	1.32	10,772
Significant Emissions Threshold	137	137	548	137	82	65	548,000
Threshold Exceedance (Yes/No)	No	No	No	No	No	No	No

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent. Due to rounding, some of the values do not match identically with the CalEEMod output file.

Project Description

The proposed project includes the construction of storage and office buildings on a vacant lot that is approximately 13.74 acres, and the total area to be developed is approximately 8.96 acres. The project site is located at the Southwest corner of East Avenue S and 20th Street East, in Palmdale, CA. Figure 1 shows the site location; the proposed site plan is included in Figure 2.

Figure 1. Regional Vicinity

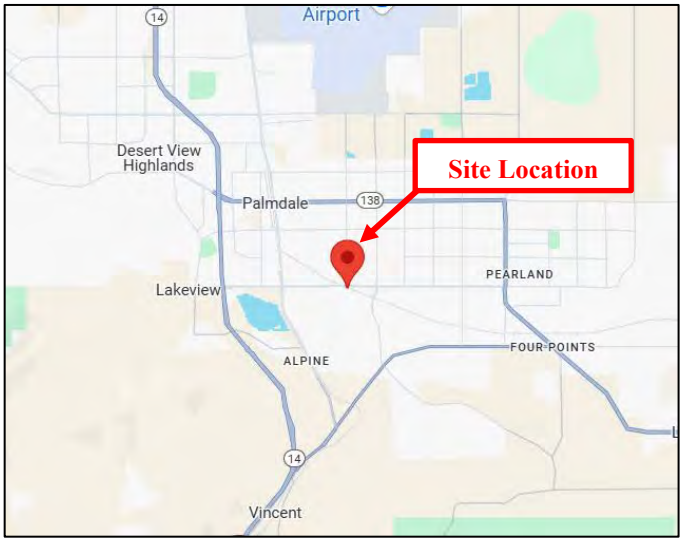
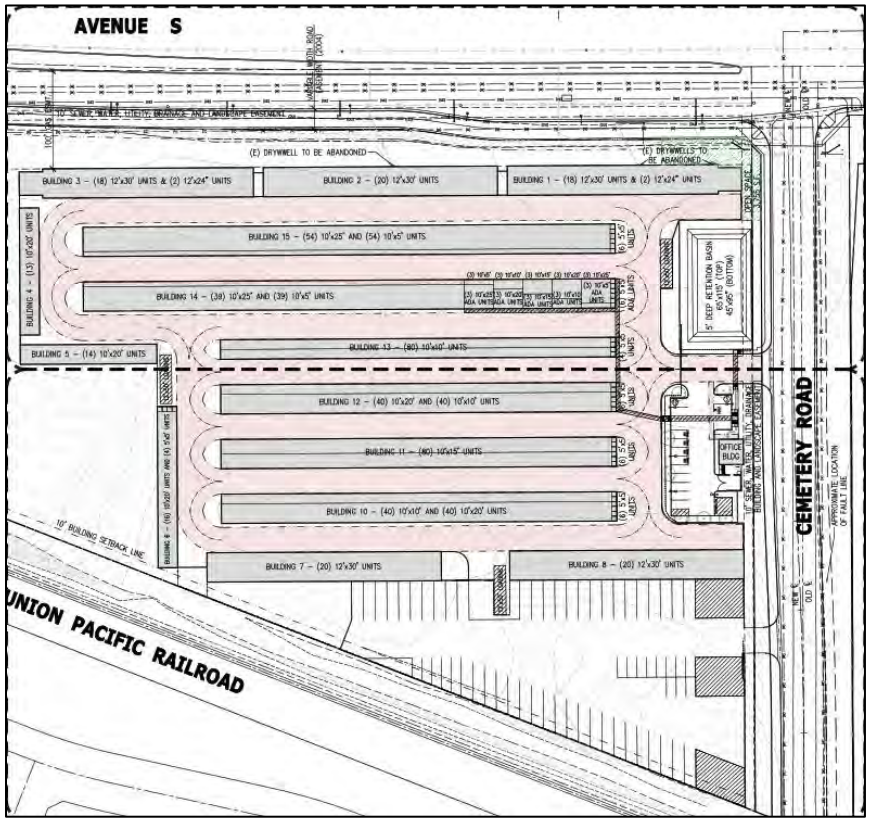


Figure 2. Site Plan – Proposed Mini Storage Facility – Palmdale, CA



Sources of Emissions

The emissions associated with the proposed project consist of construction and operational emissions from the mini storage facility. Construction emissions are temporary and include emissions of criteria pollutants and greenhouse gases from construction activities during site preparation, grading, paving, building construction, and the application of architectural coatings. Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (i.e., commuting), solid waste disposal, water, and wastewater (i.e., supplying and treating water and wastewater), and refrigerants (i.e., air conditioners).

Emissions Estimates

Table 3 and Table 4 present the annual and maximum daily emissions summaries from the construction and operation of the proposed project, respectively. Emissions were estimated using California Emissions Estimator Model (CalEEMod) Version 2022.1.1.24, and the detailed emissions report is included in Attachment B.

This proposed project is not considered one of the project types that the AVAQMD CEQA and Federal Conformity Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations. As such, HAP emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors.

Table 3. Annual Construction and Operational Emissions Summary

Emissions Source	Total Emissions (tons per year)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e (MT/year)
Construction Emissions							
Year 1 Construction Emissions (2025)	0.09	0.78	1.03	<0.01	0.07	0.04	188
Year 2 Construction Emissions (2026)	0.49	0.68	1.07	<0.01	0.08	0.03	205
Operational Emissions							
Mobile	0.35	0.44	3.45	0.01	0.76	0.20	762
Area	0.60	<0.01	0.48	<0.01	<0.01	<0.01	2
Energy	0.01	0.15	0.13	<0.01	0.01	0.01	713
Water	N/A	N/A	N/A	N/A	N/A	N/A	80
Waste	N/A	N/A	N/A	N/A	N/A	N/A	48
Refrigerants	N/A	N/A	N/A	N/A	N/A	N/A	5
Total Operational Emissions	0.96	0.60	4.06	0.01	0.78	0.21	1,609
Significant Emissions Threshold	25	25	100	25	15	12	100,000
Threshold Exceedance (Yes/No)	No	No	No	No	No	No	No

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent; MT: metric ton. Due to rounding, some of the values do not match identically with the CalEEMod output file.

Table 4. Maximum Daily Construction and Operational Emissions Summary

Emissions Source	Total Emissions (pounds per day)						
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2e
Construction Emissions							
Year 1 Construction Emissions (2025)	3.41	31.70	31.90	0.05	1.59	1.31	5,570
Year 2 Construction Emissions (2026)	39.60	10.80	18.00	0.03	1.24	0.56	3,773
Operational Emissions							
Mobile	2.44	2.71	26.20	0.05	4.83	1.25	5,642
Area	3.76	<0.01	5.36	<0.01	0.01	0.01	22
Energy	0.05	0.84	0.71	0.01	0.06	0.06	4,307
Water	N/A	N/A	N/A	N/A	N/A	N/A	481
Waste	N/A	N/A	N/A	N/A	N/A	N/A	288
Refrigerants	N/A	N/A	N/A	N/A	N/A	N/A	32
Total Operational Emissions	6.24	3.55	32.20	0.06	4.90	1.32	10,772
Significant Emissions Threshold	137	137	548	137	82	65	548,000
Threshold Exceedance (Yes/No)	No	No	No	No	No	No	No

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent. Due to rounding, some of the values do not match identically with the CalEEMod output file.

Emissions Calculation Methodology

Construction and operational emissions were based on four CalEEMod land use types*: Industrial Park, Parking Lot, Other Asphalt Surfaces, and Other Non-Asphalt Surfaces.* A discussion on the land use types that were used for the emissions modeling is included in this section.

CalEEMod Land Use Type: Industrial Park

The Industrial Park land use type was used to model the emissions associated with the proposed office building and storage facilities. The total building square footage (123,312 square feet), the lot acreage (2.83 acres), and the total landscape area (59,109 square feet) were provided by Duke.

CalEEMod Land Use Type: Parking Lot

The Parking Lot land use type was used to model the emissions associated with the parking lot for the office and the storage buildings. The total acreage (1.57 acres) and number of spaces (fifteen) was provided by Duke.

CalEEMod Land Use Type: Other Asphalt Surfaces

The *Other Asphalt Surfaces* land use type was used to model the emissions associated with the large areas of asphalt not dedicated to parking such as interior roads. The total acreage (3.10 acres) was provided by Duke.

CalEEMod Land Use Type: Other Non-Asphalt Surfaces

The *Other Non-Asphalt Surfaces* land use type was used to model the emissions associated with the large concrete areas such as sidewalks, non-concrete basin, and non-irrigated ground cover within the project boundary. The total acreage (1.44 acres) was provided by Duke.

Construction Emissions

Construction emissions were calculated using CalEEMod defaults and input provided by Duke. The anticipated construction schedule and list of construction equipment were reviewed and verified by Duke.

Table 5 provides the anticipated construction schedule. Duke indicated that work would be conducted five days per week and provided the proposed start date (8/1/2025) and the end date (8/1/2026) for the project. Since the end date is a weekend, CalEEMod automatically adjusts the end date as 7/31/2026. The number of days for the *Building Construction Phase* duration was decreased to meet the provided end date. The durations for all other phases are the default values provided by CalEEMod.

Table 6 provides the anticipated equipment that will be used during each construction phase, the hours per day the equipment will be operated, and the horsepower of the equipment. The values in Table 6 are based on CalEEMod default values.

Based on input from Duke, no material import or export are required for this project; as such, the emissions from material haul trips were not included in the construction emissions. For fugitive dust emissions, CalEEMod defaults do not include any control of fugitive dust from construction sites. AVAQMD Rule 403 requires fugitive dust from any "active operation, open storage pile, or disturbed surface area" be controlled so that no presence of dust remains visible beyond the property line. To meet this requirement, it was assumed the site would be watered three times per day.

Table 5. Construction Schedule

Construction Phase	Start Date	End Date	Days/week	Total Days
Demolition	N/A	N/A	N/A	N/A
Site Preparation	8/1/2025	8/14/2025	5	10
Grading	8/15/2025	9/11/2025	5	20
Building Construction	9/12/2025	6/5/2026	5	191
Paving	6/6/2026	7/3/2026	5	20
Architectural Coating	7/4/2026	7/31/2026	5	20

Table 6. Construction Equipment

Construction Phase	Equipment	Number of Equipment	Hours per day	Horsepower
Site Preparation	Rubber Tired Dozers	3	8	367
	Tractors/Loaders/Backhoes	4	8	84
Grading	Excavators	1	8	36
	Graders	1	8	148
	Rubber Tired Dozers	1	8	367
	Tractors/Loaders/Backhoes	3	8	84
Building Construction	Cranes	1	7	367
	Forklifts	3	8	82
	Generator Sets	1	8	14
	Tractors/Loaders/Backhoes	3	7	84
	Welders	1	8	46
Paving	Pavers	2	8	81
	Paving Equipment	2	8	89
	Rollers	2	8	36
Architectural Coating	Air Compressors	1	6	37

Operational Emissions

Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (i.e., commuting), solid waste disposal, water, and wastewater (i.e., supplying and treating water and wastewater), and refrigerants (i.e., air conditioners).

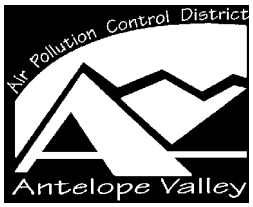
For area-source emissions, it was determined that emergency generators, fire pumps, or boilers would not be installed.[1] All other operational emissions sources were calculated using CalEEMod default factors.

Findings

The estimated emissions of criteria pollutants and greenhouse gases for each year of construction and the total operational emissions **are below the applicable AVAQMD Significant Emissions Thresholds**. Therefore, this project does not have a significant air quality impact on the environment. In addition, this project is not one of the project types that would expose sensitive receptors to substantial pollutant concentrations. Since the construction and operational emissions are below the significance thresholds, emissions mitigation measures are not required.

[1] Based on data request form provided by Duke on 6/6/2025.

ATTACHMENT A – Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines



Antelope Valley AQMD

California Environmental Quality Act (CEQA)

and

Federal Conformity

Guidelines

August 2016

AVAQMD Planning, Rule-making and Grants Section
AVAQMD Air Monitoring Section

Table of Contents

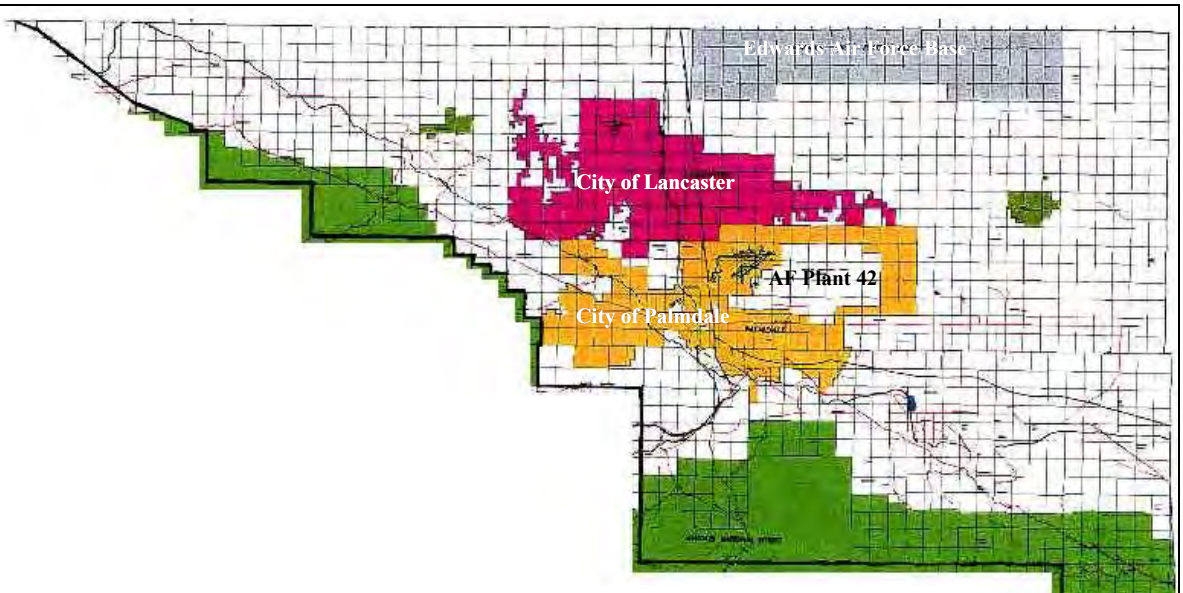
Background 1
Recommended Environmental Setting Elements 3
Recommended Impacts Discussion Elements 5
Recommended Substantiation Discussion Elements 6
Significance Thresholds 6
District Contacts 7
Appendix A – Basic Definitions of Major Air Pollutants 8

Background

Under the California Environmental Quality Act (CEQA), the AVAQMD (District) is an expert commenting agency on air quality and related matters within its jurisdiction (or impacting on its jurisdiction). The District has dedicated resources to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. The District has adopted a federal attainment plan for ozone pursuant to the Federal Clean Air Act.

Purpose

These Guidelines are intended to assist persons preparing environmental analysis or review documents for any project within the jurisdiction of the District by providing background information and guidance on the preferred analysis approach.



Map 1 - Antelope Valley Air Quality Management District Jurisdiction

Jurisdiction

The District has jurisdiction over the northern, desert portion of Los Angeles County (please refer to Map 1). This region includes the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base. The Kern County-Los Angeles County boundary forms the northern boundary of the District; the San Bernardino-Los Angeles County boundary forms the eastern boundary of the District.

Non-attainment Designations and Classification Status

The United States Environmental Protection Agency and the California Air Resources Board have designated portions of the District non-attainment for a variety of pollutants, and some of those designations have an associated classification. Please refer to Table 1 for a chart of these designations and classifications.

Table 1 – AVAQMD Designations and Classifications

Ambient Air Quality Standard	**AVAQMD**
One-hour Ozone (Federal) – standard has been revoked, this is historical information only	Proposed attainment in 2014; historical classification Severe-17
Eight-hour Ozone (Federal 84 ppb (1997))	Subpart 2 Nonattainment; classified Severe-15
Eight-hour Ozone (Federal 75 ppb (2008))	Nonattainment, classified Severe-15
Eight-hour Ozone (Federal 70 ppb (2015))	Expected nonattainment; classification to be determined
Ozone (State)	Nonattainment; classified Extreme
PM_{10} 24-hour (Federal)	Unclassifiable/attainment
$PM_{2.5}$ Annual (Federal)	Unclassified/attainment
$PM_{2.5}$ 24-hour (Federal)	Unclassified/attainment
$PM_{2.5}$ (State)	Unclassified
PM_{10} (State)	Nonattainment
Carbon Monoxide (State and Federal)	Attainment
Nitrogen Dioxide (State and Federal)	Attainment/unclassified
Sulfur Dioxide (State and Federal)	Attainment/unclassified
Lead (State and Federal)	Attainment
Particulate Sulfate (State)	Unclassified
Hydrogen Sulfide (State)	Unclassified
Visibility Reducing Particles (State)	Unclassified

Attainment Plans

The District has adopted a single attainment plan for ozone. Please refer to Table 2 for information regarding this attainment plan.

Table 2 – AVAQMD Attainment Plans

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
AVAQMD 2004 Ozone Attainment Plan (State and Federal)	4/2004	Federal one hour ozone	Entire District	NO_x and VOC	2007
AVAQMD Federal 8-Hour Ozone Attainment Plan	5/20/2008	Federal eight hour ozone (84 ppb)	Entire District	NO_x and VOC	2019 (revised from 2021)

*Note: A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been re-designated to attainment; please refer to Table 1.

Rules and Regulations

The District maintains a set of Rules and Regulations to improve air quality and maintain good air quality. Please contact the District to obtain a copy of the District rulebook, or visit www.avaqmd.ca.gov.

Recommended Environmental Setting Elements

Air Quality Data

The District gathers a variety of air quality data at the Lancaster monitoring site. Table 3 details the data available from the District for this site.

Table 3 - Available Air Quality Data

Site	Address	Pollutants	Dates
Lancaster	W. Ponderosa	O_3, NO_x, CO, PM_{10} (Hi-Vol and TEOM)	7/1/97 to 11/01
Lancaster	W. Ponderosa	$PM_{2.5}$	1/1/99 to 11/01
Lancaster	43301 Division St.	O_3, NO_x, CO, PM_{10} (hourly), $PM_{2.5}$	11/01 to present

Meteorological Data

A variety of meteorological data is available from the District for the Lancaster site. Table 4 contains a list of the data available for the Lancaster site.

Table 4 - Available Meteorological Data

Site	Address	Data	Dates
Lancaster	W. Ponderosa	Wind speed/direction, pressure, temperature, humidity	7/1/97 to 11/01
Lancaster	43301 Division St.	Wind speed/direction, pressure, temperature, humidity	11/01 to present

Topography and Climate Discussion

The District covers a western portion of the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevadas in the north by the Tehachapi Pass (3,800 ft elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 ft).

During the summer the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time the reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. MDAB annual average precipitation is presented in Table 5; the data displayed is 1981-2010 averages from the NOAA National Climate Data Center. The MDAB is classified as a dry-hot desert climate (BWh), with portions classified as dry-very hot desert (BWhh), to indicate at least three months have maximum average temperatures over 100.4° F.

Table 5 - MDAB Average Annual Precipitation

Site	County	District	Precipitation (inches)
Baker	San Bernardino	MDAQMD	4.48
Barstow Daggett Airport	San Bernardino	MDAQMD	4.06
Barstow	San Bernardino	MDAQMD	5.30
Blythe Airport	Riverside	MDAQMD	3.77
Desert Center 2 NNE	Riverside	SCAQMD	3.92
Eagle Mountain	Riverside	SCAQMD	4.10
Goldstone Echo Number 2	San Bernardino	MDAQMD	5.88
Joshua Tree	San Bernardino	MDAQMD	5.11
Lancaster Wm J Fox Field	Los Angeles	AVAQMD	7.38
Mitchell Caverns	San Bernardino	MDAQMD	11.50
Mojave	Kern	EKAPCD	6.67
Mountain Pass 1 SE	San Bernardino	MDAQMD	9.94
Needles Airport	San Bernardino	MDAQMD	4.62
Palmdale Airport	Los Angeles	AVAQMD	8.30
Palmdale	Los Angeles	AVAQMD	7.40

Site	County	District	Precipitation (inches)
Parker Reservoir	San Bernardino	MDAQMD	6.16
Pearblossom	Los Angeles	AVAQMD	6.73
Randsburg	Kern	EKAPCD	7.26
Trona	San Bernardino	MDAQMD	3.88
Twentynine Palms	San Bernardino	MDAQMD	4.46
Victorville Pump Plant	San Bernardino	MDAQMD	6.15
Wrightwood	Los Angeles	AVAQMD	22.61

Recommended Impacts Discussion Elements

Direct Impacts

Direct impacts are the result of the project itself (from its construction and operation), in the form of project activity and trips generated by the project. For example, in the case of a subdivision project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), housing use activity (natural gas consumption) and trips to and from the housing (vehicle exhaust, tire wear) represent direct impacts. In the case of a new mine project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), material handling (drilling, blasting, transfers, crushing, screening, bagging), operational emissions (wind erosion, vehicle travel, vehicle exhaust, tire wear), and employee/customer/delivery travel (vehicle exhaust, tire wear) represent direct impacts.

Indirect Impacts

Indirect impacts are the result of changes that would not occur without the project. In the case of a subdivision project, indirect impacts on the surrounding community can be generated in many ways: nearby construction of roadways (or roadway modifications) and other infrastructure to support the subdivision, construction and operation of new commercial/retail establishments, changes in traffic/circulation patterns that result in increased congestion/delays, etc. In the case of a new mine project, indirect impacts can be generated by nearby construction of infrastructure to support the mine, housing constructed and/or occupied by mine employees, changes in traffic/circulation patterns that result in increased congestion/delays, etc.

Cumulative Impacts

Cumulative impacts are similar to direct and indirect impacts of the project, which the project contributes to. In the case of a subdivision project, a given project has a cumulative impact with all other subdivision projects, from the standpoint of each type of impact (cumulative construction emissions, residential natural gas consumption, solvent use, transportation emissions, congestion, etc.). Similarly, a new mine project has a cumulative impact with all other mining projects, from the standpoint of each type of impact (cumulative construction emissions, diesel equipment emissions, blasting emissions, fugitive emissions, transportation, congestion, etc.).

Conformity Impacts

A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

Sensitive Receptor Land Uses

Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number 4 (refer to the significance threshold discussion):

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

Recommended Substantiation Discussion Elements

For projects applying the emissions-based significance thresholds, project emissions quantification is required. In addition the environmental documentation must include support for the quantification methodology used, including emission factors, emission factors source, assumptions, and sample calculations where necessary. For projects using a calculation tool such as CalEEMod or URBEMIS, the support section must specify the inputs and settings used for the evaluation.

Significance Thresholds

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 6;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) [1];

[1] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.*

**Refer to the Sensitive Receptor Land Use discussion above*

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that a multi-phased project (such as a project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

Table 6 – Significant Emissions Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_x)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_x)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

District Contacts

If an address is not listed, please use the general address, to the attention of the listed individual.

AVAQMD General and Rulebook	Crystal Goree (661) 723-8070 x1 Mailing and Physical Address: 43301 Division St., Suite 206 Lancaster, CA 93535-4649
Planning and Rules	Tracy Walters (760) 245-1661 x6122
Air Quality and Meteorological Data	Orlando Salinas (760) 245-1661 x1810
CEQA and Conformity	Alan De Salvio (760) 245-1661 x6726
Permitting	Bret Banks (661) 723-8070 x2

Appendix A – Basic Definitions of Major Air Pollutants

Technical and/or legal definitions exist for many of these pollutants, depending on context. The following definitions are for general, introductory purposes only:

Carbon Dioxide (CO_2) – Common product of combustion. Not a criteria pollutant, but considered an important "greenhouse gas." Important on a national or global scale.

Carbon Monoxide (CO) – Common product of incomplete combustion. A criteria pollutant with state and federal standards. Not a primary photochemical reaction compound, but involved in photochemical reactions. Dissipates rapidly, and is therefore only important on a local scale near sources.

Criteria Pollutants – Those air pollutants specifically identified for control under the Federal Clean Air Act (currently six: carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone and particulates).

Lead (Pb) – A heavy metal, present in the environment mainly due to historical use in motor vehicle fuel. Primarily associated with lead smelting operations. A criteria pollutant with state and federal standards. Primarily of concern near sources.

Oxides of Nitrogen (NO_x) – Common product of combustion in the presence of nitrogen. Includes NO_2, which is a criteria pollutant with state and federal standards. Locally and regionally important due to its involvement in the photochemical formation of ozone.

Oxides of Sulfur (SO_x) – Common product of combustion in the presence of sulfur. Associated primarily with diesel and coal burning. Includes SO_2, a criteria pollutant with state and federal standards. Primarily of concern near sources.

Ozone (O_3) – A gas mainly produced by a photochemical reaction between reactive organic gases and oxides of nitrogen in the presence of sunlight (also produced by molecular oxygen in the presence of ultraviolet light or electrical discharge). A strong oxidant that is damaging at ground level but necessary at high altitude (in the stratosphere, where it absorbs dangerous ultraviolet light). Also considered an important greenhouse gas. A criteria pollutant with state and federal standards.

Particulate Matter (TSP or PM_{30}) – Solid or liquid matter suspended in the atmosphere, excluding water. Includes aerosols and droplets that form in the atmosphere. Locally and regionally important.

Reactive/Volatile Organic Compounds/Gases (ROG, VOC, NMOG, NMOC) – A portion of total organic compounds or gases, excludes methane, ethane and acetone (due to low photochemical reactivity). "ROG" is generally used by the California Air Resources Board, "VOC" is generally used by the United States Environmental Protection Agency, but all four terms are interchangeable for most uses. Regionally important due to its involvement in the photochemical reaction that produces ozone.

Respirable Particulate Matter (coarse or PM_{10}, and fine or $PM_{2.5}$) – That portion of particulate matter that tends to penetrate into the human lung. The subscript refers to aerodynamic diameter. Criteria pollutants with state and federal standards. Locally and regionally important.

Total Organic Compounds/Gases (TOC or TOG) – Compounds containing at least one atom of carbon, except carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and metallic carbonates. Primarily methane in the atmosphere, a "greenhouse gas."

ATTACHMENT B – CalEEMod Detailed Emissions Report

Air Quality Study - Duke Engineering, Mini Storage Facility - APN 3053-007-046, Palmdale, CA Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

3.3. Grading (2025) - Unmitigated

3.5. Building Construction (2025) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

3.9. Paving (2026) - Unmitigated

3.11. Architectural Coating (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Air Quality Study - Duke Engineering, Mini Storage Facility - APN 3053-007-046, Palmdale, CA
Construction Start Date	8/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.50
Precipitation (days)	13.0
Location	E Avenue S & 20th St E, Palmdale, CA 93550, USA
County	Los Angeles-Mojave Desert
City	Palmdale
Air District	Antelope Valley AQMD
Air Basin	Mojave Desert
TAZ	3643
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Industrial Park	123	1000sqft	2.83	123,312	59,109	0.00	—	—

Parking Lot	15.0	Space	1.57	0.00	0.00	—	—	—
Other Asphalt Surfaces	3.10	Acre	3.10	0.00	0.00	—	—	—
Other Non-Asphalt Surfaces	1.44	Acre	1.44	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	39.6	31.7	31.9	0.05	1.37	0.85	1.59	1.26	0.21	1.31	—	5,548	5,548	0.23	0.13	5,570
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.42	11.4	16.8	0.03	0.44	0.85	1.29	0.41	0.21	0.61	—	3,670	3,670	0.13	0.13	3,713
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.66	4.25	5.85	0.01	0.17	0.28	0.41	0.16	0.07	0.21	—	1,227	1,227	0.04	0.04	1,241
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.49	0.78	1.07	< 0.005	0.03	0.05	0.08	0.03	0.01	0.04	—	203	203	0.01	0.01	205

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.41	31.7	31.9	0.05	1.37	0.85	1.59	1.26	0.21	1.31	—	5,548	5,548	0.23	0.13	5,570
2026	39.6	10.7	18.0	0.03	0.39	0.85	1.24	0.35	0.21	0.56	—	3,726	3,726	0.13	0.13	3,773
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.42	11.4	16.8	0.03	0.44	0.85	1.29	0.41	0.21	0.61	—	3,670	3,670	0.13	0.13	3,713
2026	1.32	10.8	16.5	0.03	0.39	0.85	1.24	0.35	0.21	0.56	—	3,646	3,646	0.13	0.13	3,688
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.50	4.25	5.64	0.01	0.17	0.20	0.37	0.16	0.05	0.21	—	1,126	1,126	0.04	0.03	1,137
2026	2.66	3.74	5.85	0.01	0.14	0.28	0.41	0.13	0.07	0.19	—	1,227	1,227	0.04	0.04	1,241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.09	0.78	1.03	< 0.005	0.03	0.04	0.07	0.03	0.01	0.04	—	186	186	0.01	0.01	188
2026	0.49	0.68	1.07	< 0.005	0.03	0.05	0.08	0.02	0.01	0.03	—	203	203	0.01	0.01	205

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.24	3.37	32.2	0.06	0.11	4.79	4.90	0.11	1.22	1.32	137	10,107	10,244	14.4	0.39	10,772
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.10	3.55	20.6	0.05	0.10	4.79	4.89	0.10	1.22	1.32	137	9,599	9,736	14.4	0.40	10,247

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.28	3.29	22.3	0.05	0.10	4.15	4.25	0.10	1.05	1.15	137	9,073	9,210	14.3	0.37	9,719
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	0.60	4.06	0.01	0.02	0.76	0.78	0.02	0.19	0.21	22.7	1,502	1,525	2.37	0.06	1,609

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.44	2.48	26.2	0.05	0.04	4.79	4.83	0.04	1.22	1.25	—	5,548	5,548	0.21	0.23	5,642
Area	3.76	0.05	5.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.1	22.1	< 0.005	< 0.005	22.1
Energy	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	4,292	4,292	0.29	0.03	4,307
Water	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Waste	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Total	6.24	3.37	32.2	0.06	0.11	4.79	4.90	0.11	1.22	1.32	137	10,107	10,244	14.4	0.39	10,772
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.18	2.71	19.9	0.05	0.04	4.79	4.83	0.04	1.22	1.25	—	5,062	5,062	0.21	0.24	5,139
Area	2.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	4,292	4,292	0.29	0.03	4,307
Water	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Waste	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Total	5.10	3.55	20.6	0.05	0.10	4.79	4.89	0.10	1.22	1.32	137	9,599	9,736	14.4	0.40	10,247

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.92	2.43	18.9	0.04	0.03	4.15	4.19	0.03	1.05	1.09	—	4,525	4,525	0.19	0.21	4,601
Area	3.31	0.02	2.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.9	10.9	< 0.005	< 0.005	10.9
Energy	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	4,292	4,292	0.29	0.03	4,307
Water	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Waste	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Total	5.28	3.29	22.3	0.05	0.10	4.15	4.25	0.10	1.05	1.15	137	9,073	9,210	14.3	0.37	9,719
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.35	0.44	3.45	0.01	0.01	0.76	0.76	0.01	0.19	0.20	—	749	749	0.03	0.03	762
Area	0.60	< 0.005	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.80	1.80	< 0.005	< 0.005	1.81
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	711	711	0.05	< 0.005	713
Water	—	—	—	—	—	—	—	—	—	—	9.05	40.6	49.6	0.93	0.02	79.6
Waste	—	—	—	—	—	—	—	—	—	—	13.6	0.00	13.6	1.36	0.00	47.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.31
Total	0.96	0.60	4.06	0.01	0.02	0.76	0.78	0.02	0.19	0.21	22.7	1,502	1,525	2.37	0.06	1,609

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	5,314

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	24.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	1.74	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	253	253	0.01	0.01	257
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.34	6.34	< 0.005	< 0.005	6.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.05	1.05	< 0.005	< 0.005	1.06

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	2,970
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.89	0.98	< 0.005	0.04	—	0.04	0.04	—	0.04	—	162	162	0.01	< 0.005	163
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	26.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	1.49	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	217	217	0.01	0.01	220

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	11.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.80	1.80	< 0.005	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.27	2.83	0.01	0.09	—	0.09	0.09	—	0.09	—	521	521	0.02	< 0.005	523
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.41	0.52	< 0.005	0.02	—	0.02	0.02	—	0.02	—	86.2	86.2	< 0.005	< 0.005	86.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.29	5.14	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	749	749	0.03	0.03	760
Vendor	0.02	0.62	0.24	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	606	606	< 0.005	0.09	633
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.32	3.48	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	666	666	0.03	0.03	674
Vendor	0.02	0.65	0.24	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	607	607	< 0.005	0.09	633
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.85	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	151
Vendor	< 0.005	0.14	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	132	132	< 0.005	0.02	137
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.6	24.6	< 0.005	< 0.005	25.0
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.8	21.8	< 0.005	< 0.005	22.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	3.01	3.96	0.01	0.12	—	0.12	0.11	—	0.11	—	732	732	0.03	0.01	734
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.55	0.72	< 0.005	0.02	—	0.02	0.02	—	0.02	—	121	121	< 0.005	< 0.005	122
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.27	4.82	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	734	734	0.03	0.03	745
Vendor	0.02	0.59	0.23	< 0.005	0.01	0.17	0.18	< 0.005	0.05	0.05	—	595	595	< 0.005	0.09	622
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.30	3.25	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	653	653	0.03	0.03	661
Vendor	0.01	0.63	0.23	< 0.005	0.01	0.17	0.18	< 0.005	0.05	0.05	—	596	596	< 0.005	0.09	621
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.12	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	205	205	0.01	0.01	208
Vendor	< 0.005	0.19	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	182	182	< 0.005	0.03	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.9	33.9	< 0.005	< 0.005	34.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.1	30.1	< 0.005	< 0.005	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	1,516
Paving	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	83.1
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	13.8
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.40	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	213	213	0.01	0.01	216
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	10.8

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.76	1.76	< 0.005	< 0.005	1.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	134
Architectural Coatings	39.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	7.34
Architectural Coatings	2.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	1.22
Architectural Coatings	0.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.96	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	147	147	0.01	0.01	149
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.36	7.36	< 0.005	< 0.005	7.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	1.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.44	2.48	26.2	0.05	0.04	4.79	4.83	0.04	1.22	1.25	—	5,548	5,548	0.21	0.23	5,642
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	2.44	2.48	26.2	0.05	0.04	4.79	4.83	0.04	1.22	1.25	—	5,548	5,548	0.21	0.23	5,642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.18	2.71	19.9	0.05	0.04	4.79	4.83	0.04	1.22	1.25	—	5,062	5,062	0.21	0.24	5,139
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	2.18	2.71	19.9	0.05	0.04	4.79	4.83	0.04	1.22	1.25	—	5,062	5,062	0.21	0.24	5,139
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.35	0.44	3.45	0.01	0.01	0.76	0.76	0.01	0.19	0.20	—	749	749	0.03	0.03	762

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.35	0.44	3.45	0.01	0.01	0.76	0.76	0.01	0.19	0.20	—	749	749	0.03	0.03	762

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	3,203	3,203	0.20	0.02	3,215
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	87.3	87.3	0.01	< 0.005	87.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3,290	3,290	0.20	0.02	3,303
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	3,203	3,203	0.20	0.02	3,215

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	87.3	87.3	0.01	< 0.005	87.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3,290	3,290	0.20	0.02	3,303
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	530	530	0.03	< 0.005	532
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	14.5	14.5	< 0.005	< 0.005	14.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	545	545	0.03	< 0.005	547

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,002	1,002	0.09	< 0.005	1,004
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,002	1,002	0.09	< 0.005	1,004
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,002	1,002	0.09	< 0.005	1,004
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.84	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,002	1,002	0.09	< 0.005	1,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	166	166	0.01	< 0.005	166
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	166	166	0.01	< 0.005	166

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.88	0.05	5.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.1	22.1	< 0.005	< 0.005	22.1
Total	3.76	0.05	5.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.1	22.1	< 0.005	< 0.005	22.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.08	< 0.005	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.80	1.80	< 0.005	< 0.005	1.81
Total	0.60	< 0.005	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.80	1.80	< 0.005	< 0.005	1.81

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	54.6	245	300	5.62	0.13	481
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	9.05	40.6	49.6	0.93	0.02	79.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	9.05	40.6	49.6	0.93	0.02	79.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	82.4	0.00	82.4	8.24	0.00	288
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	13.6	0.00	13.6	1.36	0.00	47.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	13.6	0.00	13.6	1.36	0.00	47.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.31
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.31

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2025	8/14/2025	5.00	10.0	—
Grading	Grading	8/15/2025	9/11/2025	5.00	20.0	—
Building Construction	Building Construction	9/12/2025	6/5/2026	5.00	191	—
Paving	Paving	6/6/2026	7/3/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	7/4/2026	7/31/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	51.8	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	20.2	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.4	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	184,968	61,656	15,969

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Paving	0.00	0.00	0.00	0.00	6.11

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Industrial Park	0.00	0%
Parking Lot	1.57	100%
Other Asphalt Surfaces	3.10	100%
Other Non-Asphalt Surfaces	1.44	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	416	313	153	132,648	6,760	5,095	2,487	2,157,723
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	184,968	61,656	15,969

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Industrial Park	2,197,455	532	0.0330	0.0040	3,125,524

Parking Lot	59,909	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	28,515,900	956,637
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	153	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.1	annual days of extreme heat
Extreme Precipitation	2.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	16.0
AQ-DPM	29.8
Drinking Water	20.4
Lead Risk Housing	28.7
Pesticides	0.00
Toxic Releases	92.6
Traffic	33.5
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	7.35
Impaired Water Bodies	12.5
Solid Waste	0.00
Sensitive Population	—
Asthma	96.6
Cardio-vascular	95.7
Low Birth Weights	83.7
Socioeconomic Factor Indicators	—
Education	81.7
Housing	85.3
Linguistic	52.9
Poverty	68.3
Unemployment	45.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	22.40472219
Employed	17.38739895
Median HI	33.99204414
Education	—
Bachelor's or higher	2.399589375
High school enrollment	100
Preschool enrollment	54.09983318
Transportation	—
Auto Access	73.42486847
Active commuting	54.92108302
Social	—
2-parent households	40.0872578
Voting	13.25548569
Neighborhood	—
Alcohol availability	97.0101373
Park access	9.29038881
Retail density	37.17438727
Supermarket access	22.64853073
Tree canopy	12.24175542
Housing	—
Homeownership	73.60451687
Housing habitability	19.40202746
Low-inc homeowner severe housing cost burden	7.981521879
Low-inc renter severe housing cost burden	1.488515334

Uncrowded housing	32.32388041
Health Outcomes	—
Insured adults	46.81124086
Arthritis	54.3
Asthma ER Admissions	6.1
High Blood Pressure	62.1
Cancer (excluding skin)	74.5
Asthma	23.6
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	27.0
Diagnosed Diabetes	25.3
Life Expectancy at Birth	24.3
Cognitively Disabled	4.0
Physically Disabled	14.9
Heart Attack ER Admissions	6.8
Mental Health Not Good	17.1
Chronic Kidney Disease	35.4
Obesity	15.4
Pedestrian Injuries	19.6
Physical Health Not Good	19.5
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	45.1
Current Smoker	19.3
No Leisure Time for Physical Activity	28.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	10.6
Elderly	84.9
English Speaking	20.5
Foreign-born	57.0
Outdoor Workers	17.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	77.5
Traffic Density	48.2
Traffic Access	23.0
Other Indices	—
Hardship	67.0
Other Decision Support	—
2016 Voting	16.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	27.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Information was provided by the client.
Construction: Construction Phases	The start date of 8/1/2025, end date of 8/1/2026, and 5 workdays per week was provided by the client. Since the 8/1/2026 is a weekend CalEEMod automatically adjusted the end date as 7/31/2026.
Construction: Dust From Material Movement	Based on information provided by the client no material import/export is required.

Appendix D: Biological Resource Assessment

Biological Resource Assessment of APNS 3053-007-046 and 3053-007-908 Palmdale, California

December 21, 2024

Mark Hagan, Wildlife Biologist
44715 17th Street East
Lancaster, CA 93535
(661) 433-9956 (m)

B.S. Degree, Wildlife Management
Humboldt State University

Biological Resource Assessment of APNs 3053-007-046 and 3053-007-908, Palmdale, California

Mark Hagan, Wildlife Biologist, 44715 17th Street East, Lancaster, CA 93535

Abstract

Development has been proposed for APNs 3053-007-046 and 3053-007-908, Palmdale, California. The approximately 15 acre (6 ha) study area was located south of Avenue S and west of Cemetery Road, T5N, R12W, a portion of the N1/2 of the NE1/4 of the NW1/4 of Section 1, S.B.B.M. A line transect survey was conducted on 30 November 2024 to inventory biological resources. The proposed project area was characteristic of a disturbed California juniper (*Juniperus californica*) woodland and desert scrub plant community. A total of 32 plant species and 17 wildlife species or their sign were observed during the line transect survey. The study area did not support desert tortoise (*Gopherus agassizii*) habitat. The study area did not support Mohave ground squirrel (*Xerospermophilus mohavensis*) habitat. California ground squirrel (*Citellus beecheyi*) burrows provide potential future cover sites for burrowing owls (*Athene cunicularia*). No desert kit foxes (*Vulpes macrotis*) or their sign were observed within the study area. Desert kit foxes would not be expected to use this study area due to its location. The study area does not provide forage for Swainson's hawks or other raptors due to parcel size, and condition of the habitat. The study area provides potential nesting sites for migratory birds. No impacts to Crotch's bumblebee (*Bombus crotchii*) are expected as a result of this project. Short-joint beavertail cacti (*Opuntia basilaris var. brachyclada*) were observed within the study area. No other state or federal listed species are expected to occur within the study area. One ephemeral wash was observed within the western portion of the study area.

Recommended Protection Measures:

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey will be accomplished no more than 14 days prior to ground disturbance activities to ensure no owls have moved into the study site (CDFG 2012). If burrowing owls are discovered during preconstruction surveys, consultation with CDFW will be required.

If possible, removal of vegetation will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests or 50 feet (15 m) around smaller active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

Prior to development a survey for bumblebees will be conducted. If any bumblebees are detected a focused survey for Crotch's bumblebee will be conducted. If bumblebees are detected consultation with CDFW will be conducted.

Prior to development, the project proponent will attempt to translocate short joint beavertail cactus into peripheral areas not prone to disturbance from construction activities.

An area that has any of the following characteristics which will be impacted by development: distinct bed, bank, channel, signs of scouring, evidence of water flow, may require a Streambed Alteration Agreement from the CDFW prior to development activities. This project will require consultation with CDFW to determine whether a Streambed Alteration Agreement is required. Consultation with Lahontan Regional Water Quality Control Board should be accomplished to determine permitting requirements such as a Clean Water Act Section 401 permit for Waters of the State.

Significance: Given the adjacent land uses, implementation of protection measures and highly impacted condition of the study area this project would not result in an adverse impact to biological resources.

Development has been proposed for APNS 3053-007-046 and 3053-007-908 (Figure 1). Development would include installation of access roads, parking, and utilities (water, sewer, electric, etc.). The entire project area would be graded prior to construction activities.

An environmental analysis should be conducted prior to any development project. An assessment of biological resources is an integral part of environmental analyses (Gilbert and Dodds 1987). The purpose of this study was to provide an assessment of biological resources potentially occurring within or utilizing the proposed project area. Specific focus was on the presence/absence of protected, rare, threatened, and endangered species of plants and wildlife that would be expected to use the existing habitat. Species of concern included the desert tortoise (*Gopherus agassizii*), coast horned lizard (*Phrynosoma blainvillii*), Mohave ground squirrel *(Xerospermophilus mohavensis),* desert kit fox *(Vulpes macrotis)*, burrowing owl *(Athene cunicularia),* Swainson's hawk *(Buteo swainsoni),* Crotch's bumblebee (*Bombus crotchii*), Joshua tree (*Yucca brevifolia*), short-joint beavertail cactus (*Opuntia basilaris var. brachyclada*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), and Barstow woolly sunflower (*Eriophyllum mohanense*).

Study Area

The approximately 15 acre (6 ha) study area was located south of Avenue S and west of Cemetery Road, T5N, R12W, a portion of the N1/2 of the NE1/4 of the NW1/4 of Section 1, S.B.B.M. (Figures 2 and 3). Southern Pacific Railroad tracks occurred adjacent to the southern boundary of the study area. Residential housing occurred south of the railroad tracks. The eastern boundary of the study area was formed by Cemetery Road. Residential housing occurred east of Cemetery Road. Disturbed habitat occurred between the western boundary of the study area and 20th street East. Residential housing occurred west of 20th Street East. Avenue S formed the northern boundary of the study area. Highly disturbed landscaped area was located north of Avenue S.

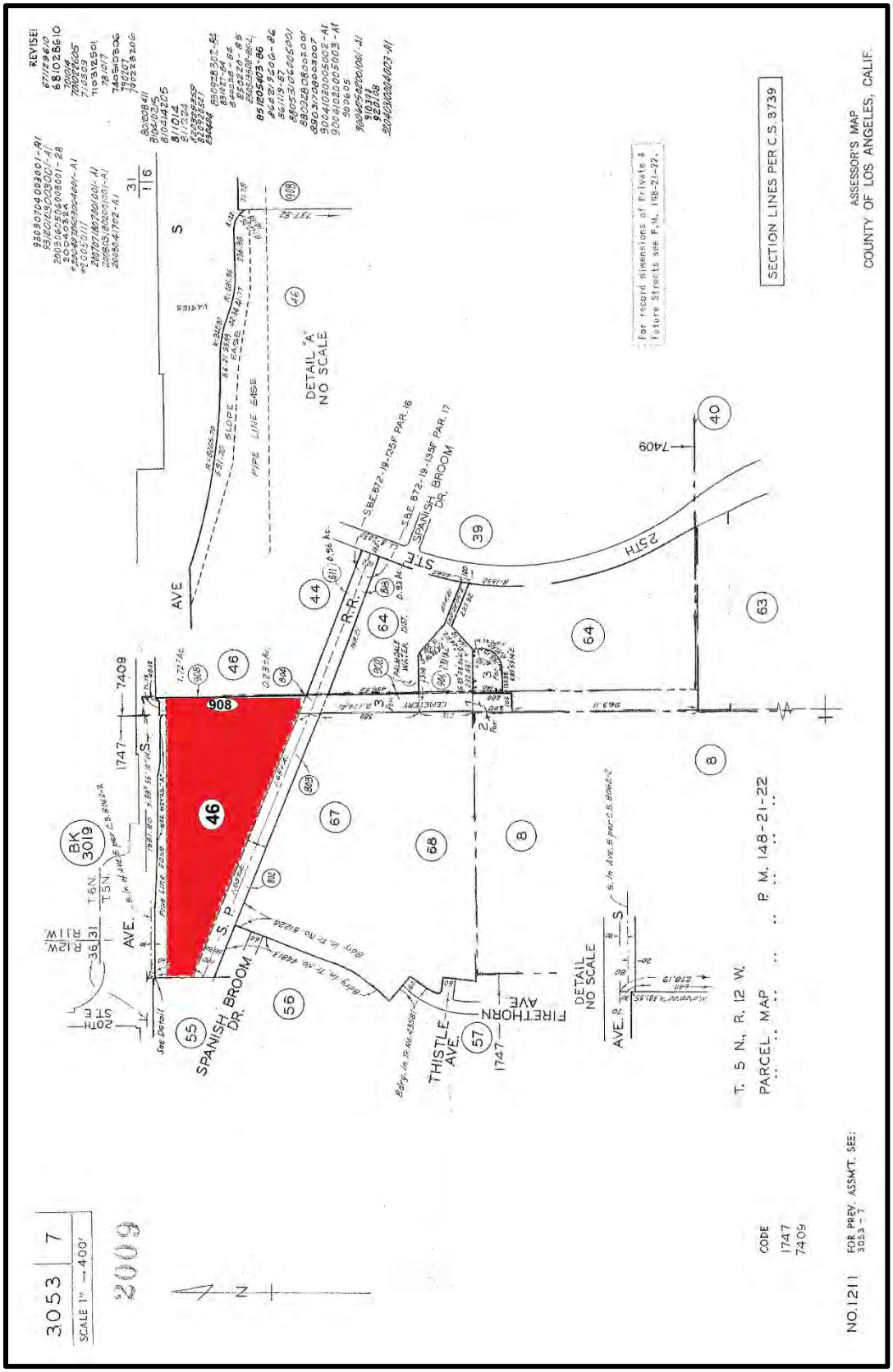


Figure 1. Approximate location of proposed project sites as depicted on APN map.

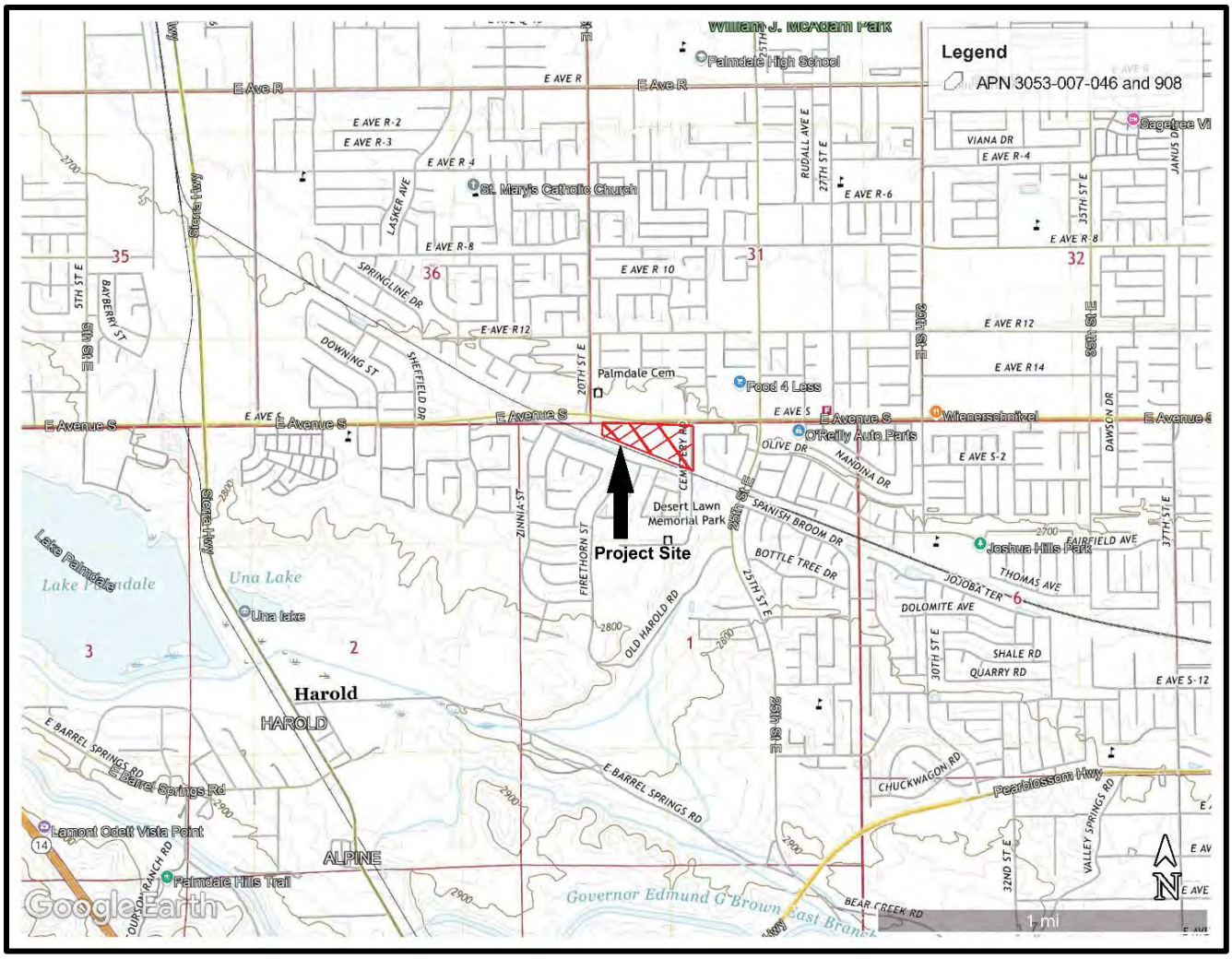


Figure 2. Approximate location of study area as depicted on excerpt from USGS Quadrangle, Palmdale, California, 7.5' 2021.

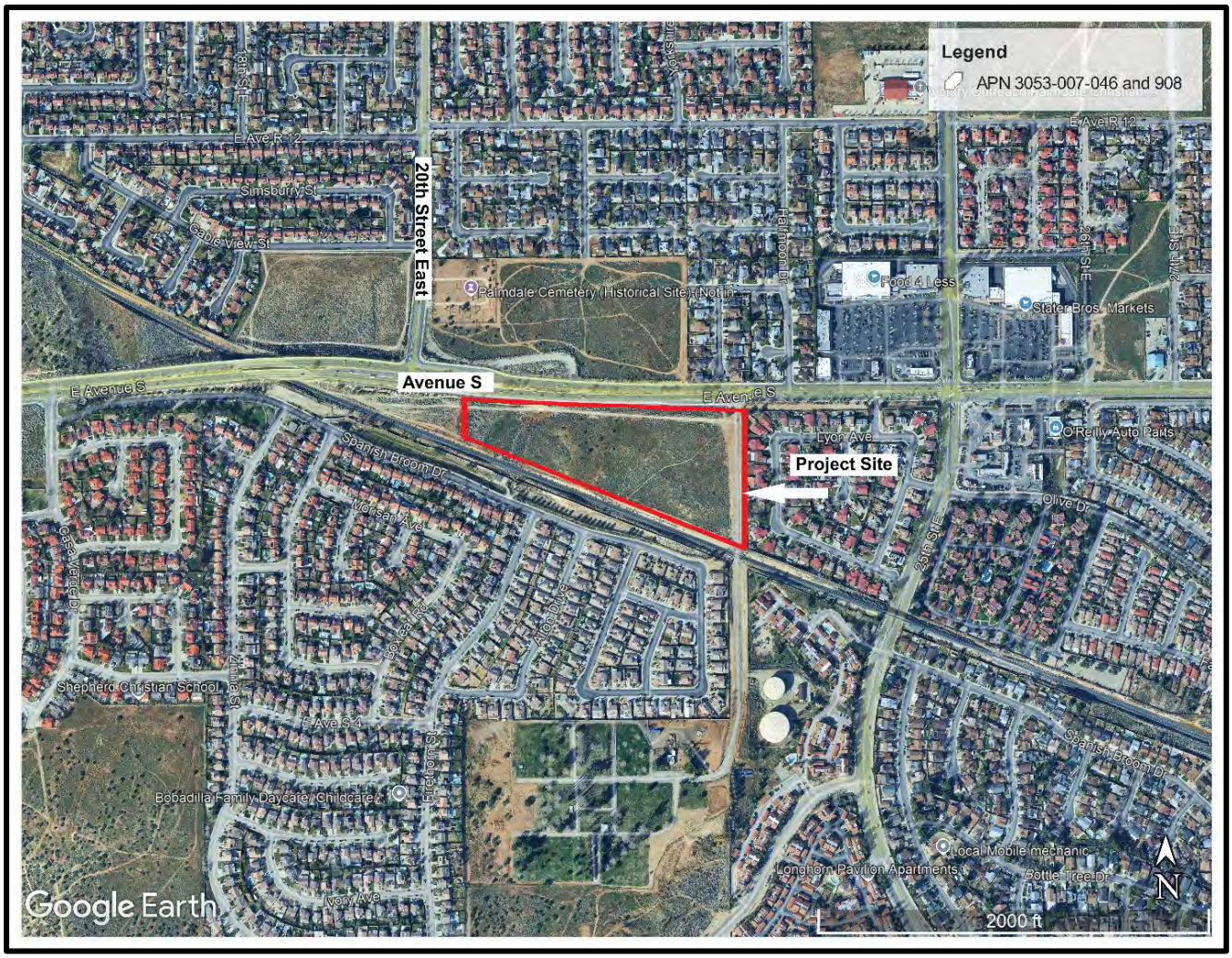


Figure 3. Approximate location of study area showing the proposed project area outlined in red and surrounding land use, Google Earth, 2022.

Methods

A line transect survey was conducted to inventory plant and wildlife species occurring within the proposed project area (Cooperrider et al. 1986, Davis 1990). Line transects were walked in an east-west orientation. Line transects ranged from 660-1350 feet (201-411 m) long and spaced about 50 feet (15 m) apart (U.S. Fish & Wildlife Service 2010).

All observations of plant and animal species were recorded in field notes. Field guides were used to aid in the identification of plant and animal species (Arnett and Jacques 1981, Borror and White 1970, Burt and Grossenheider 1976, Gould 1981, Jaeger 1969, Knobel 1980, Robbins et al. 1983, Stark 2000). Observations were aided with the use of 10x42 binoculars. Observations of animal tracks, scat, and burrows were also utilized to determine the presence of wildlife species inhabiting the proposed project area (Cooperrider et al. 1986, Halfpenny 1986, Lowrey 2006, Murie 1974). California Natural Diversity Database (CNDDB 2024a), eBird (2024), and the USGS topographic map of the study area and surrounding vicinity were reviewed. Photographs of the study site were taken (Figures 4 and 5).

Results

A total of 6 line transects were walked on 30 November 2024. Weather conditions consisted of moderate temperatures (estimated 60 degrees F), 90% cloud cover, and light wind. Sandy loam surface soil texture with gravel component was observed throughout the study area. Topography of the study area was approximately 2,720 feet (829 m) above sea level. There were no blue line streams delineated on the USGS topographic map within the study area. There was one ephemeral wash observed within the western portion of the study area.

The study area was characteristic of disturbed California juniper (*Juniperus californica*) woodland and desert scrub plant community. A total of 32 plant species were observed during the line transect survey (Table 1). California juniper and rabbit brush (*Chrysothamnus nauseosis*) were the dominant perennial shrubs within the study area. Red-stem filaree (*Erodium cicutarium*) and brome grasses (*Bromus* spp.) were the dominant annual species within the study area. No Joshua trees were observed in the study area or within 50 feet (15 m) of the boundaries. Several short-joint beavertail cacti were observed within the study area. No alkali mariposa lilies, Barstow woolly sunflowers, desert cymopterus, or suitable habitat were observed within the study area.

Seventeen wildlife species or their sign were observed during the line transect survey (Table 2). No desert tortoises or their sign were observed during the field survey. No suitable desert tortoise habitat was observed within the study area. No coast horned lizards were observed during the field survey. No burrowing owls or their sign were observed during the field survey. California ground squirrel (*Citellus beecheyi*) burrows and scat were observed within the eastern portion of the study site. No bird nests were observed within the study area. Swainson's hawks were not observed during the field survey. No desert kit foxes, dens, or tracks were observed within the study area. No suitable Mohave ground squirrel habitat was observed within the study area. No Crotch's bumble bees were observed during the field survey. A domestic dog (Canis familiaris) was observed and appeared to be living within the study site.



Figure 4. Representative photos of site. Top photo is view from western portion of the site looking east. Bottom photo depicts the eastern portion of the site.



Figure 5. Representative photos of site. Top photo is view of the homeless encampment on the hill. Bottom photos show north and south portions of the ephemeral wash located in the western portion of site.

Table 1. List of plant species that were observed during the line transect survey of APNS 3053-007-046 and 3053-007-908, Palmdale, California.

Common Name	Scientific Name
California juniper	*Juniperus californica*
Creosote bush	*Larrea tridentata*
Anderson thorn	*Lycium andersonii*
Peachthorn	*Lycium cooperi*
Cooper goldenbush	*Haplopappus cooperi*
Goldenhead	*Acamptopappus sphaerocephalus*
Mormon tea	*Ephedra nevadensis*
Paper bag bush	*Salazaria mexicana*
Bladderpod	*Isomeris arborea*
Cheesebush	*Hymenoclea salsola*
Rabbit brush	*Chrysothamnus nauseosis*
California buckwheat	*Eriogonum fasciculatum*
Desert straw	*Stephanomeria pauciflora*
Spotted buckwheat	*Eriogonum maculatum*
Red-stem filaree	*Erodium cicutarium*
Turkey mullein	*Eremocarpus setigerus*
Horseweed	*Canyza honariensis*
Matchweed	*Gutierrezia lucida*
Chinese pusley	*Heliotropium curassavicum*
Silver cholla	*Opuntia echinocarpa*
Short-joint beavertail cactus	*Opuntia basilaris var. brachyclada*
Sahara mustard	*Brassica tournefortii*
Tumble mustard	*Sisymbrium altisissiimum*
Russian thistle	*Salsola iberica*
Schismus	*Schismus* sp.
Nevada blue grass	*Poa secunda*
Desert needlegrass	*Stipa comata*
Foxtail barley	*Hordeum leporinum*
Oats	*Avena sativa*
Red brome	*Bromus rubens*
Cheat grass	*Bromus tectorum*
Ripgut grass	*Bromus diandrus*

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNS 3053-007-046 and 3053-007-908, Palmdale, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
California ground squirrel	*Citellus beecheyi*
Desert cottontail	*Sylvilagus auduboni*
Black-tailed jackrabbit	*Lepus californicus*
Coyote	*Canis latrans*
Domestic dog	*Canis familiaris*
Horse	*Equus* sp.
Gull sp.	Family: Laridae
Mourning dove	*Zenaida macroura*
Common raven	*Corvus corax*
White crowned sparrow	*Zonotrichia leucophrys*
Lark sparrow	*Chondestes grammacus*
European honey bees	Order: Hymenoptera
Harvester ants	Order: Hymenoptera
Spider	Order: Araneida
Beetle (black)	Order: Coleoptera
Darkling beetle	*Coelocnemis californicus*

The study area had been previously disturbed. A small amount of scattered litter was observed within the study area, mostly along roads and in the vicinity of the homeless encampment. Evidence of a small fire was observed near the homeless encampment. A foot and bike trail was observed leading to the homeless encampment. A trail from the northeast corner oriented to the southwest showing footprints and one set of vehicle tracks was observed. Concrete slabs and dirt piles were observed within the study area. Heavy equipment tracks and areas of test digging or drilling were observed throughout the study area.

Discussion

It is likely that some annual species were not visible during the time the field survey was conducted. Any annual plant species not observed would be expected to be common or weedy species. The study area has been disturbed by previous impacts. Although not observed, several wildlife species would be expected to occur within the proposed project area (Table 3). Human impacts within the study area are expected to continue. Urban habitat in the general area has been developed creating an island effect with this study area. Burrowing animals within the proposed project area are not expected to survive construction activities. More mobile species, such as birds and lagomorphs, are expected to survive construction activities. Development of this site will result in a minimal loss of cover and foraging opportunities for the common wildlife species occurring within and adjacent to the study area.

Table 3. List of wildlife species that may occur within the proposed study area, APNS 3053-007-046 and 3053-007-908, Palmdale, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Merriam kangaroo rat	*Dipodomys merriami*
Domestic cat	*Felis* sp.
Say's phoebe	*Sayornis saya*
House finch	*Carpodacus mexicanus*
House sparrow	*Passer domesticus*
Side blotched lizard	*Uta stansburiana*
Western whiptail	*Cnemidophorus tigris*
Gopher snake	*Pituophis melanoleucus*
Fly	Order: Diptera
Grasshopper	Order: Orthoptera

The desert tortoise is a state endangered and federally listed threatened species. The proposed project area was located within the geographic range of the desert tortoise. The proposed project site was not located in critical habitat designated for the Mojave population of the desert tortoise. Suitable habitat for desert tortoise was not present adjacent to the study area. Desert tortoises do not inhabit the study area. No protection measures are recommended for desert tortoises.

Coast horned lizards are considered a species of special concern by the California Department of Fish and Wildlife (CDFW). This project site is at the very margin of the coast horned lizard range (Leache et.al. 2009). The CNDDB had no documented coast horned lizard observations within 5 miles around the study area in the last 30 years. No coast horned lizards were observed during the field surveys and are not expected to occur within the study site. No protection measures are recommended for coast horned lizard.

The Mohave ground squirrel (MGS) is a state listed threatened species. The study area was located within the geographic range of MGS. The western limit of the geographic range of the Mohave ground squirrel is currently thought to be Highway 14 and just south of Pearblossom Highway (Leitner 2021). MGS habitat consists of a variety of desert scrub habitats, to include a specific assemblage of required shrub and annual species within those habitats. Only a few individuals of the shrubs known to be important elements for MGS persistence were present within the study site (Leitner and Leitner 2017, CDFW 2019). MGS foraging behavior changes depending on season and whether it has been a dry or wet season. Stems and leaves from shrubs are necessary to provide forage during times annuals are unavailable. The lack of an adequate density and presence of preferred shrubs within and around the study site preclude MGS presence.

A table listing MGS habitats and a discussion of required shrubs and annuals can be found in the 2019 CDFW publication titled "A Conservation Strategy for the Mohave Ground Squirrel." California ground squirrels (CGS) are present within the study site. Since MGS prefer natural habitats, interactions with CGS would not occur often (CDFW 2019). CGS are larger and more aggressive than MGS which would seem to indicate they would be unlikely to coexist (CDFW 2019). Based on review of the 2019 CDFW publication, and Leitner's review of MGS data results from 2013 to 2020 no MGS are expected to be present within the study area (CDFW 2019, Leitner 2021). Given the lack of suitable habitat, presence of CGS, and historical data, no protection measures are recommended for MGS.

No desert kit foxes or their sign were observed within the study area. Desert kit foxes would not be expected to use this study area due to its location. No protection measures are recommended for desert kit foxes.

Burrowing owls are a candidate species for listing as threatened or endangered by the California Department of Fish and Wildlife (CDFW). No burrowing owls or their sign were observed within the study area. California ground squirrel burrows were present which can provide potential future cover sites for burrowing owls.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Vegetation within the study site offers potential nesting habitat for migratory birds. Swainson's hawk is a state threatened listed species. Swainson's hawk observations appear to be strongly correlated to active agricultural fields, parks, and large retention basins within the Antelope Valley (eBird 2024). No suitable nesting habitat for Swainson's hawk is present within the study site. There were no Swainson's hawk nests documented within 5 miles (8 km) of the study site (eBird 2024). No protection measures for Swainson's hawks are recommended.

Crotch's bumblebee is a candidate species for listing as threatened or endangered by the CDFW. Vegetation within the study area might support Crotch's bumblebees.

The CDFW administers the Fish and Game Code Section 1602, Lake and Streambed Alteration Program. An ephemeral wash was observed within the western portion of the study site. Any project that may impact a water resource either by changing its course or depositing material into it is required to be reviewed under Section 1602.

The CNPS lists the short joint beavertail cactus as Rare Plant Rank 1B.2, meaning that the group considers it rare, threatened or endangered in California and elsewhere. The degree of threat to it is believed to be moderately threatened in California (20 – 80% of occurrences threatened/moderate degree and immediacy of threat). The state of California has not, itself, listed the species as endangered, threatened, rare or a candidate for those classifications.

Based on the results of the field survey other sensitive plant species are not expected to occur within the study area and no protection measures are recommended. No other state or federal listed species are expected to occur within the proposed project area (CNDDB 2024a-c).

Landscape design should incorporate the use of native plants to the maximum extent feasible. Native plants that have food and cover value to wildlife should be used in landscape design (Adams and Dove 1989). Diversity of native plants should be maximized in landscape design (Adams and Dove 1989).

Recommended Protection Measures:

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey will be accomplished no more than 14 days prior to ground disturbance activities to ensure no owls have moved into the study site (CDFG 2012). If burrowing owls are discovered during preconstruction surveys, consultation with CDFW will be required.

If possible, removal of vegetation will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests or 50 feet (15 m) around smaller active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

Prior to development a survey for bumblebees will be conducted. If any bumblebees are detected a focused survey for Crotch's bumblebee will be conducted. If bumblebees are detected consultation with CDFW will be conducted.

Prior to development, the project proponent will attempt to translocate short joint beavertail cactus into peripheral areas not prone to disturbance from construction activities.

An area that has any of the following characteristics which will be impacted by development: distinct bed, bank, channel, signs of scouring, evidence of water flow, may require a Streambed Alteration Agreement from the CDFW prior to development activities. This project will require consultation with CDFW to determine whether a Streambed Alteration Agreement is required. Consultation with Lahontan Regional Water Quality Control Board should be accomplished to determine permitting requirements such as a Clean Water Act Section 401 permit for Waters of the State.

Significance: Given the adjacent land uses, implementation of protection measures and highly impacted condition of the study area this project would not result in an adverse impact to biological resources.

Literature Cited

Adams, L.W. and L.E. Dove. 1989. Wildlife reserves and corridors in the urban environment. National Institute for Urban Wildlife, Columbia, MD. 91pp.

Arnett, R.H., Jr. and R.L. Jacques, Jr. 1981. Simon and Schuster's guide to insects. Simon and Schuster, Inc. New York. 511pp.
Borror, D.J. and R.E. White. 1970. A field guide to insects. Houghton Mifflin Company, Boston. 404pp.
Burt, W.H. and R.P Grossenheider. 1976. A field guide to the mammals. Houghton Mifflin Company, Boston. 289pp.
California Department of Fish and Game (CDFG). 2012. Staff report on burrowing owl mitigation. Calif. Dept. of Fish and Wildlife, Wildlife Branch, Sacramento, CA. 36pp.
California Natural Diversity Database (CNDDB). 2024a. Palmdale quadrangle. Calif. Dept. of Fish and Wildlife California Natural Diversity Database, Sacramento, CA. 36pp.
California Natural Diversity Database (CNDDB). 2024b. State and federally listed endangered and threatened animals of california. California Department of Fish and Wildlife. Sacramento, CA. 41pp.
California Natural Diversity Database (CNDDB). 2024c. State and Federally Listed Endangered, Threatened, and Rare Plants of California. California Department of Fish and Wildlife. Sacramento, CA. 26pp.
Cooperrider, A.L., Boyd, R.J. and H.R. Stuart, Eds. 1986. Inventory and monitoring of wildlife habitat. U.S. Dept. of Inter., Bur. Land Manage. Service Center, CO. 858pp.
Davis, D.E. 1990. Handbook of census methods for terrestrial vertebrates. CRC Press, Boca Raton, FL. 397pp.
eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: http://www.ebird.org. (Accessed: 21 Dec 2024)
Gilbert, F.F. and D.G. Dodds. 1987. The philosophy and practice of wildlife management. Krieger Publishing Company, Malabar, FL. 279pp.
Gould, F.W. 1981. Grasses of southwestern united states. Univ. of Arizona Press, Tucson, AZ. 343pp.
Halfpenny, J. 1986. A field guide to mammal tracking in western america. Johnson Publishing Company, Boulder, CO. 161pp.
Jaeger, E.C. 1969. Desert wild flowers. Stanford Univ. Press, Stanford, CA. 322pp.
Knobel, E. 1980. Field guide to the grasses, sedges and rushes of the united states. Dover Publications Inc. New York, NY 83pp.
Leache, A. D., M. S. Koo, C. L. Spencer, T. J. Papenfuss, R. N. Fisher, and McGuire, J.A. 2009. Quantifying ecological, morphological, and genetic variation to delimit species in the coast horned lizard species complex (*phrynosoma*). Genome Center and Section of Evolution and Ecology, One Shields Avenue, University of California, Davis, CA. 6pp.
Leitner, B.M. and P. Leitner 2017. Diet of the mohave ground squirrel (xerospermophilus mohavensis) in relation to season and rainfall. Western North American Naturalist 77(1):1-13. Barbara M. Leitner, 2 Parkway Court, Orinda, CA 94563.
Leitner, P. 2021. Current status of the mohave ground squirrel: an update covering the period 2013-2020, California Fish and Wildlife Special CESA Issue: 300-316; 2021. Philip Leitner, 2 Parkway Court, Orinda, CA 94563.
Lowery, J.C. 2006. The tracker's field guide. The Globe Pequot Press, Gilford, CT 408pp.
Murie, O.J. 1974. A field guide to animal tracks. Houghton Mifflin Company, Boston. 375pp.

Robbins, C.S., Bruun, B. and H.S. Zim. 1983. A field guide to identification: birds of north america. Golden Press, NY. 360pp.

Stark, M. 2000. A flower-watchers guide to wildflowers of the western mojave desert. Published by Milt Stark. Lancaster, CA 160pp.

U.S. Fish & Wildlife Service. 2010. Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*), 2010 field season. U.S. Fish & Wildl. Serv., 18pp.

Appendix E: Monitoring Mitigation Reporting Plan

MITIGATION MEASURE	VERIFICATION RESPONSIBILITY	ACTION(S) REQUIRED	REQUIRED TIME OF COMPLIANCE	ACTION TAKEN	VERIFIED BY/DEPT	FURTHER ACTION NEEDED
BIO 1	Planning Division/Building and Safety Division	Prior to ground disturbing activities a preconstruction survey for bumble bees will be conducted. If any bumble bees are detected a focused survey for Crotch's bumble bee will be conducted or an Incidental Take Permit will be applied for. If any bumble bees are detected consultation with CDFW will be conducted.	Prior to ground disturbance activities			
BIO 2	Planning Division/Building and Safety Division	Removal of vegetation will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests or 50 feet (15 m) around smaller active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.	Prior to ground disturbance activities			
BIO 3	Planning Division/Building and Safety Division	Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey will be accomplished no more than 14 days prior to ground disturbance activities to ensure no owls have moved into the study site (CDFG 2012). If burrowing owls are discovered during preconstruction surveys, consultation with CDFW will be required.	Prior to ground disturbance activities			
BIO 4	Planning Division/Building and Safety Division	Prior to development, the project proponent will translocate short joint beavertail cactus into peripheral areas not prone to disturbance from construction activities.	Prior to ground disturbance activities			

MITIGATION MEASURE	VERIFICATION RESPONSIBILITY	ACTION(S) REQUIRED	REQUIRED TIME OF COMPLIANCE	ACTION TAKEN	VERIFIED BY/DEPT	FURTHER ACTION NEEDED
TRIB-1	Planning Division/Building and Safety Division (to Include all Tribal Mitigations to Follow)	**Worker Environmental Awareness Program (WEAP) Training**: Prior to the start of construction, a qualified cultural or tribal monitor will be retained by the project applicant, and shall conduct WEAP training for construction personnel regarding the aspects of Tribal/Cultural Resources to include procedures for notifying the Fernandeño Tataviam Band of Mission Indians should Tribal/Cultural Resources be discovered by construction personnel.	Prior to ground disturbance activities (to Include all Tribal Mitigations to Follow)			
TRIB-2		**Full Time Monitoring** The project applicant shall retain a qualified Cultural or Tribal Monitor to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity during the initial pass (the first disturbance of all soil to the total depth of which it will be disturbed). If Cultural Resources (any not already noted in Cultural Report as not significant) are not encountered after observing the initial pass of all ground-disturbance, additional monitoring is not required. If Cultural Resources (any not already noted in Cultural Report as not significant) are encountered during the initial pass, Monitor(s) shall observe all remaining ground-disturbing activities, no matter the depth or frequency to which the soil was previously observed, until all ground-disturbing activities are complete.				
TRIB-3		**Inadvertent Discovery** If cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant shall assess the find. Work on the portions of the project outside of the buffered area may continue during this assessment period. The Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted about any pre-contact and/or post-contact finds and be provided information after the archaeologist makes their initial assessment of the nature of the find, to provide Tribal input with regards to significance and treatment. The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.				

TRIB-4		**Treatment and Disposition Plan** A Treatment and Disposition Plan (TDP) shall be established, in consultation with the Fernandeño Tataviam Band of Mission Indians, in the event of inadvertent discoveris of cultural resources are found. The TDP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.				
MITIGATION MEASURE	VERIFICATION RESPONSIBILITY	ACTION(S) REQUIRED	REQUIRED TIME OF COMPLIANCE	ACTION TAKEN	VERIFIED BY/DEPT	FURTHER ACTION NEEDED
GEO 1	Planning Division/Building and Safety Division	Develop engineering design above current building codes to protect occupants in the leasing office during a future earthquake of the San Andreas Fault.	Prior to ground disturbance activities			
GEO 2	Planning Division/Building and Safety Division	In the event that paleontological resources are encountered all work shall stop at the discovery site. At that time, a qualified paleontological monitor shall be consulted to evaluate the find. Construction activities shall be temporarily redirected to another location on-site (minimum of 100 feet from the location of the find) so that the monitor can recover any specimens encountered during excavation. All fossils/specimens collected during this work shall be deposited in a City of Palmdale-approved museum repository for curation and storage.	Prior to ground disturbance activities			

Appendix F: Cultural Resource Study

Not included in package

Appendix G: Geotechnical Engineering Reports

GEOTECHNICAL ENGINEERING REPORT

Prepared For
Mr. Markus Jones

Proposed
Self-Storage Facility
Vicinity of Avenue S and Cemetery Road, Palmdale
Los Angeles County, California
APN 3053-007-046

Job No.: 24-327
January 23, 2025

BRUIN GEOTECHNICAL SERVICES, INC.
44732 Yucca Avenue
Lancaster, California 93534
www.bruingsi.net

BRUIN
GEOTECHNICAL SERVICES INC.
est. 2004

SOIL AND MATERIAL
TESTING AND INSPECTIONS

January 23, 2025 Job No.: 24-327

Mr. Markus Jones
P.O. Box 1212
American Fork, UT 84003

Subject: Geotechnical Engineering Report for Proposed Self-Storage Facility Located in the Vicinity of Avenue S and Cemetery Road, Palmdale, Los Angeles County, California, APN 3022-026-003

Dear Mr. Jones:

Presented herewith in is our Geotechnical Engineering Report for the subject project. Our work was performed in accordance with the scope of work outlined in our original proposal dated December 20, 2024.

This report presents the results of our field investigation, laboratory testing, along with our engineering judgment, opinions, conclusions, and recommendations pertaining to the proposed development.

It has been a pleasure to be of service to you on this project. Should you have any questions regarding the contents of this report, or should you require additional information, please contact the undersigned at (661) 273-9078.

Respectfully submitted,

BRUIN GEOTECHNICAL SERVICES, INC.

Ryan D. Duke, P.E.
RDD/mes

REGISTERED PROFESSIONAL ENGINEER
RYAN DUKE
C079729
Exp. 9-30-26
CIVIL
STATE OF CALIFORNIA

BRUIN
GEOTECHNICAL
SERVICES INC.
est. 2004

SOIL AND MATERIAL
TESTING AND INSPECTIONS

January 23, 2025 Job No.: 24-327

EXECUTIVE SUMMARY

There appear to be no significant geotechnical constraints on-site that cannot be mitigated by our recommendations, the proposed planning, design, and utilization of sound construction practices.

Based on our geotechnical investigation of the subject site, the information obtained from our subsurface exploration, and review of available reports and literature, it is our professional opinion that the proposed development is feasible at the site provided that the geotechnical engineering recommendations contained in this report are implemented in the design and construction of the project.

The following key elements should be noted from this investigation:

- The subject site is located within the seismically active Southern California area. As such, the proposed development shall be designed in accordance with seismic considerations specified in the 2022 California Building Code (CBC) and the County requirements.

- The Limitations and Uniformity of Conditions Section should be read for an understanding of the report limitations.

This Executive Summary should be used in conjunction with the entire report for design and/or construction purposes. It should be recognized that specific details were not included or fully developed in this summary, and the report must be read in its entirety for a complete interpretation of the items contained herein.

SUMMARY OF RECOMMENDATIONS

DESIGN ITEM	RECOMMENDATIONS
REMEDIAL GRADING	
Structure Over-Excavation	24” below existing or finish grade, whichever is lower
Scarification	6” compacted at 90%
Horizontal Limits	5 feet beyond foundation perimeter
Traffic Pavement Concrete (Driveway)	Scarify 12” compacted to 95%
Exterior Non-Traffic Bearing Concrete Flatwork	Scarify 12” compacted to 90%
Native Soil Shrinkage	7-12%
PERIMETER (CONTINUOUS) FOUNDATION DESIGN VALUES (STORAGE BUILDINGS)	
Allowable Net Bearing Capacity	1,800 psf
Width	Minimum 12 inches
Embedment (Single-Story)	Minimum 18 inches below lowest adjacent soil elevation
Reinforcement	Minimum four No. 4 bars, two top and two bottom
ISOLATED (COLUMN/PIER) FOUNDATION DESIGN VALUES (STORAGE BUILDINGS)	
Allowable Net Bearing Capacity	1,800 psf
Embedment (Single-Story)	Minimum 24 inches below lowest adjacent soil elevation
Reinforcement	No. 4 mat, one top and one bottom
MAT FOUNDATION DESIGN VALUES (OFFICE BUILDING)	
Allowable Net Bearing Capacity	2,000 psf
Embedment	Minimum 12 inches below lowest adjacent soil elevation
Reinforcement	No. 4 mat, one top and one bottom
LATERAL LOAD RESISTANCE	
Allowable Passive Pressure	225 psf per foot
Coefficient of Friction	0.20
SOIL EXPANSION	
Expansion Index	13
Classification	Very Low
LATERAL EARTH PRESSURES	
Active (Well-Drained Soil)	38 psf
At Rest (Restrained Wall)	60 psf
CORROSION AND CHEMICAL ATTACK	
Soil Resistivity	1,300 ohm-cm | 1,700 ohm-cm | 2,500 ohm-cm
Sulfate Attack Potential	0.0106% | 0.0160% | 0.0069% (Negligible)
INTERIOR SLAB-ON-GRADE	
Thickness	Minimum 4” thick over 30” of compacted soil

Reinforcement	No. 4 bars, 16” on-center both ways
Vapor Barrier	Min. 15 mil.

GEOTECHNICAL ENGINEERING REPORT
TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SITE LOCATION AND DESCRIPTION 1

3.0 PROPOSED GRADING AND CONSTRUCTION 2

4.0 GEOTECHNICAL INVESTIGATION 2

4.1 Field Exploration Program 3
4.2 Site and Subsurface Conditions 3
4.3 Groundwater Conditions 4
4.4 Laboratory Testing 4
4.5 Soil Engineering Properties 5

5.0 REGIONAL GEOLOGY AND SEISMIC HAZARDS 5

5.1 CBC Design Parameters 6
5.2 Liquefaction Potential 7
5.2.1 Other Liquefaction Associated Hazards 8
5.3 Other Secondary Seismic Hazards 8
5.4 Soil Settlement 8
5.5 Erosion 8

6.0 111 STATEMENT 9

7.0 EFFECT OF PROPOSED GRADING ON ADJACENT PROPERTIES 9

8.0 OPINIONS AND CONCLUSIONS 9

9.0 GEOTECHNICAL RECOMMENDATIONS 9

9.1 Earthwork 10
9.2 Remedial Grading for Building Pads 10
9.3 Remedial Grading for Flexible (Asphalt-Concrete) and Rigid (PCC) Pavement 11
9.4 Remedial Grading and Exterior Non-Traffic Bearing Concrete Flatwork (Sidewalks, Patios, Walkways, etc.) 11
9.5 Fill Placement and Compaction Requirements 12
9.6 Native Soil Shrinkage 12
9.7 Fill Slope Construction and Stability 13
9.8 Imported Soils 13
9.9 Grading Observations and Testing 13

10.0 POST-GRADING AND DESIGN CONSIDERATIONS 14

10.1 Pad Drainage 14
10.2 Foundation Design Recommendations 14
10.2.1 Allowable Bearing Capacity 14
10.2.2 Lateral Load Resistance 16
10.2.3 Footing Reinforcement 16
10.2.4 Footing Observations 17
10.2.5 Foundation Setbacks 17
10.3 RETAINING WALLS AND STRUCTURES BELOW GRADE 17
10.3.1 Lateral Earth Pressures 17

10.3.2 Wall Backfill 18
10.3.3 Drainage and Waterproofing 19

11.0 CORROSION AND CHEMICAL ATTACK 19

12.0 EXCAVATIONS 20

13.0 UTILITY TRENCHES AND BACKFILL 21

14.0 INTERIOR CONCRETE SLAB-ON-GRADE 22

14.1 Vapor Barrier and Water Proofing 22
14.2 Thickness and Joint Spacing 23
14.3 Reinforcement 23
14.4 Subgrade Preparation 23

15.0 EXTERIOR CONCRETE FLATWORK (PATIOS, WALKWAYS, SIDEWALKS, ETC.) 23

15.1 Thickness and Joint Spacing 24
15.2 Reinforcement 24
15.3 Subgrade Preparation 24

16.0 RIGID (PCC) PAVEMENT 24

16.1 Thickness and Joint Spacing 25
16.2 Reinforcement 25
16.3 Subgrade Preparation 25

17.0 PRELIMINARY FLEXIBLE PAVEMENT DESIGN 25

18.0 CONSTRUCTION CONSIDERATIONS 26

18.1 Temporary Dewatering 27
18.2 Construction Slopes 27
18.3 Temporary Shoring 27

19.0 ADDITIONAL SERVICES 27

20.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS 28

21.0 CLOSURE 29

FIGURES	
Figure 1	**Vicinity Map**
Figure 2	**Boring Location Map**

APPENDIXES	
Appendix A	**Boring Logs and Classification Key**
Appendix B	**Laboratory Test Data**
Appendix C	**Seismic Design Summary Report**
Appendix D	**General Earthwork and Grading Guidelines**

GEOTECHNICAL ENGINEERING REPORT
PROPOSED SELF-STORAGE FACILITY
VICINITY OF AVENUE S AND CEMETERY ROAD, PALMDALE
LOS ANGELES COUNTY, CALIFORNIA
APN 3053-007-046

1.0 INTRODUCTION

This report presents the results of our geotechnical investigation performed by Bruin Geotechnical Services, Inc. for the proposed development at the subject site based on discussions and preliminary site plans provided by the client. This report is specific to the proposed development.

The purpose of this investigation was to evaluate the on-site subsurface soil conditions relative to geotechnical engineering characteristics and to provide geotechnical recommendations relative to proposed development.

The scope of the authorized geotechnical investigation included the following tasks:

- Performing a site reconnaissance
- Conducting field subsurface exploration through soil borings and sampling
- Laboratory testing program of selected soil samples
- Performing engineering analyses of the data
- Preparing this Geotechnical Engineering Report

This study also includes a review of published and unpublished literature and geotechnical maps with respect to active and potentially active faults located in proximity to the site which may have impact on the seismic design of the proposed structure.

2.0 SITE LOCATION AND DESCRIPTION

The subject site, is located on the southwest corner of Avenue S and Cemetery Road in Palmdale, Los Angeles County, California. The irregular-shaped parcel consists of approximately 13.44 acres. The site is located in a residential area of Palmdale, with residential developments in the vicinity of the subject site. The parcels to the south, west, and east contained single-family residential subdivisions and the parcel to the north, across Avenue S, is vacant, undeveloped land. Additionally, there is a railroad easement adjacent to the southern boundary of the parcel.

At the time of our investigation, vegetation at the site consisted of sparse, low annual weeds and brush as well as several Juniper bushes. The site topography has a general relief of approximately three to eight (3-8) percent with a general slope down to the north with drainage by course flow at approximately three to six (3-6) percent in topographic lows at the site. The approximate elevation of the site is approximately 2,730 feet above mean sea level. The aforementioned site description is intended to be illustrative and is specifically not intended for use as a legal description of the site.

Access to the Site is from Cemetery Road which is a paved road.

The general location of the subject site is shown on Figure 1.

3.0 PROPOSED GRADING AND CONSTRUCTION

Based on our review of the preliminary site plans and discussions, Bruin GSI understands that the development will consist of fifteen (15) self-storage buildings, one (1) office building, RV storage parking and a retention basin. The self-storage building space totals approximately 123,962 SF and the office is approximately 650 SF.

We anticipate metal buildings with conventional concrete continuous and isolated foundations and slab-on-grade floors. No basements are planned. We anticipate maximum structural loads of 1,500 pounds per lineal foot and 8-10 kips for isolated foundations.

Exterior improvements are anticipated to include concrete flatwork, landscape and hardscape areas, and asphalt-concrete drive areas, as well as off-site roadway improvements. It is anticipated that the drainage will consist of sloped surfaces to drainage swales to the retention basin. The proposed office will be connected to pubic sewer and water and utilities lines from the street.

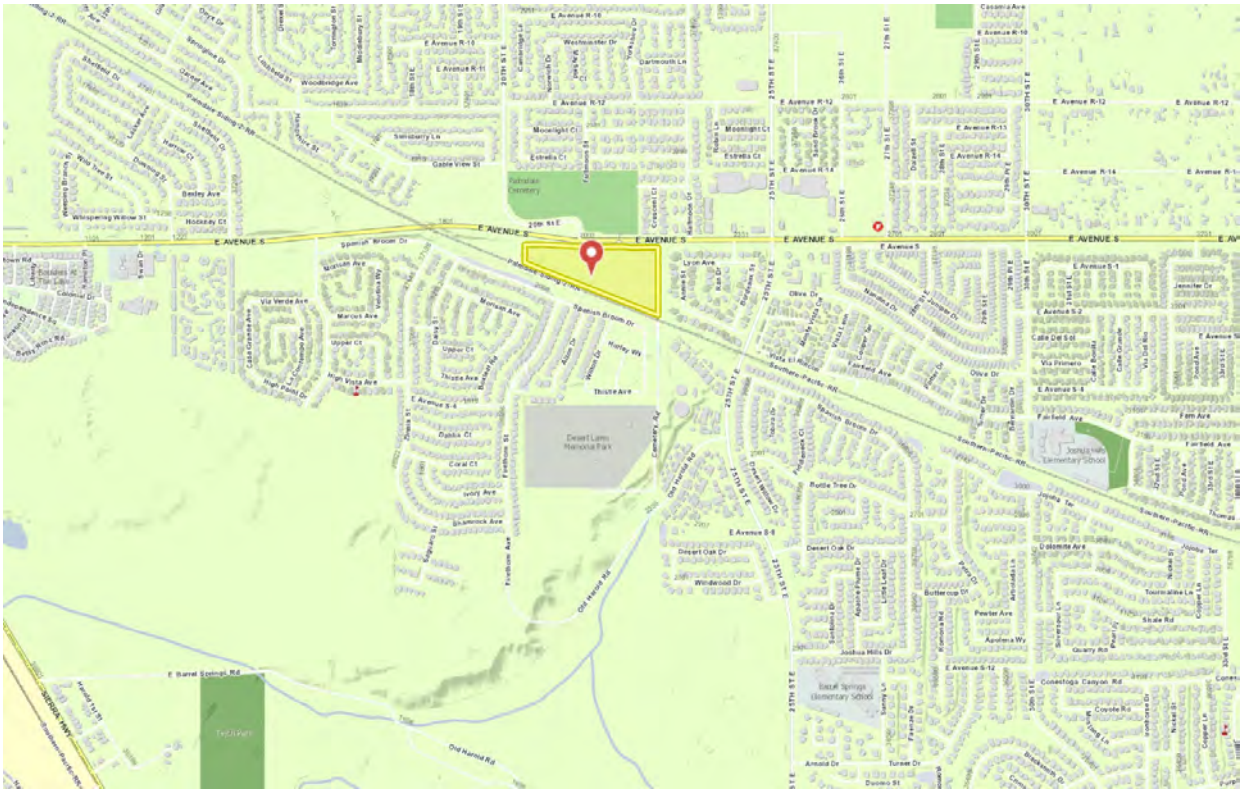
Due to the gently sloping topography, it appears the proposed earthwork will be moderate and consist of conventional cut and fill methods to grade the Site, with anticipated maximum slope heights of approximately 8-12 feet to achieve design grades.

4.0 GEOTECHNICAL INVESTIGATION

The geotechnical investigation included a field subsurface exploration program and a laboratory testing program on soil samples collected. These programs were performed in accordance with our proposal for Geotechnical Investigation Report dated December 20, 2024. The scope of work did not include environmental assessment or investigation for the presence or absence of hazardous substances or toxic materials in structures, soil, surface

Vicinity Map

N.T.S.



= Denotes approximate parcel boundary

BRUIN GEOTECHNICAL SERVICES INC. est. 2004 ™

www.bruingsi.net

Project:

Proposed Self-Storage Facility
Vicinity of Avenue S and Cemetery Road, Palmdale
Los Angeles County, California
APN 3053-007-046

Job Number:

24-327

Figure 1

water, groundwater, or air, below or around the site. The field subsurface exploration and laboratory testing programs are described below.

4.1 Field Exploration Program

A site reconnaissance was made by our representative prior to instigating the field exploration program. The Site was observed, and boundaries roughly located for purposes of underground utility locating. As required by law, Bruin GSI contacted Underground Service Alert (one-call notification service) to attain underground utility marking and clearance, a minimum of 72 hours prior to performing the field subsurface investigation.

The field exploration program was initiated on January 3, 2025, under the technical supervision of our engineer. A total of ten (10) exploratory borings were drilled using a CME 75 drill rig with eight (8) inch hollow stem auger in accordance with generally accepted geotechnical exploration procedures (ASTM D 1452). The borings were advanced to maximum depths of fifty (50) feet below ground surface (bgs). The approximate locations of the borings within the area of the proposed construction were determined by sighting and pacing from existing site improvements, such as streets, and should be only considered accurate to the degree implied by the method used. The borings locations are shown on Figure 2.

Soil samples were obtained at various depth intervals, consisting of relatively undisturbed brass ring samples (Modified California split-spoon sampler) and Standard Penetration Test (SPT) samples driven by a 140-pound hammer falling 30 inches. After seating of the sampler, the number of blows required to drive the sampler one foot was recorded in six (6) inch increments, in general accordance with procedures presented in ASTM D 1586.

Bulk samples were also collected at various depths from auger cuttings during drilling and represent a mixture of soils within the noted depths. The soil samples were returned to the laboratory for analysis and testing.

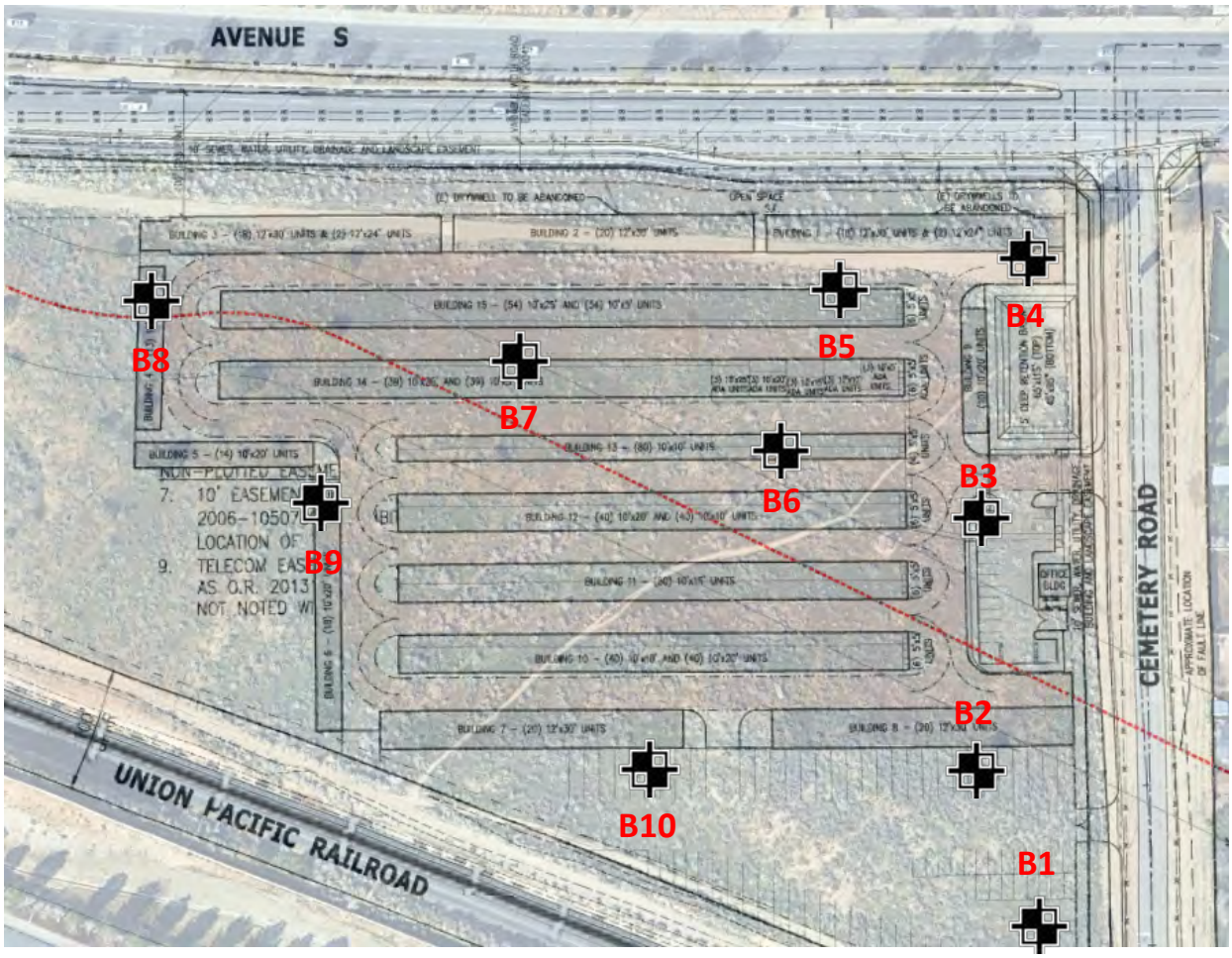
Final boring logs presented in Appendix A are Bruin GSI's interpretation of the field logs prepared by our representative during drilling, as well as laboratory test results. The stratification lines represent approximate boundaries between soil types. The actual soil transitions may be gradual.

4.2 Site and Subsurface Conditions

Native alluvial materials and weathered bedrock were encountered within all our exploratory borings. The native materials were noted to be slightly moist to moist and medium dense to very dense. The soil strata encountered consisted primarily of

Geotechnical Map

N.T.S.



B1 = Denotes Approximate Boring Location

BRUIN GEOTECHNICAL SERVICES INC. est. 2004 ™

www.bruingsi.net

Project:

tNW2LJ2ăŜŘ {ŜfŦπ{ű2NWI·ƎŜ CI·ŎλfλűèÈ
±λŎλyλűè 2Ŧ !ØŜyʤzŜ { I·yŘ /ŜYˇŜűŜNWè w2I·ŘΣ tI·fYˇŘI·fŜ↓
[2ă !yƎŜfŜă /2ʤzyűèΣ /I·fλŦ2NWyλI·↓
! t b олроπллтπлпс

Job Number:

24-327

Figure 2

silty sands (SM), clayey sands (SC). For more detailed descriptions of the subsurface materials refer to the boring logs in Appendix A.

4.3 Groundwater Conditions

Groundwater was not encountered in any of our exploratory trenches, at least to the maximum depth explored (50 feet bgs). Bruin GSI reviewed available reports and electronic data bases to assess historic water level conditions in the vicinity of the Site. Sources reviewed included the historically highest groundwater contours prepared by State of California Department of Water Resources SGMA electronic database, historically highest groundwater levels in the immediate site vicinity indicate that groundwater level at the site are over 200 feet bgs. Based on this information, groundwater is not a design factor for this project.

4.4 Laboratory Testing

The field excavation logs and soil samples were reviewed to assess which samples would be analyzed further. The selected soil samples collected during trenching activities at the Site were then tested in the laboratory to assist in evaluating engineering properties of subsurface materials deemed within structural influence.

The soil samples were classified in accordance with the Unified Soils Classification System and a testing program was established. The samples were tested to determine the following:

- In-situ moisture and dry unit weight determinations were determined in accordance with ASTM D 2937.

- Relative strength characteristics were estimated from results of direct shear tests (ASTM D 3080) performed on bulk soil samples remolded to approximately 90% of the maximum dry density as determined by ASTM D 1557 test method.

- Consolidation potential was determined on select soil samples in accordance with ASTM D 2435.

- Soil chemical analysis on a soil sample from the site was performed by Anaheim Test Lab, which included pH, resistivity, soluble sulfates and soluble chlorides as well as other chemical contents.

The following additional tests were performed:

- Identification of soils ASTM D 2488
- Expansion Index ASTM D 4829
- Maximum density – Optimum moisture ASTM D 1557
- Material Finer than the No. 200 Sieve ASTM D 1140
- Sand Equivalent Value ASTM D 2419

Pertinent tabular and graphic test results are presented in Appendix B.

4.5 Soil Engineering Properties

Physical tests were performed on the bulk and relatively undisturbed samples to characterize the engineering properties of the native soils.

Moisture content and dry unit weight determinations were performed on samples to evaluate the in-situ unit weights of the different materials. Moisture contents were generally two to eleven (2-11) percent. In-place dry densities ranged generally 96 pounds per cubic foot (pcf) to 119 pcf. Moisture content and dry unit weight results are shown on the excavation logs in Appendix A.

The expansion index tests (ASTM D 4829) indicate that the surficial soils are within the “very low” expansion category.

Consolidation test results reveal that some samples tested in the upper soils have a negligible to moderate potential to hydro-consolidate.

5.0 REGIONAL GEOLOGY AND SEISMIC HAZARDS

The project site is located in a seismically active area typical of Southern California and likely to be subjected to a strong ground shaking due to earthquakes on nearby faults.

The San Andreas Fault zone is the largest active fault rift zone, which is several miles wide, and passes through the Antelope Valley, extending from the Gulf of Mexico through the western portion of the State of California to a point at Cape Mendocino in northern California. The San Andreas Fault is predicted to have an event every 100-200 years based on geologic records. The San Andreas Fault has had two major eruptions in the last 150 years: 1) in the Southern California area in 1857, and 2) in San Francisco in 1906. In each event, approximately 320 kilometers of surface rupture has taken place, as well as a horizontal displacement of approximately 9 meters. Additional faulting has occurred adjacent to the San Andreas Fault causing numerous events of various magnitudes throughout the length of the San Andreas Fault.

The project site is located in an area in which active seismic occurrences are recorded on a yearly basis. Seismic studies conducted show a major break along the San Andreas Fault could be responsible for an event of approximately 8.4 on the Richter scale. A seismic event of this magnitude could cause bedrock accelerations as large as 0.5g. Events of this magnitude are anticipated to occur approximately every 150 years. The last occurrence of this magnitude was in 1857.

A Fault Investigation was performed. The report is in process as of the writing of this report and will be submitted under separate cover.

The subject site is mapped within the Alquist-Priolo Fault Zone. Both the Cemetery Fault and Littlerock Fault traverse through the subject site, running northwest to southeast. The Cemetery Fault covers the north portion of the site, and the Littlerock Fault covers the southern portion of the site. The potential hazards due to active fault ground rupture will be detailed in the Fault Investigation Report.

According to the California Department of Conservation (CGS) and California Geological Survey (CGS) online database for Zones of Required Investigation, this parcel is not located within a Landslide Zone.

As the only human occupied structure at the proposed development is the office, a setback to the fault will be incorporated into the site development plans. The fault location, with the "Buildable Zone" for the office is shown on Figure 2. No setbacks from the fault are required for the unoccupied storage buildings.

5.1 CBC Design Parameters

The future structures should be designed by the structural en10.2gineer in accordance with the applicable seismic building code. Based on our geotechnical investigation, the subject site is classified as **Site Class D** in accordance with the 2022 California Building Code that refers to ASCE 7-16.

According to ASCE 7-16, Supplement 3, Section 11.4.8, for structures on Site Class D site with S_1 greater than or equal to 0.2, the parameter S_{M1} determined by equation (11.4-2) shall be increased by 50%.

The design spectral response acceleration parameters presented on the following table generated by ASCE 7 Hazard Tool (https://ascehazardtool.org), may be utilized for seismic design:

Latitude: 34.556575°
Longitude: -118.090066°

Spectral Response Acceleration, Short Period - S_s	2.384g	0.2(sec)
Spectral Response Acceleration at 1 sec. - S_1	1.016g	1.0(sec)
Mapped Spectral Response, Short period - S_{DS}	1.589g	0.2(sec)
Mapped Spectral Response at 1 sec. - S_{D1}	*	1.0(sec)
Site Coefficient – F_A	1.0	
Site Coefficient – F_V	*	
Site Modified Spectral Response Acceleration, Short period -S_{MS}	2.384g	
Site Modified Spectral Response Acceleration, Short period -S_{M1}	*	

Site modified peak ground acceleration PGA_M = 1.127 g
Long-period transition period T_L = 12 second
Seismic Design Category = D - Stiff Soil

It should be recognized that much of southern California is subject to some level of damaging ground shaking as a result of movement along the major active (and potentially active) fault zones that characterize this region. Design utilizing the 2022 CBC is not meant to completely protect against damage or loss of function. Therefore, the preceding parameters should be considered as minimum design criteria.

*The actual method of seismic design should be determined by the Structural Engineer in accordance with Section 11.4.8 Site-Specific Ground Motion Procedures of the ASCE 7-16. Refer to Appendix C for the Design Maps Summary Report provided by the American Society of Civil Engineers Hazard Tool website.

5.2 Liquefaction Potential

Liquefaction is a seismic phenomenon in which loose, saturated, granular (non-cohesive) soils react as a fluid when subject to high-intensity ground shaking. Research and historical data indicate loose granular soils with a specific range of grain size distribution, saturated by a relatively shallow groundwater table are most susceptible to liquefaction.

The effects of liquefaction on level ground include settlement, sand boils and bearing capacity failures below structures.

In view of the relatively dense silty sand encountered in the exploratory borings, relative densities, and depth to static groundwater, it is Bruin GSI's opinion that the

potential for on-site liquefaction or seismically induced dynamic settlement should be negligible.

5.2.1 Other Liquefaction Associated Hazards

Potential hazards associated with liquefaction include lateral spreading and slow slides, foundation bearing failure, and ground surface settlement. Considering the upper native soils are not likely to liquefy, these hazards are not considered to be design factors for this project.

5.3 Other Secondary Seismic Hazards

Seismic hazards relative to earthquakes include landslides, ground lurching, tsunamis, seiches and seismic-induced settlement. As site topography is relatively flat, hazards from landslides are considered negligible. Ground lurching is generally associated with fault rupture and liquefaction. As these hazards are considered unlikely, it is Bruin GSI's opinion that the potential for ground lurching is low. Tsunami hazards are considered nonexistent due to the site location.

5.4 Soil Settlement

Differential soil settlement occurs when supporting soils are not uniform in density or classification and seismic shaking causes one type of soil to settle more than the other. When unaccounted for in design, such settlement can result in damage to structures, pavement, and subsurface utilities. Soils with potential for hydro-consolidation can also cause differential settlement under loading conditions and the induction of moisture.

Re-compaction of the upper site soils is intended to remedy most potentials of settlement due to structures supported on native soils with non-uniform densities, soil classifications and hydro-consolidation.

Settlement of structures founded on compacted fill will be relatively small, less than one (1) inch. Differential settlement is anticipated to be on the order of 50% of the total settlement in a thirty (30) foot span. Most settlement should take place during construction.

5.5 Erosion

The subject site drainage occurs by minor sheet flow and course flow and erosion could occur. Appropriate analysis, grading and drainage design and site maintenance should minimize the sheet flow erosion potential.

6.0 111 STATEMENT

Subsequent to compliance with the recommendations provided in this report and based on the site reconnaissance, subsurface exploration, and laboratory analysis, it is our opinion the proposed structures will be safe from hazards associated with faulting, landslides, slippage, and settlement. The proposed development will not adversely impact the existing geologic stability of adjacent sites.

7.0 EFFECT OF PROPOSED GRADING ON ADJACENT PROPERTIES

It is our opinion that the proposed grading and construction will not adversely affect the stability of adjoining properties provided that grading and construction are performed in compliance with the recommendations presented herein.

8.0 OPINIONS AND CONCLUSIONS

Based upon the results of our investigation, the proposed development is considered feasible from a geotechnical standpoint provided the recommendations presented herein are incorporated into the design and construction. If changes in the design of the structure are made or variations of changed conditions are encountered during construction, Bruin GSI should be contacted to evaluate their effects on these recommendations.

The upper soils were found to be relatively dense with some areas of the site soils subject to hydro-consolidation. Based on the laboratory testing and subsurface data obtained, it is Bruin GSI's opinion that the upper site soils will not provide a uniform soil support system without remediation through re-compaction. In order to provide a more uniform soil support system and minimize the potential for differential settlement, the proposed structures should be supported by a re-compacted fill mat.

Provided that the recommendations in this report are incorporated into the design and construction, it is Bruin GSI's opinion that conventional shallow (continuous and isolated) foundations may be designed to support the proposed storage building structures and a mat foundation may be designed for the proposed office building structure. Refer to Section 10.2 for details and soil values regarding foundation design.

9.0 GEOTECHNICAL RECOMMENDATIONS

The following geotechnical engineering recommendations for the proposed development are based on observations from the field investigation program and the laboratory test results and our experience with sites of similar conditions.

The local Department of Building and Safety should be contacted prior to start of construction to assure the project is properly permitted and inspected during construction. Any grading performed at the site shall be incompliance with the recommendations provided in this report, the local building code and the Earthwork and Grading Specifications for Rough Grading presented in Appendix D.

Field observations and testing during rough-grading operations should be provided by Bruin GSI so a decision can be formed regarding the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the earthwork construction and the degree of compaction comply with the project geotechnical specifications. **Any work related to grading performed without the full knowledge of, and under the supervision of the Geotechnical Consultant, may render the recommendations of this report invalid.**

9.1 Earthwork

Prior to any grading, the site should be cleared and grubbed of all vegetation. All pavements, vegetation, trash, debris and abandoned underground utilities shall be removed from the area to be graded and should not be incorporated into engineered fill.

Any depressions resulting from removals during grubbing process (trees etc.) shall be observed by the Geotechnical Consultant. Depressions requiring backfill within structural areas will require placement of engineered fill, observed, and tested by the Geotechnical Consultant.

It is our professional opinion that the grading of the site can be performed with conventional earth-moving equipment. Localized areas of dense material may be marginal and require scarification with a motor grader or bulldozer prior to excavation by motor scrapers.

Shear wave velocities to determine rippability were not performed or part of this scope of work. However, this assessment can be performed by our firm. Please contact our office for a cost proposal for this service, if desired.

9.2 Remedial Grading for Building Pads

To provide a more uniform bearing for the proposed structure foundations and slab-on-grade, subsequent to clearing and grubbing of the area to graded, the existing native soils shall be excavated to a depth of twenty four (24) inches below existing grade or finish grade, whichever is lower. The excavation shall extend a minimum of five (5) feet beyond the limits of the proposed foundations, where obtainable. Observation and approval of the over-excavation by the Geotechnical Consultant is required prior to any fill placement.

The Geotechnical Consultant shall inspect the resulting surfaces prior to scarification and fill placement.

Subsequent to approval of the resulting surface by the Geotechnical Consultant, the resulting soil surface shall be scarified (ripped) an additional six (6) inches, properly moisture conditioned or aerated to near optimum moisture content, and mechanically compacted with heavy compaction equipment to 90% relative compaction as determined by ASTM D 1557 test method. **Compaction shall be verified by testing.**

***A minimum of eighteen (18) inches of compacted fill is required beneath the proposed foundations. Foundation depths shall be confirmed to comply with this requirement*.**

9.3 Remedial Grading for Flexible (Asphalt-Concrete) and Rigid (PCC) Pavement

Subsequent to clearing and grubbing the area to be graded, the existing native soils shall be excavated twelve (12) inches below existing grade or finish grade, whichever is lower. The exposed surface shall be scarified (ripped) an additional six (6) inches. The excavation shall extend a minimum of three (3) feet beyond the limits of the proposed pavement, where obtainable. The Geotechnical Consultant shall inspect the resulting surfaces prior to fill placement.

Subsequent to approval of the resulting surface by the Geotechnical Consultant, the resulting soil surface shall be properly moisture conditioned or aerated to near optimum moisture content, and mechanically compacted with heavy compaction equipment to 90% relative compaction (95% relative compaction beneath proposed PCC pavement in the upper twelve inches) as determined by ASTM D 1557 test method. **Compaction shall be verified by testing**.

9.4 Remedial Grading and Exterior Non-Traffic Bearing Concrete Flatwork (Sidewalks, Patios, Walkways, etc.)

Subsequent to clearing and grubbing the area to be graded, the existing native soils shall be scarified twelve (12) inches below existing grade or finish grade, whichever is lower. The scarification shall extend a minimum of two (2) feet beyond the limits of the proposed flatwork, were obtainable. The Geotechnical Consultant shall inspect the resulting surfaces prior to fill placement.

Subsequent to approval of the resulting surface by the Geotechnical Consultant, the resulting soil surface shall be properly moisture conditioned or aerated to near optimum moisture content, and mechanically compacted with mechanical

compaction equipment to 90% relative compaction as determined by ASTM D 1557 test method. **Compaction shall be verified by testing**.

9.5 Fill Placement and Compaction Requirements

The excavated native soils may be used as engineered fill to backfill the excavation. Materials for engineered fill should be free of organic material, debris, and other deleterious substances, and should not contain rocks greater than eight (8) inches in maximum dimension.

All native soil shall be moisture conditioned or air dried as necessary to achieve near optimum moisture condition, placed in lifts (eight to ten inches, measured loose) and then compacted in place by mechanical compaction equipment to a minimum relative compaction of 90% as determined in accordance with Test Method ASTM D 1557.

All import soil fill (meeting the requirements of Section 10.8) should be placed in eight-inch-thick maximum lifts measured loose, moisture conditioned or air dried as necessary to near optimum moisture condition, and then compacted in place to a minimum relative compaction of 90% as determined in accordance with Test Method ASTM D 1557.

A representative of the project consultant should be present on-site during grading operations to verify proper placement and compaction of all fill, as well as to verify compliance with the other geotechnical recommendations presented herein.

9.6 Native Soil Shrinkage

A shrinkage factor of the upper site soils is estimated at seven to twelve (7-12) percent. This estimate is based on the limited data collected from the subsurface exploration and laboratory test data with an average degree of compaction of 92% and may vary depending on contractor methods.

During compaction, an additional one-quarter of an inch (1/4”) subsidence of the underlying soil is estimated. Losses from site clearing and grubbing operations mat effect quantity calculations and should be taken into account. Actual shrinkage of the soil may vary.

We recommend monitoring the rough grading excavations by survey with comparison to grading contractor earthwork yardage estimates to determine a closer estimate of actual shrinkage so adjustments (if necessary) may be made during grading.

9.7 Fill Slope Construction and Stability

Provided all material is properly compacted as recommended, fill slopes may be constructed at a 2:1 (horizontal to vertical) gradient or flatter. Permanent cut slopes may be constructed at 2:1 or flatter. Fill slopes constructed as recommended at a slope ratio not exceeding 2:1 (horizontal: vertical), are expected to be both grossly and surficially stable and are expected to remain so under normal conditions.

Proper drainage should be planned so water is not allowed to flow over the tops of slopes. The slopes should be planted as soon as possible to minimize erosion and maintenance.

If slopes are planned steeper than 2:1, the Geotechnical Consultant shall be notified for slope stability determinations.

9.8 Imported Soils

If imported soils are required to complete the planned grading, these soils shall be free of organic matter and deleterious substances, meeting the following criteria:

- 100% passing a 2-inch sieve
- 60% to 100% passing the #4 sieve
- no more than 20% passing a #200 sieve
- expansion index less than 20
- liquid limit less than 35
- plasticity index less than 12
- R-value greater than 40
- Low corrosion potential
    - Soluble Sulfates less than 1,500 ppm
    - Soluble Chlorides less than 150 ppm
    - Minimum Resistivity greater than 8,000 ohm-cm

Prospective import soils should be observed, tested and pre-approved by this firm prior to importing the soils to the site. Final approval of the import soil will be given once the material is on site either in place or adequate quantities to finish the grading.

9.9 Grading Observations and Testing

The grading of the site shall be observed and tested by the Geotechnical Consultant to verify compliance with the recommendations. Any grading performed without full knowledge of the Geotechnical Consultant may render the recommendations of this report invalid.

10.0 POST-GRADING AND DESIGN CONSIDERATIONS

10.1 Pad Drainage

A surface drainage system consisting of a combination of sloped concrete flatwork, swales and sheet flow gradients in landscape areas, and roof gutters and downspouts should be designed for the site. The roof gutters and downspouts should also be tied directly into the proposed area drain system. Drainage from structures should be designed at minimum 5% gradient to approved areas. The purpose of this drainage system will be to reduce water infiltration into the subgrade soils and to direct surface waters away from building foundations, walls and slope areas.

Concrete flatwork surfaces and paved sloped surfaces should be inclined at a minimum gradient of 2% away from the building foundations and similar structures. A minimum twelve-inch-high berm should be maintained along the top of the descending slope to prevent any water from flowing over the slope.

The owner is advised that all irrigation and drainage devices should be properly maintained throughout the lifetime of the development.

10.2 Foundation Design Recommendations

The proposed storage building structures shall be constructed on a conventional concrete foundations system. The proposed office building structure shall be constructed on a mat foundation.

Provided the recommendations in this report are incorporated into site development, foundation for load bearing walls and interior columns constructed on compacted certified fill may be designed as follows:

Foundations for the proposed uninhabited storage structure excavated in compacted certified material may be proportioned for the following values:

10.2.1 Allowable Bearing Capacity

Continuous Foundations Design Values: An allowable “net” bearing capacity of 1,800 psf. can be utilized for dead and sustained live loads. This value includes a minimum safety factor of three (3) and may be increased by one-third (1/3) for total loads, including seismic forces.

Continuous foundations should be embedded a minimum of twelve (12) inches below lowest adjacent soil elevation and be a minimum of twelve

(12) inches in width. Reinforcement shall consist of a minimum of two (2) No. 4 bars, one (1) top and one (1) bottom. Actual depth, width, and reinforcement requirements for continuous foundations will be dependent on the Expansion Index of the bearing soils, applicable sections of the governing building code and requirements of the structural engineer.

The allowable bearing capacity for continuous foundations may be increased by 200 psf. for each additional six (6) inches of foundation depth and 150 psf for each additional one foot of foundation width. The allowable bearing capacity should not exceed 2,300 psf for continuous foundations to keep estimated settlements within allowable limits.

Isolated Pad (Column or Pier) Foundations Design Values: An allowable "net" bearing capacity of 2,000 psf. can be utilized for dead and sustained live loads. This value includes a minimum safety factor of three (3) and may be increased by one-third (1/3) for total loads, including seismic forces.

Isolated foundations should be a minimum of twenty-four (24) inches square and embedded a minimum of eighteen (18) inches below lowest adjacent soil elevation. Actual depth, width, and reinforcement requirements for isolated foundations will be dependent on the Expansion Index of the bearing soil, applicable sections of the governing building code and requirements of the structural engineer.

The allowable bearing capacity for continuous foundations may be increased by 200 psf for each additional six (6) inches of foundation depth and 200 psf for each additional one foot of foundation width. The allowable bearing capacity should not exceed 2,500 psf for isolated foundations to keep estimated settlements within allowable limits.

Foundations for the proposed office structure excavated in compacted certified material may be proportioned for the following values:

Mat Foundation For the proposed office structure excavated in compacted certified fill may be proportioned for the following values:

Design Values: An allowable "net" bearing capacity of 2,000 p.s.f. can be utilized for dead and sustained live loads. This value includes a minimum safety factor of three, and may be increased by 1/3 for total loads, including seismic forces. Mat foundations shall be a minimum of fifteen (15) inches thick.

Based on the expansion index of the native soil, reinforcement shall include a minimum of #4 bars, top and bottom. Horizontal bars should be spaced a minimum of every twelve (12) inches, or as determined by the structural engineer. The reinforcement shall be supported by bricks or chairs. Actual depth, width, and reinforcement requirements for mat foundations will be dependent on applicable sections of the governing building code and requirements of the structural engineer.

The allowable bearing capacity for continuous foundations may be increased by 150 psf for each additional six inches of foundation depth and 150 psf for each additional one foot of foundation width. The allowable bearing capacity should not exceed 2,500 p.s.f. for continuous foundations to keep estimated settlements within allowable limits.

10.2.2 Lateral Load Resistance

Lateral load resistance for the spread footings will be developed by passive soil pressure against sides of footings below grade and by friction acting at the base of the concrete footings bearing on compacted fill. An allowable passive pressure of 225 Z PSF, where Z = Depth (in feet) below finish grade. In passive pressure calculations, the upper one (1) foot of soil should be subtracted from the depth, "Z", unless confined by pavement or slab. An appropriate safety factor should be used for design calculations.

Friction along the foundation base may provide resistance to lateral loading. The coefficient of friction was estimated to be 0.25 for site soils compacted to 90% of the maximum dry density as determined by ASTM D 1557 test method and may be used for dead load forces and includes a reduction factor of one-third (1/3).

For design of building foundations, passive resistance may be combined with frictional resistance provided that a one-third (1/3) reduction in the coefficient of friction is used.

10.2.3 Footing Reinforcement

Reinforcement for concrete footings should be designed by the structural engineer based on the anticipated loading conditions and expansion index of the supporting soil. Preliminary expansion index for the native soil is categorized as "very low" as determined by ASTM D 4829. Footings should be reinforced with a minimum of two (2) No. 4 bars, one (1) top and one (1) bottom.

10.2.4 Footing Observations

All footing trenches should be observed by a representative of the project geotechnical consultant to verify that they have been excavated into competent soils prior to placement of forms, reinforcement, or concrete. The excavations should be trimmed neat, level, and square. All loose, sloughed or moisture-softened soils and/or any construction debris should be removed prior to placing concrete. **Excavated soils derived from footing and/or utility trenches should not be placed in building slab-on-grade areas or exterior concrete flatwork areas unless the soils are compacted to at least 90% of maximum dry density.**

10.2.5 Foundation Setbacks

Footings of structures (including retaining walls) located above a slope having a total height of ten (10) feet or less should have a minimum setback of five (5) feet, measured from the outside edge of the footing bottom along a horizontal line to the face of the slope. For footings above slopes having a total height greater than ten (10) feet, the setback should be, at minimum, equal to one third of the total height of the slope but need not exceed forty (40) feet. Refer to CBC Section 1804.

10.3 RETAINING WALLS AND STRUCTURES BELOW GRADE

The project may include shallow retaining walls or walls below grade (i.e., loading docks, light standards, flagpoles, or similar structures supporting soil materials. These walls are anticipated to be shallow (i.e., approximately 10 feet or less in height). Design lateral earth pressures, backfill criteria, and drainage recommendations for walls below grade are presented.

10.3.1 Lateral Earth Pressures

	Driving Earth Pressure*	Resisting Earth Pressure*
Well-Drained Soil	38	225***
Well-Drained Soil (2:1 Backfill)	55	
At-Rest (Restrained Wall)	60**	

*Equivalent fluid pressure (PSF) per foot of soil height

**For design purposes, a wall is considered restrained if it prevented from movement greater than 0.002H (H= height of wall in feet) at the top of the wall.

***The upper one (1) foot of soil should be subtracted from the depth, “Z”, unless confined by pavement or slab. This is an ultimate value.

Note: The pressures recommended above are based on the assumption that the backfill will be compacted to 90% of the maximum dry density. The use of select may lower the recommended driving earth pressure. The revisiting pressure provided is an ultimate value. An appropriate factor of safety is recommended.

Friction acting along the base of the foundation may provide resistance to lateral loading. The coefficient of friction is estimated to be 0.25 for native soils compacted to 90% of the maximum dry density, and may be used with dead loads. This value may be increase by one-third (1/3) for total loads, including seismic forces. Frictional and passive resistance may be combined without reduction.

The above values are for retaining walls that have been supplied with a proper sub-drain system. All walls should be designed to support any adjacent structural surcharge loads imposed by other nearby walls, footings or vehicular traffic within a distance approximately equal to the height of the wall.

Retaining walls over six (6) feet in height may need to be designed for a seismic load force that is applied to the static forces when the seismic shaking occurs. The geotechnical consultant should be contacted for retaining walls over six (6) feet in height.

10.3.2 Wall Backfill

Backfill behind shallow retaining walls or walls below grade should consist of non-expansive granular materials. Wall backfill should not contain organic material, rubble, debris, and rocks or cemented fragments larger than three (3) inches in greatest dimension. In the case where no shoring was used, the granular backfill should extend outward from the base of the wall to ground surface at a 1:1 (horizontal: vertical) slope. The geotechnical consultant should be allowed the opportunity to sample and test and comment about the adequacy of the proposed imported backfill material once adequate quantities to complete the project are on site.

Backfill should be placed in lifts not exceeding eight to ten (8-10) inches in thickness measured loose, moisture conditioned to above optimum moisture content and mechanically compacted with hand-operated equipment to minimum 90% of the maximum dry density as determined by ASTM D 1557. Walls below grade that are not free to deflect should be properly braced prior to placement and compaction of backfill. **Compaction should be verified by testing.**

10.3.3 Drainage and Waterproofing

It is recommended that waterproofing be provided behind the retaining walls to help reduce efflorescent formation.

Walls designed for drained earth pressures shall have adequate drainage provided behind the walls. Sub-drains or weep holes at the base of the walls shall be incorporated into design.

Retaining walls shall be designed by a registered Civil Engineer.

11.0 CORROSION AND CHEMICAL ATTACK

Soluble sulfate, pH, resistivity and chloride concentration test results are presented in Appendix B. The Resistivity (CTM 643) test results on a bulk soil sample from the site indicated that on-site soils are **highly-corrosive** when in contact with ferrous material. Corrosion test results also indicate that the surficial soils at the site have negligible sulfate attack potential on concrete.

Sample	Ohm-cm	Soluble Sulfates (% by weight)
B1@0-5’	1,300	0.0106%
B3@0-5’	1,700	0.0160%
B5@0-5’	2,500	0.0069%

Based on the preliminary chemical analysis performed on a sample of the native soil, foundation concrete shall consist of type II cement with a minimum compressive strength

of 2,500 psi as indicated in the ACI 318-19 Table 19.3.2.1. A higher compressive strength may be required by the structural engineer. Additional soil chemical analysis during grading is recommended. The minimum concrete compressive strength should be determined by the structural engineer.

The chemical test results should be distributed to the project design team for their interpretations pertaining to the corrosivity or reactivity of the construction materials (ferrous metals, and piping).

12.0 EXCAVATIONS

It is Bruin GSI's opinion that standard construction techniques should be sufficient for site excavations. All excavations should be made in accordance with applicable regulations, including CAL/OSHA for and OSHA type "C" soil. Project safety is the contractor's responsibility and the owner. Bruin GSI will not be responsible for project safety.

The attention of contractors, particularly the underground contractors, should be drawn to the State of California Construction Safety Orders for "Excavations, Trenches, and Earthwork." Trenches or excavations greater than five (5) feet in depth should be shored or sloped back in accordance with OSHA Regulations prior to entry.

Open excavations, un-shored or un-surcharged (above the groundwater level) may be cut vertically to a maximum depth of no more than five (5) feet. Excavations higher than five (5) feet should be sloped back at a minimum 1.5:1 (horizontal to vertical) slope or flatter or shored. Sloughing will occur if the soil is dry or dries our while open. No excavation should be made within a 1:1 line projected outward from the toe of any existing foundation or structure.

No heavy equipment or other surcharge loads (i.e., excavation spoils) should be allowed within the top of slope a distance equal to the depth of the excavation, both measured from the top of the excavation.

Soil backfill around foundations or behind walls below grade should be placed in lifts not exceeding eight to ten inches, measured loose, moisture conditioned to near optimum moisture content and uniformly mechanically compacted to minimum 90% relative compaction as determined by ASTM D 1557 test method. Flooding or jetting is not recommended.

13.0 UTILITY TRENCHES AND BACKFILL

Standard construction techniques should be sufficient for site utility trench excavations. Utility trenches often settle even when backfill is placed under optimum conditions.

Trench backfill shall be moisture conditioned to near optimum moisture content, placed in lifts not exceeding eight to ten inches, measured loose, and uniformly compacted to minimum 90% of the maximum dry density with mechanical compaction equipment. **No flooding or jetting is recommended.**

Backfill of public utilities within road right-of-ways or on the subject site should be placed in strict conformance with the requirements of the governing agency. As a minimum it is recommended that utility trench backfill should be moisture conditioned to near optimum moisture content, placed in lifts not exceeding eight to ten (8-10) inches, measured loose, (depending on means of compaction) and uniformly compacted to minimum 90% of the maximum dry density with mechanical compaction equipment. If aggregate base is used for backfill material, it should be moisture conditioned to near optimum moisture content, placed in eight to ten inch lifts, measured loose, and uniformly compacted to minimum 95% of the maximum dry density using mechanical compaction equipment. **Compaction should be verified by testing.**
For purposes of this section of the report, "bedding" is defined as material placed in a trench up to one (1) foot above a utility pipe, and "backfill" is all material placed in the trench above the bedding. Unless concrete bedding is required around utility pipes, free-draining sand should be used as bedding. Sand proposed for use as bedding should be tested in our laboratory to verify its suitability and measure its compaction characteristics. **Sand bedding should be compacted by mechanical means to achieve at least 90% relative compaction based on ASTM D 1557.**

Backfill operations should be observed and tested by the Geotechnical Consultant to monitor compliance with these recommendations.

Where utility trenches enter the footprint of the building, trenches should be backfilled through their entire depths with on-site fill materials, sand-cement slurry, or concrete rather than with any sand or gravel shading. This "Plug" of less- or non-permeable materials will mitigate the potential for water to migrate though the backfilled trenches from outside of the building to the areas beneath the foundations and floor slabs.

The backfill soil should be moisture conditioned to near optimum moisture content, placed in lifts not exceeding eight to ten inches (8-10), measured loose, (depending on means of compaction) and uniformly compacted to minimum 90% of the maximum dry density with mechanical compaction equipment.

14.0 INTERIOR CONCRETE SLAB-ON-GRADE

It should be understood that as a manufactured product, concrete will crack even under ideal conditions. It is our experience that shrinkage is more pronounced in the Antelope Valley due to environmental conditions (high winds, daily extreme temperature differences and low humidity). Appropriate mix designs, placement procedures and concrete curing methods should be planned and implemented during construction in order to reduce the occurrence and magnitude of concrete shrinkage cracking.

Interior slab-on-grade construction should be supported by compacted soil, prepared as recommended in the "Remedial Grading for Proposed Building Pad(s)" Section of this report.

14.1 Vapor Barrier and Water Proofing

It is recommended that a vapor retarded/waterproofing be placed below the concrete slab on grade. Vapor/moisture transmission through slabs does occur and can impact various components of the structure.

Vapor retarded/waterproofing designing and inspection of installation is not the responsibility of the geotechnical engineer (most often the responsibility of the architect). Bruin Geotechnical Services, Inc. does not practice in the field of water and moisture vapor transmission evaluation/mitigation. Therefore, we recommend that a qualified person/firm be engaged/consulted to evaluate the general and specific water and moisture vapor transmission paths and any impact on the proposed development. This person/firm should provide recommendations for mitigation of potential adverse impact of water and moisture vapor transmission on various components of the structure as deemed necessary. The actual waterproofing design shall be provided by the architect, structural engineer, or contractor with experience in waterproofing.

In order to promote good building practices and alert the rest of the design/construction team of the appropriate standards and expect recommendations pertaining to vapor barriers/retarders, engineers (especially those aware of the issues surrounding blow-slab moisture protection and its effect on the success of their projects) should consider recommending and citing specific performance characteristics. The following paragraph includes criteria from the latest standards and expert recommendations and should be considered for use in your firm's own recommendations:

Vapor barrier shall consist of a minimum 15 mil extruded polyolefin plastic (no recycled content of woven materials permitted). Permeance as tested before and after mandatory conditions (ASTM E 17455 Section 7.1 and Sub-Paragraph 7.1.1-

7.1.5): less than 0.01 perms [grains/(ft²-hr-inHg)] and comply with the ASTM E1745 Class A requirements. Install vapor barrier according to ASTM E1643, including proper perimeter seal. Basis of design: Stego Wrap Vapor Barrier 15 mil and Stego Crete Claw Tape (perimeter seal tape). Approved Alternatives: Vaporguard by Reef Industries, Sundance 15 mil Vapor Barrier by Sundance Inc.

14.2 Thickness and Joint Spacing

Concrete slab-on-grade should be at least four (4) inches thick and provided with frequent construction joints or expansion joints. The slab-on-grade should have a minimum compressive strength of 2,500 psi at 28 days. More stringent requirements may be required by the structural engineer.

14.3 Reinforcement

Reinforcement of the slab-on-grade is contingent on the structural engineer's recommendations and the Expansion Index of the supporting soil. As a minimum, reinforcement should consist of No. 4 bars spaced sixteen (16) inches on center, both ways. The reinforcement should be positioned near the middle of the slabs by means of concrete chairs or brick. Additional reinforcement may be required by the structural engineer.

14.4 Subgrade Preparation

As further measure to minimize cracking of concrete flatwork, the subgrade soils and all utility line trenches below concrete slab-on-grade areas should first be compacted to a minimum relative compaction of **90%** and then thoroughly moistened to achieve a moisture content that is near optimum moisture content. **A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soils, and the depth or moisture penetration prior to pouring concrete.**

15.0 EXTERIOR CONCRETE FLATWORK (PATIOS, WALKWAYS, SIDEWALKS, etc.)

It should be understood that as a manufactured product, concrete will crack even under ideal conditions. It is our experience that shrinkage is more pronounced in the Antelope Valley due to environmental conditions (high winds, daily extreme temperature differences and low humidity). Appropriate mix designs, placement procedures and concrete curing methods should be planned and implemented during construction in order to reduce the occurrence and magnitude of concrete shrinkage cracking.

Exterior slab-on-grade construction should be supported by compacted soil, prepared as recommended in the "Remedial Grading and Exterior Non-Traffic Bearing Concrete" Section of this report. At locations where slabs cross trenches, observation and testing of trench backfill should be performed to confirm uniformity of conditions.

15.1 Thickness and Joint Spacing

To reduce the potential of unsightly cracking, concrete sidewalks, patio-type slabs should be at least four (4) inches thick and provided with frequent construction joints or expansion joints, especially at area of re-entrant corners, to help control cracking. Exterior perimeter slabs should be designed relatively independent of the foundation stems (free-floating) to help cracking due to settlement and/or expansion.

15.2 Reinforcement

Reinforcement of the exterior slab-on-grade is contingent on the structural engineer's recommendations and the Expansion Index of the supporting soil. As a minimum, reinforcement should consist of No. 3 bars spaced twenty-four (24) inches on center, both ways. The reinforcement should be positioned near the middle of the slabs by means of concrete chairs or brick. Additional reinforcement may be required by the structural engineer.

15.3 Subgrade Preparation

As further measure to minimize cracking of concrete flatwork, the subgrade soils below concrete flatwork areas should first be compacted to a minimum relative compaction of 90% and then thoroughly moistened to achieve a moisture content that is near optimum moisture content. Pre-wetting of the soils to a depth of six (6) inches a maximum of 24-hours prior to concrete placement will promote uniform curing of the concrete and minimize the development of shrinkage cracks. **A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soils, and the depth or moisture penetration a maximum of 24-hours prior to pouring concrete.**

16.0 RIGID (PCC) PAVEMENT

It should be understood that as a manufactured product, concrete will crack even under ideal conditions. It is our experience that shrinkage is more pronounced in the Antelope Valley due to environmental conditions (high winds, daily extreme temperature differences and low humidity). Appropriate mix designs, placement procedures and concrete curing

methods should be planned and implemented during construction in order to reduce the occurrence and magnitude of concrete shrinkage cracking.

Exterior slab-on-grade construction should be supported by compacted soil, prepared as recommended in "Remedial Grading for Flexible (Asphalt-Concrete) and Rigid PCC Pavement" section of this report. At locations where slabs cross trenches, observation and testing of trench backfill should be performed to confirm uniformity of conditions.

16.1 Thickness and Joint Spacing

To reduce the potential of unsightly cracking, rigid concrete pavement should be at least five (5) inches thick (six (6) inches thick in heavy truck areas) and provided with frequent construction joints or expansion joints, especially at area of re-entrant corners, to help control cracking. Perimeter pavement should be designed relatively independent of the foundation stems (free-floating) to help cracking due to settlement and /or expansion.

16.2 Reinforcement

Reinforcement of the exterior pavement is contingent on the structural engineer's recommendations and the Expansion Index of the supporting soil. As a minimum, reinforcement should consist of No. 3 bars spaced twenty four (24) inches on center, both ways. The reinforcement should be positioned near the middle of the slabs by means of concrete chairs or brick. Additional reinforcement may be required by the structural engineer.

16.3 Subgrade Preparation

As further measure to minimize cracking of concrete flatwork, the upper twelve inches of subgrade soils below concrete flatwork areas should first be compacted to a minimum relative compaction of **95%** and then thoroughly moistened to achieve a moisture content that is near optimum moisture content. Pre-wetting of the soils to a depth of six (6) inches a maximum of 24-hours prior to concrete placement will promote uniform curing of the concrete and minimize the development of shrinkage cracks. **A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soils, and the depth or moisture penetration a maximum of 24-hours prior to pouring concrete.**

17.0 PRELIMINARY FLEXIBLE PAVEMENT DESIGN

Asphalt-concrete pavements shall be designed per the Caltrans Highway Design Manual based on R-Value and Traffic Index. An R-value of the native soil of 65 was utilized for the

preliminary structural pavement section. During grading as soils are mixed, soil samples should be obtained and tested for R-Value determination.

For pavement design, the preliminary flexible pavement layer thickness is as follows:

RECOMMENDED ASPHALT PAVEMENT SECTION LAYER THICKNESS

Pavement Material	**Recommended Thickness (TI = 5.0) On-site Parking and Drive Areas**
Asphalt Concrete	3.5”
Class II Aggregate Base	5”
Compacted Subgrade	18”

Pavement Material	**Recommended Thickness (TI = 9.0) Cemetery Road**
Asphalt Concrete	5”
Class II Aggregate Base	7”
Compacted Subgrade	18”

Pavement Material	**Recommended Thickness (TI = 10.0) Avenue S**
Asphalt Concrete	5”
Class II Aggregate Base	8”
Compacted Subgrade	18”

Asphalt concrete should conform to Sections 203 and 302 of the latest edition of the Standard Specifications for Public Works Construction (“Greenbook”).

Class II aggregate base should conform to Section 26 of the Caltrans Standard Specifications, latest edition. The aggregate base material should be compacted to at least 95% of the maximum dry density as determined by ASTM Method D 1557.

18.0 CONSTRUCTION CONSIDERATIONS

Based on our field exploration program, earthwork can be performed with conventional construction equipment.

18.1 Temporary Dewatering

Groundwater was not encountered in any of our borings to the maximum depth of our explorations. Based on the anticipated excavation depths, the need for temporary dewatering is considered low.

18.2 Construction Slopes

Excavations during construction should be conducted so that slope failure and excessive ground movement will not occur. The short-term stability of excavation depends on many factors, including slope angle, engineering characteristics of the subsoils, height of the excavation and length of time the excavation remains unsupported and exposed to equipment vibrations, rainfall, and desiccation.

Where spacing permits, and providing that adjacent facilities are adequately supported, open excavations may be considered. In general, unsupported slopes for temporary construction excavations should not be expected to stand at an inclination steeper than 1:1 (horizontal: vertical). The temporary excavation side walls may be cut vertically to a height of three (3) feet and then laid back at a 1:1 slope ratio above a height of three (3) feet.

Surcharge loads (equipment, spoil piles, etc.) should be kept away from the top of temporary excavations a horizontal distance equal to the depth of excavation. Surface drainage should be controlled along the top of temporary excavations to preclude wetting of the soils and erosion of the excavation faces. Even with the implementation of the above recommendations, sloughing of the surface of the temporary excavations may still occur, and workmen should be adequately protected from such sloughing.

18.3 Temporary Shoring

If shoring is considered, Bruin GSI should be notified in order to provide appropriate design parameters.

19.0 ADDITIONAL SERVICES

Final project plans and specifications should be reviewed prior to construction to confirm that the full intent of the recommendations presented herein have been applied to design and construction. This report is based on the assumption that an adequate testing and inspection program along with client consultation will be performed during final design and construction phases to verify compliance with the recommendations of this report.

Retaining Bruin GSI as the geotechnical consultant to provide additional services from preliminary design through project completion will assure continuity of services.

Additional services include:

- Consultation during design stages of the project.
- Review, stamp and signature of the grading and building plans.
- Observation and testing during rough grading, fine grading and trench backfill as well as placement of engineered fill.
- Consultation as required during construction.

Cost estimates can be prepared if requested. Please contact our office.

20.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report is based on the development plans provided to our office. If structure design changes or structure locations changes occur, the conclusion and recommendations in this report may not be considered valid unless the changes are reviewed, and the conclusions of this report are modified or approved by the Geotechnical Consultant.

The subsurface conditions and characteristics described herein have been projected from individual borings or test pits placed across the subject property. Actual variations in the subsurface conditions and characteristics may occur.

If conditions encountered during construction differ from those described in this report, this office should be notified so as to consider the necessity for modifications. No responsibility for construction compliance with the design concepts, specifications, or recommendations is assumed unless on-site construction review is performed during the course of construction, which pertains to the specific recommendations contained herein.

It is recommended that Bruin GSI be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design specifications. If Bruin GSI is not accorded the privilege of making this recommended review, Bruin GSI can assume no responsibility for misinterpretation of the recommendations contained in this report.

This report has been prepared in accordance with generally accepted practice and standards in this community at this time. No warranties, either expressed or implied, are made as to the professional advice provided under the terms of the agreement and included in this report. This report has been prepared for the exclusive use of Mr. Markus Jones and their authorized agents. Unauthorized reproduction of any portion of this report without expressed written permission is prohibited.

If parties other than Bruin GSI are engaged to provide construction geotechnical services, they must be notified that they will be required to assume complete responsibility for the geotechnical phase of the project by concurring with the findings and recommendations in this report or providing alternate recommendations.

21.0 CLOSURE

The conclusions, recommendations, and opinions presented herein are: (1) based upon our evaluation and interpretations of the limited data obtained from our field and laboratory programs; (2) based upon an interpolation of soil conditions between and beyond the borings; (3) are subject to confirmation of the actual conditions encountered during construction; and, (4) are based upon the assumption that sufficient observation and testing will be provided during the grading, infrastructure installation and building phases of site development.

APPENDIX A

Boring Logs and Classification Key

Date(s) drilled	**1/3/2025**	**LOG OF BORING 1**	
Drilling Contractor	**GP Drilling**	**Page 1 of 1**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**SPT/Bulk**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes: **BULK @ 0-5' BGS**
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6")	Dry Unit Weight pcf	Water Content %
		SM		Greyish brown silty fine to coarse sand w/ occ. #4to 3/8" gravel	50/6"		
				Very dense, dry			
		SM			50/3"		6.2
5'				Very dense, slightly moist			
		SM			50/2"		3.9
				Very dense, slightly moist			
10'		SM			50/3"	N/R	
				Very dense, slightly moist			
15'				Boring terminated @ 10' bgs			
				No groundwater			
				No caving			
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 2**	
Drilling Contractor	**GP Drilling**		
Drilling Method	**Hollow Stem Auger**	**Page 1 of 1**	
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
5'	■	SM		Greyish brown silty fine to coarse sand w/ #4 to 1" gravel Very dense, dry	50/3"	DIST	2.2
10'	■	SM			50/5"	120.5	2.1
				Very dense, dry			
15'				Boring terminated @ 10' bgs No groundwater No caving			
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 3**	
Drilling Contractor	**GP Drilling**	**Page 1 of 2**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS/Bulk**	Total Depth of Borehole	**50' BGS**
Client:	JONES	Groundwater	**None Encountered**	Boring Location:	**See Figure 2**
Project Number:	**24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:	**BULK @ 0-5' BGS**
Project Location:	**PALMDALE**	Hammer Data	**140#, 30" drop**		

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6")	Dry Unit Weight pcf	Water Content %
		ML		Reddish brown Fine to coarse sandy silt w/ trace clay & #4 to 1/2" gravel	11-20	99.3	11.4
				Medium dense, moist			
		SM		Reddish brown silty fine to coarse sand w. trace clay & #4 to 1/2" gravel	50/6"	106.2	7.7
5'				Very dense, moist			
		SC		Reddish brown clayey fine to corase sand w/ #4 to 1/2" gravel	29-50/3"	111.3	8.7
				Very dense, moist			
10'		SC			50/6"	109.2	9.3
				Very dense, moist			
15'		SC			50/6"	DIST	8.1
				Very dense, moist			
20'					50/5"	DIST	6.6
				Very dense, slightly moist			
25'							
30'		SC			50/1"	DIST	4.6
				Very dense, slightly moist			

BRUIN GEOTECHNICAL SERVICES INC. est. 2004

Date(s) drilled	**1/3/2025**	**LOG OF BORING 3**	
Drilling Contractor	**GP Drilling**	**Page 2 of 2**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**50' BGS**
Client: JONES	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes: **BULK @ 0-5' BGS**
Project Location:	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6")	Dry Unit Weight pcf	Water Content %
35'							
40'	■	SM		Light brown silty fine to coarse sand with #4 gravel Very dense, moist	50/3"	109.5	9.7
45'							
50'	■	SM			50/1"	DIST	6.4
				Very dense, slighlty moist			
55'				Boring terminated @ 50' bgs No groundwater No caving			
60'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 4**	
Drilling Contractor	**GP Drilling**	**Page 1 of 1**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes: **4" CAB @ surface**
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
	■	SM		Reddish brown silty fine to coarse sand w/ #4 to 1" gravel	25-50/3"	97.2	6.8
				Very dense, moist			
	■	GM		Reddish brown fine sandy #4 to 1/2" gravel w/ silt	50/5"	114.8	7.5
				Very dense, moist			
5'							
10'	■	GM			50/2"	Dist	3.6
				Very dense, slightly moist			
				Boring terminated @ 10' bgs			
15'				No groundwater			
				No caving			
20'							
25'							
30'							

BRUIN GEOTECHNICAL SERVICES INC. est. 2004 TM

Date(s) drilled	**1/3/2025**	**LOG OF BORING 5**	
Drilling Contractor	**GP Drilling**	**Page 1 of 1**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**SPT/Bulk**	Total Depth of Borehole	**6' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes: **BULK @ 0-5' BGS**
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6")	Dry Unit Weight pcf	Water Content %
		ML		Brown fine to medium finre to medium sandy silt w/ #4 gravel & trace clay	4-9	96.8	3.7
				Medium dense, slightly moist			
		SC		Reddish brown clayey fine to medium sand w/ #4 to 1/2" gravel	50/6"	119.6	8.1
5'				Very dense, moist			
		SP/SM		Reddish brown slighty silty fine to medium sand w/ #4 to 1/2" gravel & trace clay			
				Very dense, slightly moist	50/3"	DIST	6.4
				Boring terminated @ 6' bgs			
10'				No groundwater			
				No caving			
15'							
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 6**	
Drilling Contractor	**GP Drilling**		
Drilling Method	**Hollow Stem Auger**	**Page 1 of 1**	
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
		SM		Light brown silty fine to coarse sand with #4 to 1" gravel & trace clay	25-46	112.7	5.6
				Medium dense, moist			
5'		SM		Reddish brown silty fine to medium sand w/ #4 to 3/4" gravel	45-50/3"	116.9	2.9
				Dense, slightly moist			
10'		SM			50/3"	113.9	2.8
				Dense, slightly moist			
15'				Boring terminated @ 10' bgs			
				No groundwater			
				No caving			
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 7**	
Drilling Contractor	**GP Drilling**	**Page 1 of 1**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
		SM		Reddish brown silty fine to meduim sand with #4 gravel & trace clay Dense, slightly moist	30-50/3"	DIST	4.9
5'		SC		Reddish brown clayey fine to meduim sand with #4 gravel Dense, slightly moist	50/5"	113.0	4.7
10'		SC			50/3"	115.1	3.9
				Dense, slightly moist			
15'				Boring terminated @ 10' bgs No groundwater No caving			
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 8**	
Drilling Contractor	**GP Drilling**		
Drilling Method	**Hollow Stem Auger**	**Page 1 of 1**	
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
		SM		Reddish brown silty fine to medium sand with #4 to 1/2" gravel & clay	27-50/6"	118.4	4.9
				Very dense, slightly moist			
5'							
		SM			50/5"	DIST	5.1
				Very dense, slightly moist			
10'		SM			50/4"	120.4	4.3
				Very dense, slightly moist			
15'				Boring terminated @ 10' bgs			
				No groundwater			
				No caving			
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 9**	
Drilling Contractor	**GP Drilling**		
Drilling Method	**Hollow Stem Auger**	**Page 1 of 1**	
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**CSS**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
		SM		Light brown silty fine to coarse sand with #4 to 1" gravel & trace clay	21-41	110.3	4.9
				Dense, slightly moist			
5'							
		SM		reddish brown silty fine to medium sand w/ #4 to 3/4" gravel	50/5"	DIST	3.8
				Medium dense, slightly moist			
10'		SM			50/5"	116.7	3.0
				Medium dense, slightly moist			
15'				Boring terminated @ 10' bgs			
				No groundwater			
				No caving			
20'							
25'							
30'							

Date(s) drilled	**1/3/2025**	**LOG OF BORING 10**	
Drilling Contractor	**GP Drilling**	**Page 1 of 1**	
Drilling Method	**Hollow Stem Auger**		
Drill Rig Type	**CME 75**	Logged By:	**CDD**
Drill Bit Size/Type	**8"**	Checked By:	**MS**
Sampling Method(s)	**SPT**	Total Depth of Borehole	**10' bgs**
Client: Jones	Groundwater	**None Encountered**	Boring Location: **See Figure 2**
Project Number: **24-327**	Borehole Backfill	**Native/ Cuttings**	Notes:
Project Location: **Palmdale**	Hammer Data	**140#, 30" drop**	

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6')	Dry Unit Weight pcf	Water Content %
	■	SM		Greyish brown silty fine to coarse sand w/ occ. #4 gravel	50/6"	116.2	6.3
				Dense, moist			
	■	SM			50/5"	115.3	5.7
5'				Dense, slightly moist			
	■	SM			50/4"	DIST	4.1
				Dense, slightly moist			
10'	■	SM			50/3"	DIST	2.7
				Dense, slightly moist			
15'				Boring terminated @ 10' bgs			
				No groundwater			
				No caving			
20'							
25'							
30'							

BRUIN GEOTECHNICAL SERVICES, INC.

GEOTECHNICAL REPORTS | MATERIAL TESTING | CONSTRUCTION INSPECTION

SOIL CLASSIFICATION KEY

MAJOR DIVISIONS			SYMBOL		TYPICAL NAMES
Coarse Grained Soils 50% or more larger than #200 sieve	**Gravels** More than half coarse-fraction is larger than No. 4 sieve size	Clean gravels with little or no fines	GW		Well graded gravels, gravel-sand mixtures
			GP		Poorly graded gravels, gravel-sand mixtures
		Gravel with over 12% fines	GM		Silty gravels, poorly graded gravel-sand-silt mixtures
			GC		Clayey gravels, poorly graded gravel-sand-clay mixtures
	Sands More than half coarse-fraction is smaller than No. 4 sieve size	Clean sands with little or no fines	SW		Well graded sands, gravelly sands
			SP		Poorly graded sands, gravelly sands
		Sands with over 12% fines	SM		Silty sands, poorly graded sand-silt mixtures
			SC		Clayey sands, poorly graded sand-clay mixtures
Fine Grained Soils 50% or more smaller than #200 sieve	**Silts and Clays** Liquid limit less than 50		ML		Inorganic silts, rock flour, clayey silts
			CL		Inorganic clays of low to medium plasticity, sandy clays, silty clays
			OL		Organic clays and organic silty clays of low plasticity
	Silts and Clays Liquid limit greater than 50		MH		Inorganic silts, micaceous or diatomaceous fine sandy/silty soils, elastic silts
			CH		Inorganic clays with high plasticity, fat clays
			OH		Organic clays of medium to high plasticity, organic silts
Highly Organic Soils			Pt		Peat and other highly organic soils

CLASSIFICATION SYSTEM BASED ON THE UNIFIED SOIL CLASSIFICATION SYSTEM

Boring Log Key

Depth	Sample	USCS	Graphic Log	Material Description	Penetration Resistance (Blows/6")	Dry Unit Weight pcf	Water Content %
1	2	3	4	5	6	7	8

COLUMN DESCRIPTIONS

1	Depth in feet below the ground surface
2	Sampling Method see "symbols" below
3	USCS symbol
4	Graphic depiction of the subsurface material
5	Description of the material encountered. May include consistency, moisture, color, and other descriptors
6	Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval
7	Dry weight per unit volume of soil sample measured in laboratory units in pounds per cubic foot
8	Water content of the sample expressed as a percentage of the dry weight of the sample

ABBREVIATIONS

DIST = Disturbed Sample
N/R = No Recovery
CHEM = Chemical Test
N/A = Not Analyzed

SAMPLING METHOD SYMBOLS


California Split Spoon (CSS)


Standard Penetration Test (SPT)


Bulk Sample


Grab Sample

GENERAL NOTES

1. Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.

2. Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

APPENDIX B

Laboratory Test Data

SUMMARY OF LABORATORY TEST RESULTS

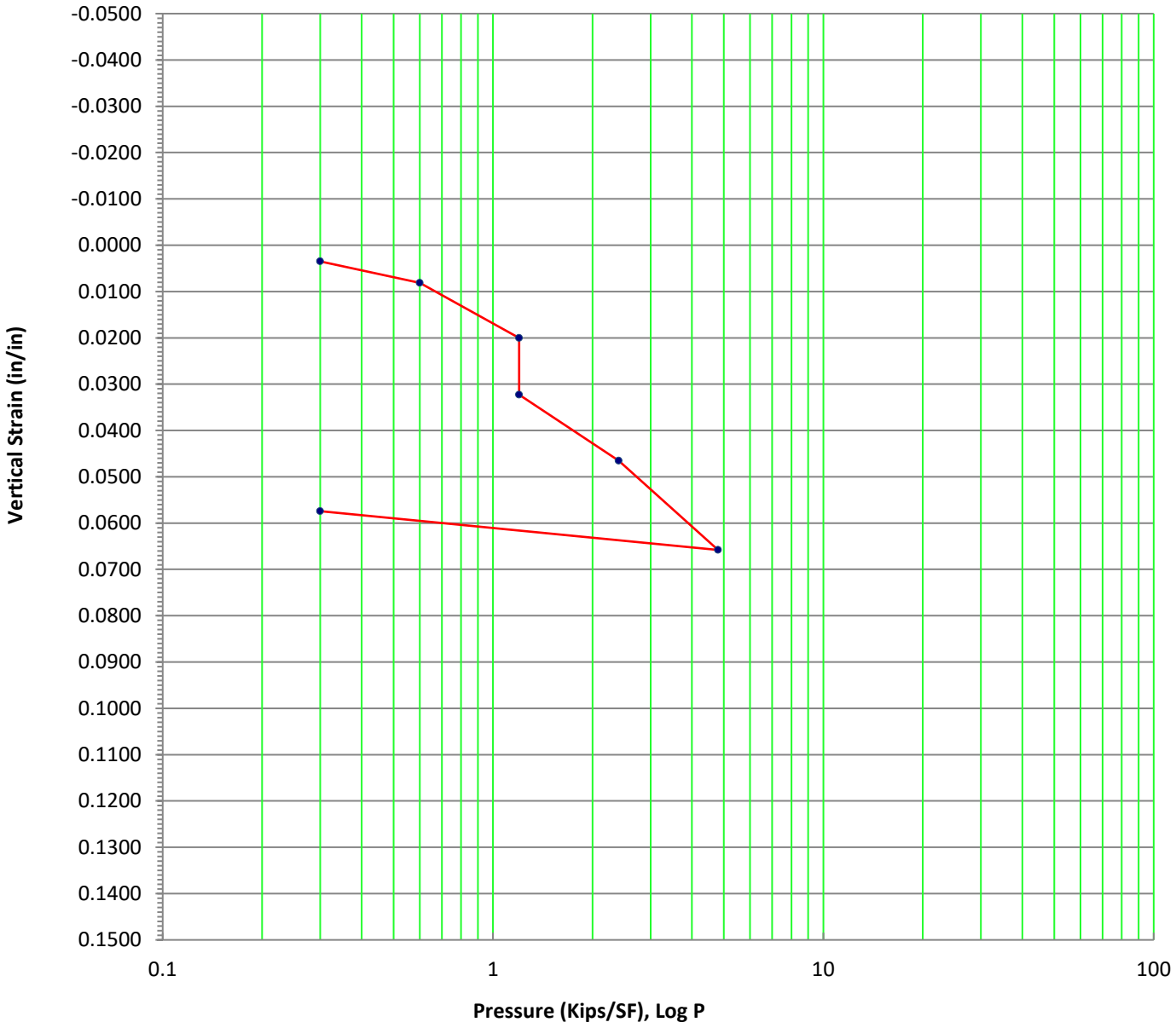
SIEVE ANALYSIS

Percent passing individual sieves

Sample I.D.	1/2"	3/8"	#4	#10	#40	#100	#200
B1@4	100	98	97	92	65	42	31
B1@6	99	98	95	89	55	32	23
B1@0-5	100	99	93	84	59	39	29
B3@4	96	92	86	73	41	27	21
B3@50		100	99	94	98	48	39
B5@6	96	95	84	62	33	17	12
B5@0-5	93	92	88	80	55	39	31

EXPANSION INDEX

Sample I.D.	Expansion Index	Classification
B1@0-5’	0	Non-Expansive
B3@0-5’	13	Very Low
B5@0-5’	6	Very Low



Consolidation Test

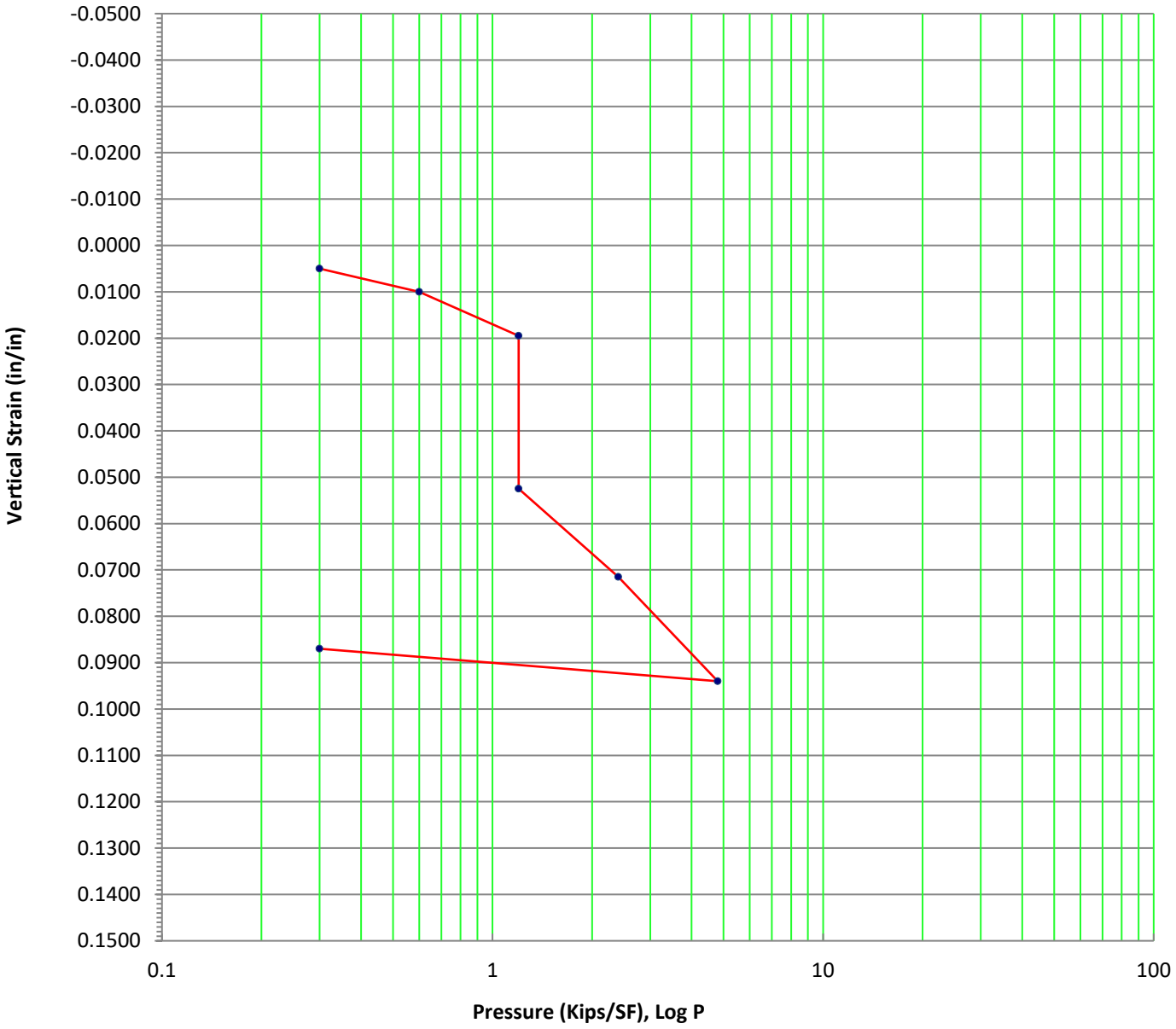
Jones

Sample location:	B4 @ 3'	
Material:	SM	
Initial Dry Density:	114.8	PCF
Moisture Content:	7.5	%
% Hydroconsolidation:	1.2	%

BRUIN
GEOTECHNICAL
SERVICES INC.
est. 2004

Test Method: ASTM D-2435

J.N. 24-327



Consolidation Test

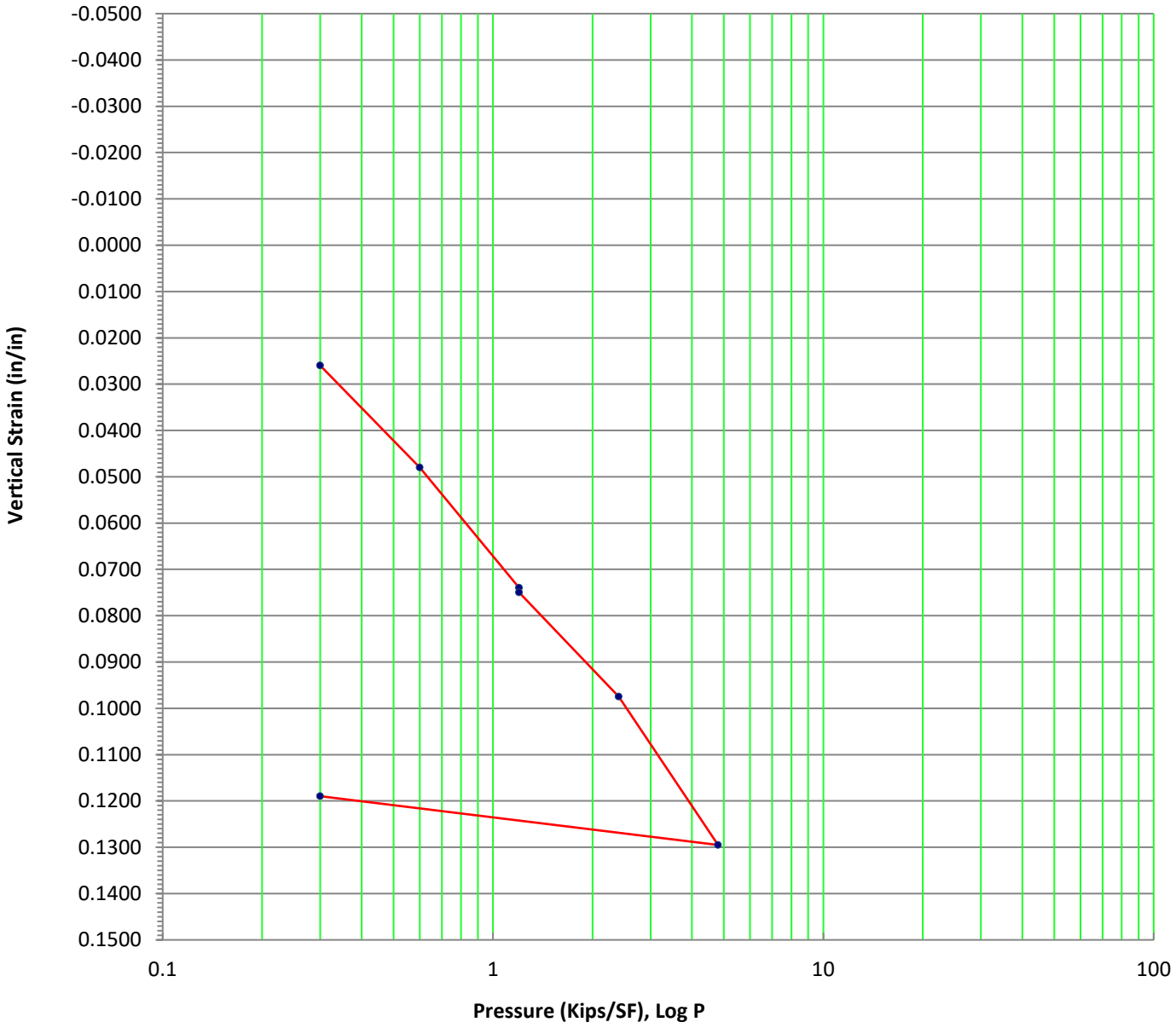
Jones

Sample location:	B6 @ 3'	
Material:	SM	
Initial Dry Density:	110.4	PCF
Moisture Content:	4.9	%
% Hydroconsolidation:	3.3	%

BRUIN
GEOTECHNICAL SERVICES INC.
est. 2004

Test Method: ASTM D-2435

J.N. 24-327



Consolidation Test

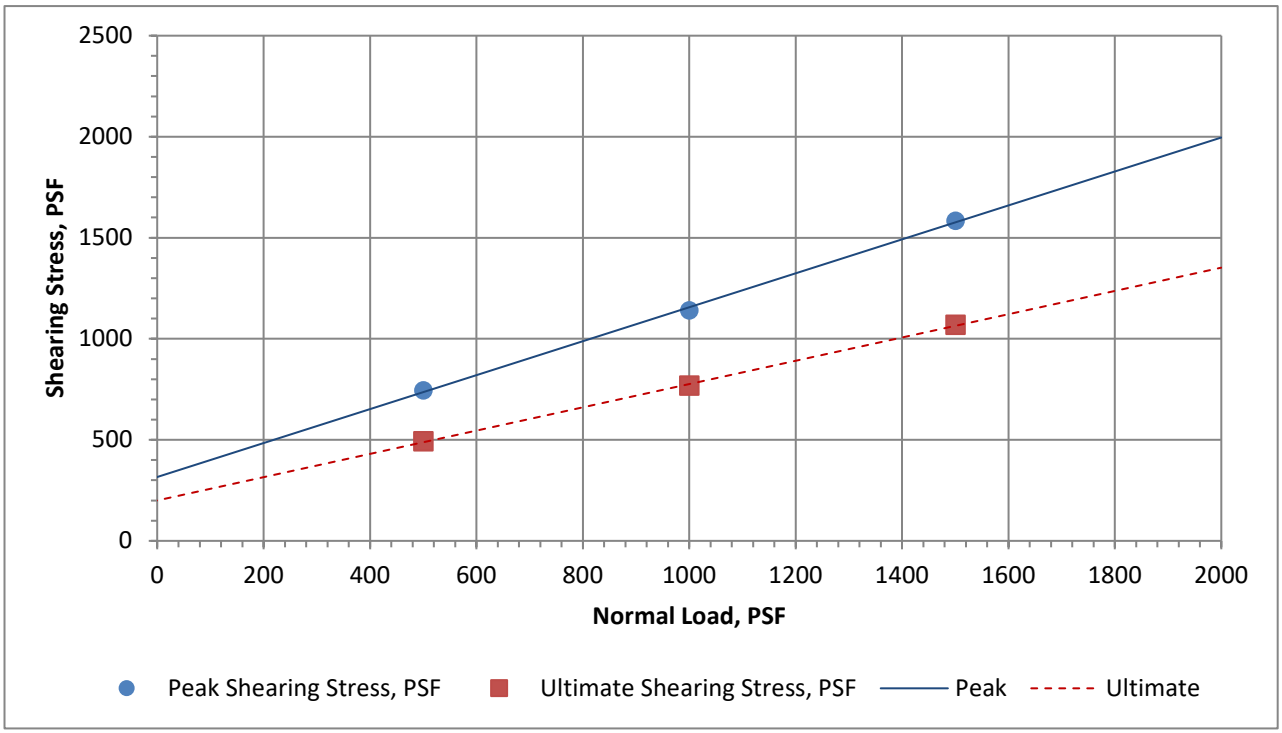
Jones

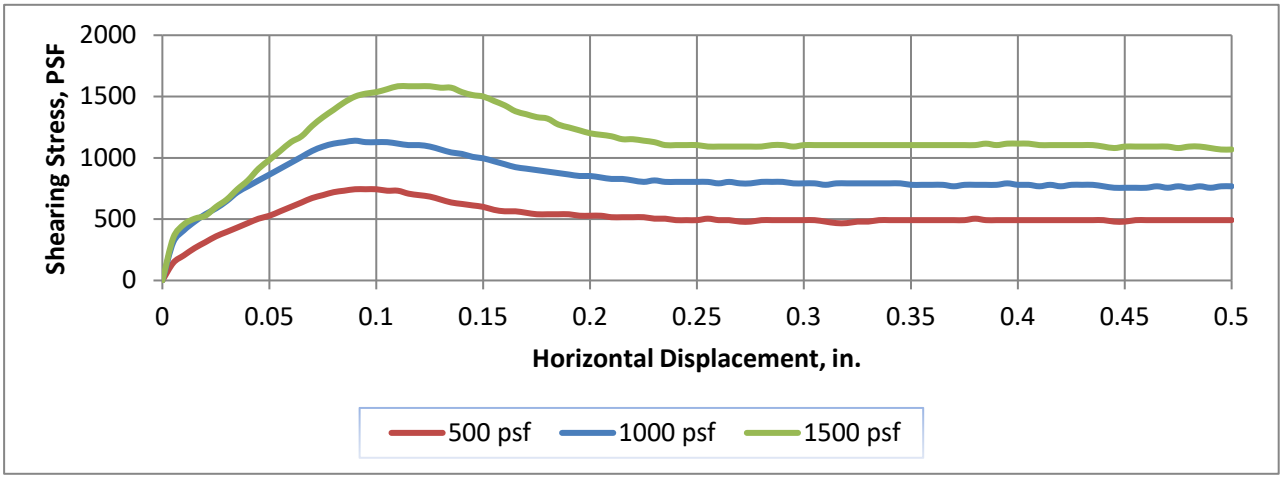
Sample location:	B7 @ 5'	
Material:	SC	
Initial Dry Density:	113.1	PCF
Moisture Content:	4.7	%
% Hydroconsolidation:	0.1	%

BRUIN
GEOTECHNICAL SERVICES INC.
est. 2004

Test Method: ASTM D-2435

J.N. 24-327





Sample Description: (SC) - Reddish brown clayey fine to medium sand w/ occ. #4 to 1/2" gravel

DIRECT SHEAR DATA (ASTM D-3080)

Sample ID	Symbol	Depth, feet	Dry Density, PCF	Average deg. of saturation
B3	●	6	111	98

	Peak	Ultimate
Angle of friction, (degrees)	40	30
Cohesive Strength (PSF)	316	200

Direct Shear Test

Jones

BRUIN GEOTECHNICAL SERVICES INC. est. 2004

J.N. 24-327

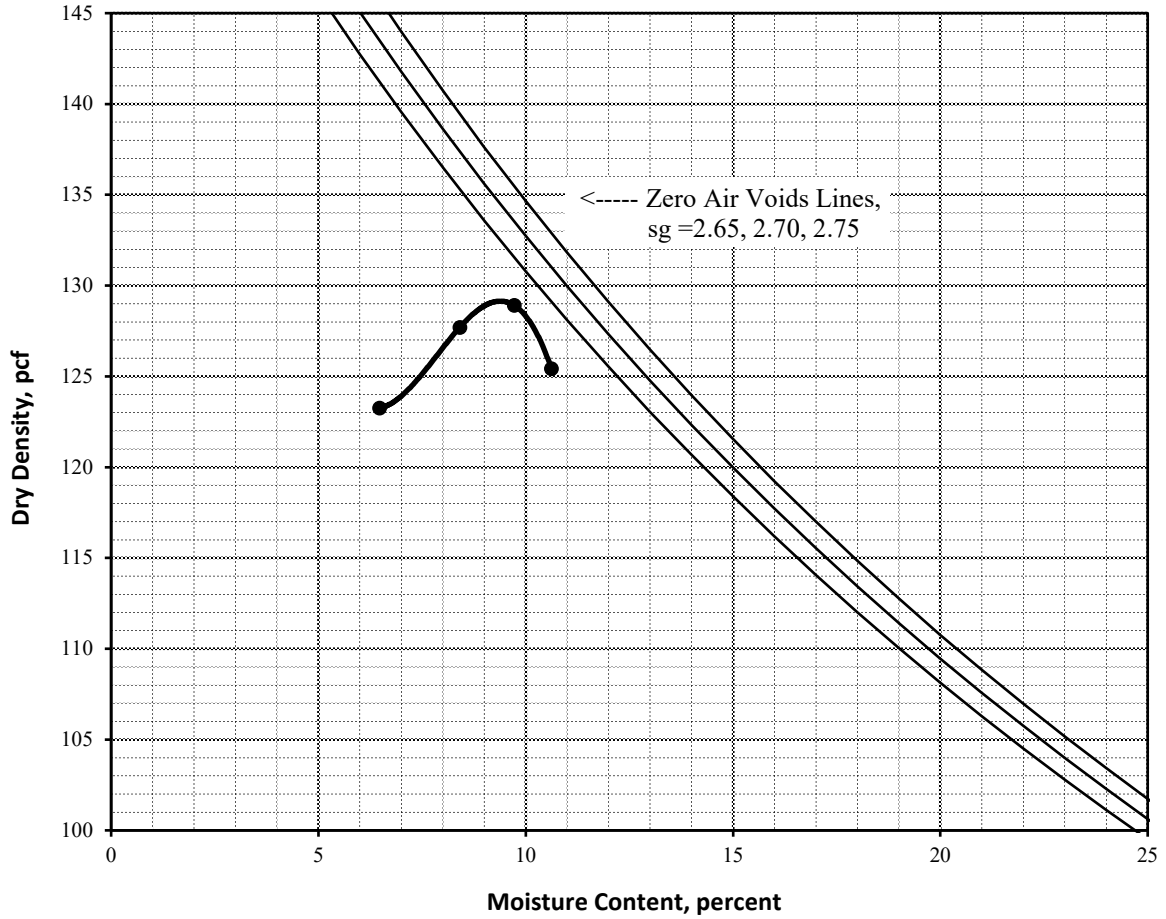
Bruin Geotechnical Services Inc.

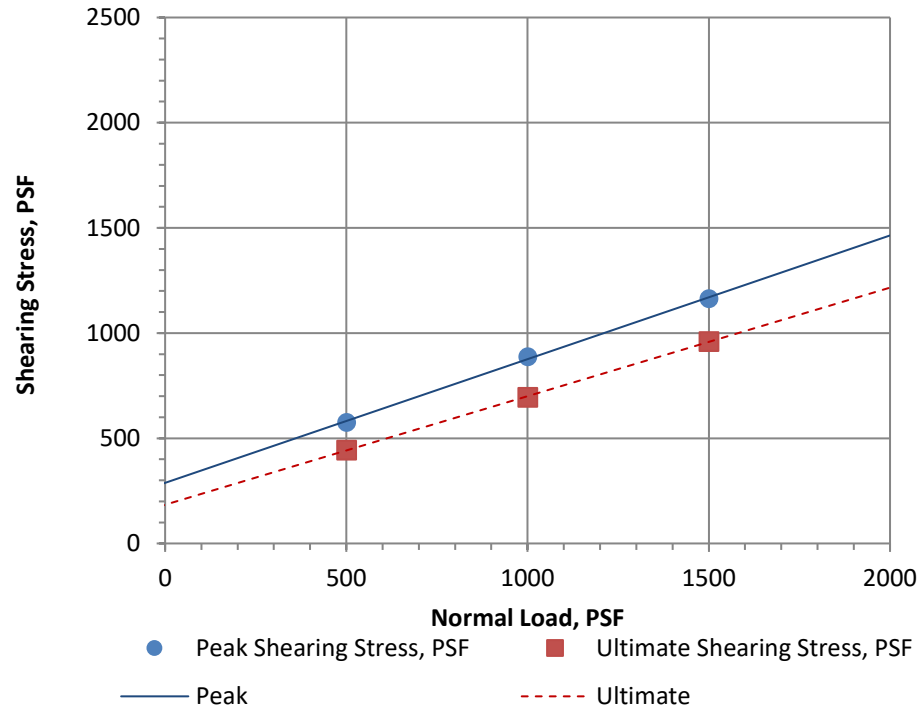
44732 Yucca Avenue
Lancaster, CA 93534
661-273-9078

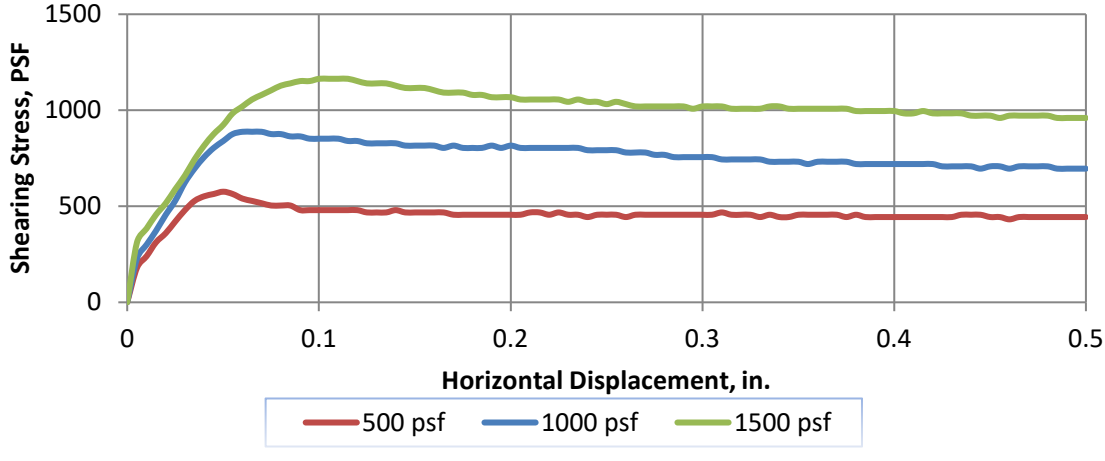
Maximum Density/Optimum Moisture Proctor ASTM D698/D1557

Project Number:	24-327	January 7, 2025
Project Name:	Jones	ASTM D-1557 A
Lab ID Number:	B3 @ 0-5	Rammer Type: 10#
Sample Location:	Palmdale, Los Angeles County, Califronia	
Description:	(SM) Reddish brown silty fine to medium sand w/ occ. coarse sand to 3/8" gravel & trace	

		Sieve Size	% Retained
Maximum Density:	**129.5 pcf**	3/4"	0.0
Optimum Moisture:	**9%**	3/8"	3.8
		#4	7.3







Sample Description: (SM) - Reddish brown silty fine to medium sand w/ occ. coarse sand to 3/8" gravel & trace clay

DIRECT SHEAR DATA (ASTM D-3080)

Sample ID	Symbol	Depth, feet	Dry Density, PCF	Average deg. of saturation
B3	●	0-5'	114	99

* Sample remolded to 90% relative compaction as determined by ASTM D-1557 Test Method

	Peak	Ultimate
Angle of friction, (degrees)	30	27
Cohesive Strength (PSF)	288	184

Direct Shear Test

Jones

BRUIN GEOTECHNICAL SERVICES INC.

24-327

Bruin Geotechnical Services, Inc.

44732 Yucca Avenue
Lancaster, CA 93534
661-273-9078

Expansion Index Test UBC Std. 29-2 / ASTM D4829

Job Number: 24-327 Date Tested: 1/12/2025
Client: Jones
Lab ID Number: B1 @ 0-5'
Sample Location: Palmdale, Los Angeles County, Califronia
Description: (SM) Grayish brown silty fine to coarse sand w/ occ. #4 gravel

Water Added (mL)	N/A
Weigt of Soil and Mold (gm)	599.5
Weight of Mold (gm)	196.7
Weight of Soil (gm)	402.8
Weight of Soil (lb.)	0.888
Wet Density (lbs./cu.ft.)	121.5
Moisture Sample (wet weight, gm)	113.0
Moisture Sample (dry weight, gm)	103.2
Percent Moisture (%)	9.5
Dry Density (lbs./cu.ft.)	110.9
Specific Gravity	2.7
Degree of Saturation (%)	49

ASTM Saturation required = 50% +/-2%.

Time	Dial Reading
8:40 AM	0.0000
Final Time	**Final Reading**
9:00 PM	0.0000

Voumetric Swell	**0.00%**

EXPANSION INDEX = 0

Expansion Potential Table	
Expansion Index	Potential Expansion
0-20	**Very Low**
21-50	Low
51-90	Medium
91-130	High
> 130	Very High

Bruin Geotechnical Services, Inc.

44732 Yucca Avenue
Lancaster, CA 93534
661-273-9078

Expansion Index Test UBC Std. 29-2 / ASTM D4829

Job Number: 24-327 Date Tested: 1/13/2025
Client: Jones
Lab ID Number: B3 @ 0-5'
Sample Location: Palmdale, Los Angeles County, Califronia
Description: (SM) Reddish brown silty fine to medium sand w/ occ. coarse sand to 3/8" gravel & trace clay

Water Added (mL)	N/A
Weigt of Soil and Mold (gm)	606.3
Weight of Mold (gm)	196.7
Weight of Soil (gm)	409.6
Weight of Soil (lb.)	0.903
Wet Density (lbs./cu.ft.)	123.5
Moisture Sample (wet weight, gm)	120.1
Moisture Sample (dry weight, gm)	109.9
Percent Moisture (%)	9.3
Dry Density (lbs./cu.ft.)	113.0
Specific Gravity	2.7
Degree of Saturation (%)	51

ASTM Saturation required = 50% +/-2%.

Time	Dial Reading
8:40 AM	0.0815
Final Time	**Final Reading**
9:00 PM	0.0940

Voumetric Swell	**1.25%**

EXPANSION INDEX = 13

Expansion Potential Table	
Expansion Index	Potential Expansion
0-20	**Very Low**
21-50	Low
51-90	Medium
91-130	High
> 130	Very High

Bruin Geotechnical Services, Inc.

44732 Yucca Avenue
Lancaster, CA 93534
661-273-9078

Expansion Index Test UBC Std. 29-2 / ASTM D4829

Job Number: 24-327 Date Tested: 1/14/2025
Client: Jones
Lab ID Number: B5 @ 0-5'
Sample Location: Palmdale, Los Angeles County, Califronia
Description: Brown silty fine to medium sand w/ #4 to 3/4" gravel & trace clay

Water Added (mL)	N/A
Weigt of Soil and Mold (gm)	606.3
Weight of Mold (gm)	196.6
Weight of Soil (gm)	409.7
Weight of Soil (lb.)	0.903
Wet Density (lbs./cu.ft.)	123.6
Moisture Sample (wet weight, gm)	115.0
Moisture Sample (dry weight, gm)	105.9
Percent Moisture (%)	8.6
Dry Density (lbs./cu.ft.)	113.8
Specific Gravity	2.7
Degree of Saturation (%)	48

ASTM Saturation required = 50% +/-2%.

Time	Dial Reading
8:40 AM	0.0805
Final Time	**Final Reading**
9:00 PM	0.0870

Voumetric Swell	**0.65%**

EXPANSION INDEX = 6

Expansion Potential Table	
Expansion Index	Potential Expansion
0-20	**Very Low**
21-50	Low
51-90	Medium
91-130	High
> 130	Very High

ANAHEIM TEST LAB, INC

196 Technology Drive, Unit D
Irvine, CA 92618
Phone (949) 336-6544

Bruin Geotechnical Services, Inc.
44732 Yucca Avenue
Lancaster, CA 93534

DATE: 1/13/2025

P.O. NO.: Transmittal

LAB NO.: C-8531, 1-3

SPECIFICATION: CTM-643/417/422

MATERIAL: Soil

Project No.: 24-327
Project: Jones
Vicinity of Ave S & Cemetery Rd, Palmdale, CA

ANALYTICAL REPORT

CORROSION SERIES
SUMMARY OF DATA

	pH	MIN. RESISTIVITY per CT. 643 ohm-cm	SOLUBLE SULFATES per CT. 417 (% by weight)	SOLUBLE CHLORIDES per CT. 422 ppm
1) B1 @ 0-5'	7.6	1,300	0.0106%	188
2) B3 @ 0-5'	7.7	1,700	0.0160%	123
3) B5 @ 0-5'	7.7	2,500	0.0069%	42

RESPECTFULLY SUBMITTED

WES BRIDGER, LAB MANAGER

ANAHEIM TEST LAB, INC

196 Technology Drive, Unit D
Irvine, CA 92618
Phone (949) 336-6544

TO:

Bruin Geotechnical Services, Inc.
44732 Yucca Avenue
Lancaster, CA 93534

DATE: 1/15/2025

P.O. NO.: Transmittal

LAB NO.: C-8533

SPECIFICATION: CA 301

MATERIAL: Brown, Clayey Sand

Project No.: 24-327
Project: Jones
Vicinity of Ave S & Cemetery Rd, Palmdale, CA
Boring ID: B1 @ 0-5'

ANALYTICAL REPORT
"R" VALUE

BY EXUDATION	BY EXPANSION
65	61

RESPECTFULLY SUBMITTED

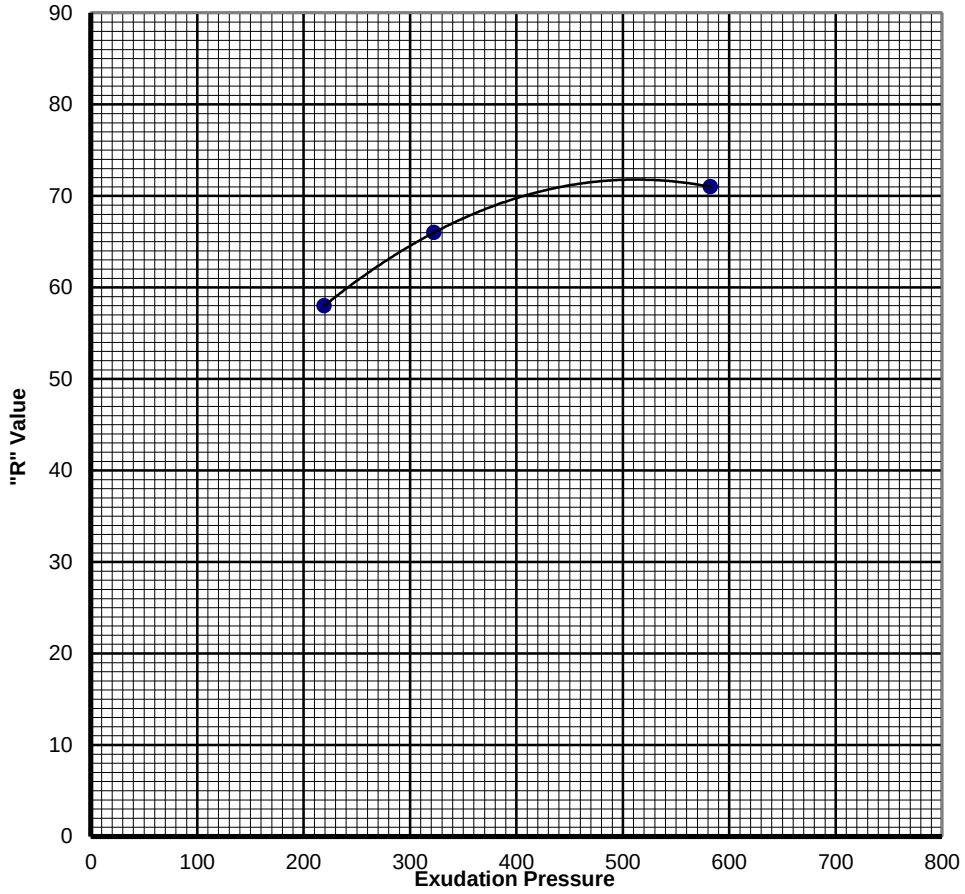
WES BRIDGER LAB MANAGER

"R" VALUE CA 301

Client: Bruin Geotechnical Services, Inc. **ATL No.:** C 8533 **Date:** 1/15/2025
Client Reference No.: 24-327
Sample: B1 @ 0-5' **Soil Type:** Brown, Clayey Sand

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	100	300	200	
Initial Moisture Content	%	5.4	5.4	5.4	
Moisture at Compaction	%	13.3	11.9	12.6	
Briquette Height	in.	2.51	2.45	2.49	
Dry Density	pcf	117.7	119.9	118.4	
EXUDATION PRESSURE	psi	219	582	322	
EXPANSION PRESSURE	psf	43	130	91	
Ph at 1000 pounds	psi	25	15	20	
Ph at 2000 pounds	psi	45	30	36	
Displacement	turns	4.58	4.32	4.44	
"R" Value		58	71	66	
CORRECTED "R" VALUE		58	71	66	

Final "R" Value	
BY EXUDATION: @ 300 psi	**65**
BY EXPANSION: TI = 5.0	**61**



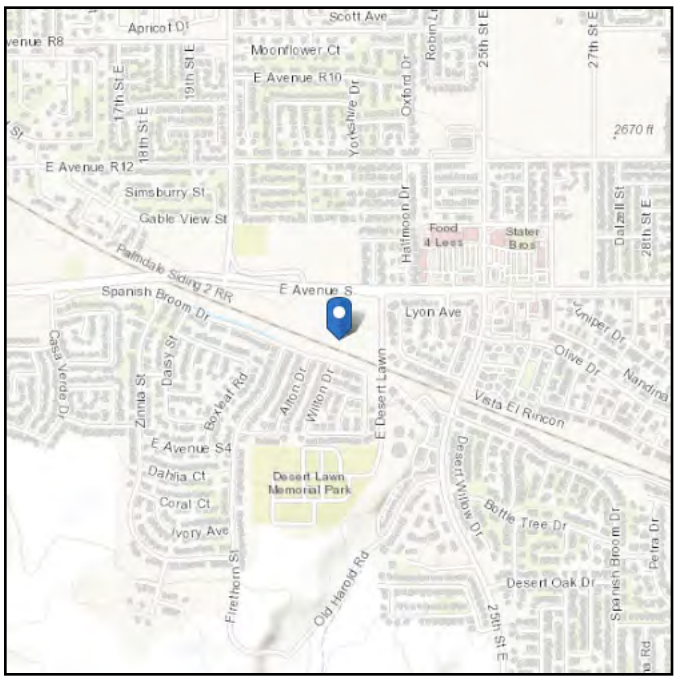
APPENDIX C

ASCE Seismic Design Summary Report

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	34.556575
Risk Category:	II	**Longitude:**	-118.090066
Soil Class:	D - Stiff Soil	**Elevation:**	2727.7062755772804 ft (NAVD 88)





Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	2.384	S_{D1} :	N/A
S_1 :	1.016	T_L :	12
F_a :	1	PGA :	1.025
F_v :	N/A	PGA_M :	1.127
S_{MS} :	2.384	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.589	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Mon Jan 27 2025

Date Source: USGS Seismic Design Maps

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE Hazard Tool.

APPENDIX D

General Earthwork and Grading Guidelines

Earthwork and Grading Specifications for Rough Grading

1.0 General

1.1 **Intent:** These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 **The Geotechnical Consultant of Record:** Prior to commencement of work, the owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observations, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to confirm that the attained level of compaction is being accomplished as specified. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 **The Earthwork Contractor:** The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the project plans and specifications. The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "equipment" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of

grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultants, unsatisfactory conditions, such as unsuitable soil, improper moisture-condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in the specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified. It is the contractor's sole responsibility to provide proper fill compaction.

2.0 Preparation of Areas to be Filled

2.1 **Clearing and Grubbing:** Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 10 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminant dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed. The contractor is responsible for all hazardous waste relating to his work. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Client should acquire the services of a qualified environmental assessor.

2.2 **Processing:** Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free from oversize material and the working surface is reasonably uniform, flat, and free from uneven features that would inhibit uniform compaction.

2.3 **Overexcavation:** In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading pan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 **Benching:** Where fills are to be places on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter that 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 **Evaluation/Acceptance of Fill Areas:** All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observes, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 **General:** Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 **Oversize:** Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 **Import:** If importing of fill material is required for grading, proposed import material shall meet the requirements of the geotechnical report(s). The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so the suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 **Fill Layers:** Approved fill material shall be placed in areas prepared to receive fill in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates that grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 **Fill Moisture Conditioning:** Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain relatively uniform moisture content within 2% of optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557-91).

4.3 **Compaction of Fill:** After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557-91). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 **Compaction of Fill Slopes:** In addition to normal compaction procedures specified above, compaction of slopes, shall be accomplished by backrolling of slopes with sheepfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557-91.

4.5 **Compaction Testing:** Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 **Frequency of Compaction Testing:** Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 **Compaction Test Locations:** The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less then 5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical repot(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land survey/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well we over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 The Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 All bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding Material shall have a Sand Equivalent greater then 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of maximum from 1 foot above the top of the conduit to the surface.

7.3 The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

7.4 The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.5 Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

FAULT RUPTURE HAZARD INVESTIGATION

Submitted to:
Mr. Markus Jones

Proposed Self-Storage Facility
Vicinity of Avenue S and Cemetery Road
Palmdale, Los Angeles County, California
APN 3053-007-046

Job No: 24-327
May 20, 2025

BRUIN GEOTECHNICAL SERVICES, INC.
44732 Yucca Avenue
Lancaster, California 93534
www.bruingsi.net

BRUIN
GEOTECHNICAL
SERVICES INC.
est. 2004

SOIL AND MATERIAL
TESTING AND INSPECTIONS

May 20, 2025 Job No.: 24-327

Mr. Markus Jones
markusnjones@gmail.com

Subject: Fault Rupture Hazard Investigation Report for Proposed Self-Storage Facility Vicinity of Avenue S and Cemetery Road, Palmdale, Los Angeles County California, APN 3053-007-046

Dear Mr. Jones:

I am pleased to present to you this fault rupture hazard investigation for the proposed new self-storage facility located at APN: 3053-007-046 Avenue S in the City of Palmdale, County of Los Angeles, California (Figure 1). The mapped trace of the Cemetery Fault strand of the San Andreas Fault zone is located across the area proposed for development (Figure 2). The purpose of this investigation was to assess the potential for surface fault rupture across a portion of the project site area to determine if the area of the planned leasing office building is suitable for the construction of human-occupied structures.

This study consisted of a review of published and unpublished data, geomorphic analysis, and subsurface exploration. The subsurface exploration program consisted of a single exploratory trench exposure. This fault rupture evaluation has found no active faults traversing the area investigated. The combination of continuous, unbroken Late Pleistocene soil horizons that have developed into alluvial fan deposits, and the lack of any near surface groundwater provides compelling evidence to demonstrate the absence of active faulting beneath the area investigated on the project site.

No active faults were found to traverse the area investigated, thus the proposed office building is not exposed to the hazard of surface fault rupture. However, there remains an undefined potential for surface rupture beyond the limits of the subsurface investigation. Accordingly, a fault setback distance or “no-build” zone, drawn parallel to the general trend of the Cemetery Fault should lie 50 feet in from the northern and southern ends of the trench exposure (Figure 8). This setback zone does not impact the current plans for development.

Thank you for this opportunity to be of service. Should you have any questions or require additional information, please do not hesitate to contact me.
Respectfully submitted,

BRUIN GEOTECHNICAL SERVICES, INC.



John Helms, CEG 2272

BRUIN
GEOTECHNICAL
SERVICES INC.
est. 2004

SOIL AND MATERIAL
TESTING AND INSPECTIONS

May 20, 2025 Job No.: 24-327

EXECUTIVE SUMMARY

Bruin Geotechnical Services, Inc., has performed a fault rupture hazard investigation for a proposed new self storage facility located at APN: 3053-007-046 Avenue S in the City of Palmdale, County of Los Angeles, California (Figure 1). The mapped trace of theCemetery Fault strand of the San Andreas Fault Zone in the site vicinity, lies directly south of the area investigated on the project site. The purpose of this investigation was to assess the potential for surface fault rupture across a portion of the project site area in order to determine if the area of the leasing office building for the planned self storage facility is suitable for the construction of human-occupied structures.

This study consisted of literature review, aerial photograph interpretation, geologic reconnaissance, 250 feet of exploratory trench, and analysis and preparation of this report. This fault rupture hazard evaluation has found no active faults traversing the area investigated. The combination of continuous and unbroken Late Pleistocene soil horizons that have formed into overlapping Late Pleistocene alluvial fan and stream terrace deposits provides compelling evidence to demonstrate the absence of active faulting beneath the entire area investigated on the project site.

The Cemetery fault strand of the San Andreas Fault zone has been approximately located across the subject property, and strikes roughly N 60° W in this area. This feature was not directly observed in the trench exposure, but its' position is inferred through geomorphic evidence. The fault appears to form degraded fault scarp and juxtaposes old alluvium against Tertiary aged sandstone across the site. Old alluvial fan deposits shed from the southern margin of the valley are continuous across the area investigated on site. A moderately well-developed surface soil indicates that this deposit has been exposed at the ground surface for a significant amount of time.

One minor in-active fault and several related fractures were found to traverse across the northern and central portions of the area explored. The minor fault observed is deeply buried within the old alluvial terrace deposits and is concluded to be a secondary in-active feature related to intense ground shaking and localized uplift and not a feature capable of generating

an earthquake. No active faults were found to traverse the site within the area explored, thus the planned location of the self storage facility's leasing office building is not exposed to the hazard of surface fault rupture.

Since the subsurface explorations did not extend beyond the site boundaries or out of the entire width of the Earthquake Fault Zone (Figure 2), there remains an undefined potential for surface rupture just beyond the limits of the trench exposure. Accordingly, a fault setback distance or "no-build" zone, drawn parallel to the boundary of the EFZ lies 50-feet in from the northeastern and southwestern ends of the trench exposure (Figure 8). Before placing 'human occupied' structures northeast or southwest of the recommended setbacks, a fault rupture hazard investigation must be performed in order to preclude the presence of active faulting in these areas. The recommended setback zone should not impact the footprint of the proposed new self storage facility's leasing office building. However, the design of the structure should account for the potential of strong ground shaking that will result from future earthquakes that will occur on the nearby San Andreas Fault zone.

FAULT RUPTURE HAZARD INVESTIGATION REPORT
TABLE OF CONTENTS

1.0 INTRODUCTION 8

1.1 Site Description 8
1.2 Scope of Work 9

2.0 REGIONAL AND LOCAL GEOLOGY 9

2.1 Geologic Setting 9
2.2 Geology of the Northern Central Antelope Valley 10
2.3 The San Andreas Fault 11
2.4 Faults in the Site Vicinity 11
2.5 Geomorphic and Topographic Review 12
2.6 Aerial Photographic Review 13
2.7 Previous Investigations 13

3.0 METHODOLOGY 14

3.1 Approach 14
3.2 Field Exploration 15

4.0 RESULTS 15

4.1 Groundwater 15
4.2 Trench Exposure 16
4.3 Stratigraphic Units 16
4.4 Features Observed 17

5.0 EVIDENCE FOR THE ABSENCE OF FAULTING 18

6.0 CONCLUSIONS AND RECOMMENDATIONS 18

7.0 LIMITATIONS 19

8.0 REFERENCES 19

TABLES	
Table 1	Aerial Photographs Reviewed
Table 2	Trench Log Unit Descriptions

FIGURES	
Figure 1	Site Location Map
Figure 2	Earthquake Fault Zone Map (CGS, 2003)
Figure 3	Quaternary Fault Map (USGS, 2022)
Figure 4	Regional Geologic Map (Dibblee, 1997)
Figure 5	Regional Geologic Map (CGS, 2011)
Figure 6	Site Geologic and Trench Location Map
Figure 7	Trench Log, Eastern Wall of Trench T-1
Figure 8	Setback Zone Map

FAULT RUPTURE HAZARD INVESTIGATION REPORT
PROPOSED RESIDENTIAL DEVELOPMENT
TENTATIVE TRACT MAP (TTM) 6709
VICINITY OF FELSITE AVENUE AND 30TH STREET WEST
ROSAMOND, KERN COUNTY, CALIFORNIA

1.0 INTRODUCTION

This report presents the results of a fault rupture hazard investigation prepared by Bruin Geotechnical Services, Inc. for a proposed new self storage facility to be located at APN: 3053-007-046 Avenue S in the City of Palmdale, County of Los Angeles, California (Figure 1). The mapped trace of the Cemetery Fault strand of the San Andreas Fault Zone in the site vicinity, lies across the project site area and is located to the south of the area investigated (Figure 2).

The proposed self storage facility is located across the current State of California Earthquake Fault Zone for the Cemetery Fault (Figure 2) and, therefore, the site is subject to the conditions of the Alquist-Priolo Special Studies Zone Act of 1972 (California Public Resources Code, Chapter 7.5, Division 2). The Act is designed specifically to mitigate the hazard of surface fault rupture in future earthquakes and defines a fault as active if it has demonstrated movement in Holocene time (past 11,000 years). The Alquist-Priolo Act mandates that sites located within “special studies zones”, which are delineated by the California Geologic Survey (CGS) along active faults, require detailed geologic investigation to preclude the construction of human-occupied structures astride active fault strands. The 1994 Seismic Hazards Mapping Act changed the name of the zones from Special Studies Zones to Earthquake Fault Zones (EFZ). A self-storage facility is typically not considered "human-occupied" under the definition used in the Alquist-Priolo Earthquake Fault Zoning Act. This is because such facilities are designed primarily for storing personal belongings, and people generally do not spend extended periods of time inside the storage units. The purpose of this investigation, therefore, was to assess the potential for surface fault rupture across the northeastern portion of the site area and to determine if the area of the proposed leasing office building for the proposed new self storage facility is suitable for the construction of “human-occupied” structures.

1.1 Site Description

The project site is located on the southwest corner of Avenue S with Cemetery Road at APN: 3053-007-046 in the City of Palmdale, County of Los Angeles, California (Figure 1). The proposed new self storage facility is to lie across the central and eastern portions of the parcel. The leasing office building for the self storage facility is the only "human-occupied" portion of the development under the definition used in the Alquist-Priolo Earthquake Fault Zoning Act and this is the only portion of the development that requires a geological investigation. The project site area is bound on the north by Avenue S, to the east by

Cemetery Road, to the south by a rail road easement and existing residential development, and to the west by vacant land and existing residential development. The area of the proposed new leasing office building within the proposed new self storage facility is along a roughly graded pad gentle north facing slope. The Cemetery Fault is the northern most branch along this portion of the San Andreas Fault Zone and is mapped south of and adjacent to the area investigated on project site along a gradual rise in topography that juxtaposes Tertiary Ana Verde Formation bedrock on the south against old alluvium to the north and trends oblique to Avenue S (Figures 2 and 3). South of the project site area, the San Andreas Fault Zone is mapped as a set of closely spaced linear escarpments that are well expressed at the ground surface (Figure 3).

1.2 Scope of Work

The scope of work for this fault rupture hazard investigation of the above mentioned proposed development consisted of the following tasks:

- Review of published geologic maps, literature, and previous consulting reports for the site vicinity;
- Analysis of aerial photography and detailed topography for the site vicinity;
- Geologic reconnaissance of the site;
- Excavation and logging of five (5) exploratory backhoe excavated fault trenches (T- 1, T-2, T-3, T-4, and T-5) across a majority of the property.
- Preparation of this report and figures.

John Helms, CEG, performed all tasks of this investigation. This study conforms with provisions of the Alquist-Priolo Act and Title 24 of the California Code of Regulations.

2.0 REGIONAL AND LOCAL GEOLOGY

2.1 Geologic Setting

The project site is located on the northern side of the San Andreas Rift Zone along the northern flank of the central San Gabriel Mountains. The San Andreas Fault, which forms the rift zone, exhibits a more westerly orientation in this area as opposed to its' overall northern orientation. The San Gabriel Mountains are a complex east-trending region of mountain ranges and valleys, about 300 miles long and averages about 30 miles in width (Weigand and Savage, 2001). The San Andreas Rift Zone is the boundary between the Transverse Ranges Geomorphic province to the south and the Mojave Desert Geomorphic province to the north. The Transverse Ranges Geomorphic province forms a relatively youthful physiographic feature in response to accelerated uplift that accommodates the concentrated north-south crustal shortening in this region of compression. The Mojave Desert Geomorphic province is characterized by a broad region of isolated mountain ranges separated by expanses of desert plains. Two important fault trends that control the

topography of the Mojave Desert Geomorphic province are a prominent NW-SE trend and a secondary east-west trend which is in apparent alignment with Transverse Ranges (CGS, 2002).

2.2 Geology of the Northern Central Antelope Valley

The project site is located near the southern portion of the Antelope Valley Basin, which makes up part of the western Mojave Desert Geomorphic province. The Antelope Valley is characterized as a 4,000 km2 sediment filled, closed basin that lies between the San Andreas and Garlock fault zones, and forms the westernmost "wedge" of the Mojave desert geomorphic province (Dibblee, 1967). Sediments in this portion of the Antelope Valley are derived from the Transverse Ranges. Modern streams that head in the adjacent portions of the Transverse Ranges flow into Rogers playa.

The southern Antelope Valley contains common thrust faults and folds that expose some of the oldest sediment within the basin. The thrust faults and folds are related to activity on the San Andreas Fault Zone. The northeastern portion of the project site contains a thick deposit of old alluvium and the southern portion of the project site contains Tertiary Ana Verde Formation bedrock. Similar deposits are primarily restricted to the foothills along the southern margins of the Antelope Valley. Similar alluvial deposits are also locally present near or at the ground surface throughout the western portions of the Antelope Valley. No springs or areas indicative of shallow ground water were observed on the project site.

Rock outcrops are visible in the study area, exposed in the railroad cut that passes along the southern site boundary and locally along the hill slopes south of the project site area. Geologic mapping depicts the surficial geologic units in the project site area as Tertiary Ana Verde Formation in the southern portion of the project site area, and Cenozoic Granodiorite Gneiss complex basement rocks to the southeast of the project site area, Pleistocene aged Alluvium, and Holocene aged Alluvium across the northern and eastern portions of the project site. The southern portion of the project site area, mapped by the CGS, (2011), is underlain by Tertiary Ana Verde Formation and the northern portion by Pleistocene Old Alluvial Fan deposits and Holocene Stream Terrace deposits and channel wash deposits. A Late Pleistocene soil has formed into the Old Alluvial Fan and Old Stream Terrace deposits across the project site area.

Many discontinuous, secondary fault splays lace the hillsides in this area (Barrows, et. al., 1985). One deeply buried and in-active secondary fault splay was observed in the central portion of the trench exposure on the project site. This fault strikes N88°E, 80°SE and its' antiquity is evident by the moderately well-developed soil that has developed in the deposits that overly this feature. This feature also lacks of any geomorphic expression in the vicinity of the project site area.

2.3 The San Andreas Fault

The San Andreas fault zone accommodates over 60% of the total 50 mm/yr rate of right-lateral motion between the Pacific and North American plates. The fault zone extends from Cape Mendocino to the Salton Sea and is over 1,000 km long. The surface expression of the fault zone varies considerably along its strike and ranges from a relatively simple, linear zone of a few closely-spaced subparallel fault strands to a highly complex, broad zone of several astomozing and branching faults. Total post-Miocene displacement across the San Andreas fault zone is about 300 km, based on offsets of basement rocks (Crowell, 1962), upper Miocene sedimentary rocks (Hill and Dibblee, 1953) and early Miocene volcanic rocks (Matthews, 1976).

Historically, the San Andreas fault has failed in great earthquakes in 1857 and 1906. The ~M8 1857 Fort Tejon earthquake ruptured over 330 km of the fault from Cholame to Cajon Pass and produced up to 9 m of right-lateral slip in the Carrizo Plain and about 3.4 m in the Palmdale area (Sieh, 1978). The San Andreas fault is also capable of failing in more moderate-sized earthquakes, such as the ~M7 December 8, 1812 earthquake that produced about 4 m of slip at the Pitman Canyon site east of Cajon Pass (Seitz and Weldon, 1994). This event, which is also recognized at Pallet Creek, likely ruptured through the Palmdale and Lake Elizabeth areas.

2.4 Faults in the Site Vicinity

The Cemetery fault is approximately located across the project site area and is inferred to lie approximately 50 feet south of the trench exposure (Figure 7). The Cemetery fault is the northern most splay of the San Andreas Fault Zone in the project site area, and roughly parallels the San Andreas Fault for several kilometers extending from Sierra Highway to the west to 37th Street East to the east. It is believed to be a left-lateral strike-slip fault (opposite sense of motion from the San Andreas), though some sources also suggest it may have normal or oblique-slip components (Moulin, A., 2023). The Cemetery fault has formed due to transpressional stress (compression + shear) in the area. It may also help accommodate block rotation or minor crustal uplift in the region. The Cemetery Fault shows evidence of Holocene activity, but is not considered a major earthquake-generating fault. It most likely ruptures during larger seismic events on the adjacent branches of the San Andreas Fault Zone. In the project site area, a deflected drainage observed along this fault and the relationship of this fault to the exposed bedrock across the southern portion of the project site, indicate that the Cemetery fault likely accommodates both strike-slip and a reverse or oblique component of slip. Rupture of the Cemetery fault across the vicinity of the study area will likely exhibit a secondary south-side-up reverse component of slip, based on the higher topography south of the fault.

The Little Rock Branch of the San Andreas Fault is inferred to lie approximately 2,500 feet south of the proposed self storage facility. The Little Rock Fault is characterized by a series of linear drainages, offset fan surfaces, and fault scarps, particularly where the fault cuts

younger Pleistocene alluvial deposits.This fault is also associated with the deformation and tilting of Quaternary gravels, suggesting at least late Pleistocene to Holocene displacement. This fault most likely ruptured during the 1857 Fort Tejon earthquake. The Little Rock fault of the San Andreas Fault zone is also a left-lateral strike-slip fault, although local kinematics can vary, and it often displays a complex interplay of strike-slip and reverse components. This fault locally defines the southern margin of the Antelope Valley alluvial basin, juxtaposing uplifted crystalline and sedimentary rocks of the San Gabriel Mountains against younger basin-fill deposits. Given its position and activity, the Little Rock Fault plays a significant role in accommodating strain transfer and distributing tectonic deformation across the broader SAFZ system in the western Mojave region. The Little Rock Fault is capable of generating significant seismic activity, and deformation and tilting of Quaternary gravels, suggesting at least late Pleistocene to Holocene activity.

The Main Branch of the San Andreas Fault Zone lies approximately 4,500 feet south of the study area.In this region, the fault takes on a pronounced right-lateral strike-slip character with notable transpressional uplift due to its geometry relative to regional plate motion. South of the Cemetery and Little Rock strands, the Main Branch of the San Andreas Fault Zone juxtaposes Pre-Cambrian to Mesozoic crystalline basement rocks (San Gabriel Mountains) against Cenozoic basin-fill sediments. It has well-expressed geomorphic features, characterized by linear valleys, offset and beheaded drainages, saddles and shutter ridges, and fault scarps on late Pleistocene to Holocene alluvial surfaces. This fault strand is considered Holocene-active, with well-documented coseismic surface rupture evidence from multiple earthquakes, including the 1857 Fort Tejon earthquake event.

2.5 Geomorphic and Topographic Review

A combined review of previous geomorphic analyses (Barrows, et. al., 1985) with a review of US Geologic Survey topographic maps and a detailed analysis of stereo paired aerial photographs was performed. Topographic maps and aerial photography were examined for recognizable scarps or breaks in slope that may suggest the location of faulting. The topographic maps show the location of a modest escarpment across the project site area that dies out to the northwest. The topography also shows the position of a possibly deflected drainage in the western portion of the project site area that may contain a fault scarp that trends parallel to the southern margin of the property.

Geomorphically, the northern portion of the project site sits across a highly degraded and old alluvial fan remnant that emanated from the southern margin of the valley and is faulted against AnaVerde Formation bedrock that occupies the southern portion of the project site. The degraded alluvial fan deposits have persisted at the ground surface in this area since Late Pleistocene time. The alluvial fan deposits are moderately thick and contain moderately well-developed soils across the northern portion of the project site area. At depth across the center and northern portions of the project site area the old alluvial fan deposits overly old stream terrace deposits. The flat lying remnant terrace deposits maybe associated with the Shoemaker gravels. The stacked stream terrace deposits have also persisted at the ground

surface in this area since Late Pleistocene time. The terrace deposits are moderately thick and contain well-developed soils across the northern portions of the project site area.

Significant topographic features suggestive of surface faulting were found south of the area investigated on the project site. A short break in slope located immediately to the south of the trench excavation on site trends across the project site towards the northwest corner of the project site area. This feature may indicate the possible location of the Cemetery Fault strand of the San Andreas Fault Zone. No other significant topographic features suggestive of surface faulting were found on, projecting towards, or in the vicinity of the project site.

2.6 Aerial Photographic Review

An analysis of historical aerial photographs was performed in order to determine if any faults or fault-related features could be recognized. Flights of aerial photos dating from 1928, 1952, and 1994 were reviewed (Table 2). These sets of photos were flown at various scales, at various times of the year, and included stereo coverage of the project site as well as the San Andreas Fault Zone across and to the south of the project site area.

Geomorphic features indicative of active faulting were observed along the Cemetery fault that crosses the project site area. A geomorphic study of the San Andreas fault zone by Barrows, et. al. (1985), similarly recognized the Cemetery fault across the project site area and included it in the EFZ for the Palmdale quadrangle (Figure 2).

In each set of photographs, the scarp of the Cemetery Fault was observed trending northwesterly across the project site area. On the 1928 aerial photograph, a recognizable scarp or sharp break in slope trends along a bedrock to alluvial contact. A drainage that crosses the western portion of the project site area is deflected across this feature. This geomorphic feature appears to have been minimally modified by human activity by the 1950's and by 1994 the site has been roughly graded subduing the fault scarp.

Several other smaller slope inflections can also be observed on the 1928 aerial photograph to the southeast and northwest of the project site area. These features may indicate possible locations of the Cemetery Fault along the trend of the San Andreas Fault Zone. No other significant topographic features suggestive of surface faulting were found on, projecting towards, or in the vicinity of the project site.

2.7 Previous Investigations

A review of previous fault rupture hazard investigations that have been completed in the project site's vicinity were reviewed for any information that may be pertinent to the project site area. The reports reviewed are summarized below.

McCollum Geotechnical (1984 - 1988) did the geologic and soils report for the rough grading on Tentative Tract 43826 located at the Northwest corner of Avenue S and 20th Street East,

Palmdale, California. This site sits across the northwestern portion of the Cemetery Fault on the north side of Avenue S northwest of this project site area. McCollum excavated a series of 11 trenches in order to characterize the geology and faulting in the area. The trenches ranged In depth from 1.5 to 12.5 feet. AII trenches were excavated until encountering hard and dense bedrock or dense alluvium. A single well defined trace of the Cemetery Fault crosses the subject parcel. No other splays or parallel branches were evident. Most of this site was free from the hazard of ground rupture, and a single 50 foot setback zone was established from and parallel to the Cemetery Fault. This study encountered younger and older alluvial deposits. A majority of the alluvial deposits observed on the site for this study were un-faulted.

Southeast of the project site area one previous fault study was completed by Leighton and Associates, Inc. (1987) for a residential development on Tentative Tract 45548 in the City of Palmdale. The site is located in the vicinity northeast of the intersection of 30th Street East (projected) and S-12 (projected). The majority of the site is located within the Alquist Priolo Special Studies Zone for the Cemetery fault. The Leighton study shows that the Cemetery fault on this site consists of a broad zone of shearing representative of major and minor displacements of Holocene as well as at least Quaternary faulting. The Holocene faulting of significant displacement magnitude is located within the central portion of the study site. The observed fault zone is up to 100± feet wide in the central portion of this site and strikes N60±"W, and dips steeply to the southwest. Most of this site was free from the hazard of ground rupture, and several 25 foot setback zones were established from and parallel to strands of the Cemetery Fault identified. This study encountered older alluvial deposits and Cretaceous granitic bedrock. A majority of the alluvial deposits to the south and to the north of the faulting observed observed on the site for this study were un-faulted.Faulting within the active zone is characterized by displacement of major formational contacts as well as corresponding shearing of Holocene soils. The southern boundary of the zone is a faulted contact between Cretaceous granitics.

West of the project site area one previous fault study was completed by GeoSoils Inc. (1985) for a proposed residential development located southwest of Avenue S and 20th Street East. Trench excavations encountered no faulting and no set back zones were established on this site. This study encountered Old Alluvium and Tertiary Ana Verde Formation bedrock. All of the deposits observed on this site were un-faulted

3.0 METHODOLOGY

3.1 Approach

The subsurface investigation was designed to investigate across the entire area proposed for development on the subject parcel (Figure 6 and Figure 8). Typically, trenching is the preferred method for evaluating the presence or absence of faults because it offers a continuous, direct exposure of the fault zone or near surface stratigraphy. A single trench (T-

1) was done for this study in order to shadow the entire area proposed for the leasing office within the self-storage facility. As shown on Figure 8, a 50-foot setback distance from the northern and southern limits of the trench (T-1) exposure is drawn parallel to the trend of the Cemetery Fault Zone in this vicinity.

3.2 Field Exploration

Prior to beginning the subsurface field exploration, a literature review, aerial photograph interpretation, and geologic reconnaissance of the site was performed. Following this general review, Underground Service Alert (USA) was notified to identify buried utilities in the vicinity of the proposed excavation, as required by law. Lastly, a scope of work letter was sent to the City of Palmdale for review and approval of the proposed scope. Field explorations were located on a 1 inch = 60-foot scale base map provided by the landowner and later were surveyed in for better accuracy. (Figure 8). Horizontal stationing (in feet) along the trench exploration was established with a tape measure and by assuming Station -85 was coincident with the southern corner of the trench. This allowed for consistent stationing along the entire trench exposure. The trench (T-1) was ~250-feet-long, up to 12 feet-deep and crosses the southeastern to eastern-central portions of the project site area (Figures 6 and 8). The trench was excavated by a backhoe with a 3 foot wide bucket. In order to maintain safe, stable trench walls and conform to OSHA standards, the trench was bench cut at a safe depth. The area around the trench was fenced off to discourage unauthorized access.

The entire eastern wall of trench (T-1) was scraped clean to obtain a fresh and continuous exposure prior to logging the geologic and pedogenic contacts. A level line was constructed on the wall of the trench to establish horizontal and vertical stationing. The eastern trench wall was logged in the field at a scale of 1 inch = 5 feet. The trench log is presented in Figures 7a through 7d. Upon completion of logging a trench review meeting was held with the City of Palmdale at the project site. City representatives walked through the trench exposure on site and generally agreed with the enclosed interpretations. After the trench review meeting, the trench was backfilled.

4.0 RESULTS

This investigation has shown that the area of the parcel proposed for the leasing office in the new self storage facility development is not subjected to the hazard of surface fault rupture. There were no active faults exposed in the area explored by the trench exposure. No lineaments or geomorphic features suggestive of active faulting traverse the area proposed for development of the leasing office on the project site.

4.1 Groundwater

An important indicator for the presence or absence of faulting is the depth to groundwater. Past studies have shown that both inactive and active fault strands act as groundwater

barriers and produce abrupt steps in the groundwater surface. Perched groundwater was not encountered in the subsurface explorations on site for this study. The ground water levels across the project site area are below the depths explored and are not affected by faulting. This indirect line of evidence supports that there are not active faults in the area of the proposed development.

4.2 Trench Exposure

A site map showing the measured location of the trench is presented in Figure 6 and a log of the eastern side of the trench exposure is presented in Figures 7a, 7b, 7c, and 7d. Trench T-1 was excavated across the southeastern to the eastern-central portion of the project site area. The southeastern and eastern-central portions of the site contains a thin veneer of artificial fill over a section of old alluvial fan (Qoa1) and old stream terrace deposits (Qoa2) and both contain a Late Pleistocene aged soil development overprint.

The southern portion of the area investigated contains a moderately thick sequence of stacked and buried Late Pleistocene alluvial fan deposits (Qoa1) that overly Late Pleistocene stream terrace deposits (Qoa2) which become buried by young Holocene sheet flow deposits (Qal) to the north. The older alluvial fan and stream terrace deposits have moderately strong to strong soil development that indicates a Late Pleistocene age. Portions of the old alluvial sediments (Qoa1) have moderately strong angular blocky soil structure and are impregnated with large amounts of secondary illuvial clay, and portions are well oxidized from soil-forming processes, indicating that multiple horizons have been exposed at or near the surface for an undetermined extended period of time. No active or age undetermined faults were exposed in the trench exposure and the stratigraphic horizons exhibit continuous overlapping boundaries that cross the entire area investigated (Figures 7a through 7d). One in-active fault was observed deeply buried in the trench exposure within the old stream terrace deposits (Qoa2). This feature strikes North 88° East and dips 70° southwest and was observed as a calcium carbonate lined parting surface. Overlying contacts between units A and B within unit Ooa1 in the trench exposure are continuous across the feature identified.

4.3 Stratigraphic Units

The continuity of soil horizons and primary stratigraphic contacts provides essential data to evaluate the presence or absence of faulting. Fifteen slightly continuous, overlapping, and conformable stratigraphic units within the alluvium were encountered in the trench (T-1) exposure (Figures 7a through 7d). The uppermost units (Qof1 and Qot1) exposed in the trench are interpreted as a Late Pleistocene aged alluvial deposits that appear continuous and unbroken across the entire section exposed.

Artificial fill was encountered across the surface of the project site area (Unit Af in Figure Figures 7a through 7d). The material generally consists of reworked soil and construction debris that consists of brown silty SAND with clay.

Unit Qal is the youngest unit encountered during the subsurface exploration and is interpreted to be a Holocene aged sheet flow deposit. It was encountered in the northern portion of the trench exposure and consists of a thin weakly-developed soil that is hard, dry, Silty SAND that has slightly organics is well bioturbated and coarse-grained with few fine and medium sub rounded gravel. This unit consists of layer L as described in Table 1. This unit buries a unit Qoa2 across the northern portion of the trench exposure.

Unit Qoa1 is exposed at the ground surface across the central and southern portions of trench exposure. This unit is interpreted to be a Late Pleistocene aged alluvial fan deposit. It consists of a moderately thick and moderately well-developed soil that is extremely hard, dry, Sandy Clay to Silty SAND with Clay that is coarse-grained and masssive to crudely stratified with lenses of fine highly weathered gravel along the base of the unit. This unit consists of layers A and B as described in Table 1. Unit Qoa1 consists of a highly truncated and moderately well-developed argillic soil profile across the southern and central portions of the trench exposure.

Unit Qoa2 is buried below unit Qoa1 across the southern and central portions of trench exposure and is buried by unit Qal across the northern portion of the trench exposure. This unit is interpreted to be a Late Pleistocene aged stream terrace deposit. It consists of a moderately thick and well-developed soil that is very hard, dry, Silty SAND and Silty Sand with Clay that is coarse-grained and well stratified with fine-grained sand beds and localized gravel beds. This unit consists of layers layers C, D, E, F, G, H, I, J, K, M, and N as described in Table 1. Qoa2 consists of a truncated and moderately well-developed argillic soil profile across the northern portion of the trench exposure.

These stratigraphic units provide visually and texturally distinct, mappable contacts that are overlapping along the entire length of the trench exposure. Table 1 lists a detailed description for all of the stratigraphic units encountered in the subsurface investigation. Each unit description was developed at several localities across the trench exposure

4.4 Features Observed

Nearest station 100 feet, a minor secondary in-active fault or ground crack related to localized uplift was found to traverse through the central portion of the area explored (Figure 7C and Figure 8). This feature is a parting surface that trends N88°E, 80°SE and is lined with a zone of calcium carbonate. The margins of this feature are sharp, planar, and weathered. It is confined within unit Qoa2 and buried 7 feet below the ground surface within the trench exposure. There were no changes in soil development characteristics (i.e. color, texture, and structure) across this feature. Thus the minor fault found buried near station 100 feet in trench T-1 is concluded to be an in-active fault feature, most likely related to past localized uplift and not a feature capable of generating an earthquake.

5.0 EVIDENCE FOR THE ABSENCE OF FAULTING

Several subsurface geologic relationships at the project site provide direct evidence to preclude the presence of Holocene faulting. Topographic and air photo analyses also provide indirect evidence that the area proposed for development of the leasing office within the self storage facility is not traversed by active faults. When these relationships are considered together, there is compelling evidence for the absence of faulting beneath the area investigated. The primary lines of evidence that support the interpretation that no faults traverse the site are:

- **Continuous, overlapping, un-faulted primary stratigraphy across the trench exposures.** The trench exposures revealed evidence of continuous stratigraphic horizons across the area explored (Figures 7a through 7d). The conclusion that these units are not faulted is based on the assumption that any faults would exhibit a vertical slip component that, over repeated seismic events, would produce recognizable, vertical separations of the units. It is more difficult to make this case for a pure strike-slip fault. However, even strike-slip faults would likely produce an apparent dip-slip component or truncation of units due to the juxtaposition of different Pleistocene strata or pedogenic horizons.

- **No active faults were encountered in the subsurface exploration.** No features characteristic of active faulting, such as shear zones or high angle contacts between multiple units were observed along the entire length of the trench exposure. This line of evidence is consistent with and corroborates the other lines of evidence.

- **Ground water not observed across the project site area**. The ground water levels across the project site area are deeper than the depths explored. The groundwater surface appears to not be affected by faulting across the project site area. This line of evidence by itself is not considered compelling enough to preclude the presence of faulting, but it is consistent with and corroborates the other lines of evidence.

- **No irregularities or topographic features indicative of faulting were observed in the project site area.** A strong break in slope along the northern margin of a linear ridge line is located approximately 50 feet north of the project site area. This topographic feature may indicate the possible location of the Cemetery Fault strand of the San Andreas fault zone.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This fault rupture hazard investigation for the leasing office of a proposed self storage facility has found no faults traversing the area investigated on the subject property. The presence of multiple continuous Pleistocene stratigraphic soil horizons developed into overlapping

alluvial fan and stream terrace deposits provides compelling evidence to demonstrate the absence of active faulting beneath the area investigated.

Because no active faults were found to traverse the site within the limits of the investigation's boundaries, the proposed leasing office of a proposed self storage facility development is not exposed to the hazard of surface fault rupture. There remains an undefined potential for surface rupture just beyond the northern and southern limits of the trench exposure. Accordingly, small fault setback distances or "no-build" zones, drawn parallel to the boundaries of the EFZ lie 50 feet in from the northern and southern limits of the trench exposure (Figure 8). These setback zones do not impact the current plans for the leasing office of a proposed self storage facility. Any development plans must observe the designated setback and include a foundation design that can account for intense ground shaking and potential associated aseismic deformations.

The Cemetery Fault strand of the San Andreas Fault Zone is located south of the area investigated. While the area explored in our study is not subject to the hazard of surface faulting, a future earthquake on the San Andreas Fault Zone will likely produce very strong, near-field ground motions at the project site that could possibly exceed the provisions set forth in the current building codes.

7.0 LIMITATIONS

The conclusions and recommendations presented herein are the results of an inherently limited scope. Specifically, the scope of services consisted of an assessment of whether or not active faults are present within the area explored at the site. The conclusions and recommendations contained in this report are professional opinions derived in accordance with current standards of professional practice. No warranty is expressed or implied.

This report has been prepared for the exclusive use of Mr. Markus Jones and applies only to the proposed development located at APN: 3053-007-046 Avenue S in the City of Palmdale, County of Los Angeles, California. In the event that significant changes in the construction plans should occur, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed by Bruin Geotechnical Services, Inc., and the conclusions and recommendations of this report are verified in writing.

8.0 REFERENCES

Barrows, A.G., Kahle, J.E., and Beeby, D.J., 1985, Earthquake Hazards and Tectonic History of the San Andreas Fault Zone, Los Angeles County, California, California Department of Conservation, Division of Mines and Geology, Open File Report 85-10 LA, Sacramento, California, pp. 236

California Division of Mines and Geology CD-ROM 2000-003, 2000, Official Map of Alquist-Priolo Earthquake Fault Zones, Palmdale Quadrangle (1979), Scale 1:24,000.

California Department of Conservation, California Geological Survey, 2002, Note 49: Guidelines For Evaluating The Hazard Of Surface Fault Rupture; Classroom note, The Department of Conservation, Sacramento, California.

California Department of Conservation, California Geological Survey, 2011, Preliminary Geologic Map Of The Palmdale 7.5' Quadrangle, Los Angeles County, California: A Digital Database, scale 1:24000.

Crook, R., Allen, C., Kamb, B., Payne, C., and Proctor, R., 1987, Quaternary Geology and Seismic Hazards of the Sierra Madre and Associated Faults, Western San Gabriel Mountains, in Recent Reverse Faulting in the Transverse Ranges, California: US Geological Survey Professional Paper 1339:27-63, map scale 1:24,000.

Dibblee, T.W., Jr., 1997, Geologic Map of the Palmdale Quadrangle, Los Angeles County, California, Dibblee Foundation Map #DF-67, Thomas W. Dibblee, Jr. Geological Foundation, Santa Barbara, California, scale 1:24000.

GeoSoils Inc., 1986, PRELIMINARY GEOTECHNICAL INVESTIGATION 88-Acrc. Parcel Avenue s & 20th Street East Tracts 43581 and 43582 Palmdale, California, Consultant report prepared for First Financial Group, Inc., Dated February 4, 1985, Project No. 1951-VN.

Hart, E.W., Smith, D.P., and Smith, T.C., 1978, Summary Report: Fault Evaluation Program, 1977 Area (Los Angeles Basin Region), California Division of Mines and Geology Open File Report 78-10 SF.

Hart, E.W., 1978, Fault Evaluation Report, San Andreas (Palmdale segment), California Division of Mines and Geology Fault Evaluation Report 70.

Hill, M.L. and Dibblee, T.W., 1953, San Andreas, Garlock, and Big Pine faults, California – A study of the character, history, and tectonic significance of their displacements, Geological

Hart, E. W., 1997, Fault-rupture hazard zones in California, California Division of Mines and Geology Special Publication 42, p. 34.

Leighton and Associates, Inc., 1987, PRELIMINARY GEOLOGIC FAULT INVESTIGATION TENTATIVE TRACT 45548 CITY OF PALMDALE, CALIFORNIA. Consultant report prepared for THE HAMMOND COMPANY, Dated May 22, 1987, Project No. 7870426-01.

Leighton and Associates, Inc., 1987, ADDENDUM TO FAULT INVESTIGATION TENTATIVE TRACT 45548 CITY OF PALMDALE, CALIFORNIA. Consultant report prepared for THE HAMMOND COMPANY, Dated September 16, 1987, Project No. 7870426-02.

Leighton and Associates, Inc., 1989, PRIVATE CONSULTANT'S FAULT STUDIES ALQUIST PRIOLO SPECIAL STUDIES ZONES Tracts 44762, 45548 and 45682 Three Contiguous Tracts North of the Pearblossom Highway 3000 Block East Palmdale, California. Consultant report prepared for THE HAMMOND COMPANY, Dated February 1, 1989, Project No. 7870426-03.

Matte, J.C., Morton, D.M., and Cox, B.F., 1992, The San Andreas Fault System In The Vicinity Of The Central Transverse Ranges Province, Southern California. United States Geological Survey, Open File Report 92-354, pp. 49.

Matthews, V., 1976, Correlation of Pinnacles and Neenach volcanic formations and their bearing on San Andreas fault problems: American Association of Petroleum Geologists Bulletin, v. 60, p. 2128-2141.

McCollum Geotechnical, 1984, Geotechnical Reconnaissance of Tentative Tract 43826 Located at the Northwest Corner of Avenue S and 20th Street East, Palmdale, Californla. Consultant report prepared for Kaufman and Broad, Inc., Dated October 25, 1984, Project No. 84019-1.

McCollum Geotechnical, 1986, Geologfc Investigation of Tentative Tract 32702, at the Southwest Corner of Lasker Street and Avenue R-8, Palmdale, CA Consultant report prepared for California Community Builders, Inc., Dated February 26, 1986, Project No. 85027-2.

Seitz, G.G. and Weldon, R.J., II, 1994, The paleoseismology and fault scarp morphology of the San Andreas fault at Pitman Canyon, San Bernardino, California, Geological Society of America Abstracts with Programs, v. 26, p. 90.

Sieh, K.E., 1978, Slip along the San Andreas fault associated with the great 1857 earthquake, Seismological Society of America Bulletin, v. 68, no. 5, p. 1421-1448.

Sieh, K.E., 1984, Lateral offsets and revised dates of large prehistoric earthquakes at Pallett Creek, southern California, Journal of Geophysical Research, v. 89, no. B9, p.7641-7670.

Weignad, P.W., and Savage, K.L., 2001, To Plates' Edge: Field Guide To The Geology Between The San Fernando Valley and Palmdale, Thomas W. Dibblee, Jr. Geological Foundation, Santa Barbara, California, pp.

Table 1. Trench Unit Descriptions

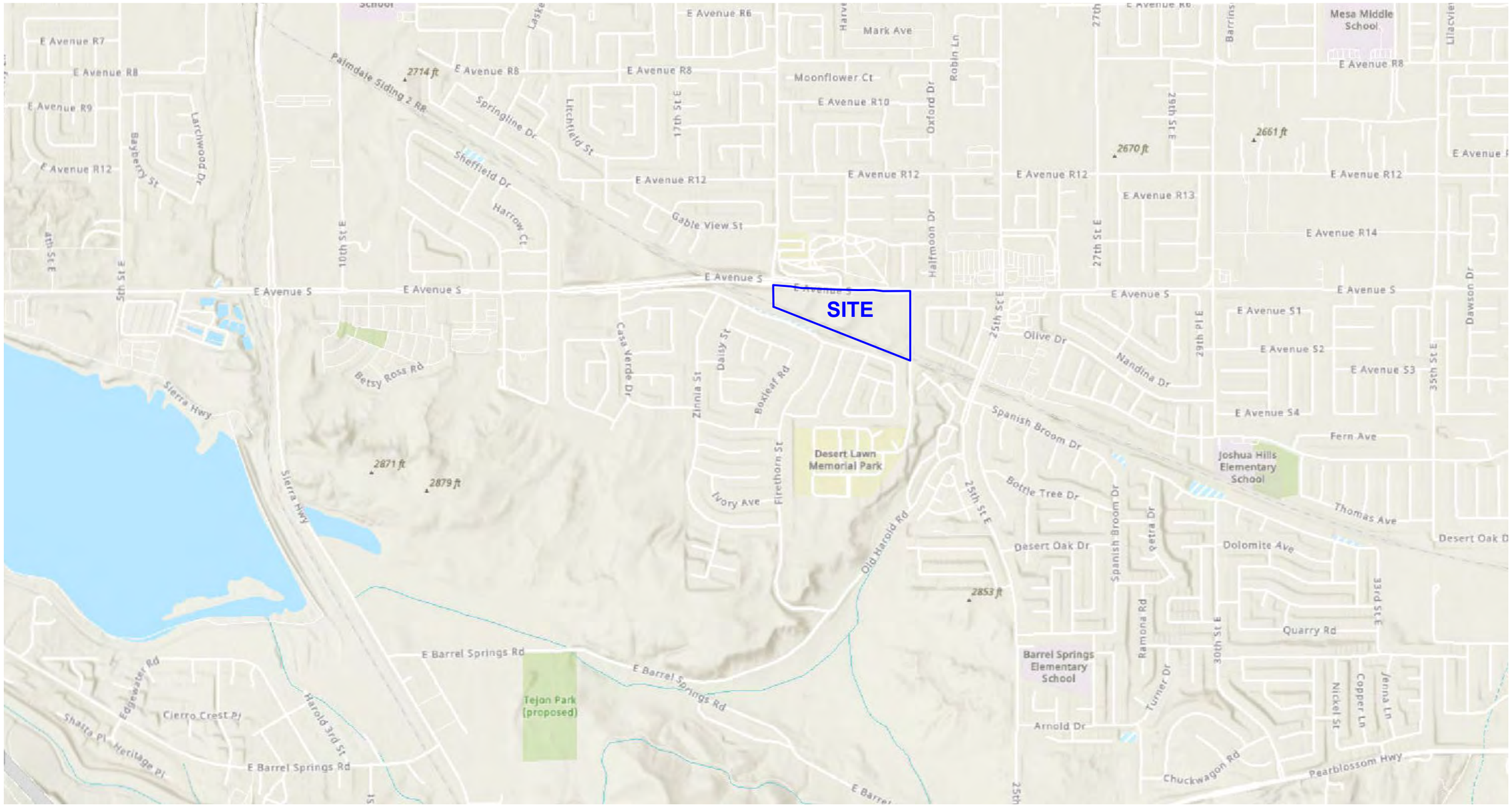
Unit	Descriptions for Trench T-1
Af	Silty SAND with Clay, brown, hard, friable, moderately sticky, slightly plastic, medium-grained moderately well-sorted sand, slight organics, sparse concrete and other construction debris, common roots and rootlets, abrupt smooth lower boundary to unit A from stations 55 to 170 feet and clear smooth lower boundary to unit L from stations 170 to -80 feet and abrupt smooth lower boundary to unit B from stations -80 to -85 feet;
A (Qoa1)	Pleistocene Alluvial Fan Deposit, truncated strongly developed argillic soil horizon (Bt1), strong brown (7.5YR 5/6d, 7.5YR 4/4m), Sandy CLAY, massive, moderately well oxidized, medium to coarse-grained poorly-sorted sand, 5 to 10% fine and medium highly weathered sub angular and sub rounded gravel, friable, very sticky, very plastic, extremely hard, moderately strong medium and coarse prismatic soil structure, few roots, common thick and many moderately thick clay films on ped faces and coating clasts, dry, unit continuous across trench from stations 55 to 170 feet, gradational wavy lower boundary to unit B and clear wavy lower boundary to unit G;
B (Qoa1)	Pleistocene Alluvial Fan Deposit, subsurface argillic soil horizon (Bt2), strong brown (7.5YR 5/6d, 7.5YR 4/6m), Sandy Clay Loam, massive, moderately well oxidized, coarse-grained poorly-sorted sand, 25 - 50% fine, medium, and large highly weathered sub rounded and rounded gravel, friable, moderately to very sticky, moderately plastic, very hard, moderately strong fine and medium angular blocky soil structure, clay films many thin and few moderately thick on ped faces and coating clasts, dry, unit continuous across trench from stations 75 to 165 feet, abrupt wavy lower boundary to unit C and clear wavy lower boundary to unit H;
C (Qoa2)	Buried Pleistocene Stream Terrace Deposit, truncated subsurface soil horizon (2BCb), reddish yellow (7.5YR 7-6/6d, 7.5YR 5/6m), Silty SAND, massive, medium to coarse-grained poorly-sorted sand, silt-rich, 3 - 5% fine sub rounded gravel, friable, slightly sticky, non-plastic, extremely hard, weak fine and medium sub angular blocky soil structure, common fractures, CaCO3 coated, wavy to stepped, and healed to slightly open, dry, unit continuous across trench from station 98 to 160 feet, abrupt smooth lower boundary to unit D and clear wavy lower boundary to unit E;
D (Qoa2)	Buried Pleistocene Stream Terrace Deposit, brown (7.5YR 5/4d, 7.5YR 4/4m), Clayey SAND, finely bedded, slightly well oxidized, coarse-grained poorly-sorted sand, 3 - 5% fine sub rounded gravel, very friable, slightly sticky, non- to slightly plastic, hard, weak fine sub angular blocky to angular blocky soil structure, laminated CaCO3 along base of unit, dry, unit continuous across trench from station 135 to 160 feet, clear smooth lower boundary to unit E;

Unit	Descriptions for Trench T-1 (Continued)
E (Qoa2)	Buried Pleistocene Stream Terrace Deposit, light brown (7.5YR 6/4d, 7.5YR 4/4m), Silty SAND, crudely stratified, slightly well oxidized, coarse-grained poorly sorted sand, 25 - 50% fine and medium sub rounded highly weathered gravel, soft, very friable, non- to slightly sticky, non-plastic, single-grained to weak fine sub angular blocky soil structure, dry, unit continuous across trench from station 110 to 160 feet, inter fingers with unit G, undetermined lower boundary;
F (Qoa2)	Buried Pleistocene Localized Channel Scour Deposit, reddish brown (5YR 5/6d, 5YR 5/4m), Silty SAND, well stratified, well oxidized, coarse-grained poorly-sorted sand, with fine to medium-grained sand beds, 10 - 25% fine medium and large sub rounded gravel, hard, very friable, non- to slightly sticky, non-plastic, single grained soil structure, few CaCO3 laminations at top of unit, dry, unit continuous across trench from station 109 to 118 feet, clear wavy lower boundary;
G (Qoa2)	Buried Pleistocene Localized Channel Scour Deposit, brown (7.5YR5/4d, 7.5YR 4/4m), Silty SAND to Sand with Silt, massive to crudely stratified, slightly well oxidized, medium to coarse-grained poorly-sorted sand, 10 - 25% fine medium and large sub rounded gravel, hard, friable, non-sticky, non-plastic, single-grained soil structure, dry, unit continuous across trench from station 96 to 112 feet, inter fingers with unit E and H, undetermined lower boundary;
H (Qoa2)	Buried Pleistocene Stream Terrace Deposit, truncated argillic soil horizon (2Bt1), reddish brown (5YR 5/8d, 5YR 4/6m), Silty SAND with Clay, crudely stratified, well oxidized, coarse-grained poorly sorted sand, 25 - 50% fine medium and large highly weathered sub rounded gravel, friable, very sticky, very plastic, extremely hard, massive to weak fine and medium angular blocky soil structure, clay films many thin and common moderately thick on ped faces and coating clasts, localized CaCO3 laminations, dry, unit continuous across trench from station -85 to 96 feet, clear smooth lower boundary to unit I and gradational wavy lower boundary to units J and M;
I (Qoa2)	Buried Pleistocene Fluvial Deposit, sand bed, strong brown (7.5YR 5/6d, 7.5YR 4/4m), SAND with Silt, massive, slightly well oxidized, medium to coarse-grained poorly sorted sand, 3 - 5% fine sub rounded gravel, very friable, non- to slightly sticky, non-plastic, hard, massive to single-grained soil structure, clay films common to many thin on ped faces, dry, unit continuous across trench from station 63 to 94 feet, clear smooth lower boundary to unit J;

Unit	Descriptions for Trench T-1 (Continued)
J (Qoa2)	Buried Pleistocene Stream Terrace Deposit, reddish brown (5YR 5/8d, 5YR 4/6m), Silty SAND with Clay, massive, well oxidized, coarse-grained poorly sorted sand, 30 - 50% fine medium and large highly weathered sub rounded gravel, very friable, slightly sticky, slightly plastic, very to extremely hard, many clay stains coating clasts, dry, unit continuous across trench from station -28 to 80 feet, clear wavy lower boundary to unit K and M;
K (Qoa2)	Buried Pleistocene Fluvial Deposit, sand bed, strong brown (7.5YR 5/6-8d, 7.5YR 4/6m), SAND with Silt, massive, slightly well oxidized, medium to coarse-grained poorly sorted sand, 5 - 10% fine sub rounded gravel, friable, moderately sticky, moderately plastic, hard, massive soil structure, clay films common thin on ped faces, dry, unit continuous across trench from station 19 to 70 feet, undetermined lower boundary;
L (Qal)	Holocene Sheet Flow Deposit, truncated weakly developed soil horizon, strong brown (7.5YR 5/6d, 7.5YR 4/4m), Silty SAND, massive, slightly well oxidized, coarse-grained poorly sorted sand, 10 - 25% fine medium and large sub rounded gravel, very friable, slightly sticky, non- to slightly plastic, slightly hard, massive soil structure, dry, unit continuous across trench from station -85 to 58 feet, clear smooth lower boundary to unit H;
M (Qoa2)	Buried Pleistocene Alluvial Fan Deposit, truncated sub surface soil horizon, yellowish brown (7.5YR 6/6d, 7.5YR 5/4m), Silty SAND with Clay, crudely stratified, slightly well oxidized, coarse-grained poorly sorted sand, silt-rich, beds with 10 - 25% fine medium and large sub rounded gravel, very friable, slightly sticky, non- to slightly plastic, very hard, massive soil structure, common fractures that are wavy to stepped and lined with CaCO3, common MnO webbing and coatings along fractures, dry, unit continuous across trench from station -85 to 5 feet, clear smooth lower boundary to unit N;
N (Qoa2)	Buried Pleistocene Alluvial Fan Deposit, sub surface soil horizon, yellowish brown (7.5YR 6/6d, 7.5YR 5/4m), Silty SAND, crudely stratified, slightly well oxidized, coarse-grained poorly sorted sand, beds with 25 - 50% fine medium and large sub rounded gravel, very friable, non- to slightly sticky, non-plastic, extremely hard, massive soil structure, common fractures that are wavy discontinuous and lined with CaCO3, dry, unit continuous across trench from station -85 to -15 feet, undetermined lower boundary.

Table 2. Aerial Photographs Reviewed

Flight	Date	Frame No.
napp2c 6862	1994	181 & 182
High altitude and good contrast. Project site area is partially graded. Adjacent areas are mostly developed. Surface topography is subdues and drainages filled in.		
ajx-11k	1952	151 &152
Medium altitude and sharp contrast. Project site area is not graded. Photo shows tonal lineament contrast between the bedrock and alluvial and shows color contrast between older alluvial surfaces and younger incisions. The older alluvial surfaces are hummocky and highly degraded.		
C-300	1928	C-389, 389A, & 390
Low altitude and fair contrast. Project site area is not graded. Natural hillslope topography across southern portion of the project site vicinity and alluvial fan bar and swale topography across the northern portion of the project site. A prominent north facing scarp is observed the project site are aligned with the bedrock to alluvial contact. A small incised drainage crosses the western portion of the project site area and maybe deflected across the fault zone.		



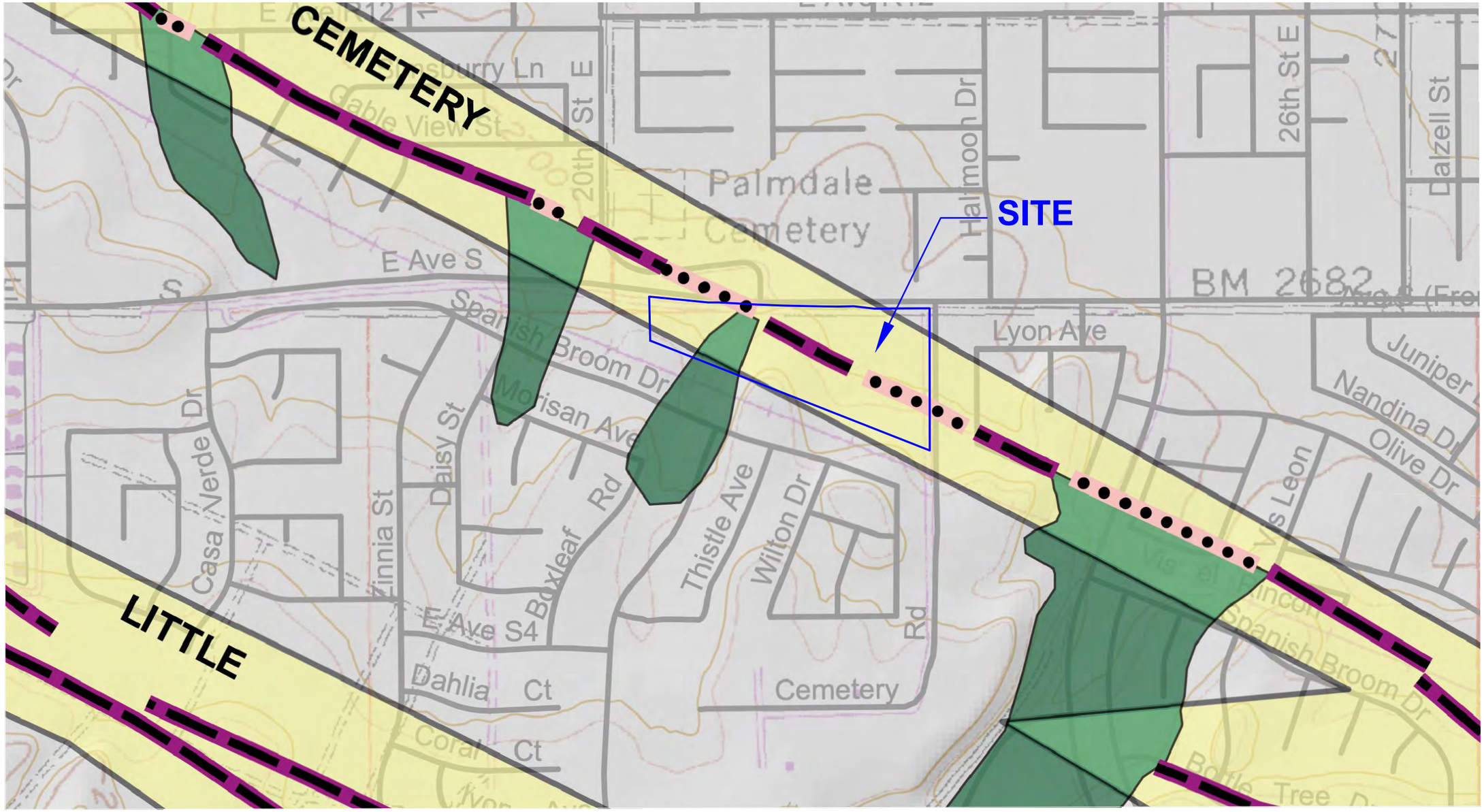
Title

Site Location Map

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 1**



0 500' 1000'

N NW NE W E SW SE S

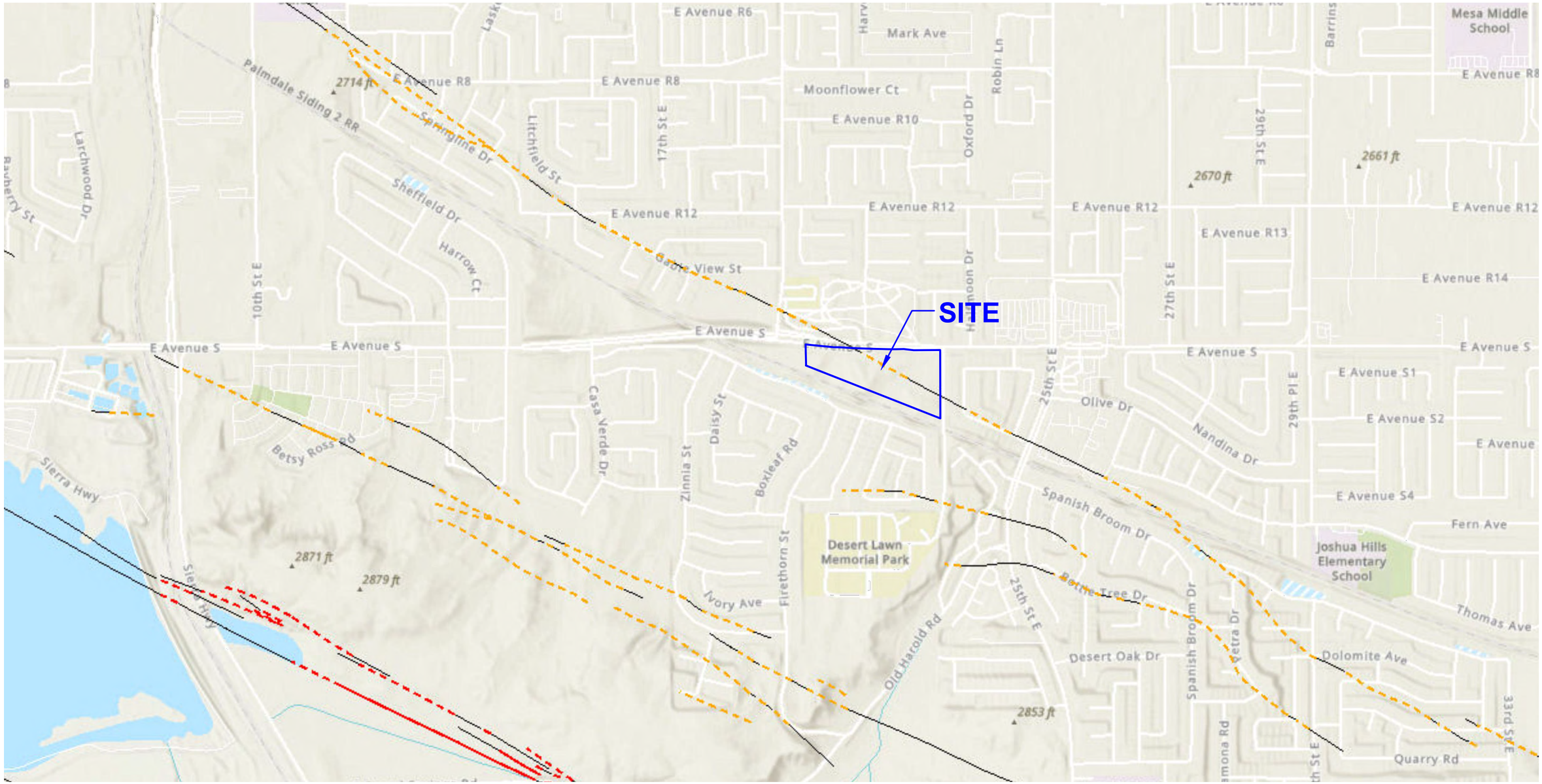
Title

AP Zone Map

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 2**



Quaternary Fault and Fold Database

- Historic (< 150 years), well constrained location
- Historic (< 150 years), moderately constrained location
- Historic (< 150 years), inferred location
- Latest Quaternary (<15,000 years), well constrained location
- Latest Quaternary (<15,000 years), moderately constrained location
- Latest Quaternary (<15,000 years), inferred location

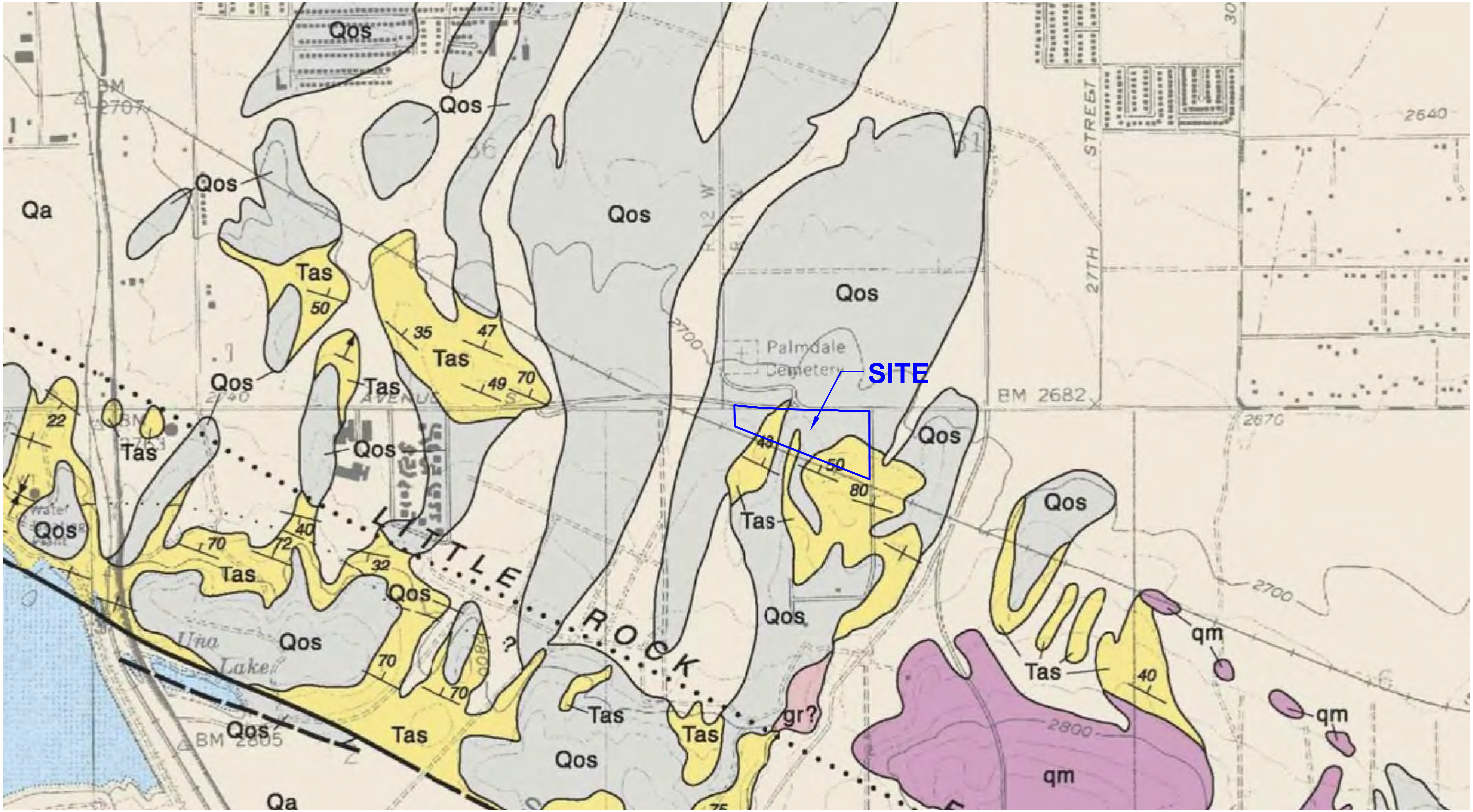
Title

USGS Fault Map

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 3**



Explanation:

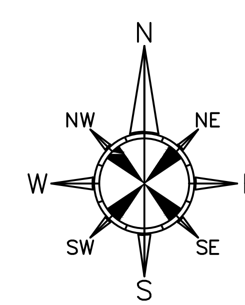
Qa - Holocene Alluvium

Qos - Pleistocene Alluvium

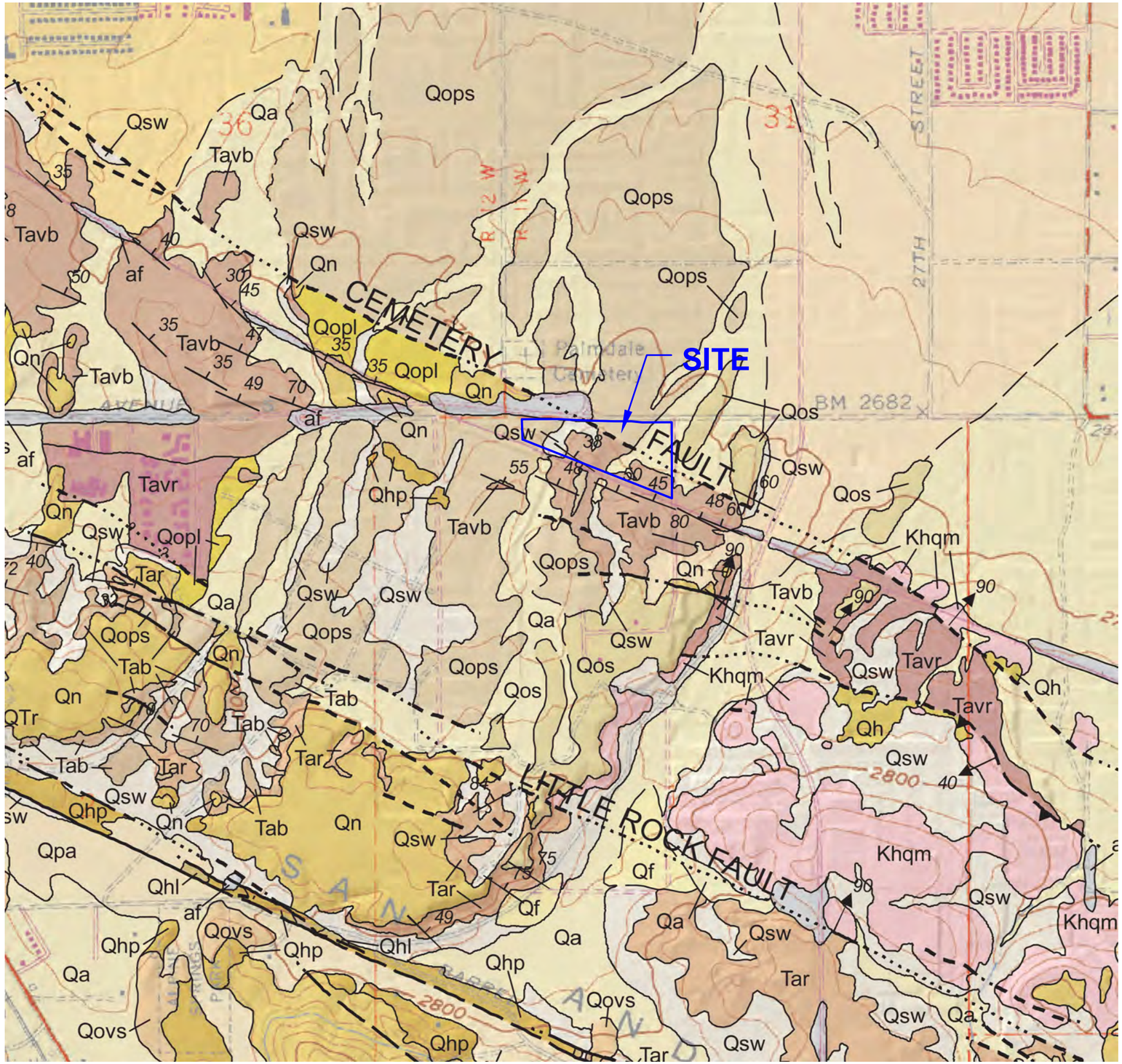
Tas - Tertiary Anaverde Formation Sandstone

gr - Quartz Mouzonite

0 1000' 2000'



Title	**Regional Geologic Map** (DIbblee)
Project	Self-storage Facility Avenue S and Cemetery Road California
Bruin Geotechnical Services, Inc.	**FIGURE 4**



DESCRIPTION OF MAP UNITS

SURFICIAL UNITS

af — **Artificial fill and disturbed areas (Holocene, historic)** – Surficial materials significantly modified by human construction and grading activities. Consists of man-made deposits of earth-fill soils derived from local sources. Mapped specifically along the California Aqueduct structure, debris catchment basins, and includes fill soils along freeway/road alignments.

Qw — **Wash deposits (late Holocene)** – Unconsolidated fine- to medium-grained sand, with some coarse sand, fine gravel, and silt. Deposits are generally pale-brown (10YR 6/3), angular to sub-angular grains, derived from local bedrock, or reworked from other local Quaternary sources. Subject to localized reworking and new sediment deposition during storm events.

Qe — **Eolian deposits (late Holocene)** – Unconsolidated, generally well-sorted wind-blown sand; occurs as sheet sand.

Qa — **Modern alluvium (Holocene)** – Unconsolidated to weakly consolidated, mostly undissected, fluvial gravel, sand, and silt. Loose, yellowish-gray sand, silt, and pebble-cobble gravel. Consists predominately of moderately sorted coarse-grained to very coarse grained arkosic sand.

Qpaf — **Ponded alluvium (Holocene)** – Unconsolidated to weakly consolidated, poorly to moderately sorted gravel, sand, silt and clay deposits in closed depressions or areas of decreased stream gradient. Mapped predominantly adjacent to strands of the San Andreas Fault. Locally included with alluvium and slope wash where map-scale prevents subdivision.

Qsw — **Slope Wash (Holocene)** – Loose sand and rubble debris from downslope movement of surficial materials. Unconsolidated sand and rubble transported predominantly by mass wasting and runoff and deposited directly downslope from local sources as newly undissected talus cones and broad aprons. Slope wash is differentiated from alluvium especially where it masks contacts and faults.

Qf — **Modern alluvial fan deposits (Holocene)** – Unconsolidated to weakly consolidated, poorly sorted, gravel, sand, and silt deposits forming active, essentially undissected, alluvial fans. Includes small to large cones at the mouths of stream canyons and broad aprons of coarse debris adjacent to mountain fronts.

Ql — **Lake deposits (Holocene)** – Unconsolidated, poorly to moderately sorted, sand, silt, clay and minor gravel deposits in closed depressions that normally contain water. Deposits occur in all lakes in the area and in closed depressions not directly associated with faulting.

Qls — **Landslide deposits (Holocene to late Pleistocene)** – Unconsolidated to weakly consolidated, jumbled rock debris. Few landslides are mapped within the quadrangle. Of these, they are typically found within the Quaternary sediments along the San Andreas Fault Zone. Recognizable by topographic expression or chaotic internal structure.

Qys — **Younger wash deposits (middle to early Holocene)** – Unconsolidated fine- to medium-grained sand, with some coarse sand and fine gravel, and silt. Deposits are generally pale-brown (10YR 5/3), angular to sub-angular grains, derived from local bedrock, or reworked from other local Quaternary sources.

Qyal — **Younger alluvium (middle to early Holocene)** – Unconsolidated, light yellowish-brown sand and gravel of slightly dissected alluvial fans and associated washes.

Qyf — **Young alluvial fan deposits (middle to early Holocene)** – Unconsolidated to weakly consolidated, dark yellowish-brown, fine to medium arkosic sand with fine gravel. Gravels are primarily from granitic sources, with many sub-angular fine gravel quartz clasts. Unit is exposed as slightly dissected, elevated broad alluvial fans.

Qoal — **Older alluvium (late to middle Pleistocene)** – Unconsolidated to moderately consolidated, strong brown (7.5YR 4/6) fluvial pebbly fine- to coarse-grained sand and silt. Color ranges from light-brown to dark reddish-brown depending upon source of debris and extent of weathering. Unit is moderately gullied to deeply dissected and is massive to poorly stratified. Contains moderately developed soil profiles with thin clay coatings on coarse sand grains.

Qvsf — **Older alluvium with Pelona Schist clasts (late to middle Pleistocene)** – Unconsolidated, poorly sorted, moderately dissected fluvial gravel, sand and silt deposits. Fine- to coarse-grained clast supported. Gravels are primarily angular to sub-angular Pelona Schist clasts. Average clast size 10 – 15 cm. Mapped in the vicinity of the San Andreas Fault.

Qdgs — **Older alluvium with Pelona Schist and syenite clasts (late to middle Pleistocene)** – Unconsolidated, poorly sorted, moderately dissected fluvial gravel, sand and silt deposits. Clasts are predominately Pelona Schist and syenite. Unit is found within and north of the San Andreas Fault Zone.

Qvs — **Older alluvium with syenite clasts (late to middle Pleistocene)** – Unconsolidated to moderately consolidated, poorly stratified, moderately sorted, fluvial gravel, sand, and silt. Gravel mostly consists of angular to sub-angular clasts of syenite, with some angular to sub-angular fragments of local gneissic and granitic rocks.

Qtvs — **Older alluvium with volcanic and syenite clasts (late to middle Pleistocene)** – Unconsolidated to moderately consolidated, poorly stratified, moderately sorted, fluvial gravel, sand, and silt. Gravels are primarily angular to sub-angular syenite and angular to sub-rounded volcanic clasts from the Vasquez Formation. Mapped at the base of the hills along the southwestern quadrangle boundary and within the San Andreas Fault Zone between Barrel Springs and Little Rock Wash.

Qof — **Older fan deposits (late to middle Pleistocene)** – Slightly to moderately consolidated, poorly sorted, coarse gravel and boulder fan deposit.

Qvsf — **Very old fan deposits (late to middle Pleistocene)** – Slightly to moderately consolidated, poorly sorted, coarse gravel and boulder fan deposit. Reddish-brown color due to abundant Vasquez Formation volcanic detritus.

Qbf — **Boulder gravel of Little Rock Creek (late to middle Pleistocene)** – Very coarse cobble to boulder gravel, weakly consolidated, poorly sorted, dark-red to brown sandy matrix. Locally, forms elevated terraces above Little Rock Creek. Unit contains well-rounded boulders up to 2 meters long of distinctive Lowe Granodiorite, hornblende gabbro, and hornblendite.

Qls — **Nadeau Gravel (middle to late Pleistocene)** – Loose to moderately consolidated, poorly sorted, coarse fluvial gravel. Poorly consolidated, poorly sorted cobble to boulder gravel with a distinctive dark reddish-brown, silty sand matrix. Clasts up to 45cm, predominately dark gray, imbricated, angular to sub-rounded slabs, discs and cobbles of Pelona Schist, commonly with angular milky quartz fragments. Nadeau Gravel also contains syenite, leucocratic granitic rocks, and volcanic clasts from the Vasquez Formation.

EARLY QUATERNARY AND LATE TERTIALRY UNITS

Qhl — **Harold Formation (early to middle Pleistocene)**
Harold Formation, undifferentiated – Light-brown, gray, and reddish-brown, silty and sandy to gravelly alluvial fan and playa deposits, with local lacustrine deposits. Represents low-gradient deposition with low relief. Unit is poorly to moderately consolidated, and commonly contains caliche nodules, and caliche coatings on clasts and within cracks.

Qhlf — **Lake deposit member** – Moderately consolidated white, buff, and light gray clay and clayey silt, massive to well-bedded, abundant limy nodules. Mapped in the vicinity of the San Andreas Fault Zone. North of the Nadeau Fault, unit locally contains vertebrate fossil fragments (Barrows and others, 1985).

Qhp — **Pelona Schist clast member** – Light brown, light- to dark-gray and reddish-brown alluvial fan and playa deposits. Poorly to moderately consolidated, massive to moderately well-stratified, poorly sorted, fluvial gravel with 80 percent of the pebble- to cobble-size clasts, consisting of sub-rounded to sub-angular Pelona Schist. Mapped in the vicinity of the San Andreas Fault.

Qhg — **Granitic arkose member** – White, coarse-grained arkose consisting exclusively of angular leucocratic granitic gravel and sand, poorly- to moderately bedded. Unconformably overlain by Pelona Schist clast member (Qhp). Contrasts with remaining members of the Harold Formation and may have been derived from a source terrane north of the San Andreas Fault, which was displaced by fault movement. Mapped within the San Andreas Fault Zone, west of Barrel Springs.

QTgr — **Crushed granitic rocks (Quaternary to Tertiary)** – Crushed granitic rock within San Andreas Fault Zone. Consists of white, powdered, crumbly, brecciated granite to granodiorite. Locally well-developed, but shearing not everywhere intensive enough to obscure original igneous texture, including foliation. Poorly exposed, and severely weathered in shear zones.

QTr — **Ritter Formation (Pleistocene to Pliocene?)** – Dark yellowish-brown (10YR 4/4) to light-gray, arkosic sandstone and siltstone, moderately indurated, fine- to coarse sand and fine- to coarse gravel, with clasts occasionally up to 0.5m diameter, most common size is 25 cm. Clasts composed mainly of sub-rounded to sub-angular diorite and gneiss. The source rocks for these clasts are located west of the map area (Barrows and others, 1985). Mapped as TCr by Barrows and others, 1985.

Juniper Hills Formation (early Pleistocene to late Pliocene)
Juniper Hills Formation, undifferentiated – Pink, buff, light-brown, or red pebbly- to cobbly coarse-grained arkosic sandstone, silty sandstone, with minor conglomerate and thin-bedded shale. Poorly to moderately indurated fluvial deposits commonly exhibit distinct bedding, generally poorly sorted. Abundant sub-angular to well-rounded clasts consisting of yellowish-brown sandstone, well-rounded metavolcanic cobbles, rhyolitic and andesitic rocks, leucocratic granitic rocks, Pelona Schist, ferruginous syenite, blue-quartz granite, and leuco-gneiss (Barrows and others, 1985). This unit is only exposed south of the Nadeau Fault. Mapped as TCjh by Barrows and others, 1985.

QTjrc — **Red arkose member** – Red- to dark-red pebbly arkose and minor white- to gray silty sandstone. Only exposed along the northern Nadeau Fault. Unit is friable, heavily stained, highly sheared, and contains fractured clasts of sub-rounded leucocratic granitic rocks and varicolored volcanic rocks. Barrows and others (1985) note this unit "strongly resembles the Punchbowl Formation and may have been derived exclusively from a Punchbowl terrane." Mapped as TCjfr by Barrows and others, 1985.

Juniper Hills Formation (Continued)

Tjhcg — **Clay shale member** – Lake deposits of greenish-gray, light brown, and black silty clay shale with very thin maroon sandstone layers. Shale is thin-bedded, gypiferous, with local iron oxide stained bedding. Also contains minor beds of finely laminated gray- to light grayish-brown silty sandstone, white arkose, and white chalky calcareous beds; locally expansive with diagnostic "popcorn" weathering. This unit is typically folded and internally deformed. Mapped as TQjhc by Barrows and others, 1985.

Tjhmc — **Mixed clast member** – White- to buff, poorly sorted and locally clastic pebbly arkosic sandstone and angular cobble- to boulder conglomerate. Abundant sub-rounded Pelona Schist cobbles up to 15 cm in diameter and sub-rounded to well-rounded leucocratic granitic cobbles and small boulders up to 30 cm in diameter. Unit includes minor amounts of sub-rounded sandstone and volcanic pebbles and cobbles. Mapped as TQjhm by Barrows and others, 1985.

Tjhbx — **Arkosic basal breccia member** – White, poorly sorted, arkosic sedimentary breccias and fanglomerate with boulders of pinkish and buff granite, pink pegmatite, spotted hornblende gabbro, hornblendite, and gray diorite. Forms a basal debris-deposit that rests non-conformably on granitic basement. Mapped as TQjhb by Barrows and others, 1985.

QTjhp — **Playa member (early Pleistocene to late Pliocene)** – Red- to dark-brown clayey siltstone and claystone with abundant gypsum layers up to 3 cm thick. Weakly consolidated to unconsolidated, typically highly sheared and plastically deformed near faults. Mapped as TQjhp by Barrows and others, 1985.

Tjhsg — **Granitic clast-bearing sandstone (early Pleistocene to late Pliocene)** – Pale-brown, medium- to coarse-grained arkosic pebbly sandstone and light-brown to gray siltstone. Moderately to well-indurated. Distinctly bedded with layers of sub-rounded to well-rounded leucocratic granite to granodiorite and biotite-gneiss pebbles and cobbles. Mapped as TQjhg by Barrows and others, 1985.

TERTIARY SEDIMENTARY AND VOLCANIC UNITS

Anaverde Formation (middle Pliocene)

Tac — **Clay shale member** – Light- to dark-gray, thin-bedded, argillaceous to silty clay shale. Locally contains numerous white layers of gypsum, up to 5 cm thick, and a few thin lenses of tan, fine-grained sandstone and sandy siltstone. Anaverde Formation is exposed within, and adjacent to the San Andreas Fault Zone, where it is locally highly folded. Within unit Tac, some layers reported to contain leaf fragments (Barrows and others, 1985).

Tab — **Buff arkose member** – Light-yellow to gray, massive to moderately-bedded, medium-to very coarse-grained sand and gravel arkose, with thin silty interbeds near the top of unit.

Tar — **Red arkose member** – Pale-red to moderate-red, medium- to thick-bedded, locally massive, coarse pebbly arkose. Pebbles are angular, and consist of mostly granitic and some dioritic clasts.

Tawa — **White arkose member** – White, massive, coarse-grained arkose. Larger clasts are generally angular, coarse-grained to pegmatitic granite, quartz monzonite, and granodiorite. Also contains local thin, reddish-brown silty layers. Gradational upper contact with red arkose member.

Tavb — **Buff arkose with volcanic clasts member** – Tan- to light-gray, coarse arkose with inter-bedded pebble to boulder arkose and local clayey fine sand and silt beds. Moderate to well-consolidated, with cross bedded and cut and fill structures common. Pebble and boulder clasts are well-rounded, mostly granitic, with lesser quartz latite and dacite volcanic clasts.

Tavr — **Red volcanic arkose member** – Red- to light-maroon, well-bedded, poorly sorted, coarse arkose with interbedded pebble- to boulder arkose with volcanic clasts, and local clayey fine sand and silt.

Tpch — **Punchbowl Formation, volcanic clast member (early Pliocene to late Miocene)** – Well-stratified white- to light-brown to pink, pebby to cobbly coarse-grained arkosic sandstone, thin-bedded silty sandstone, and thin-bedded white nodular limestone. Unit is well-indurated and has abundant light colored granitic pebbles and cobbles, and sub-rounded pebbles and cobbles of tuffaceous and porphyritic rhyolite and andesite.

Vasquez Formation(early Miocene? to late Oligocene)

Tvsa — **Andesitic volcanic rocks (early Miocene? to late Oligocene)** – Dark-gray to dark reddish-brown andesite and basaltic andesite, hard, very fine-grained matrix with fine- to medium euhedral phenocrysts of plagioclase feldspar. Occasional flow banding, conglomeratic layering, and some silica-filled amygdules. Outcrops locally exhibit sub-parallel sheet jointing. Commonly forms resistant outcrops and ridges. In thin section, samples show epidote, secondary iron (pyrrhite), and compositional zoning in plagioclase crystals (D.M. Morton, personal comm., 2013).

Tvsb — **Tuff breccia (late Oligocene)** – Light-yellow and light-green tuff breccias. Hard, massive, contains small angular granitic, metamorphic, and dark brown andesite fragments with minor pumice in a fine-grained matrix; also includes bluish-gray to light-pink well-indurated vitric lapilli tuff, occasional pumice and andesite fragments. In outcrops, unit forms distinctive light-green to tan resistant bands interstratified with Unit Tva. In thin section, samples show many zoned plagioclase crystals, quartz with zeolites, and localized devitrification crystal textures (D.M. Morton, personal comm., 2013).

Tvsm — **Mudflow breccia (late Oligocene)** – Unconsolidated, crudely bedded, poorly sorted, coarse mudflow breccias. Composed exclusively of boulders (to 1 meter in diameter) and cobbles of Vasquez Formation volcanic rocks in a lavender to pink matrix of powdery volcanic ash or reddish-brown clay (Barrows and others, 1985).

Tvs — **Sedimentary layers (late Oligocene)** – Pebble- to cobble fluvial conglomerate and red clayey siltstone. Unit consists of sub-rounded to rounded clasts of gray, tan, pink, and lavender volcanic rocks. Also contains quartz monzonitic to granodioritic clasts. Where outcrops are mapped along I-14, unit appears to overlie unit Tva, suggesting Tvs may be intercalated with Tva.

Tvb — **Basalt and andesite volcanic rocks (Oligocene)** – Dark-gray, basaltic to andesitic volcanic rocks. Unit contains small phenocrysts of augite and olivine. Outcrop exposures are highly jointed and resistant, with weathered surfaces dark-gray to dark- brown.

PRE-TERTIARY INTRUSIVE AND METAMORPHIC ROCK UNITS

Kgu — **Granitic rocks, undifferentiated (Cretaceous?)** – Light-tan to dark-gray and maroon, locally sheared and migmatized, gneissic texture pervasive. Variable composition of gneissic and granitic rocks. Mapped as gru by Barrows and others (1985), and qt by Dibblee (1997).

Khqm — **Holcomb Quartz Monzonite and granodiorite (Cretaceous)** – Light-gray, medium-grained quartz-monzonite to granodiorite. Massive, somewhat incoherent where weathered, commonly sheared, composed of plagioclase, alkali feldspar, and quartz in nearly equal amounts with some biotite; In thin section, samples have fresh hornblende, however biotite is mainly altered to ultra-blue chlorite. Samples also include secondary calcite, some epidote, and sphene crystals appear strained. Unit is only exposed north of the San Andreas Fault. Forms a prominent ridge in the southeastern corner of the quadrangle and broad aprons of gruss northwest of Little Rock Wash.

Kgd — **Granodiorite (Cretaceous)** – Light-gray to dark-gray, medium-grained granodiorite. Unit includes well-foliated, gneissic mafic enclaves. Exposed in southeastern corner of quadrangle south of Little Rock Wash. In thin section, samples have some hornblende, apatite, euhedral zircons, and biotite although much is altered to chlorite. Some myrmekitic texture observed in plagioclase feldspars. Mapped as qd by Barrows and others (1985) and Dibblee (1997).

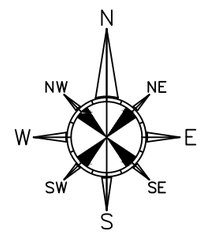
Khdd — **Hornblende diorite (Cretaceous?)** – Dark-gray to black, hornblende diorite. Unit is exposed south of Mt. Emma Road located in the southeast section of the map, and appears associated with thrust fault and klqgs. Outcrops are not well-exposed. In thin section, samples have hornblende, plagioclase, very low quartz which has undulatory extinction. Samples also have abundant secondary calcite and few apatite crystals. Mapped as hd by Barrows and others (1985).

Kgm — **Mount Lowe intrusive suite - hornblende zone (Triassic)** – Light-gray, medium-grained quartz-bearing diorite, and hornblende-diorite to granodiorite. Massive, somewhat incoherent where weathered; composed of up to 60 percent plagioclase feldspar and lesser amounts of alkali feldspar, quartz and hornblende, with hornblende as scattered dark clusters. In thin section, samples have abundant coarse euhedral sphene crystals, minor fine zircon, and generally abundant secondary epidote and chlorite. Samples also show secondary carbonate and white mica. Plagioclase is generally fine-grained with many displaying deformed crystal structure (D.M. Morton, personal comm., 2013). Mt. Lowe intrusive ages using zircon U/Pb are about 220 ±10 my reported by Silver, 1971, and Rb/Sr whole-rock age of 208 ±14 my as reported by Joseph and others, 1982.

Kgb — **Mount Lowe intrusive suite - biotite zone (Triassic)** – Light-tan, fine- to medium-grained granodiorite. Massive, slightly incoherent where weathered; composed of large potassium feldspars, plagioclase, biotite, and some muscovite. Later aplite dikes common. In thin section, samples show large microcline feldspars with enclosed albite, fine-grained biotite, some epidote, and secondary muscovite. Aplite dike thin- sections show feldspar crystals have wavy/bent twin lamellae and fine-grained white mica (D.M. Morton, personal comm., 2013).

Ysy — **Ferruginous syenite (Mesoproterozoic)** – Fine- to coarse-grained syenite and quartz-syenite, light-gray where fresh, stained rusty-brown from iron oxides where weathered. Equigranular; magnetite is common, highly fractured. Where exposed, soils are typical dark reddish-brown. Outcrops are jointed and blocky. Unit is part of the San Gabriel Mountains anorthosite-syenite-gabbro complex. In thin section, samples have distinctive alkali feldspars, which have exsolved into hairline mesoperthite (Ehrig, 1978). This feldspar texture is also observed in thin section samples collected for this study.

Mzu — **Marble (Paleozoic?)** – Small white- to light-gray aphanitic to coarse-grained marble inclusions in granitic rocks. Mapped within the San Andreas Fault Zone.





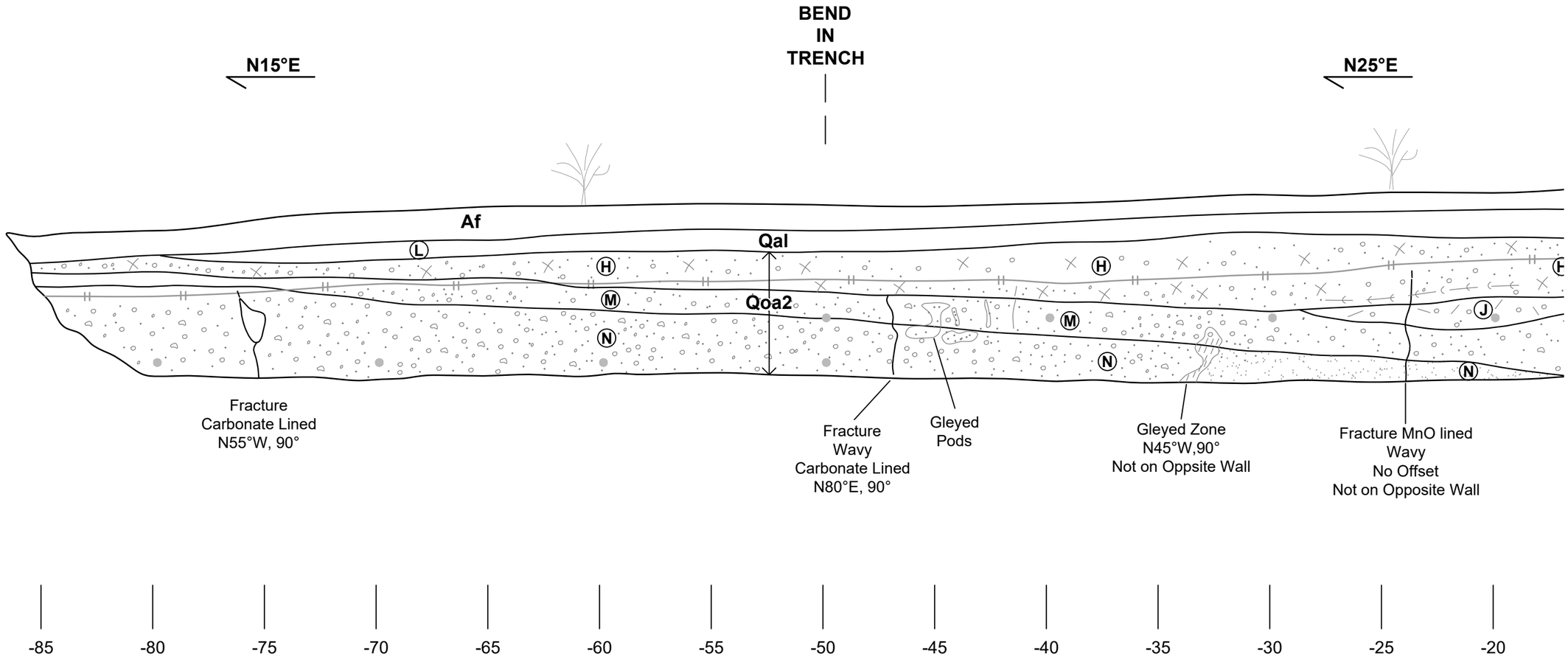
Title

Regional Geologic Map
(CGS)

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 5**



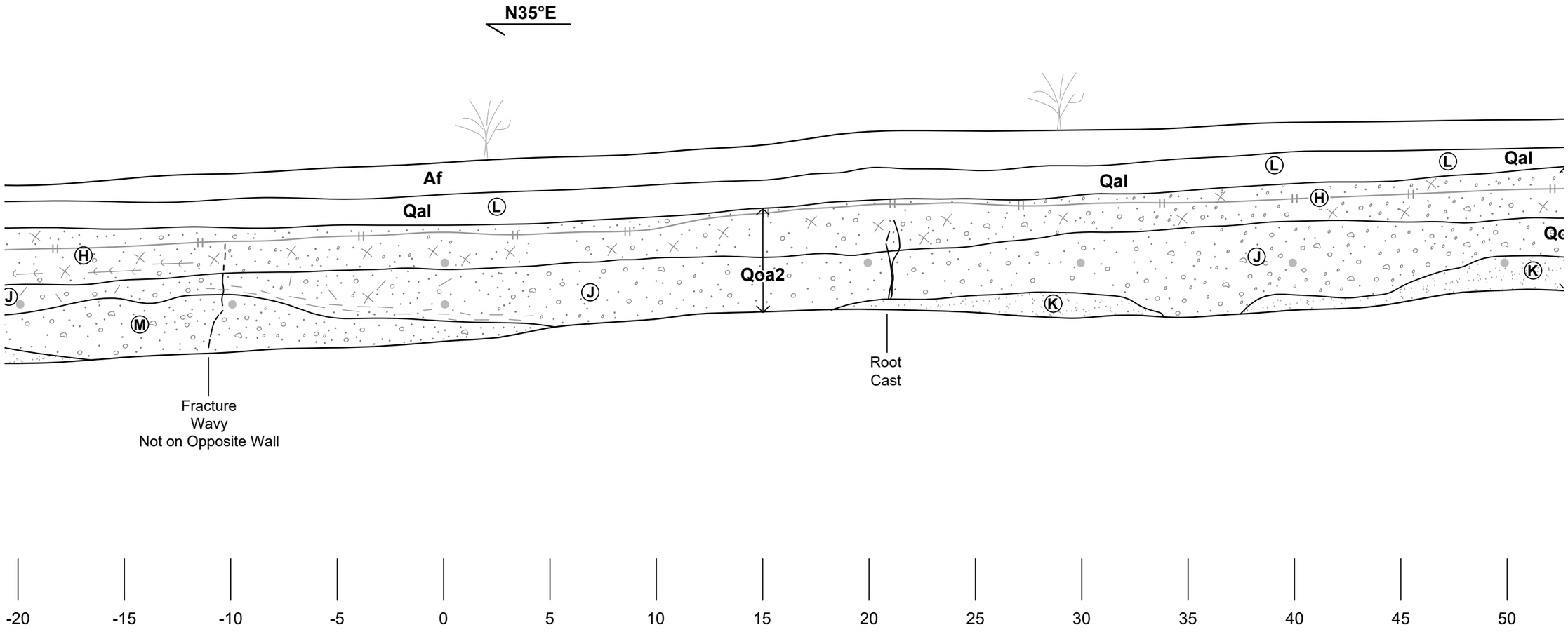
Title

Trench Log T-1

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 6A**



0 5' 10'

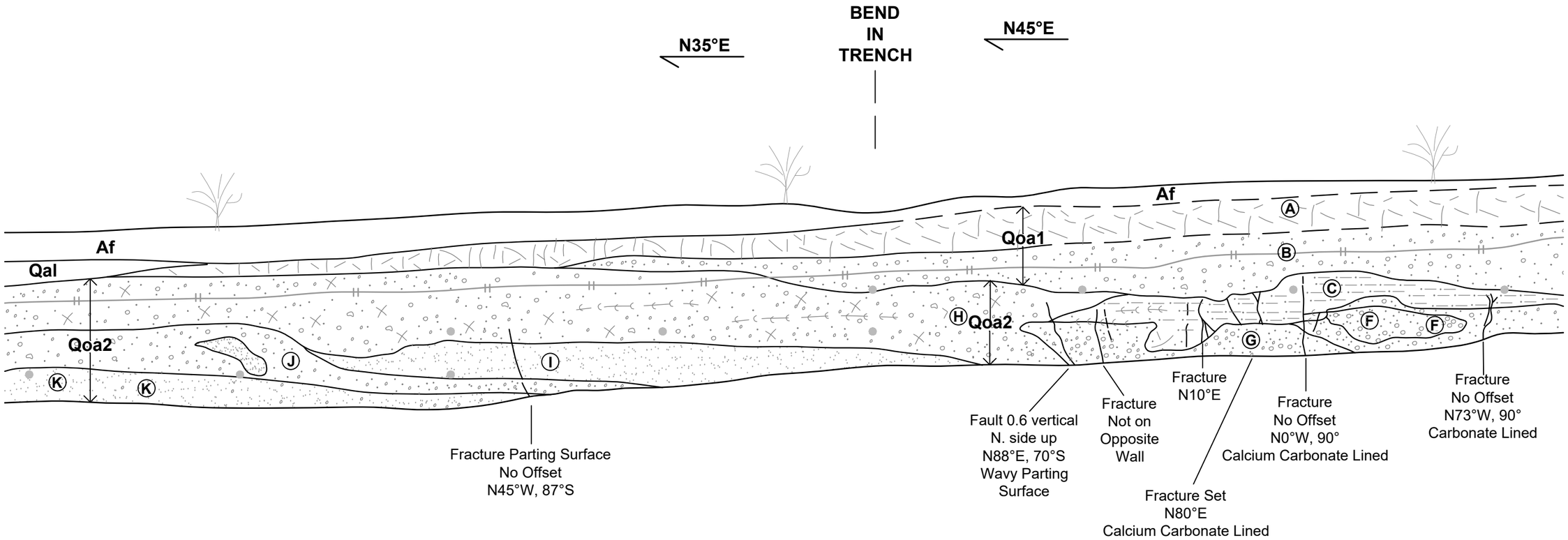
Title

Trench Log T-1

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 6B**



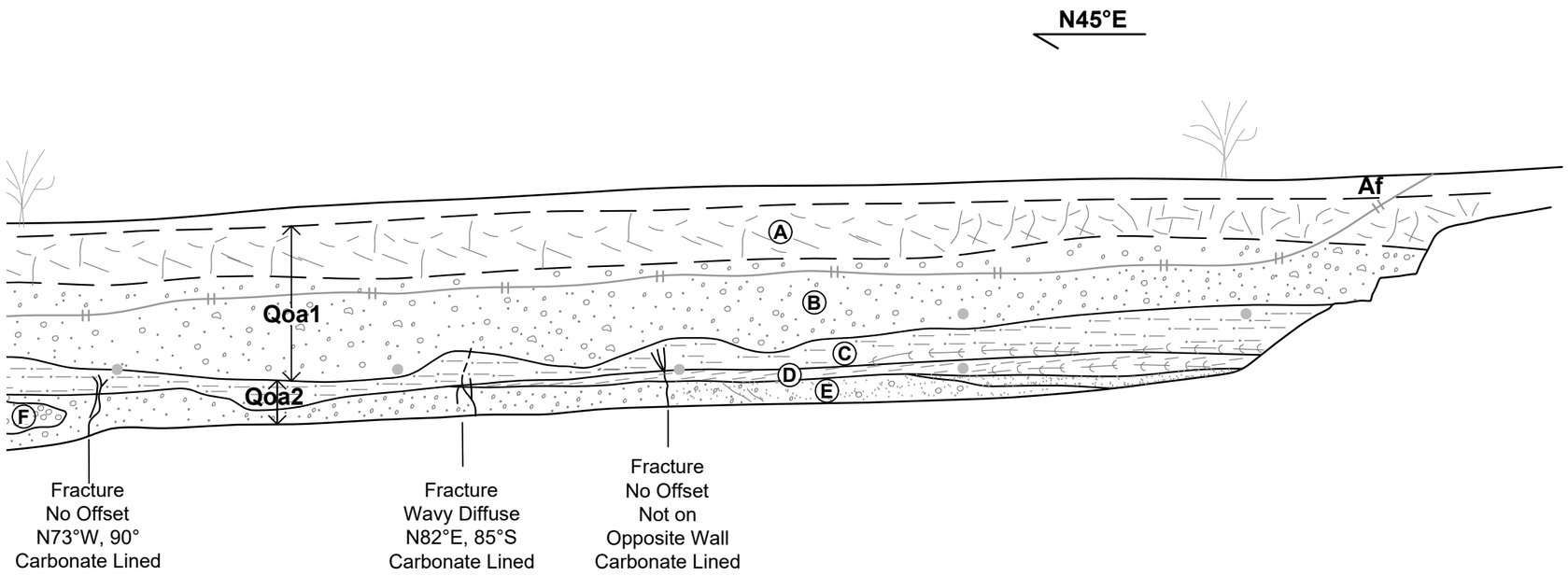
Title

Trench Log T-1

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 6C**



NOTE:
See Table 2 for Unit Descriptions.

EXPLANATION:

- Level Line
- Bench Cut
- Carbonate Lined
- Ⓐ - Ⓝ Geologic Units See Table 1

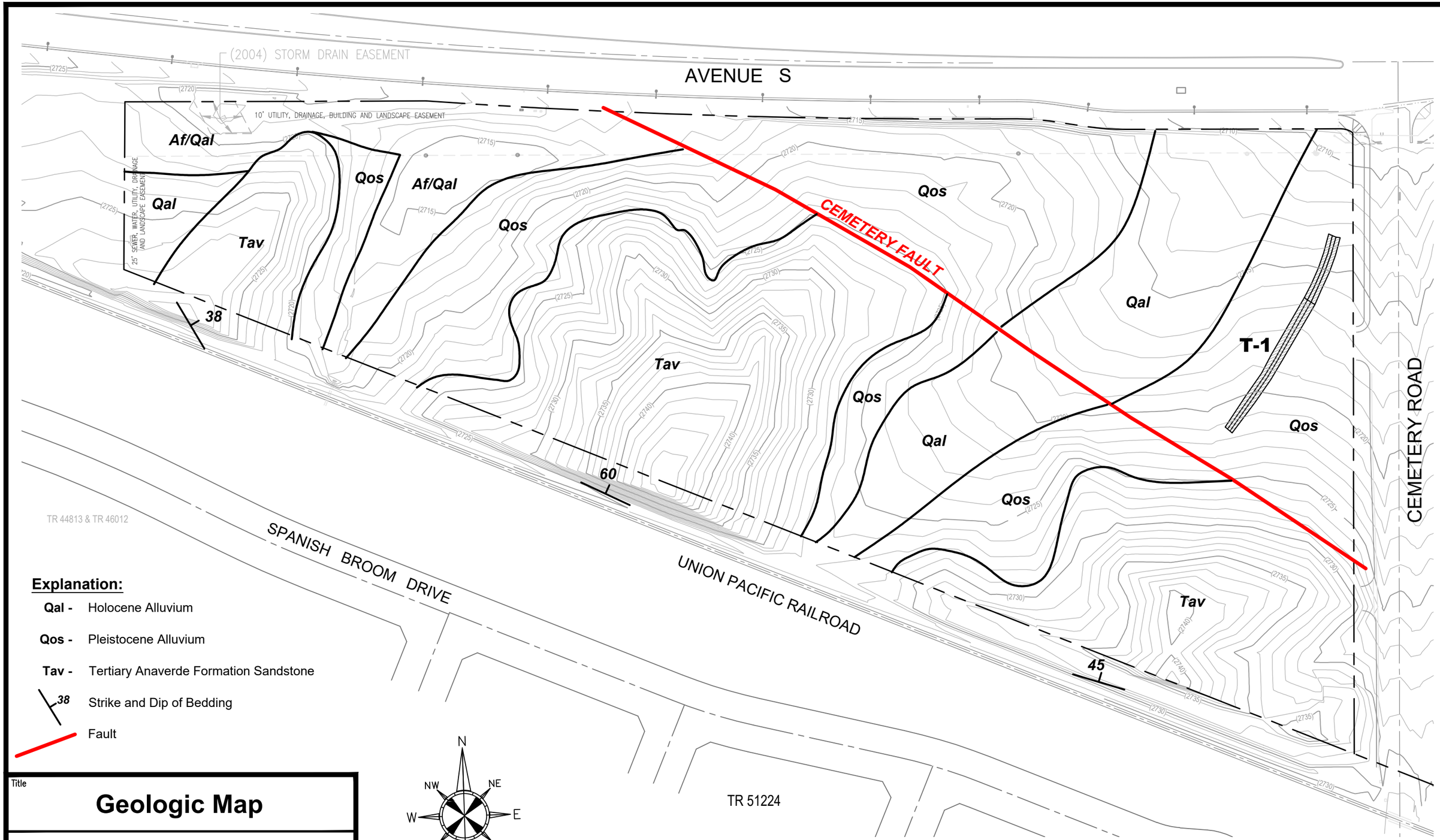
Title

Trench Log T-1

Project

Self-storage Facility
Avenue S and Cemetery Road
California

Bruin Geotechnical Services, Inc. | **FIGURE 6D**



Explanation:

- **Qal -** Holocene Alluvium
- **Qos -** Pleistocene Alluvium
- **Tav -** Tertiary Anaverde Formation Sandstone
- 38 Strike and Dip of Bedding
- Fault

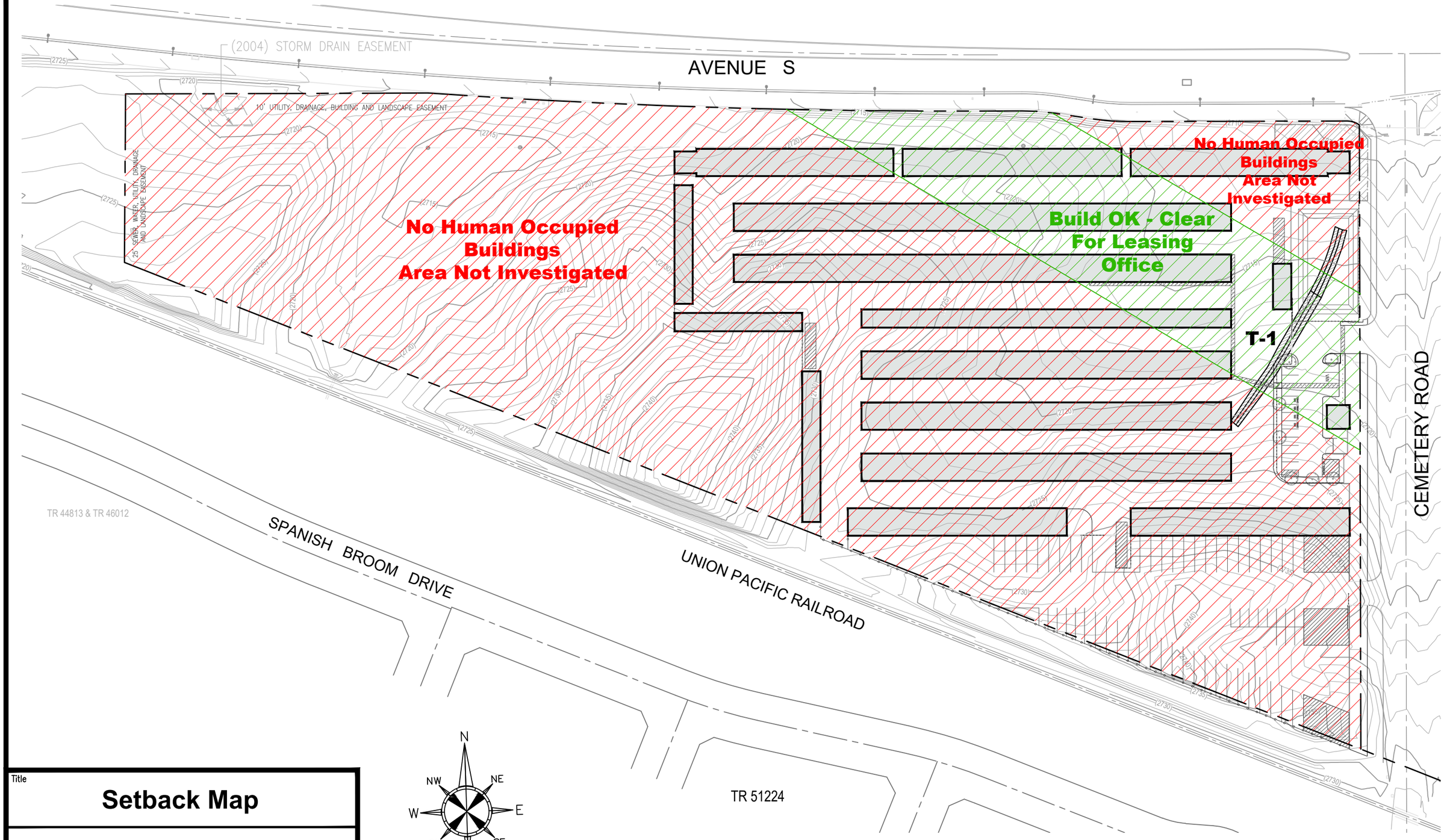
Title

Geologic Map

Project

Self-storage Facility
Avenue S and Cemetery Road
, California

Bruin Geotechnical Services, Inc. | **FIGURE 7**



Title

Setback Map

Project

Self-storage Facility
Avenue S and Cemetery Road
, California

Bruin Geotechnical Services, Inc. | **FIGURE 8**

Appendix H: Hydrology Report

City of Palmdale
Hydrology Study

Proposed Office Flex Site
APN: 3053-007-046
Avenue S and 25th St E.
Palmdale, CA 93550

Prepared For:

Markus Jones
385-229-7709
markusnjoines@gmail.com



Prepared By:

Duke Engineering
759 Lancaster Blvd
Lancaster, California 93534
Phone: (661) 952-7918

ENGINEER'S CERTIFICATION:

The Registered Professional Engineer Certifies that the Storm Drain Facilities have been designed in accordance with the City of Palmdale Engineering Design Guidelines Policies & Procedures.

Table of Contents

1. Introduction 3

2. Approach 3

3. Project Location 3

Figure 1: Vicinity Map 3

4. Project Use 3

5. Existing Conditions 3

6. Proposed Conditions 4

7. Analysis 4

7.1 Rainfall Data 4

Table 1: Rainfall Data 4

7.2 Conveyance 4

7.3 Runoff 4

Table 2: 50-Year Storm Runoff Summary 4

8. Conclusion 5

Appendix A: Isohyet Map 6

Appendix B: Pre-Developed Conditions (Map & HydroCalc) 8

Appendix C: Post-Developed Conditions (Map & Hydrocalc) 11

Appendix D: Basin Analysis 14

1. Introduction

The purpose of this study is to analyze the drainage conditions of a new project in the City of Palmdale. The report will be used to size new storm water facilities as well as analyze those that exist.

2. Approach

This study uses Los Angeles County methods and software such as the HydroCalc time of concentration calculator. Site survey and new grading plans are used to analyze predeveloped and post-developed flows respectively. Utility research from the City of Palmdale provides information on existing drainage facilities nearby.

3. Project Location

The project site is located on Avenue S approximately 1,100 feet west of 25th St E. The neighboring sites on all sides contain existing developments. The site is about 10.2 acres as and is shown below.

s

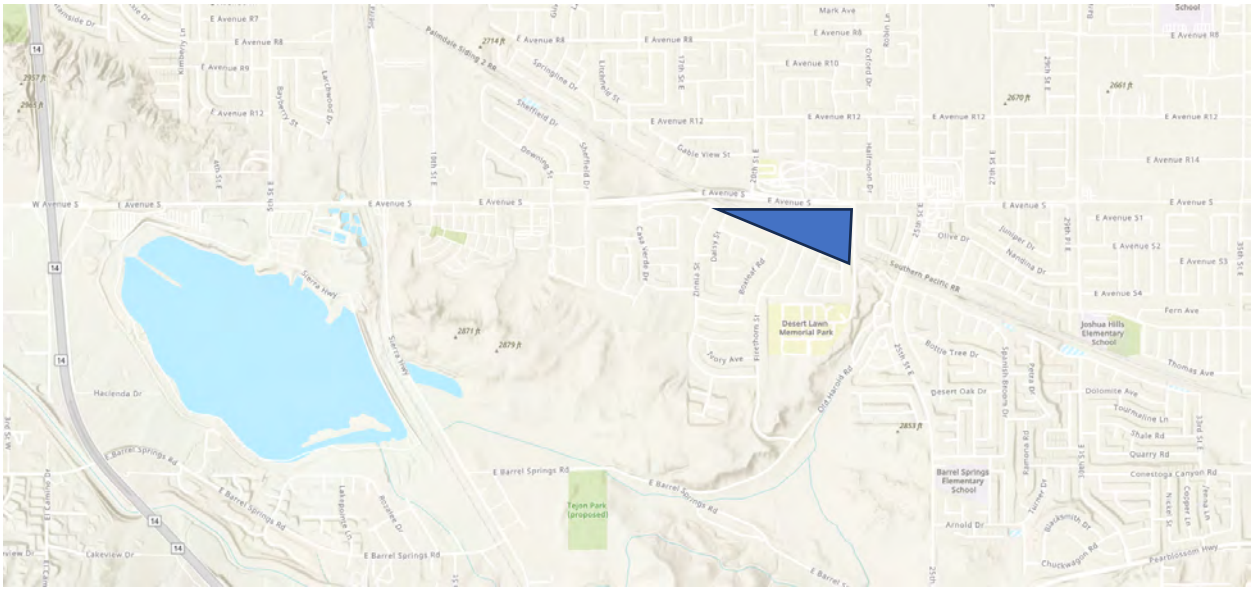


Figure 1: Vicinity Map

4. Project Use

There are 17 proposed buildings that will be used as mixed warehousing and office space. The 17 warehouses will account for 129,395 Sq. Ft. of space each.

5. Existing Conditions

The project site is currently undeveloped but appears to have been graded in the past. The areas surrounding the site are developed on all sides. The topographic survey of the site shows that at the time of survey, the site is in a sump condition due to the grading it experience previously. For calculation purposes, it is

assumed that in the existing condition, stormwater will bypass the sump and flow from the southwest corner of the site to the northeast corner.

6. Proposed Conditions

The project will produce a largely impervious area. The new structures will account for a large portion of the development. Much of the site will be paved. A system of ribbon gutters will convey stormwater to the northeast corner of the project site where it will enter a proposed curb and gutter.

7. Analysis

7.1 Rainfall Data

Table 1 below shows the rainfall data for the project obtained from the LA County Isohyet maps included in Appendix F.

Table 1: Rainfall Data

Information	Project Specific Values
Storm Frequency	50-Year
Rainfall Amount	3.3 inches
Soil Number	119

7.2 Conveyance

Appendix C shows the post-developed hydrology map for the project. The site will generally drain from southwest to northeast. The subarea flow will convey into a proposed basin shown in the post-developed map. Appendix D proves the basin can withstand the flow produced onsite.

7.3 Runoff

Table 2 below shows site runoff determined using LA County Hydrocalc program.

Table 2: 50-Year Storm Runoff Summary

Condition	50-yr Runoff Peak Flow Rate
Predeveloped	1.13 CFS
Postdeveloped	7.2 CFS

8. Conclusion

In conclusion, the site has been assessed and stormwater runoff has been quantified to sufficiently size the proposed storm drain improvements.

Using the information discussed in this current report, it is our opinion that this study sufficiently analyses storm drain devices to safely collect and convey storm water run-off.

Sincerely,

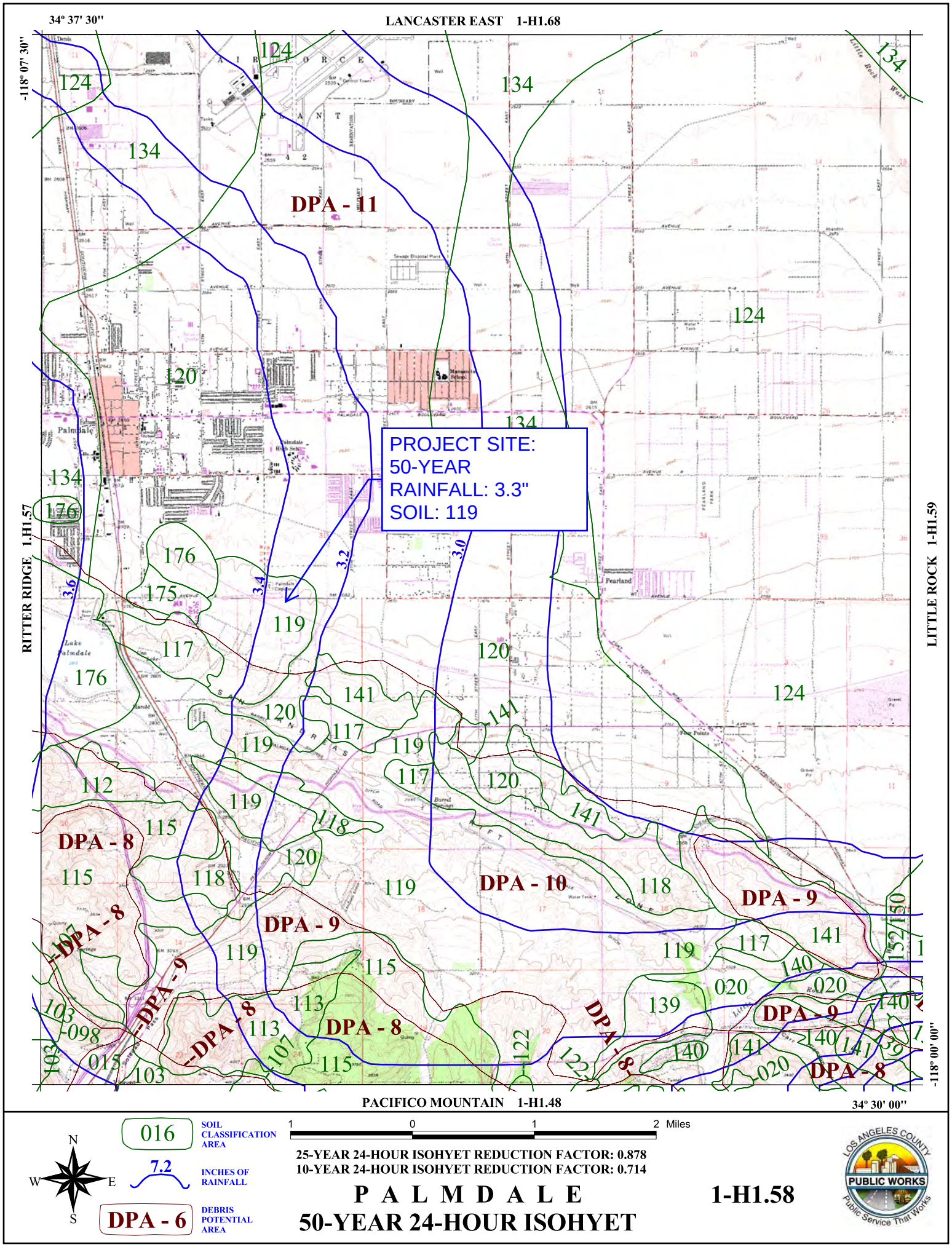


Ryan Duke P.E.

RCE 79729

Principle Engineer

Appendix A: Isohyet Map


34° 37' 30"
LANCASTER EAST 1-H1.68
-118° 07' 30"
RITTER RIDGE 1-H1.57
LITTLE ROCK 1-H1.59
-118° 00' 00"
PACIFICO MOUNTAIN 1-H1.48
34° 30' 00"
PROJECT SITE:
50-YEAR
RAINFALL: 3.3"
SOIL: 119
DPA - 11
DPA - 10
DPA - 9
DPA - 8
124
134
120
176
175
119
117
141
112
115
118
107
103
098
015
113
122
139
140
020
152/150
3.6
3.4
3.2
3.0
Palmdale
Lake Palmdale
Pearland
016 SOIL CLASSIFICATION AREA
7.2 INCHES OF RAINFALL
DPA - 6 DEBRIS POTENTIAL AREA
N
W
E
S
1 0 1 2 Miles
25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714
P A L M D A L E
50-YEAR 24-HOUR ISOHYET
1-H1.58
LOS ANGELES COUNTY PUBLIC WORKS
Public Service That Works

Appendix B: Pre-Developed Conditions (Map & HydroCalc)

Peak Flow Hydrologic Analysis

File location: C:/Users/Alexandria/DukeEng Dropbox/Job Files 2.0/24116 Markus Jones APN 3053-007-046/3 - Civil/9 - Studies/1 - Hydrology Study/2416
Version: HydroCalc 1.0.3

Input Parameters

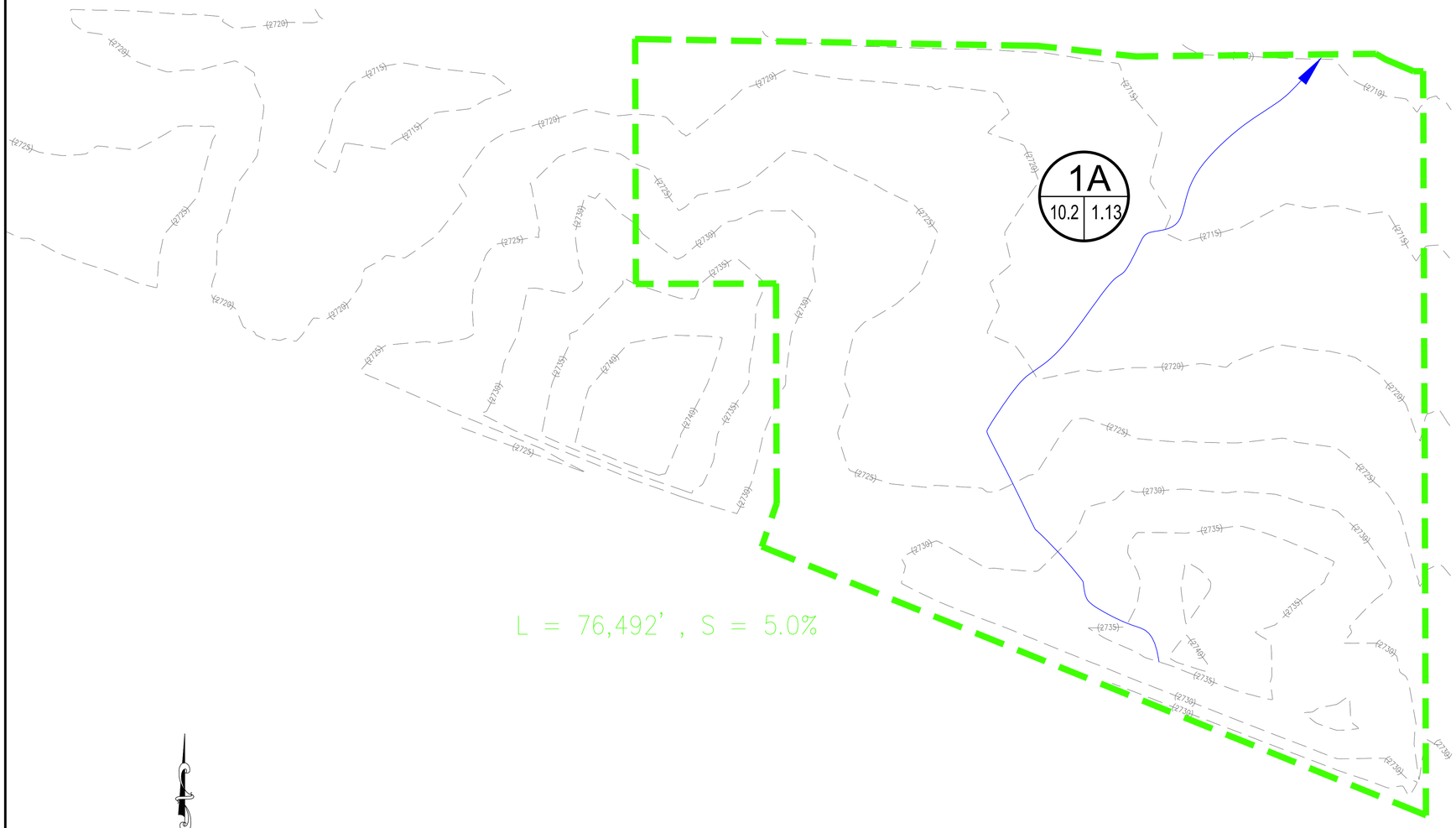
Project Name	24166 Markus Jones Hydrology Study
Subarea ID	Predeveloped - 1A
Area (ac)	10.2
Flow Path Length (ft)	76492.0
Flow Path Slope (vft/hft)	0.05
50-yr Rainfall Depth (in)	3.3
Percent Impervious	0.01
Soil Type	119
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

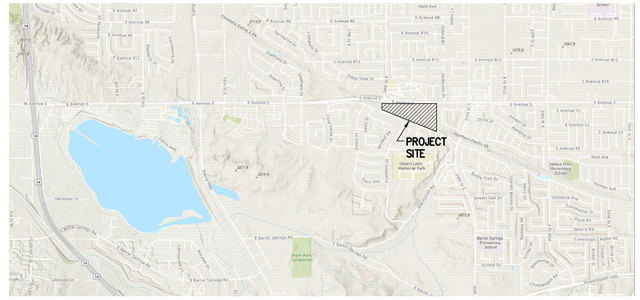
Output Results

Modeled (50-yr) Rainfall Depth (in)	3.3
Peak Intensity (in/hr)	0.8482
Undeveloped Runoff Coefficient (Cu)	0.123
Developed Runoff Coefficient (Cd)	0.1308
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	1.1312
Burned Peak Flow Rate (cfs)	1.1312
24-Hr Clear Runoff Volume (ac-ft)	0.3039
24-Hr Clear Runoff Volume (cu-ft)	13236.0043



CITY OF PALMDALE
APN: 3053-007-046
PROPOSED STORAGE BUILDINGS





SUB AREA
XX
ACRES X.X | X CFS*

*GENERATED USING HYDROCALC FOR 50-YEAR STORM

50-YEAR STORM

HYDROLOGY ANALYSIS POST		
SUB-AREA	AREA	CFS**
1A	10.2	1.13

** GENERATED USING HYDROCALC

GRAPHIC SCALE
0 0 30 60 120 180
(IN FEET)
1 inch = 60 ft.

RECOMMENDED BY:
NTS DATE

COMPLIANCE WITH CONDITIONS OF APPROVAL FOR SPR-__-__
PLANNING DEPT. DATE

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

PROJECT OWNER
MARKUS JONES
MARKUSNJONES@GMAIL.COM
(385) 229-7709

ENGINEER OF RECORD
759 WEST LANCASTER BLVD
LANCASTER, CA 93534
(661) 952-7918

DUKE ENGINEERING

REGISTERED PROFESSIONAL ENGINEER RYAN DUKE CIVIL STATE OF CALIFORNIA

	RECORD RCE		REVISION BLOCK	CITY	
REV #	APPR.	DATE	REVISION DESCRIPTION	APPR.	DATE
△					

ACCEPTED BY CITY ENGINEER:
HAMED HASHEMIAN RCE 59494 DATE

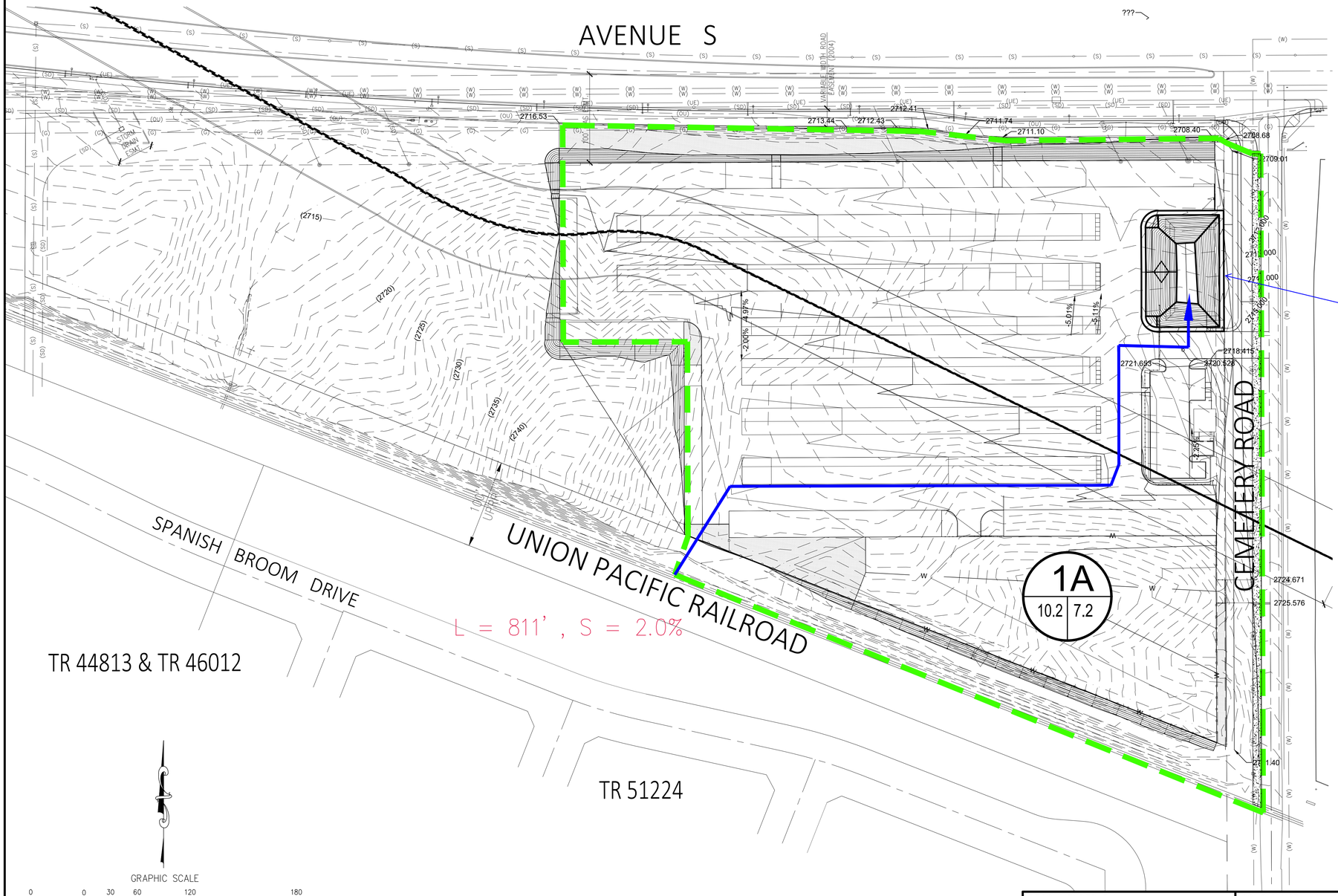
CHECKED BY:
PLAN CHECK ENGINEER DATE

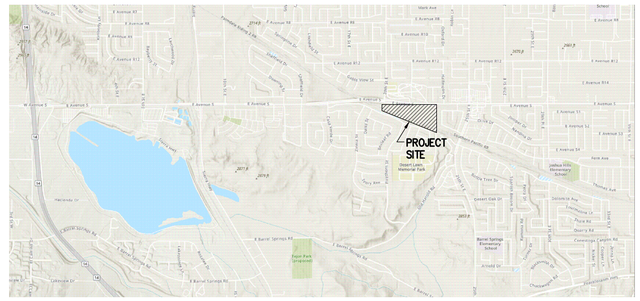
CITY OF PALMDALE
PREDEVELOPED MAP
PROPOSED STORAGE BUILDINGS
APN: 3053-007-046

SCALE: PER PLAN
DESIGNED: RD
DRAWN: EI
CHECKED: RD
DUKE ENG 24116
SHEET NO.
1 OF 1

Appendix C: Post-Developed Conditions (Map & Hydrocalc)

CITY OF PALMDALE
APN: 3053-007-046
PROPOSED STORAGE BUILDINGS





VICINITY MAP
NTS

SUB AREA
XX
X.X | X
ACRES
CFS*

*GENERATED USING HYDROCALC FOR 50-YEAR STORM

50-YEAR STORM

HYDROLOGY ANALYSIS POST		
SUB-AREA	AREA	CFS**
1A	10.2	7.2

** GENERATED USING HYDROCALC

GRAPHIC SCALE
0 0 30 60 120 180
(IN FEET)
1 inch = 60 ft.

RECOMMENDED BY:
NTS DATE

COMPLIANCE WITH CONDITIONS OF APPROVAL FOR SPR-__-__
PLANNING DEPT. DATE

Underground Service Alert
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

PROJECT OWNER
MARKUS JONES
MARKUSNJONES@GMAIL.COM
(385) 229-7709

ENGINEER OF RECORD
759 WEST LANCASTER BLVD
LANCASTER, CA 93534
(661) 952-7918

DUKE ENGINEERING

REGISTERED PROFESSIONAL ENGINEER RYAN DUKE Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

REV #	RECORD RCE APPR.	DATE	REVISION BLOCK REVISION DESCRIPTION	CITY APPR.	DATE
△					

ACCEPTED BY CITY ENGINEER:
HAMED HASHEMIAN RCE 59494 DATE
CHECKED BY:
PLAN CHECK ENGINEER DATE

CITY OF PALMDALE
POST DEVELOPED MAP
PROPOSED STORAGE BUILDINGS
APN: 3053-007-046

SCALE: PER PLAN
DESIGNED: RD
DRAWN: EI
CHECKED: RD
DUKE ENG 24116
SHEET NO.
1 OF 1

Appendix D: Basin Analysis

File name: Markus1.lac Run date: Wed Jun 04 14:37:17 2025

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 1 Storm Frequency 50

LOCATION		SUBAREA AREA (ACRES)	SUBAREA Q (CFS)	TOTAL AREA (ACRES)	TOTAL Q (CFS)	TOTAL VOLUME (AC-FT)	CONV TYPE	CONV LNGTH (FT)	CONV SLOPE (FT/FT)	CONV SIZE	CONV Z	CONTROL Q (CFS)	SOIL NAME	TC (MIN)	RAIN (IN)	PCT IMPV
1	1A	10.2	7.25	10.2	7.25	1.612	0	0	0.00000	0.00	0.00	0	119	16	3.30	0.60
1	2A	0.0	0.00	10.2	7.25	1.612	0	811	0.02000	0.00	0.00	0	119	0	3.30	0.00

Normal End of MODRAT

```
**        LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS          **
**             MODIFIED RATIONAL METHOD HYDROLOGY                **
**                 RESERVOIR ROUTING OUTPUT                      **

**********************  RESERVOIR ROUTING  ********************

RESERVOIR ROUTING at 2A  STORM FREQ. 50
INITIAL WATER SURFACE ELEVATION: 2706.00
RESERVOIR COMPOSITE ELEVATION-STORAGE-DISCHARGE DATA at 2A
ELEVATION   STORAGE     OUTFLOW
(ft.)       (a.f.)      (cfs)
2706.00     0.00        0.00
2707.00     0.04        0.00
2708.00     0.09        0.00
2709.00     0.15        0.00
2710.00     0.21        0.00
2711.00     0.29        0.00
2712.00     0.39        0.00
2713.00     0.49        0.00
2714.00     0.61        0.00
2715.00     0.74        0.00
2716.00     0.89        0.00
2717.00     1.05        0.00
2718.00     1.23        0.00
2719.00     1.41        0.00
2720.00     1.58        0.00
2721.00     1.72        0.00
2722.00     1.81        0.00

RESERVOIR ROUTING TABLE at 2A
TIME      INFLOW    OUTFLOW   W.S.ELEV  STORAGE
          (cfs)     (cfs)     (ft.)     (a.f.)
0         0.00      0.00      2706.00   0.00
1         0.00      0.00      2706.00   0.00
2         0.00      0.00      2706.00   0.00
3         0.00      0.00      2706.00   0.00
4         0.00      0.00      2706.00   0.00
5         0.00      0.00      2706.00   0.00
6         0.00      0.00      2706.00   0.00
7         0.00      0.00      2706.00   0.00
8         0.00      0.00      2706.00   0.00
9         0.00      0.00      2706.00   0.00
10        0.00      0.00      2706.00   0.00
11        0.00      0.00      2706.00   0.00
12        0.00      0.00      2706.00   0.00
13        0.00      0.00      2706.00   0.00
14        0.00      0.00      2706.00   0.00
15        0.00      0.00      2706.00   0.00
16        0.43      0.00      2706.01   0.00
17        0.43      0.00      2706.02   0.00
18        0.43      0.00      2706.04   0.00
19        0.43      0.00      2706.05   0.00
20        0.43      0.00      2706.07   0.00
21        0.43      0.00      2706.08   0.00
```

22	0.43	0.00	2706.10	0.00
23	0.43	0.00	2706.11	0.00
24	0.43	0.00	2706.13	0.01
25	0.43	0.00	2706.14	0.01
26	0.43	0.00	2706.16	0.01
27	0.43	0.00	2706.17	0.01
28	0.43	0.00	2706.19	0.01
29	0.43	0.00	2706.21	0.01
30	0.43	0.00	2706.22	0.01
31	0.43	0.00	2706.24	0.01
32	0.44	0.00	2706.25	0.01
33	0.44	0.00	2706.27	0.01
34	0.44	0.00	2706.28	0.01
35	0.44	0.00	2706.30	0.01
36	0.44	0.00	2706.31	0.01
37	0.44	0.00	2706.33	0.01
38	0.44	0.00	2706.34	0.01
39	0.44	0.00	2706.36	0.01
40	0.44	0.00	2706.37	0.01
41	0.44	0.00	2706.39	0.02
42	0.44	0.00	2706.40	0.02
43	0.44	0.00	2706.42	0.02
44	0.44	0.00	2706.43	0.02
45	0.44	0.00	2706.45	0.02
46	0.44	0.00	2706.47	0.02
47	0.44	0.00	2706.48	0.02
48	0.44	0.00	2706.50	0.02
49	0.44	0.00	2706.51	0.02
50	0.44	0.00	2706.53	0.02
51	0.44	0.00	2706.54	0.02
52	0.44	0.00	2706.56	0.02
53	0.44	0.00	2706.57	0.02
54	0.44	0.00	2706.59	0.02
55	0.44	0.00	2706.60	0.02
56	0.44	0.00	2706.62	0.02
57	0.44	0.00	2706.63	0.02
58	0.44	0.00	2706.65	0.03
59	0.44	0.00	2706.67	0.03
60	0.44	0.00	2706.68	0.03
61	0.44	0.00	2706.70	0.03
62	0.44	0.00	2706.71	0.03
63	0.44	0.00	2706.73	0.03
64	0.44	0.00	2706.74	0.03
65	0.44	0.00	2706.76	0.03
66	0.44	0.00	2706.77	0.03
67	0.44	0.00	2706.79	0.03
68	0.44	0.00	2706.80	0.03
69	0.44	0.00	2706.82	0.03
70	0.44	0.00	2706.84	0.03
71	0.44	0.00	2706.85	0.03
72	0.44	0.00	2706.87	0.03
73	0.44	0.00	2706.88	0.03
74	0.44	0.00	2706.90	0.04
75	0.44	0.00	2706.91	0.04

76	0.44	0.00	2706.93	0.04
77	0.44	0.00	2706.94	0.04
78	0.44	0.00	2706.96	0.04
79	0.44	0.00	2706.98	0.04
80	0.44	0.00	2706.99	0.04
81	0.44	0.00	2707.01	0.04
82	0.44	0.00	2707.02	0.04
83	0.44	0.00	2707.03	0.04
84	0.45	0.00	2707.04	0.04
85	0.45	0.00	2707.06	0.04
86	0.45	0.00	2707.07	0.04
87	0.45	0.00	2707.08	0.04
88	0.45	0.00	2707.09	0.04
89	0.45	0.00	2707.11	0.04
90	0.45	0.00	2707.12	0.05
91	0.45	0.00	2707.13	0.05
92	0.45	0.00	2707.15	0.05
93	0.45	0.00	2707.16	0.05
94	0.45	0.00	2707.17	0.05
95	0.45	0.00	2707.18	0.05
96	0.45	0.00	2707.20	0.05
97	0.45	0.00	2707.21	0.05
98	0.45	0.00	2707.22	0.05
99	0.45	0.00	2707.23	0.05
100	0.45	0.00	2707.25	0.05
101	0.45	0.00	2707.26	0.05
102	0.45	0.00	2707.27	0.05
103	0.45	0.00	2707.29	0.05
104	0.45	0.00	2707.30	0.05
105	0.45	0.00	2707.31	0.05
106	0.45	0.00	2707.32	0.05
107	0.45	0.00	2707.34	0.06
108	0.45	0.00	2707.35	0.06
109	0.45	0.00	2707.36	0.06
110	0.45	0.00	2707.37	0.06
111	0.45	0.00	2707.39	0.06
112	0.45	0.00	2707.40	0.06
113	0.45	0.00	2707.41	0.06
114	0.45	0.00	2707.43	0.06
115	0.45	0.00	2707.44	0.06
116	0.45	0.00	2707.45	0.06
117	0.45	0.00	2707.46	0.06
118	0.45	0.00	2707.48	0.06
119	0.45	0.00	2707.49	0.06
120	0.45	0.00	2707.50	0.06
121	0.45	0.00	2707.52	0.06
122	0.45	0.00	2707.53	0.06
123	0.45	0.00	2707.54	0.07
124	0.45	0.00	2707.55	0.07
125	0.45	0.00	2707.57	0.07
126	0.45	0.00	2707.58	0.07
127	0.45	0.00	2707.59	0.07
128	0.45	0.00	2707.61	0.07
129	0.45	0.00	2707.62	0.07

130	0.45	0.00	2707.63	0.07
131	0.45	0.00	2707.65	0.07
132	0.45	0.00	2707.66	0.07
133	0.46	0.00	2707.67	0.07
134	0.46	0.00	2707.68	0.07
135	0.46	0.00	2707.70	0.07
136	0.46	0.00	2707.71	0.07
137	0.46	0.00	2707.72	0.07
138	0.46	0.00	2707.74	0.07
139	0.46	0.00	2707.75	0.08
140	0.46	0.00	2707.76	0.08
141	0.46	0.00	2707.78	0.08
142	0.46	0.00	2707.79	0.08
143	0.46	0.00	2707.80	0.08
144	0.46	0.00	2707.81	0.08
145	0.46	0.00	2707.83	0.08
146	0.46	0.00	2707.84	0.08
147	0.46	0.00	2707.85	0.08
148	0.46	0.00	2707.87	0.08
149	0.46	0.00	2707.88	0.08
150	0.46	0.00	2707.89	0.08
151	0.46	0.00	2707.91	0.08
152	0.46	0.00	2707.92	0.08
153	0.46	0.00	2707.93	0.08
154	0.46	0.00	2707.94	0.08
155	0.46	0.00	2707.96	0.09
156	0.46	0.00	2707.97	0.09
157	0.46	0.00	2707.98	0.09
158	0.46	0.00	2708.00	0.09
159	0.46	0.00	2708.01	0.09
160	0.46	0.00	2708.02	0.09
161	0.46	0.00	2708.03	0.09
162	0.46	0.00	2708.04	0.09
163	0.46	0.00	2708.05	0.09
164	0.46	0.00	2708.06	0.09
165	0.46	0.00	2708.07	0.09
166	0.46	0.00	2708.08	0.09
167	0.46	0.00	2708.10	0.09
168	0.46	0.00	2708.11	0.09
169	0.46	0.00	2708.12	0.09
170	0.46	0.00	2708.13	0.10
171	0.46	0.00	2708.14	0.10
172	0.46	0.00	2708.15	0.10
173	0.46	0.00	2708.16	0.10
174	0.46	0.00	2708.17	0.10
175	0.46	0.00	2708.18	0.10
176	0.46	0.00	2708.19	0.10
177	0.46	0.00	2708.21	0.10
178	0.46	0.00	2708.22	0.10
179	0.46	0.00	2708.23	0.10
180	0.46	0.00	2708.24	0.10
181	0.47	0.00	2708.25	0.10
182	0.47	0.00	2708.26	0.10
183	0.47	0.00	2708.27	0.10

184	0.47	0.00	2708.28	0.10
185	0.47	0.00	2708.29	0.10
186	0.47	0.00	2708.30	0.11
187	0.47	0.00	2708.32	0.11
188	0.47	0.00	2708.33	0.11
189	0.47	0.00	2708.34	0.11
190	0.47	0.00	2708.35	0.11
191	0.47	0.00	2708.36	0.11
192	0.47	0.00	2708.37	0.11
193	0.47	0.00	2708.38	0.11
194	0.47	0.00	2708.39	0.11
195	0.47	0.00	2708.40	0.11
196	0.47	0.00	2708.42	0.11
197	0.47	0.00	2708.43	0.11
198	0.47	0.00	2708.44	0.11
199	0.47	0.00	2708.45	0.11
200	0.47	0.00	2708.46	0.11
201	0.47	0.00	2708.47	0.12
202	0.47	0.00	2708.48	0.12
203	0.47	0.00	2708.49	0.12
204	0.47	0.00	2708.50	0.12
205	0.47	0.00	2708.52	0.12
206	0.47	0.00	2708.53	0.12
207	0.47	0.00	2708.54	0.12
208	0.47	0.00	2708.55	0.12
209	0.47	0.00	2708.56	0.12
210	0.47	0.00	2708.57	0.12
211	0.47	0.00	2708.58	0.12
212	0.47	0.00	2708.59	0.12
213	0.47	0.00	2708.61	0.12
214	0.47	0.00	2708.62	0.12
215	0.47	0.00	2708.63	0.12
216	0.47	0.00	2708.64	0.12
217	0.47	0.00	2708.65	0.13
218	0.47	0.00	2708.66	0.13
219	0.47	0.00	2708.67	0.13
220	0.47	0.00	2708.68	0.13
221	0.47	0.00	2708.69	0.13
222	0.48	0.00	2708.71	0.13
223	0.48	0.00	2708.72	0.13
224	0.48	0.00	2708.73	0.13
225	0.48	0.00	2708.74	0.13
226	0.48	0.00	2708.75	0.13
227	0.48	0.00	2708.76	0.13
228	0.48	0.00	2708.77	0.13
229	0.48	0.00	2708.79	0.13
230	0.48	0.00	2708.80	0.13
231	0.48	0.00	2708.81	0.13
232	0.48	0.00	2708.82	0.14
233	0.48	0.00	2708.83	0.14
234	0.48	0.00	2708.84	0.14
235	0.48	0.00	2708.85	0.14
236	0.48	0.00	2708.86	0.14
237	0.48	0.00	2708.88	0.14

238	0.48	0.00	2708.89	0.14
239	0.48	0.00	2708.90	0.14
240	0.48	0.00	2708.91	0.14
241	0.48	0.00	2708.92	0.14
242	0.48	0.00	2708.93	0.14
243	0.48	0.00	2708.94	0.14
244	0.48	0.00	2708.96	0.14
245	0.48	0.00	2708.97	0.14
246	0.48	0.00	2708.98	0.14
247	0.48	0.00	2708.99	0.15
248	0.48	0.00	2709.00	0.15
249	0.48	0.00	2709.01	0.15
250	0.48	0.00	2709.02	0.15
251	0.48	0.00	2709.03	0.15
252	0.48	0.00	2709.04	0.15
253	0.48	0.00	2709.05	0.15
254	0.48	0.00	2709.06	0.15
255	0.48	0.00	2709.07	0.15
256	0.48	0.00	2709.08	0.15
257	0.48	0.00	2709.09	0.15
258	0.48	0.00	2709.10	0.15
259	0.48	0.00	2709.11	0.15
260	0.48	0.00	2709.12	0.15
261	0.48	0.00	2709.13	0.15
262	0.48	0.00	2709.14	0.16
263	0.48	0.00	2709.15	0.16
264	0.49	0.00	2709.16	0.16
265	0.49	0.00	2709.17	0.16
266	0.49	0.00	2709.18	0.16
267	0.49	0.00	2709.18	0.16
268	0.49	0.00	2709.19	0.16
269	0.49	0.00	2709.20	0.16
270	0.49	0.00	2709.21	0.16
271	0.49	0.00	2709.22	0.16
272	0.49	0.00	2709.23	0.16
273	0.49	0.00	2709.24	0.16
274	0.49	0.00	2709.25	0.16
275	0.49	0.00	2709.26	0.16
276	0.49	0.00	2709.27	0.16
277	0.49	0.00	2709.28	0.17
278	0.49	0.00	2709.29	0.17
279	0.49	0.00	2709.30	0.17
280	0.49	0.00	2709.31	0.17
281	0.49	0.00	2709.32	0.17
282	0.49	0.00	2709.33	0.17
283	0.49	0.00	2709.34	0.17
284	0.49	0.00	2709.35	0.17
285	0.49	0.00	2709.36	0.17
286	0.49	0.00	2709.37	0.17
287	0.49	0.00	2709.38	0.17
288	0.49	0.00	2709.39	0.17
289	0.49	0.00	2709.40	0.17
290	0.49	0.00	2709.41	0.17
291	0.49	0.00	2709.42	0.17

292	0.49	0.00	2709.43	0.18
293	0.49	0.00	2709.44	0.18
294	0.49	0.00	2709.45	0.18
295	0.49	0.00	2709.46	0.18
296	0.49	0.00	2709.47	0.18
297	0.49	0.00	2709.48	0.18
298	0.49	0.00	2709.49	0.18
299	0.49	0.00	2709.50	0.18
300	0.49	0.00	2709.51	0.18
301	0.49	0.00	2709.52	0.18
302	0.49	0.00	2709.53	0.18
303	0.50	0.00	2709.54	0.18
304	0.50	0.00	2709.55	0.18
305	0.50	0.00	2709.56	0.18
306	0.50	0.00	2709.57	0.18
307	0.50	0.00	2709.58	0.19
308	0.50	0.00	2709.59	0.19
309	0.50	0.00	2709.60	0.19
310	0.50	0.00	2709.61	0.19
311	0.50	0.00	2709.62	0.19
312	0.50	0.00	2709.63	0.19
313	0.50	0.00	2709.64	0.19
314	0.50	0.00	2709.65	0.19
315	0.50	0.00	2709.66	0.19
316	0.50	0.00	2709.67	0.19
317	0.50	0.00	2709.68	0.19
318	0.50	0.00	2709.69	0.19
319	0.50	0.00	2709.70	0.19
320	0.50	0.00	2709.71	0.19
321	0.50	0.00	2709.72	0.20
322	0.50	0.00	2709.73	0.20
323	0.50	0.00	2709.74	0.20
324	0.50	0.00	2709.75	0.20
325	0.50	0.00	2709.76	0.20
326	0.50	0.00	2709.77	0.20
327	0.50	0.00	2709.78	0.20
328	0.50	0.00	2709.79	0.20
329	0.50	0.00	2709.80	0.20
330	0.50	0.00	2709.81	0.20
331	0.50	0.00	2709.82	0.20
332	0.50	0.00	2709.83	0.20
333	0.50	0.00	2709.84	0.20
334	0.50	0.00	2709.85	0.20
335	0.50	0.00	2709.86	0.20
336	0.50	0.00	2709.87	0.21
337	0.51	0.00	2709.88	0.21
338	0.51	0.00	2709.89	0.21
339	0.51	0.00	2709.90	0.21
340	0.51	0.00	2709.91	0.21
341	0.51	0.00	2709.92	0.21
342	0.51	0.00	2709.93	0.21
343	0.51	0.00	2709.94	0.21
344	0.51	0.00	2709.95	0.21
345	0.51	0.00	2709.96	0.21

346	0.51	0.00	2709.97	0.21
347	0.51	0.00	2709.98	0.21
348	0.51	0.00	2709.99	0.21
349	0.51	0.00	2710.00	0.21
350	0.51	0.00	2710.01	0.22
351	0.51	0.00	2710.02	0.22
352	0.51	0.00	2710.03	0.22
353	0.51	0.00	2710.04	0.22
354	0.51	0.00	2710.05	0.22
355	0.51	0.00	2710.06	0.22
356	0.51	0.00	2710.06	0.22
357	0.51	0.00	2710.07	0.22
358	0.51	0.00	2710.08	0.22
359	0.51	0.00	2710.09	0.22
360	0.51	0.00	2710.10	0.22
361	0.51	0.00	2710.11	0.22
362	0.51	0.00	2710.12	0.22
363	0.51	0.00	2710.13	0.22
364	0.51	0.00	2710.13	0.23
365	0.51	0.00	2710.14	0.23
366	0.51	0.00	2710.15	0.23
367	0.51	0.00	2710.16	0.23
368	0.51	0.00	2710.17	0.23
369	0.51	0.00	2710.18	0.23
370	0.51	0.00	2710.19	0.23
371	0.51	0.00	2710.20	0.23
372	0.52	0.00	2710.21	0.23
373	0.52	0.00	2710.21	0.23
374	0.52	0.00	2710.22	0.23
375	0.52	0.00	2710.23	0.23
376	0.52	0.00	2710.24	0.23
377	0.52	0.00	2710.25	0.23
378	0.52	0.00	2710.26	0.24
379	0.52	0.00	2710.27	0.24
380	0.52	0.00	2710.28	0.24
381	0.52	0.00	2710.29	0.24
382	0.52	0.00	2710.29	0.24
383	0.52	0.00	2710.30	0.24
384	0.52	0.00	2710.31	0.24
385	0.52	0.00	2710.32	0.24
386	0.52	0.00	2710.33	0.24
387	0.52	0.00	2710.34	0.24
388	0.52	0.00	2710.35	0.24
389	0.52	0.00	2710.36	0.24
390	0.52	0.00	2710.37	0.24
391	0.52	0.00	2710.38	0.24
392	0.52	0.00	2710.38	0.25
393	0.52	0.00	2710.39	0.25
394	0.52	0.00	2710.40	0.25
395	0.52	0.00	2710.41	0.25
396	0.52	0.00	2710.42	0.25
397	0.52	0.00	2710.43	0.25
398	0.52	0.00	2710.44	0.25
399	0.52	0.00	2710.45	0.25

400	0.52	0.00	2710.46	0.25
401	0.52	0.00	2710.47	0.25
402	0.52	0.00	2710.47	0.25
403	0.52	0.00	2710.48	0.25
404	0.53	0.00	2710.49	0.25
405	0.53	0.00	2710.50	0.25
406	0.53	0.00	2710.51	0.26
407	0.53	0.00	2710.52	0.26
408	0.53	0.00	2710.53	0.26
409	0.53	0.00	2710.54	0.26
410	0.53	0.00	2710.55	0.26
411	0.53	0.00	2710.56	0.26
412	0.53	0.00	2710.57	0.26
413	0.53	0.00	2710.57	0.26
414	0.53	0.00	2710.58	0.26
415	0.53	0.00	2710.59	0.26
416	0.53	0.00	2710.60	0.26
417	0.53	0.00	2710.61	0.26
418	0.53	0.00	2710.62	0.26
419	0.53	0.00	2710.63	0.26
420	0.53	0.00	2710.64	0.27
421	0.53	0.00	2710.65	0.27
422	0.53	0.00	2710.66	0.27
423	0.53	0.00	2710.67	0.27
424	0.53	0.00	2710.68	0.27
425	0.53	0.00	2710.68	0.27
426	0.53	0.00	2710.69	0.27
427	0.53	0.00	2710.70	0.27
428	0.53	0.00	2710.71	0.27
429	0.53	0.00	2710.72	0.27
430	0.53	0.00	2710.73	0.27
431	0.53	0.00	2710.74	0.27
432	0.54	0.00	2710.75	0.27
433	0.54	0.00	2710.76	0.27
434	0.54	0.00	2710.77	0.28
435	0.54	0.00	2710.78	0.28
436	0.54	0.00	2710.79	0.28
437	0.54	0.00	2710.80	0.28
438	0.54	0.00	2710.80	0.28
439	0.54	0.00	2710.81	0.28
440	0.54	0.00	2710.82	0.28
441	0.54	0.00	2710.83	0.28
442	0.54	0.00	2710.84	0.28
443	0.54	0.00	2710.85	0.28
444	0.54	0.00	2710.86	0.28
445	0.54	0.00	2710.87	0.28
446	0.54	0.00	2710.88	0.28
447	0.54	0.00	2710.89	0.29
448	0.54	0.00	2710.90	0.29
449	0.54	0.00	2710.91	0.29
450	0.54	0.00	2710.92	0.29
451	0.54	0.00	2710.93	0.29
452	0.54	0.00	2710.93	0.29
453	0.54	0.00	2710.94	0.29

454	0.54	0.00	2710.95	0.29
455	0.54	0.00	2710.96	0.29
456	0.54	0.00	2710.97	0.29
457	0.54	0.00	2710.98	0.29
458	0.54	0.00	2710.99	0.29
459	0.54	0.00	2711.00	0.29
460	0.54	0.00	2711.01	0.30
461	0.55	0.00	2711.02	0.30
462	0.55	0.00	2711.02	0.30
463	0.55	0.00	2711.03	0.30
464	0.55	0.00	2711.04	0.30
465	0.55	0.00	2711.05	0.30
466	0.55	0.00	2711.06	0.30
467	0.55	0.00	2711.07	0.30
468	0.55	0.00	2711.07	0.30
469	0.55	0.00	2711.08	0.30
470	0.55	0.00	2711.09	0.30
471	0.55	0.00	2711.10	0.30
472	0.55	0.00	2711.11	0.30
473	0.55	0.00	2711.12	0.30
474	0.55	0.00	2711.12	0.31
475	0.55	0.00	2711.13	0.31
476	0.55	0.00	2711.14	0.31
477	0.55	0.00	2711.15	0.31
478	0.55	0.00	2711.16	0.31
479	0.55	0.00	2711.16	0.31
480	0.55	0.00	2711.17	0.31
481	0.55	0.00	2711.18	0.31
482	0.55	0.00	2711.19	0.31
483	0.55	0.00	2711.20	0.31
484	0.55	0.00	2711.21	0.31
485	0.55	0.00	2711.21	0.31
486	0.55	0.00	2711.22	0.31
487	0.55	0.00	2711.23	0.32
488	0.55	0.00	2711.24	0.32
489	0.56	0.00	2711.25	0.32
490	0.56	0.00	2711.26	0.32
491	0.56	0.00	2711.26	0.32
492	0.56	0.00	2711.27	0.32
493	0.56	0.00	2711.28	0.32
494	0.56	0.00	2711.29	0.32
495	0.56	0.00	2711.30	0.32
496	0.56	0.00	2711.31	0.32
497	0.56	0.00	2711.32	0.32
498	0.56	0.00	2711.32	0.32
499	0.56	0.00	2711.33	0.32
500	0.56	0.00	2711.34	0.33
501	0.56	0.00	2711.35	0.33
502	0.56	0.00	2711.36	0.33
503	0.56	0.00	2711.37	0.33
504	0.56	0.00	2711.37	0.33
505	0.56	0.00	2711.38	0.33
506	0.56	0.00	2711.39	0.33
507	0.56	0.00	2711.40	0.33

508	0.56	0.00	2711.41	0.33
509	0.56	0.00	2711.42	0.33
510	0.56	0.00	2711.42	0.33
511	0.56	0.00	2711.43	0.33
512	0.57	0.00	2711.44	0.33
513	0.57	0.00	2711.45	0.34
514	0.57	0.00	2711.46	0.34
515	0.57	0.00	2711.47	0.34
516	0.57	0.00	2711.48	0.34
517	0.57	0.00	2711.48	0.34
518	0.57	0.00	2711.49	0.34
519	0.57	0.00	2711.50	0.34
520	0.57	0.00	2711.51	0.34
521	0.57	0.00	2711.52	0.34
522	0.57	0.00	2711.53	0.34
523	0.57	0.00	2711.54	0.34
524	0.57	0.00	2711.54	0.34
525	0.57	0.00	2711.55	0.34
526	0.57	0.00	2711.56	0.35
527	0.57	0.00	2711.57	0.35
528	0.57	0.00	2711.58	0.35
529	0.57	0.00	2711.59	0.35
530	0.57	0.00	2711.60	0.35
531	0.57	0.00	2711.60	0.35
532	0.57	0.00	2711.61	0.35
533	0.57	0.00	2711.62	0.35
534	0.57	0.00	2711.63	0.35
535	0.57	0.00	2711.64	0.35
536	0.58	0.00	2711.65	0.35
537	0.58	0.00	2711.66	0.35
538	0.58	0.00	2711.66	0.36
539	0.58	0.00	2711.67	0.36
540	0.58	0.00	2711.68	0.36
541	0.58	0.00	2711.69	0.36
542	0.58	0.00	2711.70	0.36
543	0.58	0.00	2711.71	0.36
544	0.58	0.00	2711.72	0.36
545	0.58	0.00	2711.73	0.36
546	0.58	0.00	2711.73	0.36
547	0.58	0.00	2711.74	0.36
548	0.58	0.00	2711.75	0.36
549	0.58	0.00	2711.76	0.36
550	0.58	0.00	2711.77	0.36
551	0.58	0.00	2711.78	0.37
552	0.58	0.00	2711.79	0.37
553	0.58	0.00	2711.79	0.37
554	0.58	0.00	2711.80	0.37
555	0.58	0.00	2711.81	0.37
556	0.58	0.00	2711.82	0.37
557	0.58	0.00	2711.83	0.37
558	0.58	0.00	2711.84	0.37
559	0.59	0.00	2711.85	0.37
560	0.59	0.00	2711.86	0.37
561	0.59	0.00	2711.87	0.37

562	0.59	0.00	2711.87	0.37
563	0.59	0.00	2711.88	0.38
564	0.59	0.00	2711.89	0.38
565	0.59	0.00	2711.90	0.38
566	0.59	0.00	2711.91	0.38
567	0.59	0.00	2711.92	0.38
568	0.59	0.00	2711.93	0.38
569	0.59	0.00	2711.94	0.38
570	0.59	0.00	2711.94	0.38
571	0.59	0.00	2711.95	0.38
572	0.59	0.00	2711.96	0.38
573	0.59	0.00	2711.97	0.38
574	0.59	0.00	2711.98	0.38
575	0.59	0.00	2711.99	0.39
576	0.59	0.00	2712.00	0.39
577	0.59	0.00	2712.01	0.39
578	0.59	0.00	2712.01	0.39
579	0.60	0.00	2712.02	0.39
580	0.60	0.00	2712.03	0.39
581	0.60	0.00	2712.04	0.39
582	0.60	0.00	2712.05	0.39
583	0.60	0.00	2712.05	0.39
584	0.60	0.00	2712.06	0.39
585	0.60	0.00	2712.07	0.39
586	0.60	0.00	2712.08	0.39
587	0.60	0.00	2712.08	0.39
588	0.60	0.00	2712.09	0.40
589	0.60	0.00	2712.10	0.40
590	0.60	0.00	2712.11	0.40
591	0.60	0.00	2712.12	0.40
592	0.60	0.00	2712.12	0.40
593	0.60	0.00	2712.13	0.40
594	0.60	0.00	2712.14	0.40
595	0.60	0.00	2712.15	0.40
596	0.60	0.00	2712.16	0.40
597	0.60	0.00	2712.16	0.40
598	0.60	0.00	2712.17	0.40
599	0.60	0.00	2712.18	0.40
600	0.60	0.00	2712.19	0.41
601	0.61	0.00	2712.20	0.41
602	0.61	0.00	2712.20	0.41
603	0.61	0.00	2712.21	0.41
604	0.61	0.00	2712.22	0.41
605	0.61	0.00	2712.23	0.41
606	0.61	0.00	2712.24	0.41
607	0.61	0.00	2712.24	0.41
608	0.61	0.00	2712.25	0.41
609	0.61	0.00	2712.26	0.41
610	0.61	0.00	2712.27	0.41
611	0.61	0.00	2712.28	0.41
612	0.61	0.00	2712.28	0.42
613	0.61	0.00	2712.29	0.42
614	0.61	0.00	2712.30	0.42
615	0.61	0.00	2712.31	0.42

616	0.61	0.00	2712.32	0.42
617	0.61	0.00	2712.32	0.42
618	0.61	0.00	2712.33	0.42
619	0.61	0.00	2712.34	0.42
620	0.62	0.00	2712.35	0.42
621	0.62	0.00	2712.36	0.42
622	0.62	0.00	2712.37	0.42
623	0.62	0.00	2712.37	0.42
624	0.62	0.00	2712.38	0.43
625	0.62	0.00	2712.39	0.43
626	0.62	0.00	2712.40	0.43
627	0.62	0.00	2712.41	0.43
628	0.62	0.00	2712.41	0.43
629	0.62	0.00	2712.42	0.43
630	0.62	0.00	2712.43	0.43
631	0.62	0.00	2712.44	0.43
632	0.62	0.00	2712.45	0.43
633	0.62	0.00	2712.46	0.43
634	0.62	0.00	2712.46	0.43
635	0.62	0.00	2712.47	0.44
636	0.62	0.00	2712.48	0.44
637	0.62	0.00	2712.49	0.44
638	0.63	0.00	2712.50	0.44
639	0.63	0.00	2712.50	0.44
640	0.63	0.00	2712.51	0.44
641	0.63	0.00	2712.52	0.44
642	0.63	0.00	2712.53	0.44
643	0.63	0.00	2712.54	0.44
644	0.63	0.00	2712.55	0.44
645	0.63	0.00	2712.55	0.44
646	0.63	0.00	2712.56	0.44
647	0.63	0.00	2712.57	0.45
648	0.63	0.00	2712.58	0.45
649	0.63	0.00	2712.59	0.45
650	0.63	0.00	2712.60	0.45
651	0.63	0.00	2712.60	0.45
652	0.63	0.00	2712.61	0.45
653	0.63	0.00	2712.62	0.45
654	0.63	0.00	2712.63	0.45
655	0.63	0.00	2712.64	0.45
656	0.64	0.00	2712.65	0.45
657	0.64	0.00	2712.65	0.45
658	0.64	0.00	2712.66	0.46
659	0.64	0.00	2712.67	0.46
660	0.64	0.00	2712.68	0.46
661	0.64	0.00	2712.69	0.46
662	0.64	0.00	2712.70	0.46
663	0.64	0.00	2712.71	0.46
664	0.64	0.00	2712.71	0.46
665	0.64	0.00	2712.72	0.46
666	0.64	0.00	2712.73	0.46
667	0.64	0.00	2712.74	0.46
668	0.64	0.00	2712.75	0.46
669	0.64	0.00	2712.76	0.46

670	0.64	0.00	2712.76	0.47
671	0.64	0.00	2712.77	0.47
672	0.65	0.00	2712.78	0.47
673	0.65	0.00	2712.79	0.47
674	0.65	0.00	2712.80	0.47
675	0.65	0.00	2712.81	0.47
676	0.65	0.00	2712.82	0.47
677	0.65	0.00	2712.82	0.47
678	0.65	0.00	2712.83	0.47
679	0.65	0.00	2712.84	0.47
680	0.65	0.00	2712.85	0.47
681	0.65	0.00	2712.86	0.48
682	0.65	0.00	2712.87	0.48
683	0.65	0.00	2712.88	0.48
684	0.65	0.00	2712.88	0.48
685	0.65	0.00	2712.89	0.48
686	0.65	0.00	2712.90	0.48
687	0.66	0.00	2712.91	0.48
688	0.66	0.00	2712.92	0.48
689	0.66	0.00	2712.93	0.48
690	0.66	0.00	2712.94	0.48
691	0.66	0.00	2712.95	0.48
692	0.66	0.00	2712.95	0.49
693	0.66	0.00	2712.96	0.49
694	0.66	0.00	2712.97	0.49
695	0.66	0.00	2712.98	0.49
696	0.66	0.00	2712.99	0.49
697	0.66	0.00	2713.00	0.49
698	0.66	0.00	2713.01	0.49
699	0.66	0.00	2713.01	0.49
700	0.66	0.00	2713.02	0.49
701	0.66	0.00	2713.03	0.49
702	0.66	0.00	2713.04	0.49
703	0.67	0.00	2713.04	0.50
704	0.67	0.00	2713.05	0.50
705	0.67	0.00	2713.06	0.50
706	0.67	0.00	2713.07	0.50
707	0.67	0.00	2713.08	0.50
708	0.67	0.00	2713.08	0.50
709	0.67	0.00	2713.09	0.50
710	0.67	0.00	2713.10	0.50
711	0.67	0.00	2713.11	0.50
712	0.67	0.00	2713.11	0.50
713	0.67	0.00	2713.12	0.50
714	0.67	0.00	2713.13	0.51
715	0.67	0.00	2713.14	0.51
716	0.68	0.00	2713.15	0.51
717	0.68	0.00	2713.15	0.51
718	0.68	0.00	2713.16	0.51
719	0.68	0.00	2713.17	0.51
720	0.68	0.00	2713.18	0.51
721	0.68	0.00	2713.19	0.51
722	0.68	0.00	2713.19	0.51
723	0.68	0.00	2713.20	0.51

724	0.68	0.00	2713.21	0.52
725	0.68	0.00	2713.22	0.52
726	0.68	0.00	2713.23	0.52
727	0.68	0.00	2713.23	0.52
728	0.68	0.00	2713.24	0.52
729	0.68	0.00	2713.25	0.52
730	0.69	0.00	2713.26	0.52
731	0.69	0.00	2713.27	0.52
732	0.69	0.00	2713.27	0.52
733	0.69	0.00	2713.28	0.52
734	0.69	0.00	2713.29	0.52
735	0.69	0.00	2713.30	0.53
736	0.69	0.00	2713.31	0.53
737	0.69	0.00	2713.31	0.53
738	0.69	0.00	2713.32	0.53
739	0.69	0.00	2713.33	0.53
740	0.69	0.00	2713.34	0.53
741	0.69	0.00	2713.35	0.53
742	0.69	0.00	2713.35	0.53
743	0.69	0.00	2713.36	0.53
744	0.70	0.00	2713.37	0.53
745	0.70	0.00	2713.38	0.53
746	0.70	0.00	2713.39	0.54
747	0.70	0.00	2713.40	0.54
748	0.70	0.00	2713.40	0.54
749	0.70	0.00	2713.41	0.54
750	0.70	0.00	2713.42	0.54
751	0.70	0.00	2713.43	0.54
752	0.70	0.00	2713.44	0.54
753	0.70	0.00	2713.44	0.54
754	0.70	0.00	2713.45	0.54
755	0.71	0.00	2713.46	0.54
756	0.71	0.00	2713.47	0.55
757	0.71	0.00	2713.48	0.55
758	0.71	0.00	2713.49	0.55
759	0.71	0.00	2713.49	0.55
760	0.71	0.00	2713.50	0.55
761	0.71	0.00	2713.51	0.55
762	0.71	0.00	2713.52	0.55
763	0.71	0.00	2713.53	0.55
764	0.71	0.00	2713.54	0.55
765	0.71	0.00	2713.54	0.55
766	0.71	0.00	2713.55	0.56
767	0.71	0.00	2713.56	0.56
768	0.72	0.00	2713.57	0.56
769	0.72	0.00	2713.58	0.56
770	0.72	0.00	2713.59	0.56
771	0.72	0.00	2713.59	0.56
772	0.72	0.00	2713.60	0.56
773	0.72	0.00	2713.61	0.56
774	0.72	0.00	2713.62	0.56
775	0.72	0.00	2713.63	0.56
776	0.72	0.00	2713.64	0.57
777	0.72	0.00	2713.64	0.57

778	0.72	0.00	2713.65	0.57
779	0.73	0.00	2713.66	0.57
780	0.73	0.00	2713.67	0.57
781	0.73	0.00	2713.68	0.57
782	0.73	0.00	2713.69	0.57
783	0.73	0.00	2713.70	0.57
784	0.73	0.00	2713.70	0.57
785	0.73	0.00	2713.71	0.57
786	0.73	0.00	2713.72	0.58
787	0.73	0.00	2713.73	0.58
788	0.73	0.00	2713.74	0.58
789	0.73	0.00	2713.75	0.58
790	0.74	0.00	2713.76	0.58
791	0.74	0.00	2713.76	0.58
792	0.74	0.00	2713.77	0.58
793	0.74	0.00	2713.78	0.58
794	0.74	0.00	2713.79	0.58
795	0.74	0.00	2713.80	0.58
796	0.74	0.00	2713.81	0.59
797	0.74	0.00	2713.82	0.59
798	0.74	0.00	2713.82	0.59
799	0.74	0.00	2713.83	0.59
800	0.75	0.00	2713.84	0.59
801	0.75	0.00	2713.85	0.59
802	0.75	0.00	2713.86	0.59
803	0.75	0.00	2713.87	0.59
804	0.75	0.00	2713.88	0.59
805	0.75	0.00	2713.89	0.59
806	0.75	0.00	2713.89	0.60
807	0.75	0.00	2713.90	0.60
808	0.75	0.00	2713.91	0.60
809	0.75	0.00	2713.92	0.60
810	0.75	0.00	2713.93	0.60
811	0.76	0.00	2713.94	0.60
812	0.76	0.00	2713.95	0.60
813	0.76	0.00	2713.96	0.60
814	0.76	0.00	2713.97	0.60
815	0.76	0.00	2713.97	0.61
816	0.76	0.00	2713.98	0.61
817	0.76	0.00	2713.99	0.61
818	0.76	0.00	2714.00	0.61
819	0.76	0.00	2714.01	0.61
820	0.77	0.00	2714.02	0.61
821	0.77	0.00	2714.03	0.61
822	0.77	0.00	2714.03	0.61
823	0.77	0.00	2714.04	0.61
824	0.77	0.00	2714.05	0.61
825	0.77	0.00	2714.06	0.62
826	0.77	0.00	2714.07	0.62
827	0.77	0.00	2714.07	0.62
828	0.77	0.00	2714.08	0.62
829	0.78	0.00	2714.09	0.62
830	0.78	0.00	2714.10	0.62
831	0.78	0.00	2714.11	0.62

832	0.78	0.00	2714.11	0.62
833	0.78	0.00	2714.12	0.62
834	0.78	0.00	2714.13	0.63
835	0.78	0.00	2714.14	0.63
836	0.78	0.00	2714.15	0.63
837	0.78	0.00	2714.15	0.63
838	0.78	0.00	2714.16	0.63
839	0.79	0.00	2714.17	0.63
840	0.79	0.00	2714.18	0.63
841	0.79	0.00	2714.19	0.63
842	0.79	0.00	2714.20	0.63
843	0.79	0.00	2714.20	0.63
844	0.79	0.00	2714.21	0.64
845	0.79	0.00	2714.22	0.64
846	0.79	0.00	2714.23	0.64
847	0.80	0.00	2714.24	0.64
848	0.80	0.00	2714.25	0.64
849	0.80	0.00	2714.25	0.64
850	0.80	0.00	2714.26	0.64
851	0.80	0.00	2714.27	0.64
852	0.80	0.00	2714.28	0.64
853	0.80	0.00	2714.29	0.65
854	0.80	0.00	2714.30	0.65
855	0.81	0.00	2714.30	0.65
856	0.81	0.00	2714.31	0.65
857	0.81	0.00	2714.32	0.65
858	0.81	0.00	2714.33	0.65
859	0.81	0.00	2714.34	0.65
860	0.81	0.00	2714.35	0.65
861	0.81	0.00	2714.35	0.65
862	0.81	0.00	2714.36	0.66
863	0.82	0.00	2714.37	0.66
864	0.82	0.00	2714.38	0.66
865	0.82	0.00	2714.39	0.66
866	0.82	0.00	2714.40	0.66
867	0.82	0.00	2714.41	0.66
868	0.82	0.00	2714.41	0.66
869	0.82	0.00	2714.42	0.66
870	0.82	0.00	2714.43	0.66
871	0.83	0.00	2714.44	0.67
872	0.83	0.00	2714.45	0.67
873	0.83	0.00	2714.46	0.67
874	0.83	0.00	2714.47	0.67
875	0.83	0.00	2714.48	0.67
876	0.83	0.00	2714.48	0.67
877	0.83	0.00	2714.49	0.67
878	0.84	0.00	2714.50	0.67
879	0.84	0.00	2714.51	0.68
880	0.84	0.00	2714.52	0.68
881	0.84	0.00	2714.53	0.68
882	0.84	0.00	2714.54	0.68
883	0.84	0.00	2714.55	0.68
884	0.84	0.00	2714.55	0.68
885	0.85	0.00	2714.56	0.68

886	0.85	0.00	2714.57	0.68
887	0.85	0.00	2714.58	0.68
888	0.85	0.00	2714.59	0.69
889	0.85	0.00	2714.60	0.69
890	0.85	0.00	2714.61	0.69
891	0.85	0.00	2714.62	0.69
892	0.86	0.00	2714.63	0.69
893	0.86	0.00	2714.63	0.69
894	0.86	0.00	2714.64	0.69
895	0.86	0.00	2714.65	0.69
896	0.86	0.00	2714.66	0.70
897	0.86	0.00	2714.67	0.70
898	0.86	0.00	2714.68	0.70
899	0.87	0.00	2714.69	0.70
900	0.87	0.00	2714.70	0.70
901	0.87	0.00	2714.71	0.70
902	0.87	0.00	2714.72	0.70
903	0.87	0.00	2714.72	0.70
904	0.87	0.00	2714.73	0.70
905	0.88	0.00	2714.74	0.71
906	0.88	0.00	2714.75	0.71
907	0.88	0.00	2714.76	0.71
908	0.88	0.00	2714.77	0.71
909	0.88	0.00	2714.78	0.71
910	0.88	0.00	2714.79	0.71
911	0.89	0.00	2714.80	0.71
912	0.89	0.00	2714.81	0.71
913	0.89	0.00	2714.82	0.72
914	0.89	0.00	2714.83	0.72
915	0.89	0.00	2714.84	0.72
916	0.89	0.00	2714.84	0.72
917	0.90	0.00	2714.85	0.72
918	0.90	0.00	2714.86	0.72
919	0.90	0.00	2714.87	0.72
920	0.90	0.00	2714.88	0.72
921	0.90	0.00	2714.89	0.73
922	0.90	0.00	2714.90	0.73
923	0.91	0.00	2714.91	0.73
924	0.91	0.00	2714.92	0.73
925	0.91	0.00	2714.93	0.73
926	0.91	0.00	2714.94	0.73
927	0.91	0.00	2714.95	0.73
928	0.92	0.00	2714.96	0.73
929	0.92	0.00	2714.97	0.74
930	0.92	0.00	2714.98	0.74
931	0.92	0.00	2714.99	0.74
932	0.92	0.00	2715.00	0.74
933	0.93	0.00	2715.01	0.74
934	0.93	0.00	2715.01	0.74
935	0.93	0.00	2715.02	0.74
936	0.93	0.00	2715.03	0.74
937	0.93	0.00	2715.04	0.75
938	0.93	0.00	2715.05	0.75
939	0.94	0.00	2715.06	0.75

940	0.94	0.00	2715.07	0.75
941	0.94	0.00	2715.08	0.75
942	0.94	0.00	2715.08	0.75
943	0.95	0.00	2715.09	0.75
944	0.95	0.00	2715.10	0.75
945	0.95	0.00	2715.11	0.76
946	0.95	0.00	2715.12	0.76
947	0.95	0.00	2715.13	0.76
948	0.96	0.00	2715.14	0.76
949	0.96	0.00	2715.15	0.76
950	0.96	0.00	2715.16	0.76
951	0.96	0.00	2715.17	0.76
952	0.96	0.00	2715.17	0.77
953	0.97	0.00	2715.18	0.77
954	0.97	0.00	2715.19	0.77
955	0.97	0.00	2715.20	0.77
956	0.97	0.00	2715.21	0.77
957	0.98	0.00	2715.22	0.77
958	0.98	0.00	2715.23	0.77
959	0.98	0.00	2715.24	0.77
960	0.98	0.00	2715.25	0.78
961	0.98	0.00	2715.26	0.78
962	0.99	0.00	2715.27	0.78
963	0.99	0.00	2715.28	0.78
964	0.99	0.00	2715.28	0.78
965	0.99	0.00	2715.29	0.78
966	1.00	0.00	2715.30	0.78
967	1.00	0.00	2715.31	0.79
968	1.00	0.00	2715.32	0.79
969	1.00	0.00	2715.33	0.79
970	1.01	0.00	2715.34	0.79
971	1.01	0.00	2715.35	0.79
972	1.01	0.00	2715.36	0.79
973	1.01	0.00	2715.37	0.79
974	1.02	0.00	2715.38	0.80
975	1.02	0.00	2715.39	0.80
976	1.02	0.00	2715.40	0.80
977	1.02	0.00	2715.41	0.80
978	1.03	0.00	2715.42	0.80
979	1.03	0.00	2715.43	0.80
980	1.03	0.00	2715.44	0.80
981	1.03	0.00	2715.45	0.81
982	1.04	0.00	2715.46	0.81
983	1.04	0.00	2715.47	0.81
984	1.04	0.00	2715.48	0.81
985	1.05	0.00	2715.49	0.81
986	1.05	0.00	2715.50	0.81
987	1.05	0.00	2715.51	0.81
988	1.05	0.00	2715.52	0.82
989	1.06	0.00	2715.53	0.82
990	1.06	0.00	2715.54	0.82
991	1.06	0.00	2715.55	0.82
992	1.07	0.00	2715.56	0.82
993	1.07	0.00	2715.57	0.82

994	1.07	0.00	2715.58	0.82
995	1.08	0.00	2715.59	0.83
996	1.08	0.00	2715.60	0.83
997	1.08	0.00	2715.61	0.83
998	1.08	0.00	2715.62	0.83
999	1.09	0.00	2715.63	0.83
1000	1.09	0.00	2715.64	0.83
1001	1.09	0.00	2715.65	0.83
1002	1.10	0.00	2715.66	0.84
1003	1.10	0.00	2715.67	0.84
1004	1.10	0.00	2715.68	0.84
1005	1.11	0.00	2715.69	0.84
1006	1.11	0.00	2715.70	0.84
1007	1.11	0.00	2715.71	0.84
1008	1.12	0.00	2715.72	0.85
1009	1.12	0.00	2715.73	0.85
1010	1.12	0.00	2715.74	0.85
1011	1.13	0.00	2715.75	0.85
1012	1.13	0.00	2715.76	0.85
1013	1.13	0.00	2715.77	0.85
1014	1.14	0.00	2715.78	0.85
1015	1.14	0.00	2715.79	0.86
1016	1.15	0.00	2715.80	0.86
1017	1.15	0.00	2715.82	0.86
1018	1.15	0.00	2715.83	0.86
1019	1.16	0.00	2715.84	0.86
1020	1.16	0.00	2715.85	0.86
1021	1.17	0.00	2715.86	0.87
1022	1.17	0.00	2715.87	0.87
1023	1.17	0.00	2715.88	0.87
1024	1.18	0.00	2715.89	0.87
1025	1.18	0.00	2715.90	0.87
1026	1.19	0.00	2715.91	0.87
1027	1.19	0.00	2715.93	0.88
1028	1.19	0.00	2715.94	0.88
1029	1.20	0.00	2715.95	0.88
1030	1.20	0.00	2715.96	0.88
1031	1.21	0.00	2715.97	0.88
1032	1.21	0.00	2715.98	0.88
1033	1.22	0.00	2715.99	0.89
1034	1.22	0.00	2716.00	0.89
1035	1.23	0.00	2716.01	0.89
1036	1.23	0.00	2716.02	0.89
1037	1.23	0.00	2716.04	0.89
1038	1.24	0.00	2716.05	0.89
1039	1.24	0.00	2716.06	0.90
1040	1.25	0.00	2716.07	0.90
1041	1.25	0.00	2716.08	0.90
1042	1.26	0.00	2716.09	0.90
1043	1.26	0.00	2716.10	0.90
1044	1.27	0.00	2716.11	0.90
1045	1.27	0.00	2716.12	0.91
1046	1.28	0.00	2716.13	0.91
1047	1.28	0.00	2716.14	0.91

1048	1.29	0.00	2716.15	0.91
1049	1.30	0.00	2716.16	0.91
1050	1.30	0.00	2716.18	0.91
1051	1.31	0.00	2716.19	0.92
1052	1.31	0.00	2716.20	0.92
1053	1.32	0.00	2716.21	0.92
1054	1.32	0.00	2716.22	0.92
1055	1.33	0.00	2716.23	0.92
1056	1.34	0.00	2716.24	0.93
1057	1.34	0.00	2716.25	0.93
1058	1.35	0.00	2716.27	0.93
1059	1.35	0.00	2716.28	0.93
1060	1.36	0.00	2716.29	0.93
1061	1.37	0.00	2716.30	0.93
1062	1.37	0.00	2716.31	0.94
1063	1.38	0.00	2716.32	0.94
1064	1.39	0.00	2716.34	0.94
1065	1.39	0.00	2716.35	0.94
1066	1.40	0.00	2716.36	0.94
1067	1.41	0.00	2716.37	0.95
1068	1.42	0.00	2716.38	0.95
1069	1.42	0.00	2716.39	0.95
1070	1.43	0.00	2716.41	0.95
1071	1.44	0.00	2716.42	0.95
1072	1.45	0.00	2716.43	0.96
1073	1.45	0.00	2716.44	0.96
1074	1.46	0.00	2716.46	0.96
1075	1.47	0.00	2716.47	0.96
1076	1.48	0.00	2716.48	0.96
1077	1.49	0.00	2716.49	0.97
1078	1.49	0.00	2716.51	0.97
1079	1.50	0.00	2716.52	0.97
1080	1.51	0.00	2716.53	0.97
1081	1.52	0.00	2716.54	0.97
1082	1.53	0.00	2716.56	0.98
1083	1.54	0.00	2716.57	0.98
1084	1.55	0.00	2716.58	0.98
1085	1.56	0.00	2716.60	0.98
1086	1.57	0.00	2716.61	0.99
1087	1.58	0.00	2716.62	0.99
1088	1.59	0.00	2716.64	0.99
1089	1.60	0.00	2716.65	0.99
1090	1.61	0.00	2716.66	0.99
1091	1.62	0.00	2716.68	1.00
1092	1.63	0.00	2716.69	1.00
1093	1.64	0.00	2716.71	1.00
1094	1.66	0.00	2716.72	1.00
1095	1.67	0.00	2716.73	1.01
1096	1.68	0.00	2716.75	1.01
1097	1.69	0.00	2716.76	1.01
1098	1.71	0.00	2716.78	1.01
1099	1.72	0.00	2716.79	1.01
1100	1.73	0.00	2716.81	1.02
1101	1.75	0.00	2716.82	1.02

1102	1.76	0.00	2716.84	1.02
1103	1.78	0.00	2716.85	1.02
1104	1.79	0.00	2716.87	1.03
1105	1.81	0.00	2716.88	1.03
1106	1.82	0.00	2716.90	1.03
1107	1.84	0.00	2716.91	1.03
1108	1.85	0.00	2716.93	1.04
1109	1.87	0.00	2716.94	1.04
1110	1.89	0.00	2716.96	1.04
1111	1.91	0.00	2716.98	1.04
1112	1.93	0.00	2716.99	1.05
1113	1.95	0.00	2717.01	1.05
1114	1.97	0.00	2717.02	1.05
1115	1.99	0.00	2717.04	1.06
1116	2.01	0.00	2717.05	1.06
1117	2.03	0.00	2717.07	1.06
1118	2.05	0.00	2717.09	1.06
1119	2.08	0.00	2717.10	1.07
1120	2.10	0.00	2717.12	1.07
1121	2.13	0.00	2717.13	1.07
1122	2.15	0.00	2717.15	1.08
1123	2.18	0.00	2717.17	1.08
1124	2.21	0.00	2717.18	1.08
1125	2.24	0.00	2717.20	1.08
1126	2.27	0.00	2717.22	1.09
1127	2.31	0.00	2717.24	1.09
1128	2.34	0.00	2717.26	1.09
1129	2.38	0.00	2717.27	1.10
1130	2.41	0.00	2717.29	1.10
1131	2.46	0.00	2717.31	1.10
1132	2.50	0.00	2717.33	1.11
1133	2.54	0.00	2717.35	1.11
1134	2.59	0.00	2717.37	1.11
1135	2.64	0.00	2717.39	1.12
1136	2.69	0.00	2717.41	1.12
1137	2.75	0.00	2717.43	1.12
1138	2.82	0.00	2717.45	1.13
1139	2.88	0.00	2717.47	1.13
1140	2.95	0.00	2717.50	1.14
1141	3.03	0.00	2717.52	1.14
1142	3.12	0.00	2717.54	1.15
1143	3.22	0.00	2717.57	1.15
1144	3.32	0.00	2717.59	1.15
1145	3.44	0.00	2717.62	1.16
1146	3.58	0.00	2717.65	1.16
1147	3.73	0.00	2717.68	1.17
1148	3.92	0.00	2717.71	1.17
1149	4.15	0.00	2717.74	1.18
1150	4.45	0.00	2717.77	1.19
1151	4.93	0.00	2717.81	1.19
1152	6.39	0.00	2717.85	1.20
1153	7.06	0.00	2717.90	1.21
1154	7.20	0.00	2717.96	1.22
1155	7.25	0.00	2718.01	1.23

1156	7.23	0.00	2718.07	1.24
1157	7.17	0.00	2718.12	1.25
1158	7.08	0.00	2718.17	1.26
1159	6.96	0.00	2718.23	1.27
1160	6.80	0.00	2718.28	1.28
1161	6.61	0.00	2718.33	1.29
1162	6.39	0.00	2718.38	1.30
1163	6.14	0.00	2718.43	1.30
1164	5.84	0.00	2718.47	1.31
1165	5.48	0.00	2718.51	1.32
1166	5.03	0.00	2718.55	1.33
1167	4.45	0.00	2718.59	1.33
1168	3.16	0.00	2718.62	1.34
1169	2.54	0.00	2718.64	1.34
1170	2.32	0.00	2718.66	1.35
1171	2.16	0.00	2718.67	1.35
1172	2.04	0.00	2718.69	1.35
1173	1.95	0.00	2718.70	1.36
1174	1.86	0.00	2718.72	1.36
1175	1.79	0.00	2718.73	1.36
1176	1.73	0.00	2718.74	1.36
1177	1.68	0.00	2718.76	1.37
1178	1.63	0.00	2718.77	1.37
1179	1.58	0.00	2718.78	1.37
1180	1.54	0.00	2718.79	1.37
1181	1.50	0.00	2718.80	1.37
1182	1.47	0.00	2718.82	1.38
1183	1.43	0.00	2718.83	1.38
1184	1.40	0.00	2718.84	1.38
1185	1.38	0.00	2718.85	1.38
1186	1.35	0.00	2718.86	1.38
1187	1.33	0.00	2718.87	1.39
1188	1.30	0.00	2718.88	1.39
1189	1.28	0.00	2718.89	1.39
1190	1.26	0.00	2718.90	1.39
1191	1.24	0.00	2718.91	1.39
1192	1.22	0.00	2718.92	1.39
1193	1.20	0.00	2718.92	1.40
1194	1.18	0.00	2718.93	1.40
1195	1.17	0.00	2718.94	1.40
1196	1.15	0.00	2718.95	1.40
1197	1.14	0.00	2718.96	1.40
1198	1.12	0.00	2718.97	1.40
1199	1.11	0.00	2718.98	1.41
1200	1.10	0.00	2718.99	1.41
1201	1.08	0.00	2718.99	1.41
1202	1.07	0.00	2719.00	1.41
1203	1.06	0.00	2719.01	1.41
1204	1.05	0.00	2719.02	1.41
1205	1.04	0.00	2719.03	1.41
1206	1.02	0.00	2719.04	1.42
1207	1.01	0.00	2719.04	1.42
1208	1.00	0.00	2719.05	1.42
1209	0.99	0.00	2719.06	1.42

1210	0.98	0.00	2719.07	1.42
1211	0.98	0.00	2719.08	1.42
1212	0.97	0.00	2719.08	1.42
1213	0.96	0.00	2719.09	1.43
1214	0.95	0.00	2719.10	1.43
1215	0.94	0.00	2719.11	1.43
1216	0.93	0.00	2719.11	1.43
1217	0.92	0.00	2719.12	1.43
1218	0.92	0.00	2719.13	1.43
1219	0.91	0.00	2719.14	1.43
1220	0.90	0.00	2719.14	1.43
1221	0.90	0.00	2719.15	1.44
1222	0.89	0.00	2719.16	1.44
1223	0.88	0.00	2719.17	1.44
1224	0.88	0.00	2719.17	1.44
1225	0.87	0.00	2719.18	1.44
1226	0.86	0.00	2719.19	1.44
1227	0.86	0.00	2719.19	1.44
1228	0.85	0.00	2719.20	1.44
1229	0.84	0.00	2719.21	1.45
1230	0.84	0.00	2719.21	1.45
1231	0.83	0.00	2719.22	1.45
1232	0.83	0.00	2719.23	1.45
1233	0.82	0.00	2719.24	1.45
1234	0.82	0.00	2719.24	1.45
1235	0.81	0.00	2719.25	1.45
1236	0.81	0.00	2719.25	1.45
1237	0.80	0.00	2719.26	1.45
1238	0.80	0.00	2719.27	1.46
1239	0.79	0.00	2719.27	1.46
1240	0.79	0.00	2719.28	1.46
1241	0.78	0.00	2719.29	1.46
1242	0.78	0.00	2719.29	1.46
1243	0.77	0.00	2719.30	1.46
1244	0.77	0.00	2719.31	1.46
1245	0.77	0.00	2719.31	1.46
1246	0.76	0.00	2719.32	1.46
1247	0.76	0.00	2719.32	1.46
1248	0.75	0.00	2719.33	1.47
1249	0.75	0.00	2719.34	1.47
1250	0.75	0.00	2719.34	1.47
1251	0.74	0.00	2719.35	1.47
1252	0.74	0.00	2719.35	1.47
1253	0.73	0.00	2719.36	1.47
1254	0.73	0.00	2719.37	1.47
1255	0.73	0.00	2719.37	1.47
1256	0.72	0.00	2719.38	1.47
1257	0.72	0.00	2719.38	1.48
1258	0.72	0.00	2719.39	1.48
1259	0.71	0.00	2719.40	1.48
1260	0.71	0.00	2719.40	1.48
1261	0.71	0.00	2719.41	1.48
1262	0.70	0.00	2719.41	1.48
1263	0.70	0.00	2719.42	1.48

1264	0.70	0.00	2719.42	1.48
1265	0.69	0.00	2719.43	1.48
1266	0.69	0.00	2719.44	1.48
1267	0.69	0.00	2719.44	1.48
1268	0.68	0.00	2719.45	1.49
1269	0.68	0.00	2719.45	1.49
1270	0.68	0.00	2719.46	1.49
1271	0.68	0.00	2719.46	1.49
1272	0.67	0.00	2719.47	1.49
1273	0.67	0.00	2719.47	1.49
1274	0.67	0.00	2719.48	1.49
1275	0.66	0.00	2719.49	1.49
1276	0.66	0.00	2719.49	1.49
1277	0.66	0.00	2719.50	1.49
1278	0.66	0.00	2719.50	1.49
1279	0.65	0.00	2719.51	1.50
1280	0.65	0.00	2719.51	1.50
1281	0.65	0.00	2719.52	1.50
1282	0.65	0.00	2719.52	1.50
1283	0.64	0.00	2719.53	1.50
1284	0.64	0.00	2719.53	1.50
1285	0.64	0.00	2719.54	1.50
1286	0.64	0.00	2719.54	1.50
1287	0.63	0.00	2719.55	1.50
1288	0.63	0.00	2719.55	1.50
1289	0.63	0.00	2719.56	1.50
1290	0.63	0.00	2719.56	1.51
1291	0.62	0.00	2719.57	1.51
1292	0.62	0.00	2719.57	1.51
1293	0.62	0.00	2719.58	1.51
1294	0.62	0.00	2719.58	1.51
1295	0.62	0.00	2719.59	1.51
1296	0.61	0.00	2719.59	1.51
1297	0.61	0.00	2719.60	1.51
1298	0.61	0.00	2719.60	1.51
1299	0.61	0.00	2719.61	1.51
1300	0.61	0.00	2719.61	1.51
1301	0.60	0.00	2719.62	1.51
1302	0.60	0.00	2719.62	1.52
1303	0.60	0.00	2719.63	1.52
1304	0.60	0.00	2719.63	1.52
1305	0.60	0.00	2719.64	1.52
1306	0.59	0.00	2719.64	1.52
1307	0.59	0.00	2719.65	1.52
1308	0.59	0.00	2719.65	1.52
1309	0.59	0.00	2719.66	1.52
1310	0.59	0.00	2719.66	1.52
1311	0.58	0.00	2719.67	1.52
1312	0.58	0.00	2719.67	1.52
1313	0.58	0.00	2719.68	1.52
1314	0.58	0.00	2719.68	1.53
1315	0.58	0.00	2719.69	1.53
1316	0.57	0.00	2719.69	1.53
1317	0.57	0.00	2719.69	1.53

1318	0.57	0.00	2719.70	1.53
1319	0.57	0.00	2719.70	1.53
1320	0.57	0.00	2719.71	1.53
1321	0.57	0.00	2719.71	1.53
1322	0.57	0.00	2719.72	1.53
1323	0.56	0.00	2719.72	1.53
1324	0.56	0.00	2719.73	1.53
1325	0.56	0.00	2719.73	1.53
1326	0.56	0.00	2719.74	1.53
1327	0.56	0.00	2719.74	1.54
1328	0.55	0.00	2719.75	1.54
1329	0.55	0.00	2719.75	1.54
1330	0.55	0.00	2719.75	1.54
1331	0.55	0.00	2719.76	1.54
1332	0.55	0.00	2719.76	1.54
1333	0.55	0.00	2719.77	1.54
1334	0.55	0.00	2719.77	1.54
1335	0.54	0.00	2719.78	1.54
1336	0.54	0.00	2719.78	1.54
1337	0.54	0.00	2719.79	1.54
1338	0.54	0.00	2719.79	1.54
1339	0.54	0.00	2719.79	1.54
1340	0.54	0.00	2719.80	1.55
1341	0.54	0.00	2719.80	1.55
1342	0.54	0.00	2719.81	1.55
1343	0.53	0.00	2719.81	1.55
1344	0.53	0.00	2719.82	1.55
1345	0.53	0.00	2719.82	1.55
1346	0.53	0.00	2719.82	1.55
1347	0.53	0.00	2719.83	1.55
1348	0.53	0.00	2719.83	1.55
1349	0.53	0.00	2719.84	1.55
1350	0.52	0.00	2719.84	1.55
1351	0.52	0.00	2719.85	1.55
1352	0.52	0.00	2719.85	1.55
1353	0.52	0.00	2719.85	1.55
1354	0.52	0.00	2719.86	1.56
1355	0.52	0.00	2719.86	1.56
1356	0.52	0.00	2719.87	1.56
1357	0.52	0.00	2719.87	1.56
1358	0.51	0.00	2719.87	1.56
1359	0.51	0.00	2719.88	1.56
1360	0.51	0.00	2719.88	1.56
1361	0.51	0.00	2719.89	1.56
1362	0.51	0.00	2719.89	1.56
1363	0.51	0.00	2719.90	1.56
1364	0.51	0.00	2719.90	1.56
1365	0.51	0.00	2719.90	1.56
1366	0.50	0.00	2719.91	1.56
1367	0.50	0.00	2719.91	1.56
1368	0.50	0.00	2719.92	1.57
1369	0.50	0.00	2719.92	1.57
1370	0.50	0.00	2719.92	1.57
1371	0.50	0.00	2719.93	1.57

1372	0.50	0.00	2719.93	1.57
1373	0.50	0.00	2719.94	1.57
1374	0.50	0.00	2719.94	1.57
1375	0.49	0.00	2719.94	1.57
1376	0.49	0.00	2719.95	1.57
1377	0.49	0.00	2719.95	1.57
1378	0.49	0.00	2719.96	1.57
1379	0.49	0.00	2719.96	1.57
1380	0.49	0.00	2719.96	1.57
1381	0.49	0.00	2719.97	1.57
1382	0.49	0.00	2719.97	1.57
1383	0.49	0.00	2719.98	1.58
1384	0.48	0.00	2719.98	1.58
1385	0.48	0.00	2719.98	1.58
1386	0.48	0.00	2719.99	1.58
1387	0.48	0.00	2719.99	1.58
1388	0.48	0.00	2720.00	1.58
1389	0.48	0.00	2720.00	1.58
1390	0.48	0.00	2720.00	1.58
1391	0.48	0.00	2720.01	1.58
1392	0.48	0.00	2720.01	1.58
1393	0.48	0.00	2720.02	1.58
1394	0.48	0.00	2720.02	1.58
1395	0.47	0.00	2720.03	1.58
1396	0.47	0.00	2720.03	1.58
1397	0.47	0.00	2720.04	1.58
1398	0.47	0.00	2720.04	1.59
1399	0.47	0.00	2720.05	1.59
1400	0.47	0.00	2720.05	1.59
1401	0.47	0.00	2720.06	1.59
1402	0.47	0.00	2720.06	1.59
1403	0.47	0.00	2720.06	1.59
1404	0.47	0.00	2720.07	1.59
1405	0.47	0.00	2720.07	1.59
1406	0.46	0.00	2720.08	1.59
1407	0.46	0.00	2720.08	1.59
1408	0.46	0.00	2720.09	1.59
1409	0.46	0.00	2720.09	1.59
1410	0.46	0.00	2720.10	1.59
1411	0.46	0.00	2720.10	1.59
1412	0.46	0.00	2720.11	1.59
1413	0.46	0.00	2720.11	1.60
1414	0.46	0.00	2720.11	1.60
1415	0.46	0.00	2720.12	1.60
1416	0.46	0.00	2720.12	1.60
1417	0.45	0.00	2720.13	1.60
1418	0.45	0.00	2720.13	1.60
1419	0.45	0.00	2720.14	1.60
1420	0.45	0.00	2720.14	1.60
1421	0.45	0.00	2720.15	1.60
1422	0.45	0.00	2720.15	1.60
1423	0.45	0.00	2720.15	1.60
1424	0.45	0.00	2720.16	1.60
1425	0.45	0.00	2720.16	1.60

1426	0.45	0.00	2720.17	1.60
1427	0.45	0.00	2720.17	1.60
1428	0.45	0.00	2720.18	1.60
1429	0.45	0.00	2720.18	1.61
1430	0.44	0.00	2720.18	1.61
1431	0.44	0.00	2720.19	1.61
1432	0.44	0.00	2720.19	1.61
1433	0.44	0.00	2720.20	1.61
1434	0.44	0.00	2720.20	1.61
1435	0.44	0.00	2720.21	1.61
1436	0.44	0.00	2720.21	1.61
1437	0.44	0.00	2720.21	1.61
1438	0.44	0.00	2720.22	1.61
1439	0.44	0.00	2720.22	1.61
1440	0.44	0.00	2720.23	1.61
1441	0.41	0.00	2720.23	1.61
1442	0.38	0.00	2720.24	1.61
1443	0.35	0.00	2720.24	1.61
1444	0.33	0.00	2720.24	1.61
1445	0.30	0.00	2720.25	1.61
1446	0.27	0.00	2720.25	1.61
1447	0.24	0.00	2720.25	1.62
1448	0.22	0.00	2720.25	1.62
1449	0.19	0.00	2720.25	1.62
1450	0.16	0.00	2720.26	1.62
1451	0.14	0.00	2720.26	1.62
1452	0.11	0.00	2720.26	1.62
1453	0.08	0.00	2720.26	1.62
1454	0.05	0.00	2720.26	1.62
1455	0.03	0.00	2720.26	1.62
1456	0.00	0.00	2720.26	1.62
1457	0.00	0.00	2720.26	1.62
1458	0.00	0.00	2720.26	1.62
1459	0.00	0.00	2720.26	1.62
1460	0.00	0.00	2720.26	1.62
1461	0.00	0.00	2720.26	1.62
1462	0.00	0.00	2720.26	1.62
1463	0.00	0.00	2720.26	1.62
1464	0.00	0.00	2720.26	1.62
1465	0.00	0.00	2720.26	1.62
1466	0.00	0.00	2720.26	1.62
1467	0.00	0.00	2720.26	1.62
1468	0.00	0.00	2720.26	1.62
1469	0.00	0.00	2720.26	1.62
1470	0.00	0.00	2720.26	1.62
1471	0.00	0.00	2720.26	1.62
1472	0.00	0.00	2720.26	1.62
1473	0.00	0.00	2720.26	1.62
1474	0.00	0.00	2720.26	1.62
1475	0.00	0.00	2720.26	1.62
1476	0.00	0.00	2720.26	1.62
1477	0.00	0.00	2720.26	1.62
1478	0.00	0.00	2720.26	1.62
1479	0.00	0.00	2720.26	1.62

1480	0.00	0.00	2720.26	1.62
1481	0.00	0.00	2720.26	1.62
1482	0.00	0.00	2720.26	1.62
1483	0.00	0.00	2720.26	1.62
1484	0.00	0.00	2720.26	1.62
1485	0.00	0.00	2720.26	1.62
1486	0.00	0.00	2720.26	1.62
1487	0.00	0.00	2720.26	1.62
1488	0.00	0.00	2720.26	1.62
1489	0.00	0.00	2720.26	1.62
1490	0.00	0.00	2720.26	1.62
1491	0.00	0.00	2720.26	1.62
1492	0.00	0.00	2720.26	1.62
1493	0.00	0.00	2720.26	1.62
1494	0.00	0.00	2720.26	1.62
1495	0.00	0.00	2720.26	1.62
1496	0.00	0.00	2720.26	1.62
1497	0.00	0.00	2720.26	1.62
1498	0.00	0.00	2720.26	1.62
1499	0.00	0.00	2720.26	1.62
1500	0.00	0.00	2720.26	1.62
1501	0.00	0.00	2720.26	1.62
1502	0.00	0.00	2720.26	1.62
1503	0.00	0.00	2720.26	1.62
1504	0.00	0.00	2720.26	1.62
1505	0.00	0.00	2720.26	1.62
1506	0.00	0.00	2720.26	1.62
1507	0.00	0.00	2720.26	1.62
1508	0.00	0.00	2720.26	1.62
1509	0.00	0.00	2720.26	1.62
1510	0.00	0.00	2720.26	1.62
1511	0.00	0.00	2720.26	1.62
1512	0.00	0.00	2720.26	1.62
1513	0.00	0.00	2720.26	1.62
1514	0.00	0.00	2720.26	1.62
1515	0.00	0.00	2720.26	1.62
1516	0.00	0.00	2720.26	1.62
1517	0.00	0.00	2720.26	1.62
1518	0.00	0.00	2720.26	1.62
1519	0.00	0.00	2720.26	1.62
1520	0.00	0.00	2720.26	1.62
1521	0.00	0.00	2720.26	1.62
1522	0.00	0.00	2720.26	1.62
1523	0.00	0.00	2720.26	1.62
1524	0.00	0.00	2720.26	1.62
1525	0.00	0.00	2720.26	1.62
1526	0.00	0.00	2720.26	1.62
1527	0.00	0.00	2720.26	1.62
1528	0.00	0.00	2720.26	1.62
1529	0.00	0.00	2720.26	1.62
1530	0.00	0.00	2720.26	1.62
1531	0.00	0.00	2720.26	1.62
1532	0.00	0.00	2720.26	1.62
1533	0.00	0.00	2720.26	1.62

1534	0.00	0.00	2720.26	1.62
1535	0.00	0.00	2720.26	1.62
1536	0.00	0.00	2720.26	1.62
1537	0.00	0.00	2720.26	1.62
1538	0.00	0.00	2720.26	1.62
1539	0.00	0.00	2720.26	1.62
1540	0.00	0.00	2720.26	1.62
1541	0.00	0.00	2720.26	1.62
1542	0.00	0.00	2720.26	1.62
1543	0.00	0.00	2720.26	1.62
1544	0.00	0.00	2720.26	1.62
1545	0.00	0.00	2720.26	1.62
1546	0.00	0.00	2720.26	1.62
1547	0.00	0.00	2720.26	1.62
1548	0.00	0.00	2720.26	1.62
1549	0.00	0.00	2720.26	1.62
1550	0.00	0.00	2720.26	1.62
1551	0.00	0.00	2720.26	1.62
1552	0.00	0.00	2720.26	1.62
1553	0.00	0.00	2720.26	1.62
1554	0.00	0.00	2720.26	1.62
1555	0.00	0.00	2720.26	1.62
1556	0.00	0.00	2720.26	1.62
1557	0.00	0.00	2720.26	1.62
1558	0.00	0.00	2720.26	1.62
1559	0.00	0.00	2720.26	1.62
1560	0.00	0.00	2720.26	1.62
1561	0.00	0.00	2720.26	1.62
1562	0.00	0.00	2720.26	1.62
1563	0.00	0.00	2720.26	1.62
1564	0.00	0.00	2720.26	1.62
1565	0.00	0.00	2720.26	1.62
1566	0.00	0.00	2720.26	1.62
1567	0.00	0.00	2720.26	1.62
1568	0.00	0.00	2720.26	1.62
1569	0.00	0.00	2720.26	1.62
1570	0.00	0.00	2720.26	1.62
1571	0.00	0.00	2720.26	1.62
1572	0.00	0.00	2720.26	1.62
1573	0.00	0.00	2720.26	1.62
1574	0.00	0.00	2720.26	1.62
1575	0.00	0.00	2720.26	1.62
1576	0.00	0.00	2720.26	1.62
1577	0.00	0.00	2720.26	1.62
1578	0.00	0.00	2720.26	1.62
1579	0.00	0.00	2720.26	1.62
1580	0.00	0.00	2720.26	1.62
1581	0.00	0.00	2720.26	1.62
1582	0.00	0.00	2720.26	1.62
1583	0.00	0.00	2720.26	1.62
1584	0.00	0.00	2720.26	1.62
1585	0.00	0.00	2720.26	1.62
1586	0.00	0.00	2720.26	1.62
1587	0.00	0.00	2720.26	1.62

1588	0.00	0.00	2720.26	1.62
1589	0.00	0.00	2720.26	1.62
1590	0.00	0.00	2720.26	1.62
1591	0.00	0.00	2720.26	1.62
1592	0.00	0.00	2720.26	1.62
1593	0.00	0.00	2720.26	1.62
1594	0.00	0.00	2720.26	1.62
1595	0.00	0.00	2720.26	1.62
1596	0.00	0.00	2720.26	1.62
1597	0.00	0.00	2720.26	1.62
1598	0.00	0.00	2720.26	1.62
1599	0.00	0.00	2720.26	1.62
1600	0.00	0.00	2720.26	1.62
1601	0.00	0.00	2720.26	1.62
1602	0.00	0.00	2720.26	1.62
1603	0.00	0.00	2720.26	1.62
1604	0.00	0.00	2720.26	1.62
1605	0.00	0.00	2720.26	1.62
1606	0.00	0.00	2720.26	1.62
1607	0.00	0.00	2720.26	1.62
1608	0.00	0.00	2720.26	1.62
1609	0.00	0.00	2720.26	1.62
1610	0.00	0.00	2720.26	1.62
1611	0.00	0.00	2720.26	1.62
1612	0.00	0.00	2720.26	1.62
1613	0.00	0.00	2720.26	1.62
1614	0.00	0.00	2720.26	1.62
1615	0.00	0.00	2720.26	1.62
1616	0.00	0.00	2720.26	1.62
1617	0.00	0.00	2720.26	1.62
1618	0.00	0.00	2720.26	1.62
1619	0.00	0.00	2720.26	1.62
1620	0.00	0.00	2720.26	1.62
1621	0.00	0.00	2720.26	1.62
1622	0.00	0.00	2720.26	1.62
1623	0.00	0.00	2720.26	1.62
1624	0.00	0.00	2720.26	1.62
1625	0.00	0.00	2720.26	1.62
1626	0.00	0.00	2720.26	1.62
1627	0.00	0.00	2720.26	1.62
1628	0.00	0.00	2720.26	1.62
1629	0.00	0.00	2720.26	1.62
1630	0.00	0.00	2720.26	1.62
1631	0.00	0.00	2720.26	1.62
1632	0.00	0.00	2720.26	1.62
1633	0.00	0.00	2720.26	1.62
1634	0.00	0.00	2720.26	1.62
1635	0.00	0.00	2720.26	1.62
1636	0.00	0.00	2720.26	1.62
1637	0.00	0.00	2720.26	1.62
1638	0.00	0.00	2720.26	1.62
1639	0.00	0.00	2720.26	1.62
1640	0.00	0.00	2720.26	1.62
1641	0.00	0.00	2720.26	1.62

1642	0.00	0.00	2720.26	1.62
1643	0.00	0.00	2720.26	1.62
1644	0.00	0.00	2720.26	1.62
1645	0.00	0.00	2720.26	1.62
1646	0.00	0.00	2720.26	1.62
1647	0.00	0.00	2720.26	1.62
1648	0.00	0.00	2720.26	1.62
1649	0.00	0.00	2720.26	1.62
1650	0.00	0.00	2720.26	1.62
1651	0.00	0.00	2720.26	1.62
1652	0.00	0.00	2720.26	1.62
1653	0.00	0.00	2720.26	1.62
1654	0.00	0.00	2720.26	1.62
1655	0.00	0.00	2720.26	1.62
1656	0.00	0.00	2720.26	1.62
1657	0.00	0.00	2720.26	1.62
1658	0.00	0.00	2720.26	1.62
1659	0.00	0.00	2720.26	1.62
1660	0.00	0.00	2720.26	1.62
1661	0.00	0.00	2720.26	1.62
1662	0.00	0.00	2720.26	1.62
1663	0.00	0.00	2720.26	1.62
1664	0.00	0.00	2720.26	1.62
1665	0.00	0.00	2720.26	1.62
1666	0.00	0.00	2720.26	1.62
1667	0.00	0.00	2720.26	1.62
1668	0.00	0.00	2720.26	1.62
1669	0.00	0.00	2720.26	1.62
1670	0.00	0.00	2720.26	1.62
1671	0.00	0.00	2720.26	1.62
1672	0.00	0.00	2720.26	1.62
1673	0.00	0.00	2720.26	1.62
1674	0.00	0.00	2720.26	1.62
1675	0.00	0.00	2720.26	1.62
1676	0.00	0.00	2720.26	1.62
1677	0.00	0.00	2720.26	1.62
1678	0.00	0.00	2720.26	1.62
1679	0.00	0.00	2720.26	1.62
1680	0.00	0.00	2720.26	1.62
1681	0.00	0.00	2720.26	1.62
1682	0.00	0.00	2720.26	1.62
1683	0.00	0.00	2720.26	1.62
1684	0.00	0.00	2720.26	1.62
1685	0.00	0.00	2720.26	1.62
1686	0.00	0.00	2720.26	1.62
1687	0.00	0.00	2720.26	1.62
1688	0.00	0.00	2720.26	1.62
1689	0.00	0.00	2720.26	1.62
1690	0.00	0.00	2720.26	1.62
1691	0.00	0.00	2720.26	1.62
1692	0.00	0.00	2720.26	1.62
1693	0.00	0.00	2720.26	1.62
1694	0.00	0.00	2720.26	1.62
1695	0.00	0.00	2720.26	1.62

1696	0.00	0.00	2720.26	1.62
1697	0.00	0.00	2720.26	1.62
1698	0.00	0.00	2720.26	1.62
1699	0.00	0.00	2720.26	1.62
1700	0.00	0.00	2720.26	1.62
1701	0.00	0.00	2720.26	1.62
1702	0.00	0.00	2720.26	1.62
1703	0.00	0.00	2720.26	1.62
1704	0.00	0.00	2720.26	1.62
1705	0.00	0.00	2720.26	1.62
1706	0.00	0.00	2720.26	1.62
1707	0.00	0.00	2720.26	1.62
1708	0.00	0.00	2720.26	1.62
1709	0.00	0.00	2720.26	1.62
1710	0.00	0.00	2720.26	1.62
1711	0.00	0.00	2720.26	1.62
1712	0.00	0.00	2720.26	1.62
1713	0.00	0.00	2720.26	1.62
1714	0.00	0.00	2720.26	1.62
1715	0.00	0.00	2720.26	1.62
1716	0.00	0.00	2720.26	1.62
1717	0.00	0.00	2720.26	1.62
1718	0.00	0.00	2720.26	1.62
1719	0.00	0.00	2720.26	1.62
1720	0.00	0.00	2720.26	1.62
1721	0.00	0.00	2720.26	1.62
1722	0.00	0.00	2720.26	1.62
1723	0.00	0.00	2720.26	1.62
1724	0.00	0.00	2720.26	1.62
1725	0.00	0.00	2720.26	1.62
1726	0.00	0.00	2720.26	1.62
1727	0.00	0.00	2720.26	1.62
1728	0.00	0.00	2720.26	1.62
1729	0.00	0.00	2720.26	1.62
1730	0.00	0.00	2720.26	1.62
1731	0.00	0.00	2720.26	1.62
1732	0.00	0.00	2720.26	1.62
1733	0.00	0.00	2720.26	1.62
1734	0.00	0.00	2720.26	1.62
1735	0.00	0.00	2720.26	1.62
1736	0.00	0.00	2720.26	1.62
1737	0.00	0.00	2720.26	1.62
1738	0.00	0.00	2720.26	1.62
1739	0.00	0.00	2720.26	1.62
1740	0.00	0.00	2720.26	1.62
1741	0.00	0.00	2720.26	1.62
1742	0.00	0.00	2720.26	1.62
1743	0.00	0.00	2720.26	1.62
1744	0.00	0.00	2720.26	1.62
1745	0.00	0.00	2720.26	1.62
1746	0.00	0.00	2720.26	1.62
1747	0.00	0.00	2720.26	1.62
1748	0.00	0.00	2720.26	1.62
1749	0.00	0.00	2720.26	1.62

1750	0.00	0.00	2720.26	1.62
1751	0.00	0.00	2720.26	1.62
1752	0.00	0.00	2720.26	1.62
1753	0.00	0.00	2720.26	1.62
1754	0.00	0.00	2720.26	1.62
1755	0.00	0.00	2720.26	1.62
1756	0.00	0.00	2720.26	1.62
1757	0.00	0.00	2720.26	1.62
1758	0.00	0.00	2720.26	1.62
1759	0.00	0.00	2720.26	1.62
1760	0.00	0.00	2720.26	1.62
1761	0.00	0.00	2720.26	1.62
1762	0.00	0.00	2720.26	1.62
1763	0.00	0.00	2720.26	1.62
1764	0.00	0.00	2720.26	1.62
1765	0.00	0.00	2720.26	1.62
1766	0.00	0.00	2720.26	1.62
1767	0.00	0.00	2720.26	1.62
1768	0.00	0.00	2720.26	1.62
1769	0.00	0.00	2720.26	1.62
1770	0.00	0.00	2720.26	1.62
1771	0.00	0.00	2720.26	1.62
1772	0.00	0.00	2720.26	1.62
1773	0.00	0.00	2720.26	1.62
1774	0.00	0.00	2720.26	1.62
1775	0.00	0.00	2720.26	1.62
1776	0.00	0.00	2720.26	1.62
1777	0.00	0.00	2720.26	1.62
1778	0.00	0.00	2720.26	1.62
1779	0.00	0.00	2720.26	1.62
1780	0.00	0.00	2720.26	1.62
1781	0.00	0.00	2720.26	1.62
1782	0.00	0.00	2720.26	1.62
1783	0.00	0.00	2720.26	1.62
1784	0.00	0.00	2720.26	1.62
1785	0.00	0.00	2720.26	1.62
1786	0.00	0.00	2720.26	1.62
1787	0.00	0.00	2720.26	1.62
1788	0.00	0.00	2720.26	1.62
1789	0.00	0.00	2720.26	1.62
1790	0.00	0.00	2720.26	1.62
1791	0.00	0.00	2720.26	1.62
1792	0.00	0.00	2720.26	1.62
1793	0.00	0.00	2720.26	1.62
1794	0.00	0.00	2720.26	1.62
1795	0.00	0.00	2720.26	1.62
1796	0.00	0.00	2720.26	1.62
1797	0.00	0.00	2720.26	1.62
1798	0.00	0.00	2720.26	1.62
1799	0.00	0.00	2720.26	1.62
1800	0.00	0.00	2720.26	1.62
1801	0.00	0.00	2720.26	1.62
1802	0.00	0.00	2720.26	1.62
1803	0.00	0.00	2720.26	1.62

1804	0.00	0.00	2720.26	1.62
1805	0.00	0.00	2720.26	1.62
1806	0.00	0.00	2720.26	1.62
1807	0.00	0.00	2720.26	1.62
1808	0.00	0.00	2720.26	1.62
1809	0.00	0.00	2720.26	1.62
1810	0.00	0.00	2720.26	1.62
1811	0.00	0.00	2720.26	1.62
1812	0.00	0.00	2720.26	1.62
1813	0.00	0.00	2720.26	1.62
1814	0.00	0.00	2720.26	1.62
1815	0.00	0.00	2720.26	1.62
1816	0.00	0.00	2720.26	1.62
1817	0.00	0.00	2720.26	1.62
1818	0.00	0.00	2720.26	1.62
1819	0.00	0.00	2720.26	1.62
1820	0.00	0.00	2720.26	1.62
1821	0.00	0.00	2720.26	1.62
1822	0.00	0.00	2720.26	1.62
1823	0.00	0.00	2720.26	1.62
1824	0.00	0.00	2720.26	1.62
1825	0.00	0.00	2720.26	1.62
1826	0.00	0.00	2720.26	1.62
1827	0.00	0.00	2720.26	1.62
1828	0.00	0.00	2720.26	1.62
1829	0.00	0.00	2720.26	1.62
1830	0.00	0.00	2720.26	1.62
1831	0.00	0.00	2720.26	1.62
1832	0.00	0.00	2720.26	1.62
1833	0.00	0.00	2720.26	1.62
1834	0.00	0.00	2720.26	1.62
1835	0.00	0.00	2720.26	1.62
1836	0.00	0.00	2720.26	1.62
1837	0.00	0.00	2720.26	1.62
1838	0.00	0.00	2720.26	1.62
1839	0.00	0.00	2720.26	1.62
1840	0.00	0.00	2720.26	1.62
1841	0.00	0.00	2720.26	1.62
1842	0.00	0.00	2720.26	1.62
1843	0.00	0.00	2720.26	1.62
1844	0.00	0.00	2720.26	1.62
1845	0.00	0.00	2720.26	1.62
1846	0.00	0.00	2720.26	1.62
1847	0.00	0.00	2720.26	1.62
1848	0.00	0.00	2720.26	1.62
1849	0.00	0.00	2720.26	1.62
1850	0.00	0.00	2720.26	1.62
1851	0.00	0.00	2720.26	1.62
1852	0.00	0.00	2720.26	1.62
1853	0.00	0.00	2720.26	1.62
1854	0.00	0.00	2720.26	1.62
1855	0.00	0.00	2720.26	1.62
1856	0.00	0.00	2720.26	1.62
1857	0.00	0.00	2720.26	1.62

1858	0.00	0.00	2720.26	1.62
1859	0.00	0.00	2720.26	1.62
1860	0.00	0.00	2720.26	1.62
1861	0.00	0.00	2720.26	1.62
1862	0.00	0.00	2720.26	1.62
1863	0.00	0.00	2720.26	1.62
1864	0.00	0.00	2720.26	1.62
1865	0.00	0.00	2720.26	1.62
1866	0.00	0.00	2720.26	1.62
1867	0.00	0.00	2720.26	1.62
1868	0.00	0.00	2720.26	1.62
1869	0.00	0.00	2720.26	1.62
1870	0.00	0.00	2720.26	1.62
1871	0.00	0.00	2720.26	1.62
1872	0.00	0.00	2720.26	1.62
1873	0.00	0.00	2720.26	1.62
1874	0.00	0.00	2720.26	1.62
1875	0.00	0.00	2720.26	1.62
1876	0.00	0.00	2720.26	1.62
1877	0.00	0.00	2720.26	1.62
1878	0.00	0.00	2720.26	1.62
1879	0.00	0.00	2720.26	1.62
1880	0.00	0.00	2720.26	1.62
1881	0.00	0.00	2720.26	1.62
1882	0.00	0.00	2720.26	1.62
1883	0.00	0.00	2720.26	1.62
1884	0.00	0.00	2720.26	1.62
1885	0.00	0.00	2720.26	1.62
1886	0.00	0.00	2720.26	1.62
1887	0.00	0.00	2720.26	1.62
1888	0.00	0.00	2720.26	1.62
1889	0.00	0.00	2720.26	1.62
1890	0.00	0.00	2720.26	1.62
1891	0.00	0.00	2720.26	1.62
1892	0.00	0.00	2720.26	1.62
1893	0.00	0.00	2720.26	1.62
1894	0.00	0.00	2720.26	1.62
1895	0.00	0.00	2720.26	1.62
1896	0.00	0.00	2720.26	1.62
1897	0.00	0.00	2720.26	1.62
1898	0.00	0.00	2720.26	1.62
1899	0.00	0.00	2720.26	1.62
1900	0.00	0.00	2720.26	1.62
1901	0.00	0.00	2720.26	1.62
1902	0.00	0.00	2720.26	1.62
1903	0.00	0.00	2720.26	1.62
1904	0.00	0.00	2720.26	1.62
1905	0.00	0.00	2720.26	1.62
1906	0.00	0.00	2720.26	1.62
1907	0.00	0.00	2720.26	1.62
1908	0.00	0.00	2720.26	1.62
1909	0.00	0.00	2720.26	1.62
1910	0.00	0.00	2720.26	1.62
1911	0.00	0.00	2720.26	1.62

1912	0.00	0.00	2720.26	1.62
1913	0.00	0.00	2720.26	1.62
1914	0.00	0.00	2720.26	1.62
1915	0.00	0.00	2720.26	1.62
1916	0.00	0.00	2720.26	1.62
1917	0.00	0.00	2720.26	1.62
1918	0.00	0.00	2720.26	1.62
1919	0.00	0.00	2720.26	1.62
1920	0.00	0.00	2720.26	1.62
1921	0.00	0.00	2720.26	1.62
1922	0.00	0.00	2720.26	1.62
1923	0.00	0.00	2720.26	1.62
1924	0.00	0.00	2720.26	1.62
1925	0.00	0.00	2720.26	1.62
1926	0.00	0.00	2720.26	1.62
1927	0.00	0.00	2720.26	1.62
1928	0.00	0.00	2720.26	1.62
1929	0.00	0.00	2720.26	1.62
1930	0.00	0.00	2720.26	1.62
1931	0.00	0.00	2720.26	1.62
1932	0.00	0.00	2720.26	1.62
1933	0.00	0.00	2720.26	1.62
1934	0.00	0.00	2720.26	1.62
1935	0.00	0.00	2720.26	1.62
1936	0.00	0.00	2720.26	1.62
1937	0.00	0.00	2720.26	1.62
1938	0.00	0.00	2720.26	1.62
1939	0.00	0.00	2720.26	1.62
1940	0.00	0.00	2720.26	1.62
1941	0.00	0.00	2720.26	1.62
1942	0.00	0.00	2720.26	1.62
1943	0.00	0.00	2720.26	1.62
1944	0.00	0.00	2720.26	1.62
1945	0.00	0.00	2720.26	1.62
1946	0.00	0.00	2720.26	1.62
1947	0.00	0.00	2720.26	1.62
1948	0.00	0.00	2720.26	1.62
1949	0.00	0.00	2720.26	1.62
1950	0.00	0.00	2720.26	1.62
1951	0.00	0.00	2720.26	1.62
1952	0.00	0.00	2720.26	1.62
1953	0.00	0.00	2720.26	1.62
1954	0.00	0.00	2720.26	1.62
1955	0.00	0.00	2720.26	1.62
1956	0.00	0.00	2720.26	1.62
1957	0.00	0.00	2720.26	1.62
1958	0.00	0.00	2720.26	1.62
1959	0.00	0.00	2720.26	1.62
1960	0.00	0.00	2720.26	1.62
1961	0.00	0.00	2720.26	1.62
1962	0.00	0.00	2720.26	1.62
1963	0.00	0.00	2720.26	1.62
1964	0.00	0.00	2720.26	1.62
1965	0.00	0.00	2720.26	1.62

1966	0.00	0.00	2720.26	1.62
1967	0.00	0.00	2720.26	1.62
1968	0.00	0.00	2720.26	1.62
1969	0.00	0.00	2720.26	1.62
1970	0.00	0.00	2720.26	1.62
1971	0.00	0.00	2720.26	1.62
1972	0.00	0.00	2720.26	1.62
1973	0.00	0.00	2720.26	1.62
1974	0.00	0.00	2720.26	1.62
1975	0.00	0.00	2720.26	1.62
1976	0.00	0.00	2720.26	1.62
1977	0.00	0.00	2720.26	1.62
1978	0.00	0.00	2720.26	1.62
1979	0.00	0.00	2720.26	1.62
1980	0.00	0.00	2720.26	1.62
1981	0.00	0.00	2720.26	1.62
1982	0.00	0.00	2720.26	1.62
1983	0.00	0.00	2720.26	1.62
1984	0.00	0.00	2720.26	1.62
1985	0.00	0.00	2720.26	1.62
1986	0.00	0.00	2720.26	1.62
1987	0.00	0.00	2720.26	1.62
1988	0.00	0.00	2720.26	1.62
1989	0.00	0.00	2720.26	1.62
1990	0.00	0.00	2720.26	1.62
1991	0.00	0.00	2720.26	1.62
1992	0.00	0.00	2720.26	1.62
1993	0.00	0.00	2720.26	1.62
1994	0.00	0.00	2720.26	1.62
1995	0.00	0.00	2720.26	1.62
1996	0.00	0.00	2720.26	1.62
1997	0.00	0.00	2720.26	1.62
1998	0.00	0.00	2720.26	1.62
1999	0.00	0.00	2720.26	1.62
2000	0.00	0.00	2720.26	1.62
2001	0.00	0.00	2720.26	1.62
2002	0.00	0.00	2720.26	1.62
2003	0.00	0.00	2720.26	1.62
2004	0.00	0.00	2720.26	1.62
2005	0.00	0.00	2720.26	1.62
2006	0.00	0.00	2720.26	1.62
2007	0.00	0.00	2720.26	1.62
2008	0.00	0.00	2720.26	1.62
2009	0.00	0.00	2720.26	1.62
2010	0.00	0.00	2720.26	1.62
2011	0.00	0.00	2720.26	1.62
2012	0.00	0.00	2720.26	1.62
2013	0.00	0.00	2720.26	1.62
2014	0.00	0.00	2720.26	1.62
2015	0.00	0.00	2720.26	1.62
2016	0.00	0.00	2720.26	1.62
2017	0.00	0.00	2720.26	1.62
2018	0.00	0.00	2720.26	1.62
2019	0.00	0.00	2720.26	1.62

2020	0.00	0.00	2720.26	1.62
2021	0.00	0.00	2720.26	1.62
2022	0.00	0.00	2720.26	1.62
2023	0.00	0.00	2720.26	1.62
2024	0.00	0.00	2720.26	1.62
2025	0.00	0.00	2720.26	1.62
2026	0.00	0.00	2720.26	1.62
2027	0.00	0.00	2720.26	1.62
2028	0.00	0.00	2720.26	1.62
2029	0.00	0.00	2720.26	1.62
2030	0.00	0.00	2720.26	1.62
2031	0.00	0.00	2720.26	1.62
2032	0.00	0.00	2720.26	1.62
2033	0.00	0.00	2720.26	1.62
2034	0.00	0.00	2720.26	1.62
2035	0.00	0.00	2720.26	1.62
2036	0.00	0.00	2720.26	1.62
2037	0.00	0.00	2720.26	1.62
2038	0.00	0.00	2720.26	1.62
2039	0.00	0.00	2720.26	1.62
2040	0.00	0.00	2720.26	1.62
2041	0.00	0.00	2720.26	1.62
2042	0.00	0.00	2720.26	1.62
2043	0.00	0.00	2720.26	1.62
2044	0.00	0.00	2720.26	1.62
2045	0.00	0.00	2720.26	1.62
2046	0.00	0.00	2720.26	1.62
2047	0.00	0.00	2720.26	1.62
2048	0.00	0.00	2720.26	1.62
2049	0.00	0.00	2720.26	1.62
2050	0.00	0.00	2720.26	1.62
2051	0.00	0.00	2720.26	1.62
2052	0.00	0.00	2720.26	1.62
2053	0.00	0.00	2720.26	1.62
2054	0.00	0.00	2720.26	1.62
2055	0.00	0.00	2720.26	1.62
2056	0.00	0.00	2720.26	1.62
2057	0.00	0.00	2720.26	1.62
2058	0.00	0.00	2720.26	1.62
2059	0.00	0.00	2720.26	1.62
2060	0.00	0.00	2720.26	1.62
2061	0.00	0.00	2720.26	1.62
2062	0.00	0.00	2720.26	1.62
2063	0.00	0.00	2720.26	1.62
2064	0.00	0.00	2720.26	1.62
2065	0.00	0.00	2720.26	1.62
2066	0.00	0.00	2720.26	1.62
2067	0.00	0.00	2720.26	1.62
2068	0.00	0.00	2720.26	1.62
2069	0.00	0.00	2720.26	1.62
2070	0.00	0.00	2720.26	1.62
2071	0.00	0.00	2720.26	1.62
2072	0.00	0.00	2720.26	1.62
2073	0.00	0.00	2720.26	1.62

2074	0.00	0.00	2720.26	1.62
2075	0.00	0.00	2720.26	1.62
2076	0.00	0.00	2720.26	1.62
2077	0.00	0.00	2720.26	1.62
2078	0.00	0.00	2720.26	1.62
2079	0.00	0.00	2720.26	1.62
2080	0.00	0.00	2720.26	1.62
2081	0.00	0.00	2720.26	1.62
2082	0.00	0.00	2720.26	1.62
2083	0.00	0.00	2720.26	1.62
2084	0.00	0.00	2720.26	1.62
2085	0.00	0.00	2720.26	1.62
2086	0.00	0.00	2720.26	1.62
2087	0.00	0.00	2720.26	1.62
2088	0.00	0.00	2720.26	1.62
2089	0.00	0.00	2720.26	1.62
2090	0.00	0.00	2720.26	1.62
2091	0.00	0.00	2720.26	1.62
2092	0.00	0.00	2720.26	1.62
2093	0.00	0.00	2720.26	1.62
2094	0.00	0.00	2720.26	1.62
2095	0.00	0.00	2720.26	1.62
2096	0.00	0.00	2720.26	1.62
2097	0.00	0.00	2720.26	1.62
2098	0.00	0.00	2720.26	1.62
2099	0.00	0.00	2720.26	1.62
2100	0.00	0.00	2720.26	1.62
2101	0.00	0.00	2720.26	1.62
2102	0.00	0.00	2720.26	1.62
2103	0.00	0.00	2720.26	1.62
2104	0.00	0.00	2720.26	1.62
2105	0.00	0.00	2720.26	1.62
2106	0.00	0.00	2720.26	1.62
2107	0.00	0.00	2720.26	1.62
2108	0.00	0.00	2720.26	1.62
2109	0.00	0.00	2720.26	1.62
2110	0.00	0.00	2720.26	1.62
2111	0.00	0.00	2720.26	1.62
2112	0.00	0.00	2720.26	1.62
2113	0.00	0.00	2720.26	1.62
2114	0.00	0.00	2720.26	1.62
2115	0.00	0.00	2720.26	1.62
2116	0.00	0.00	2720.26	1.62
2117	0.00	0.00	2720.26	1.62
2118	0.00	0.00	2720.26	1.62
2119	0.00	0.00	2720.26	1.62
2120	0.00	0.00	2720.26	1.62
2121	0.00	0.00	2720.26	1.62
2122	0.00	0.00	2720.26	1.62
2123	0.00	0.00	2720.26	1.62
2124	0.00	0.00	2720.26	1.62
2125	0.00	0.00	2720.26	1.62
2126	0.00	0.00	2720.26	1.62
2127	0.00	0.00	2720.26	1.62

2128	0.00	0.00	2720.26	1.62
2129	0.00	0.00	2720.26	1.62
2130	0.00	0.00	2720.26	1.62
2131	0.00	0.00	2720.26	1.62
2132	0.00	0.00	2720.26	1.62
2133	0.00	0.00	2720.26	1.62
2134	0.00	0.00	2720.26	1.62
2135	0.00	0.00	2720.26	1.62
2136	0.00	0.00	2720.26	1.62
2137	0.00	0.00	2720.26	1.62
2138	0.00	0.00	2720.26	1.62
2139	0.00	0.00	2720.26	1.62
2140	0.00	0.00	2720.26	1.62
2141	0.00	0.00	2720.26	1.62
2142	0.00	0.00	2720.26	1.62
2143	0.00	0.00	2720.26	1.62
2144	0.00	0.00	2720.26	1.62
2145	0.00	0.00	2720.26	1.62
2146	0.00	0.00	2720.26	1.62
2147	0.00	0.00	2720.26	1.62
2148	0.00	0.00	2720.26	1.62
2149	0.00	0.00	2720.26	1.62
2150	0.00	0.00	2720.26	1.62
2151	0.00	0.00	2720.26	1.62
2152	0.00	0.00	2720.26	1.62
2153	0.00	0.00	2720.26	1.62
2154	0.00	0.00	2720.26	1.62
2155	0.00	0.00	2720.26	1.62
2156	0.00	0.00	2720.26	1.62
2157	0.00	0.00	2720.26	1.62
2158	0.00	0.00	2720.26	1.62
2159	0.00	0.00	2720.26	1.62
2160	0.00	0.00	2720.26	1.62
2161	0.00	0.00	2720.26	1.62
2162	0.00	0.00	2720.26	1.62
2163	0.00	0.00	2720.26	1.62
2164	0.00	0.00	2720.26	1.62
2165	0.00	0.00	2720.26	1.62
2166	0.00	0.00	2720.26	1.62
2167	0.00	0.00	2720.26	1.62
2168	0.00	0.00	2720.26	1.62
2169	0.00	0.00	2720.26	1.62
2170	0.00	0.00	2720.26	1.62
2171	0.00	0.00	2720.26	1.62
2172	0.00	0.00	2720.26	1.62
2173	0.00	0.00	2720.26	1.62
2174	0.00	0.00	2720.26	1.62
2175	0.00	0.00	2720.26	1.62
2176	0.00	0.00	2720.26	1.62
2177	0.00	0.00	2720.26	1.62
2178	0.00	0.00	2720.26	1.62
2179	0.00	0.00	2720.26	1.62
2180	0.00	0.00	2720.26	1.62
2181	0.00	0.00	2720.26	1.62

2182	0.00	0.00	2720.26	1.62
2183	0.00	0.00	2720.26	1.62
2184	0.00	0.00	2720.26	1.62
2185	0.00	0.00	2720.26	1.62
2186	0.00	0.00	2720.26	1.62
2187	0.00	0.00	2720.26	1.62
2188	0.00	0.00	2720.26	1.62
2189	0.00	0.00	2720.26	1.62
2190	0.00	0.00	2720.26	1.62
2191	0.00	0.00	2720.26	1.62
2192	0.00	0.00	2720.26	1.62
2193	0.00	0.00	2720.26	1.62
2194	0.00	0.00	2720.26	1.62
2195	0.00	0.00	2720.26	1.62
2196	0.00	0.00	2720.26	1.62
2197	0.00	0.00	2720.26	1.62
2198	0.00	0.00	2720.26	1.62
2199	0.00	0.00	2720.26	1.62
2200	0.00	0.00	2720.26	1.62
2201	0.00	0.00	2720.26	1.62
2202	0.00	0.00	2720.26	1.62
2203	0.00	0.00	2720.26	1.62
2204	0.00	0.00	2720.26	1.62
2205	0.00	0.00	2720.26	1.62
2206	0.00	0.00	2720.26	1.62
2207	0.00	0.00	2720.26	1.62
2208	0.00	0.00	2720.26	1.62
2209	0.00	0.00	2720.26	1.62
2210	0.00	0.00	2720.26	1.62
2211	0.00	0.00	2720.26	1.62
2212	0.00	0.00	2720.26	1.62
2213	0.00	0.00	2720.26	1.62
2214	0.00	0.00	2720.26	1.62
2215	0.00	0.00	2720.26	1.62
2216	0.00	0.00	2720.26	1.62
2217	0.00	0.00	2720.26	1.62
2218	0.00	0.00	2720.26	1.62
2219	0.00	0.00	2720.26	1.62
2220	0.00	0.00	2720.26	1.62
2221	0.00	0.00	2720.26	1.62
2222	0.00	0.00	2720.26	1.62
2223	0.00	0.00	2720.26	1.62
2224	0.00	0.00	2720.26	1.62
2225	0.00	0.00	2720.26	1.62
2226	0.00	0.00	2720.26	1.62
2227	0.00	0.00	2720.26	1.62
2228	0.00	0.00	2720.26	1.62
2229	0.00	0.00	2720.26	1.62
2230	0.00	0.00	2720.26	1.62
2231	0.00	0.00	2720.26	1.62
2232	0.00	0.00	2720.26	1.62
2233	0.00	0.00	2720.26	1.62
2234	0.00	0.00	2720.26	1.62
2235	0.00	0.00	2720.26	1.62

2236	0.00	0.00	2720.26	1.62
2237	0.00	0.00	2720.26	1.62
2238	0.00	0.00	2720.26	1.62
2239	0.00	0.00	2720.26	1.62
2240	0.00	0.00	2720.26	1.62
2241	0.00	0.00	2720.26	1.62
2242	0.00	0.00	2720.26	1.62
2243	0.00	0.00	2720.26	1.62
2244	0.00	0.00	2720.26	1.62
2245	0.00	0.00	2720.26	1.62
2246	0.00	0.00	2720.26	1.62
2247	0.00	0.00	2720.26	1.62
2248	0.00	0.00	2720.26	1.62
2249	0.00	0.00	2720.26	1.62
2250	0.00	0.00	2720.26	1.62
2251	0.00	0.00	2720.26	1.62
2252	0.00	0.00	2720.26	1.62
2253	0.00	0.00	2720.26	1.62
2254	0.00	0.00	2720.26	1.62
2255	0.00	0.00	2720.26	1.62
2256	0.00	0.00	2720.26	1.62
2257	0.00	0.00	2720.26	1.62
2258	0.00	0.00	2720.26	1.62
2259	0.00	0.00	2720.26	1.62
2260	0.00	0.00	2720.26	1.62
2261	0.00	0.00	2720.26	1.62
2262	0.00	0.00	2720.26	1.62
2263	0.00	0.00	2720.26	1.62
2264	0.00	0.00	2720.26	1.62
2265	0.00	0.00	2720.26	1.62
2266	0.00	0.00	2720.26	1.62
2267	0.00	0.00	2720.26	1.62
2268	0.00	0.00	2720.26	1.62
2269	0.00	0.00	2720.26	1.62
2270	0.00	0.00	2720.26	1.62
2271	0.00	0.00	2720.26	1.62
2272	0.00	0.00	2720.26	1.62
2273	0.00	0.00	2720.26	1.62
2274	0.00	0.00	2720.26	1.62
2275	0.00	0.00	2720.26	1.62
2276	0.00	0.00	2720.26	1.62
2277	0.00	0.00	2720.26	1.62
2278	0.00	0.00	2720.26	1.62
2279	0.00	0.00	2720.26	1.62
2280	0.00	0.00	2720.26	1.62
2281	0.00	0.00	2720.26	1.62
2282	0.00	0.00	2720.26	1.62
2283	0.00	0.00	2720.26	1.62
2284	0.00	0.00	2720.26	1.62
2285	0.00	0.00	2720.26	1.62
2286	0.00	0.00	2720.26	1.62
2287	0.00	0.00	2720.26	1.62
2288	0.00	0.00	2720.26	1.62
2289	0.00	0.00	2720.26	1.62

2290	0.00	0.00	2720.26	1.62
2291	0.00	0.00	2720.26	1.62
2292	0.00	0.00	2720.26	1.62
2293	0.00	0.00	2720.26	1.62
2294	0.00	0.00	2720.26	1.62
2295	0.00	0.00	2720.26	1.62
2296	0.00	0.00	2720.26	1.62
2297	0.00	0.00	2720.26	1.62
2298	0.00	0.00	2720.26	1.62
2299	0.00	0.00	2720.26	1.62
2300	0.00	0.00	2720.26	1.62
2301	0.00	0.00	2720.26	1.62
2302	0.00	0.00	2720.26	1.62
2303	0.00	0.00	2720.26	1.62
2304	0.00	0.00	2720.26	1.62
2305	0.00	0.00	2720.26	1.62
2306	0.00	0.00	2720.26	1.62
2307	0.00	0.00	2720.26	1.62
2308	0.00	0.00	2720.26	1.62
2309	0.00	0.00	2720.26	1.62
2310	0.00	0.00	2720.26	1.62
2311	0.00	0.00	2720.26	1.62
2312	0.00	0.00	2720.26	1.62
2313	0.00	0.00	2720.26	1.62
2314	0.00	0.00	2720.26	1.62
2315	0.00	0.00	2720.26	1.62
2316	0.00	0.00	2720.26	1.62
2317	0.00	0.00	2720.26	1.62
2318	0.00	0.00	2720.26	1.62
2319	0.00	0.00	2720.26	1.62
2320	0.00	0.00	2720.26	1.62
2321	0.00	0.00	2720.26	1.62
2322	0.00	0.00	2720.26	1.62
2323	0.00	0.00	2720.26	1.62
2324	0.00	0.00	2720.26	1.62
2325	0.00	0.00	2720.26	1.62
2326	0.00	0.00	2720.26	1.62
2327	0.00	0.00	2720.26	1.62
2328	0.00	0.00	2720.26	1.62
2329	0.00	0.00	2720.26	1.62
2330	0.00	0.00	2720.26	1.62
2331	0.00	0.00	2720.26	1.62
2332	0.00	0.00	2720.26	1.62
2333	0.00	0.00	2720.26	1.62
2334	0.00	0.00	2720.26	1.62
2335	0.00	0.00	2720.26	1.62
2336	0.00	0.00	2720.26	1.62
2337	0.00	0.00	2720.26	1.62
2338	0.00	0.00	2720.26	1.62
2339	0.00	0.00	2720.26	1.62
2340	0.00	0.00	2720.26	1.62
2341	0.00	0.00	2720.26	1.62
2342	0.00	0.00	2720.26	1.62
2343	0.00	0.00	2720.26	1.62

2344	0.00	0.00	2720.26	1.62
2345	0.00	0.00	2720.26	1.62
2346	0.00	0.00	2720.26	1.62
2347	0.00	0.00	2720.26	1.62
2348	0.00	0.00	2720.26	1.62
2349	0.00	0.00	2720.26	1.62
2350	0.00	0.00	2720.26	1.62
2351	0.00	0.00	2720.26	1.62
2352	0.00	0.00	2720.26	1.62
2353	0.00	0.00	2720.26	1.62
2354	0.00	0.00	2720.26	1.62
2355	0.00	0.00	2720.26	1.62
2356	0.00	0.00	2720.26	1.62
2357	0.00	0.00	2720.26	1.62
2358	0.00	0.00	2720.26	1.62
2359	0.00	0.00	2720.26	1.62
2360	0.00	0.00	2720.26	1.62
2361	0.00	0.00	2720.26	1.62
2362	0.00	0.00	2720.26	1.62
2363	0.00	0.00	2720.26	1.62
2364	0.00	0.00	2720.26	1.62
2365	0.00	0.00	2720.26	1.62
2366	0.00	0.00	2720.26	1.62
2367	0.00	0.00	2720.26	1.62
2368	0.00	0.00	2720.26	1.62
2369	0.00	0.00	2720.26	1.62
2370	0.00	0.00	2720.26	1.62
2371	0.00	0.00	2720.26	1.62
2372	0.00	0.00	2720.26	1.62
2373	0.00	0.00	2720.26	1.62
2374	0.00	0.00	2720.26	1.62
2375	0.00	0.00	2720.26	1.62
2376	0.00	0.00	2720.26	1.62
2377	0.00	0.00	2720.26	1.62
2378	0.00	0.00	2720.26	1.62
2379	0.00	0.00	2720.26	1.62
2380	0.00	0.00	2720.26	1.62
2381	0.00	0.00	2720.26	1.62
2382	0.00	0.00	2720.26	1.62
2383	0.00	0.00	2720.26	1.62
2384	0.00	0.00	2720.26	1.62
2385	0.00	0.00	2720.26	1.62
2386	0.00	0.00	2720.26	1.62
2387	0.00	0.00	2720.26	1.62
2388	0.00	0.00	2720.26	1.62
2389	0.00	0.00	2720.26	1.62
2390	0.00	0.00	2720.26	1.62
2391	0.00	0.00	2720.26	1.62
2392	0.00	0.00	2720.26	1.62
2393	0.00	0.00	2720.26	1.62
2394	0.00	0.00	2720.26	1.62
2395	0.00	0.00	2720.26	1.62
2396	0.00	0.00	2720.26	1.62
2397	0.00	0.00	2720.26	1.62

2398	0.00	0.00	2720.26	1.62
2399	0.00	0.00	2720.26	1.62
2400	0.00	0.00	2720.26	1.62
2401	0.00	0.00	2720.26	1.62
2402	0.00	0.00	2720.26	1.62
2403	0.00	0.00	2720.26	1.62
2404	0.00	0.00	2720.26	1.62
2405	0.00	0.00	2720.26	1.62
2406	0.00	0.00	2720.26	1.62
2407	0.00	0.00	2720.26	1.62
2408	0.00	0.00	2720.26	1.62
2409	0.00	0.00	2720.26	1.62
2410	0.00	0.00	2720.26	1.62
2411	0.00	0.00	2720.26	1.62
2412	0.00	0.00	2720.26	1.62
2413	0.00	0.00	2720.26	1.62
2414	0.00	0.00	2720.26	1.62
2415	0.00	0.00	2720.26	1.62
2416	0.00	0.00	2720.26	1.62
2417	0.00	0.00	2720.26	1.62
2418	0.00	0.00	2720.26	1.62
2419	0.00	0.00	2720.26	1.62
2420	0.00	0.00	2720.26	1.62
2421	0.00	0.00	2720.26	1.62
2422	0.00	0.00	2720.26	1.62
2423	0.00	0.00	2720.26	1.62
2424	0.00	0.00	2720.26	1.62
2425	0.00	0.00	2720.26	1.62
2426	0.00	0.00	2720.26	1.62
2427	0.00	0.00	2720.26	1.62
2428	0.00	0.00	2720.26	1.62
2429	0.00	0.00	2720.26	1.62
2430	0.00	0.00	2720.26	1.62
2431	0.00	0.00	2720.26	1.62
2432	0.00	0.00	2720.26	1.62
2433	0.00	0.00	2720.26	1.62
2434	0.00	0.00	2720.26	1.62
2435	0.00	0.00	2720.26	1.62
2436	0.00	0.00	2720.26	1.62
2437	0.00	0.00	2720.26	1.62
2438	0.00	0.00	2720.26	1.62
2439	0.00	0.00	2720.26	1.62
2440	0.00	0.00	2720.26	1.62
2441	0.00	0.00	2720.26	1.62
2442	0.00	0.00	2720.26	1.62
2443	0.00	0.00	2720.26	1.62
2444	0.00	0.00	2720.26	1.62
2445	0.00	0.00	2720.26	1.62
2446	0.00	0.00	2720.26	1.62
2447	0.00	0.00	2720.26	1.62
2448	0.00	0.00	2720.26	1.62
2449	0.00	0.00	2720.26	1.62
2450	0.00	0.00	2720.26	1.62
2451	0.00	0.00	2720.26	1.62

2452	0.00	0.00	2720.26	1.62
2453	0.00	0.00	2720.26	1.62
2454	0.00	0.00	2720.26	1.62
2455	0.00	0.00	2720.26	1.62
2456	0.00	0.00	2720.26	1.62
2457	0.00	0.00	2720.26	1.62
2458	0.00	0.00	2720.26	1.62
2459	0.00	0.00	2720.26	1.62
2460	0.00	0.00	2720.26	1.62
2461	0.00	0.00	2720.26	1.62
2462	0.00	0.00	2720.26	1.62
2463	0.00	0.00	2720.26	1.62
2464	0.00	0.00	2720.26	1.62
2465	0.00	0.00	2720.26	1.62
2466	0.00	0.00	2720.26	1.62
2467	0.00	0.00	2720.26	1.62
2468	0.00	0.00	2720.26	1.62
2469	0.00	0.00	2720.26	1.62
2470	0.00	0.00	2720.26	1.62
2471	0.00	0.00	2720.26	1.62
2472	0.00	0.00	2720.26	1.62
2473	0.00	0.00	2720.26	1.62
2474	0.00	0.00	2720.26	1.62
2475	0.00	0.00	2720.26	1.62
2476	0.00	0.00	2720.26	1.62
2477	0.00	0.00	2720.26	1.62
2478	0.00	0.00	2720.26	1.62
2479	0.00	0.00	2720.26	1.62
2480	0.00	0.00	2720.26	1.62
2481	0.00	0.00	2720.26	1.62
2482	0.00	0.00	2720.26	1.62
2483	0.00	0.00	2720.26	1.62
2484	0.00	0.00	2720.26	1.62
2485	0.00	0.00	2720.26	1.62
2486	0.00	0.00	2720.26	1.62
2487	0.00	0.00	2720.26	1.62
2488	0.00	0.00	2720.26	1.62
2489	0.00	0.00	2720.26	1.62
2490	0.00	0.00	2720.26	1.62
2491	0.00	0.00	2720.26	1.62
2492	0.00	0.00	2720.26	1.62
2493	0.00	0.00	2720.26	1.62
2494	0.00	0.00	2720.26	1.62
2495	0.00	0.00	2720.26	1.62
2496	0.00	0.00	2720.26	1.62
2497	0.00	0.00	2720.26	1.62
2498	0.00	0.00	2720.26	1.62
2499	0.00	0.00	2720.26	1.62
2500	0.00	0.00	2720.26	1.62
2501	0.00	0.00	2720.26	1.62
2502	0.00	0.00	2720.26	1.62
2503	0.00	0.00	2720.26	1.62
2504	0.00	0.00	2720.26	1.62
2505	0.00	0.00	2720.26	1.62

2506	0.00	0.00	2720.26	1.62
2507	0.00	0.00	2720.26	1.62
2508	0.00	0.00	2720.26	1.62
2509	0.00	0.00	2720.26	1.62
2510	0.00	0.00	2720.26	1.62
2511	0.00	0.00	2720.26	1.62
2512	0.00	0.00	2720.26	1.62
2513	0.00	0.00	2720.26	1.62
2514	0.00	0.00	2720.26	1.62
2515	0.00	0.00	2720.26	1.62
2516	0.00	0.00	2720.26	1.62
2517	0.00	0.00	2720.26	1.62
2518	0.00	0.00	2720.26	1.62
2519	0.00	0.00	2720.26	1.62
2520	0.00	0.00	2720.26	1.62
2521	0.00	0.00	2720.26	1.62
2522	0.00	0.00	2720.26	1.62
2523	0.00	0.00	2720.26	1.62
2524	0.00	0.00	2720.26	1.62
2525	0.00	0.00	2720.26	1.62
2526	0.00	0.00	2720.26	1.62
2527	0.00	0.00	2720.26	1.62
2528	0.00	0.00	2720.26	1.62
2529	0.00	0.00	2720.26	1.62
2530	0.00	0.00	2720.26	1.62
2531	0.00	0.00	2720.26	1.62
2532	0.00	0.00	2720.26	1.62
2533	0.00	0.00	2720.26	1.62
2534	0.00	0.00	2720.26	1.62
2535	0.00	0.00	2720.26	1.62
2536	0.00	0.00	2720.26	1.62
2537	0.00	0.00	2720.26	1.62
2538	0.00	0.00	2720.26	1.62
2539	0.00	0.00	2720.26	1.62
2540	0.00	0.00	2720.26	1.62
2541	0.00	0.00	2720.26	1.62
2542	0.00	0.00	2720.26	1.62
2543	0.00	0.00	2720.26	1.62
2544	0.00	0.00	2720.26	1.62
2545	0.00	0.00	2720.26	1.62
2546	0.00	0.00	2720.26	1.62
2547	0.00	0.00	2720.26	1.62
2548	0.00	0.00	2720.26	1.62
2549	0.00	0.00	2720.26	1.62
2550	0.00	0.00	2720.26	1.62
2551	0.00	0.00	2720.26	1.62
2552	0.00	0.00	2720.26	1.62
2553	0.00	0.00	2720.26	1.62
2554	0.00	0.00	2720.26	1.62
2555	0.00	0.00	2720.26	1.62
2556	0.00	0.00	2720.26	1.62
2557	0.00	0.00	2720.26	1.62
2558	0.00	0.00	2720.26	1.62
2559	0.00	0.00	2720.26	1.62

2560	0.00	0.00	2720.26	1.62
2561	0.00	0.00	2720.26	1.62
2562	0.00	0.00	2720.26	1.62
2563	0.00	0.00	2720.26	1.62
2564	0.00	0.00	2720.26	1.62
2565	0.00	0.00	2720.26	1.62
2566	0.00	0.00	2720.26	1.62
2567	0.00	0.00	2720.26	1.62
2568	0.00	0.00	2720.26	1.62
2569	0.00	0.00	2720.26	1.62
2570	0.00	0.00	2720.26	1.62
2571	0.00	0.00	2720.26	1.62
2572	0.00	0.00	2720.26	1.62
2573	0.00	0.00	2720.26	1.62
2574	0.00	0.00	2720.26	1.62
2575	0.00	0.00	2720.26	1.62
2576	0.00	0.00	2720.26	1.62
2577	0.00	0.00	2720.26	1.62
2578	0.00	0.00	2720.26	1.62
2579	0.00	0.00	2720.26	1.62
2580	0.00	0.00	2720.26	1.62
2581	0.00	0.00	2720.26	1.62
2582	0.00	0.00	2720.26	1.62
2583	0.00	0.00	2720.26	1.62
2584	0.00	0.00	2720.26	1.62
2585	0.00	0.00	2720.26	1.62
2586	0.00	0.00	2720.26	1.62
2587	0.00	0.00	2720.26	1.62
2588	0.00	0.00	2720.26	1.62
2589	0.00	0.00	2720.26	1.62
2590	0.00	0.00	2720.26	1.62
2591	0.00	0.00	2720.26	1.62
2592	0.00	0.00	2720.26	1.62
2593	0.00	0.00	2720.26	1.62
2594	0.00	0.00	2720.26	1.62
2595	0.00	0.00	2720.26	1.62
2596	0.00	0.00	2720.26	1.62
2597	0.00	0.00	2720.26	1.62
2598	0.00	0.00	2720.26	1.62
2599	0.00	0.00	2720.26	1.62
2600	0.00	0.00	2720.26	1.62
2601	0.00	0.00	2720.26	1.62
2602	0.00	0.00	2720.26	1.62
2603	0.00	0.00	2720.26	1.62
2604	0.00	0.00	2720.26	1.62
2605	0.00	0.00	2720.26	1.62
2606	0.00	0.00	2720.26	1.62
2607	0.00	0.00	2720.26	1.62
2608	0.00	0.00	2720.26	1.62
2609	0.00	0.00	2720.26	1.62
2610	0.00	0.00	2720.26	1.62
2611	0.00	0.00	2720.26	1.62
2612	0.00	0.00	2720.26	1.62
2613	0.00	0.00	2720.26	1.62

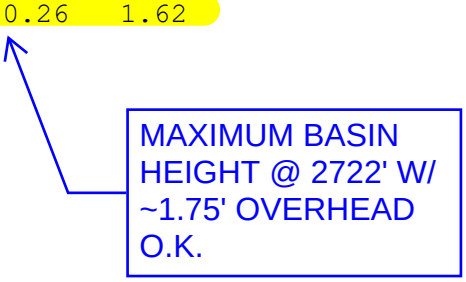
2614	0.00	0.00	2720.26	1.62
2615	0.00	0.00	2720.26	1.62
2616	0.00	0.00	2720.26	1.62
2617	0.00	0.00	2720.26	1.62
2618	0.00	0.00	2720.26	1.62
2619	0.00	0.00	2720.26	1.62
2620	0.00	0.00	2720.26	1.62
2621	0.00	0.00	2720.26	1.62
2622	0.00	0.00	2720.26	1.62
2623	0.00	0.00	2720.26	1.62
2624	0.00	0.00	2720.26	1.62
2625	0.00	0.00	2720.26	1.62
2626	0.00	0.00	2720.26	1.62
2627	0.00	0.00	2720.26	1.62
2628	0.00	0.00	2720.26	1.62
2629	0.00	0.00	2720.26	1.62
2630	0.00	0.00	2720.26	1.62
2631	0.00	0.00	2720.26	1.62
2632	0.00	0.00	2720.26	1.62
2633	0.00	0.00	2720.26	1.62
2634	0.00	0.00	2720.26	1.62
2635	0.00	0.00	2720.26	1.62
2636	0.00	0.00	2720.26	1.62
2637	0.00	0.00	2720.26	1.62
2638	0.00	0.00	2720.26	1.62
2639	0.00	0.00	2720.26	1.62
2640	0.00	0.00	2720.26	1.62
2641	0.00	0.00	2720.26	1.62
2642	0.00	0.00	2720.26	1.62
2643	0.00	0.00	2720.26	1.62
2644	0.00	0.00	2720.26	1.62
2645	0.00	0.00	2720.26	1.62
2646	0.00	0.00	2720.26	1.62
2647	0.00	0.00	2720.26	1.62
2648	0.00	0.00	2720.26	1.62
2649	0.00	0.00	2720.26	1.62
2650	0.00	0.00	2720.26	1.62
2651	0.00	0.00	2720.26	1.62
2652	0.00	0.00	2720.26	1.62
2653	0.00	0.00	2720.26	1.62
2654	0.00	0.00	2720.26	1.62
2655	0.00	0.00	2720.26	1.62
2656	0.00	0.00	2720.26	1.62
2657	0.00	0.00	2720.26	1.62
2658	0.00	0.00	2720.26	1.62
2659	0.00	0.00	2720.26	1.62
2660	0.00	0.00	2720.26	1.62
2661	0.00	0.00	2720.26	1.62
2662	0.00	0.00	2720.26	1.62
2663	0.00	0.00	2720.26	1.62
2664	0.00	0.00	2720.26	1.62
2665	0.00	0.00	2720.26	1.62
2666	0.00	0.00	2720.26	1.62
2667	0.00	0.00	2720.26	1.62

2668	0.00	0.00	2720.26	1.62
2669	0.00	0.00	2720.26	1.62
2670	0.00	0.00	2720.26	1.62
2671	0.00	0.00	2720.26	1.62
2672	0.00	0.00	2720.26	1.62
2673	0.00	0.00	2720.26	1.62
2674	0.00	0.00	2720.26	1.62
2675	0.00	0.00	2720.26	1.62
2676	0.00	0.00	2720.26	1.62
2677	0.00	0.00	2720.26	1.62
2678	0.00	0.00	2720.26	1.62
2679	0.00	0.00	2720.26	1.62
2680	0.00	0.00	2720.26	1.62
2681	0.00	0.00	2720.26	1.62
2682	0.00	0.00	2720.26	1.62
2683	0.00	0.00	2720.26	1.62
2684	0.00	0.00	2720.26	1.62
2685	0.00	0.00	2720.26	1.62
2686	0.00	0.00	2720.26	1.62
2687	0.00	0.00	2720.26	1.62
2688	0.00	0.00	2720.26	1.62
2689	0.00	0.00	2720.26	1.62
2690	0.00	0.00	2720.26	1.62
2691	0.00	0.00	2720.26	1.62
2692	0.00	0.00	2720.26	1.62
2693	0.00	0.00	2720.26	1.62
2694	0.00	0.00	2720.26	1.62
2695	0.00	0.00	2720.26	1.62
2696	0.00	0.00	2720.26	1.62
2697	0.00	0.00	2720.26	1.62
2698	0.00	0.00	2720.26	1.62
2699	0.00	0.00	2720.26	1.62
2700	0.00	0.00	2720.26	1.62
2701	0.00	0.00	2720.26	1.62
2702	0.00	0.00	2720.26	1.62
2703	0.00	0.00	2720.26	1.62
2704	0.00	0.00	2720.26	1.62
2705	0.00	0.00	2720.26	1.62
2706	0.00	0.00	2720.26	1.62
2707	0.00	0.00	2720.26	1.62
2708	0.00	0.00	2720.26	1.62
2709	0.00	0.00	2720.26	1.62
2710	0.00	0.00	2720.26	1.62
2711	0.00	0.00	2720.26	1.62
2712	0.00	0.00	2720.26	1.62
2713	0.00	0.00	2720.26	1.62
2714	0.00	0.00	2720.26	1.62
2715	0.00	0.00	2720.26	1.62
2716	0.00	0.00	2720.26	1.62
2717	0.00	0.00	2720.26	1.62
2718	0.00	0.00	2720.26	1.62
2719	0.00	0.00	2720.26	1.62
2720	0.00	0.00	2720.26	1.62
2721	0.00	0.00	2720.26	1.62

2722	0.00	0.00	2720.26	1.62
2723	0.00	0.00	2720.26	1.62
2724	0.00	0.00	2720.26	1.62
2725	0.00	0.00	2720.26	1.62
2726	0.00	0.00	2720.26	1.62
2727	0.00	0.00	2720.26	1.62
2728	0.00	0.00	2720.26	1.62
2729	0.00	0.00	2720.26	1.62
2730	0.00	0.00	2720.26	1.62
2731	0.00	0.00	2720.26	1.62
2732	0.00	0.00	2720.26	1.62
2733	0.00	0.00	2720.26	1.62
2734	0.00	0.00	2720.26	1.62
2735	0.00	0.00	2720.26	1.62
2736	0.00	0.00	2720.26	1.62
2737	0.00	0.00	2720.26	1.62
2738	0.00	0.00	2720.26	1.62
2739	0.00	0.00	2720.26	1.62
2740	0.00	0.00	2720.26	1.62
2741	0.00	0.00	2720.26	1.62
2742	0.00	0.00	2720.26	1.62
2743	0.00	0.00	2720.26	1.62
2744	0.00	0.00	2720.26	1.62
2745	0.00	0.00	2720.26	1.62
2746	0.00	0.00	2720.26	1.62
2747	0.00	0.00	2720.26	1.62
2748	0.00	0.00	2720.26	1.62
2749	0.00	0.00	2720.26	1.62
2750	0.00	0.00	2720.26	1.62
2751	0.00	0.00	2720.26	1.62
2752	0.00	0.00	2720.26	1.62
2753	0.00	0.00	2720.26	1.62
2754	0.00	0.00	2720.26	1.62
2755	0.00	0.00	2720.26	1.62
2756	0.00	0.00	2720.26	1.62
2757	0.00	0.00	2720.26	1.62
2758	0.00	0.00	2720.26	1.62
2759	0.00	0.00	2720.26	1.62
2760	0.00	0.00	2720.26	1.62
2761	0.00	0.00	2720.26	1.62
2762	0.00	0.00	2720.26	1.62
2763	0.00	0.00	2720.26	1.62
2764	0.00	0.00	2720.26	1.62
2765	0.00	0.00	2720.26	1.62
2766	0.00	0.00	2720.26	1.62
2767	0.00	0.00	2720.26	1.62
2768	0.00	0.00	2720.26	1.62
2769	0.00	0.00	2720.26	1.62
2770	0.00	0.00	2720.26	1.62
2771	0.00	0.00	2720.26	1.62
2772	0.00	0.00	2720.26	1.62
2773	0.00	0.00	2720.26	1.62
2774	0.00	0.00	2720.26	1.62
2775	0.00	0.00	2720.26	1.62

2776	0.00	0.00	2720.26	1.62
2777	0.00	0.00	2720.26	1.62
2778	0.00	0.00	2720.26	1.62
2779	0.00	0.00	2720.26	1.62
2780	0.00	0.00	2720.26	1.62
2781	0.00	0.00	2720.26	1.62
2782	0.00	0.00	2720.26	1.62
2783	0.00	0.00	2720.26	1.62
2784	0.00	0.00	2720.26	1.62
2785	0.00	0.00	2720.26	1.62
2786	0.00	0.00	2720.26	1.62
2787	0.00	0.00	2720.26	1.62
2788	0.00	0.00	2720.26	1.62
2789	0.00	0.00	2720.26	1.62
2790	0.00	0.00	2720.26	1.62
2791	0.00	0.00	2720.26	1.62
2792	0.00	0.00	2720.26	1.62
2793	0.00	0.00	2720.26	1.62
2794	0.00	0.00	2720.26	1.62
2795	0.00	0.00	2720.26	1.62
2796	0.00	0.00	2720.26	1.62
2797	0.00	0.00	2720.26	1.62
2798	0.00	0.00	2720.26	1.62
2799	0.00	0.00	2720.26	1.62
2800	0.00	0.00	2720.26	1.62
2801	0.00	0.00	2720.26	1.62
2802	0.00	0.00	2720.26	1.62
2803	0.00	0.00	2720.26	1.62
2804	0.00	0.00	2720.26	1.62
2805	0.00	0.00	2720.26	1.62
2806	0.00	0.00	2720.26	1.62
2807	0.00	0.00	2720.26	1.62
2808	0.00	0.00	2720.26	1.62
2809	0.00	0.00	2720.26	1.62
2810	0.00	0.00	2720.26	1.62
2811	0.00	0.00	2720.26	1.62
2812	0.00	0.00	2720.26	1.62
2813	0.00	0.00	2720.26	1.62
2814	0.00	0.00	2720.26	1.62
2815	0.00	0.00	2720.26	1.62
2816	0.00	0.00	2720.26	1.62
2817	0.00	0.00	2720.26	1.62
2818	0.00	0.00	2720.26	1.62
2819	0.00	0.00	2720.26	1.62
2820	0.00	0.00	2720.26	1.62
2821	0.00	0.00	2720.26	1.62
2822	0.00	0.00	2720.26	1.62
2823	0.00	0.00	2720.26	1.62
2824	0.00	0.00	2720.26	1.62
2825	0.00	0.00	2720.26	1.62
2826	0.00	0.00	2720.26	1.62
2827	0.00	0.00	2720.26	1.62
2828	0.00	0.00	2720.26	1.62
2829	0.00	0.00	2720.26	1.62

2830	0.00	0.00	2720.26	1.62
2831	0.00	0.00	2720.26	1.62
2832	0.00	0.00	2720.26	1.62
2833	0.00	0.00	2720.26	1.62
2834	0.00	0.00	2720.26	1.62
2835	0.00	0.00	2720.26	1.62
2836	0.00	0.00	2720.26	1.62
2837	0.00	0.00	2720.26	1.62
2838	0.00	0.00	2720.26	1.62
2839	0.00	0.00	2720.26	1.62
2840	0.00	0.00	2720.26	1.62
2841	0.00	0.00	2720.26	1.62
2842	0.00	0.00	2720.26	1.62
2843	0.00	0.00	2720.26	1.62
2844	0.00	0.00	2720.26	1.62
2845	0.00	0.00	2720.26	1.62
2846	0.00	0.00	2720.26	1.62
2847	0.00	0.00	2720.26	1.62
2848	0.00	0.00	2720.26	1.62
2849	0.00	0.00	2720.26	1.62
2850	0.00	0.00	2720.26	1.62
2851	0.00	0.00	2720.26	1.62
2852	0.00	0.00	2720.26	1.62
2853	0.00	0.00	2720.26	1.62
2854	0.00	0.00	2720.26	1.62
2855	0.00	0.00	2720.26	1.62
2856	0.00	0.00	2720.26	1.62
2857	0.00	0.00	2720.26	1.62
2858	0.00	0.00	2720.26	1.62
2859	0.00	0.00	2720.26	1.62
2860	0.00	0.00	2720.26	1.62
2861	0.00	0.00	2720.26	1.62
2862	0.00	0.00	2720.26	1.62
2863	0.00	0.00	2720.26	1.62
2864	0.00	0.00	2720.26	1.62
2865	0.00	0.00	2720.26	1.62
2866	0.00	0.00	2720.26	1.62
2867	0.00	0.00	2720.26	1.62
2868	0.00	0.00	2720.26	1.62
2869	0.00	0.00	2720.26	1.62
2870	0.00	0.00	2720.26	1.62
2871	0.00	0.00	2720.26	1.62
2872	0.00	0.00	2720.26	1.62
2873	0.00	0.00	2720.26	1.62
2874	0.00	0.00	2720.26	1.62
2875	0.00	0.00	2720.26	1.62
2876	0.00	0.00	2720.26	1.62
2877	0.00	0.00	2720.26	1.62
2878	0.00	0.00	2720.26	1.62
2879	0.00	0.00	2720.26	1.62
2880	0.00	0.00	2720.26	1.62



Appendix I: Noise Evaluation

Mini-Storage Facility Project

Noise Impact Study

City of Palmdale, CA

APN: 3057-007-046
Entitlement Number: SPR25-0005

Prepared for:

Ms. Stephany Lamas
Duke Engineering
759 W Lancaster
Lancaster, CA 93534

Prepared by:

MD Acoustics, LLC
Rachel Edelman, INCE-USA
Claire Pincock, INCE-USA
1197 Los Angeles Ave, Ste C-256
Simi Valley, CA 93065

Date: 5/28/2025

MD ACOUSTICS
Sound Solutions for Planning and Design

Noise Study Reports | Vibration Studies | Air Quality | Greenhouse Gas | Health Risk Assessments

P) AZ - 602.774.1950 P) CA - 805.426.4477
www.mdacoustics.com
info@mdacoustics.com

TABLE OF CONTENTS

1.0 Introduction 1
1.1 Purpose of Analysis and Study Objectives 1
1.2 Site Location and Study Area 1
1.3 Proposed Project Description 1

2.0 Fundamentals of Noise 4
2.1 Sound, Noise and Acoustics 4
2.2 Frequency and Hertz 4
2.3 Sound Pressure Levels and Decibels 4
2.4 Addition of Decibels 4
2.5 Human Response to Changes in Noise Levels 5
2.6 Noise Descriptors 5
2.7 Traffic Noise Prediction 6
2.8 Sound Propagation 7

3.0 Ground-Borne Vibration Fundamentals 8
3.1 Vibration Descriptors 8
3.2 Vibration Perception 8

4.0 Regulatory Setting 10
4.1 Federal Regulations 10
4.2 State Regulations 10
4.3 City of Palmdale Noise Regulations 11
4.4 CEQA Guidelines 15

5.0 Study Method and Procedure 16
5.1 Noise Measurement Procedure and Criteria 16
5.2 Noise Measurement Locations 16
5.3 FHWA Roadway Construction Noise Model 16

6.0 Existing Noise Environment 19
6.1 Short-Term Noise Measurement Results 19

7.0 Future Noise Environment Impacts and Mitigation 20
7.1 Future Exterior Noise 20
7.1.1 Future Off-Site Traffic Noise Impact 20
7.1.2 Noise Impacts to Off-Site Receptors Due to Stationary Sources 20
7.2 Noise Impacts to On-Site Receptors Due to Traffic 21

8.0 Construction Noise Impact 22
8.1 Construction Noise 22
8.2 Construction Vibration 23

9.0 CEQA Analysis 26

10.0 References 28

LIST OF APPENDICES

Appendix A: Field Measurement Data 1
Appendix B: Traffic Noise Modeling Output 2
Appendix C: Construction Noise Modeling Output 3

LIST OF EXHIBITS

Exhibit A: Location Map 2
Exhibit B: Site Plan 3
Exhibit C: Typical A-Weighted Noise Levels 4
Exhibit D: Land Use Compatibility Guidelines 11
Exhibit E: Measurements Locations 18

LIST OF TABLES

Table 1: Short-Term Noise Measurement Data[1] 19
Table 2: Typical Construction Noise Levels[1] 22
Table 3: Construction Noise Levels at Existing Adjacent Residences 23
Table 4: Guideline Vibration Damage Potential Threshold Criteria 24
Table 5: Vibration Source Levels for Construction Equipment[1] 24

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the project study area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set-forth by the Federal, State and Local agencies. Consistent with the City's Noise Guidelines, the project must demonstrate compliance to the applicable noise criterion as outlined within the City's Noise Element and Municipal Code.

The following is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise
- A description of the local noise guidelines and standards
- An analysis of traffic noise impacts to and from the project site
- An analysis of operational noise impacts
- An analysis of construction noise impacts

1.2 Site Location and Study Area

The project site is located near East Avenue S and 25th Street East in the City of Palmdale, CA (APN: 3053-007-046), as shown in Exhibit A. Land uses directly surrounding the site include open space to the north, residential to the south and east, and utilities to the west. East Avenue S is to the north, and Cemetery Road is to the east.

1.3 Proposed Project Description

The project proposes to develop a 124,612-square-foot mini-storage facility consisting of fifteen (15) buildings on approximately 13 acres. The facility will include 650-square-foot office building and 96 total parking spaces (15 public parking spaces and 81 vehicle storage parking spaces). See Exhibit B for the site plan.

This study assesses the operational noise and traffic noise to and from the project site and compares the results to the applicable City noise standards. In addition, the study reviews noise generated by construction activities.

Exhibit A

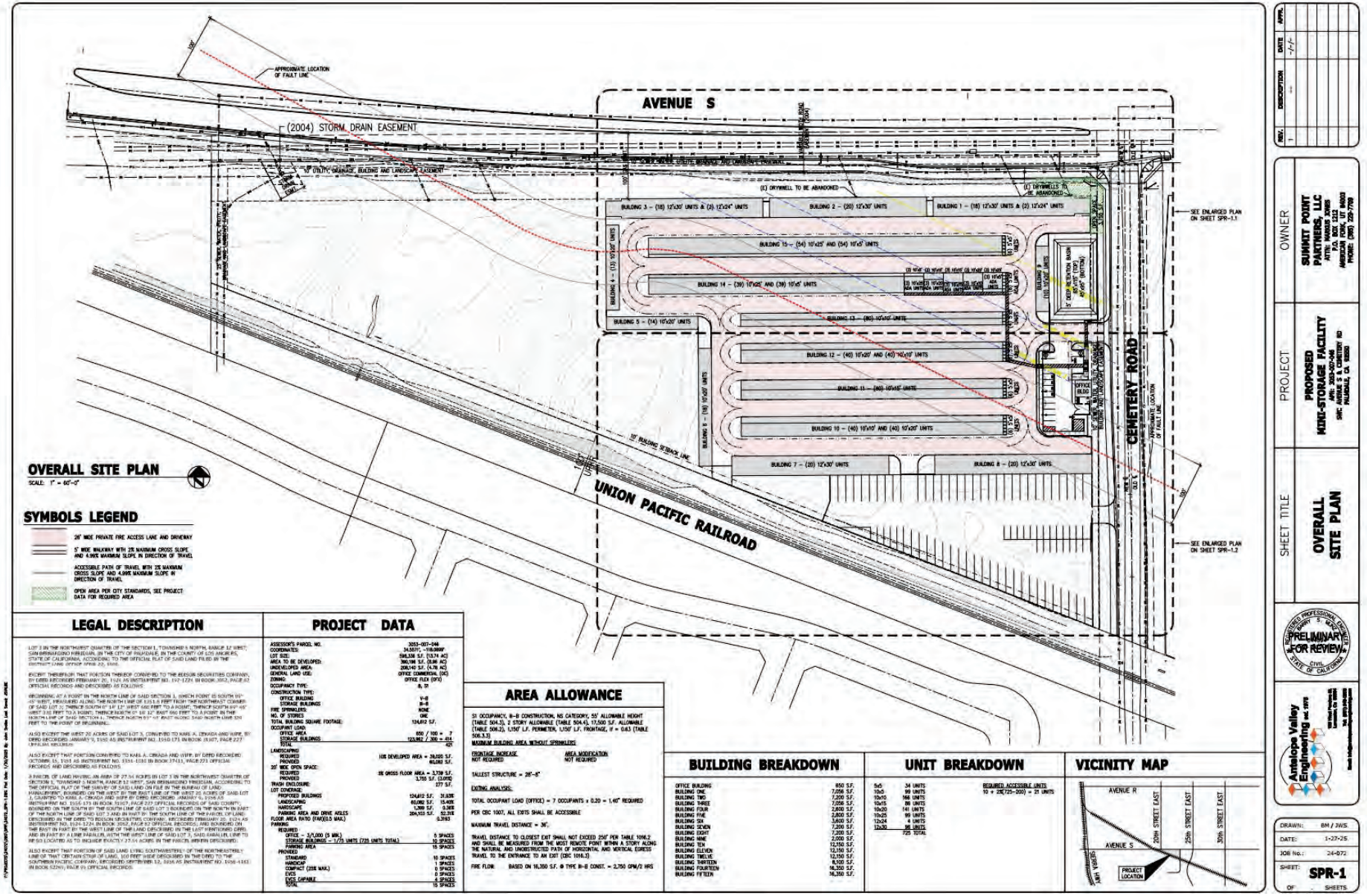
APN: 3057-007-046
Entitlement Number: SPR25-0005

Location Map



Exhibit B

Site Plan



LEGAL DESCRIPTION

LOT 3 IN THE NORTHWEST QUARTER OF THE SECTION 1, TOWNSHIP 6 NORTH, RANGE 12 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF PALMDALE, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE APRIL 22, 1886.

EXCEPT THEREFROM THAT PORTION THEREOF CONVEYED TO THE BESSON SECURITIES COMPANY, BY DEED RECORDED FEBRUARY 20, 1924 AS INSTRUMENT NO. 157 1231 IN BOOK 3052, PAGE 82 OFFICIAL RECORDS AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTH LINE OF SAID SECTION 1, WHICH POINT IS SOUTH 89° 45' WEST, MEASURED ALONG THE NORTH LINE OF 1315.5 FEET FROM THE NORTHEAST CORNER OF SAID LOT 3; THENCE SOUTH 0° 14' 12" WEST 660 FEET TO A POINT; THENCE SOUTH 89° 45' WEST 330 FEET TO A POINT; THENCE NORTH 0° 14' 12" EAST 660 FEET TO A POINT IN THE NORTH LINE OF SAID SECTION 1; THENCE NORTH 89° 45' EAST ALONG SAID NORTH LINE 330 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THE WEST 20 ACRES OF SAID LOT 3, CONVEYED TO KARL A. CRNADA AND WIFE, BY DEED RECORDED JANUARY 9, 1950 AS INSTRUMENT NO. 1950 171 IN BOOK 31307, PAGE 227 OFFICIAL RECORDS.

ALSO EXCEPT THAT PORTION CONVEYED TO KARL A. CRNADA AND WIFE, BY DEED RECORDED OCTOBER 15, 1951 AS INSTRUMENT NO. 1951-1036 IN BOOK 37411, PAGE 271 OFFICIAL RECORDS AND DESCRIBED AS FOLLOWS:

A PARCEL OF LAND HAVING AN AREA OF 27.54 ACRES IN LOT 3 IN THE NORTHWEST QUARTER OF SECTION 1, TOWNSHIP 6 NORTH, RANGE 12 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF THE SURVEY OF SAID LAND ON FILE IN THE BUREAU OF LAND MANAGEMENT, BOUNDED ON THE WEST BY THE WEST LINE OF THE WEST 20 ACRES OF SAID LOT 3, CONVEYED TO KARL A. CRNADA AND WIFE BY DEED RECORDED JANUARY 9, 1950 AS INSTRUMENT NO. 1950-171 IN BOOK 31307, PAGE 227 OFFICIAL RECORDS OF SAID COUNTY; BOUNDED ON THE SOUTH BY THE SOUTH LINE OF SAID LOT 3 BOUNDED ON THE NORTH IN PART OF THE NORTH LINE OF SAID LOT 3 AND IN PART BY THE SOUTH LINE OF THE PARCEL OF LAND DESCRIBED IN THE DEED TO BESSON SECURITIES COMPANY, RECORDED FEBRUARY 20, 1924 AS INSTRUMENT NO. 1924-1234 IN BOOK 3052, PAGE 82 OFFICIAL RECORDS, AND BOUNDED ON THE EAST IN PART BY THE WEST LINE OF THE LAND DESCRIBED IN THE LAST MENTIONED DEED AND IN PART BY A LINE PARALLEL WITH THE WEST LINE OF SAID LOT 3, SAID PARALLEL LINE TO BE SO LOCATED AS TO INCLUDE EXACTLY 27.54 ACRES IN THE PARCEL HEREIN DESCRIBED.

ALSO EXCEPT THAT PORTION OF SAID LAND LYING SOUTHWESTERLY OF THE NORTHEASTERLY LINE OF THAT CERTAIN STRIP OF LAND, 100 FEET WIDE DESCRIBED IN THE DEED TO THE SOUTHERN PACIFIC COMPANY, RECORDED SEPTEMBER 12, 1888 AS INSTRUMENT NO. 1888-4161 IN BOOK 5290, PAGE 94 OFFICIAL RECORDS.

PROJECT DATA

ASSESSOR'S PARCEL NO.	3053-007-046
COORDINATES:	34.5597°, -118.0699°
LOT SIZE:	596,336 S.F. (13.74 AC)
AREA TO BE DEVELOPED:	360,196 S.F. (8.66 AC)
UNDEVELOPED AREA:	208,140 S.F. (4.76 AC)
GENERAL LAND USE:	OFFICE COMMERCIAL (OC)
ZONING:	OFFICE FLEX (OFX)
OCCUPANCY TYPE:	B, S1
CONSTRUCTION TYPE:	
OFFICE BUILDING	V-B
STORAGE BUILDINGS	II-B
FIRE SPRINKLERS:	NONE
NO. OF STORIES	ONE
TOTAL BUILDING SQUARE FOOTAGE:	134,612 S.F.
OCCUPANT LOAD:	425
OFFICE AREA	650 / 100 = 7
STORAGE BUILDINGS	133,962 / 300 = 451
TOTAL	425
LANDSCAPING:	
REQUIRED	10% DEVELOPED AREA = 36,020 S.F.
PROVIDED	80,083 S.F.
20' WIDE OPEN SPACE:	
REQUIRED	3% GROSS FLOOR AREA = 3,739 S.F.
PROVIDED	3,755 S.F. (3.01%)
TRASH ENCLOSURE:	277 S.F.
LOT COVERAGE:	
PROPOSED BUILDINGS	134,612 S.F. 31.63%
LANDSCAPING	80,082 S.F. 15.40%
HARDSCAPE	1,369 S.F. 0.36%
PARKING AREA AND DRIVE AISLES	204,103 S.F. 52.31%
FLOOR AREA RATIO (FAR)(0.5 MAX.)	0.3763
PARKING:	
REQUIRED	
OFFICE – 3/1,000 (5 MIN.)	5 SPACES
STORAGE BUILDINGS – 1/75 UNITS (725 UNITS TOTAL)	10 SPACES
PARKING AREA	15 SPACES
PROVIDED	
STANDARD	10 SPACES
HANDICAP	1 SPACES
COMPACT (25% MAX.)	0 SPACES
EVCS	0 SPACES
EVCS CAPABLE	4 SPACES
TOTAL	15 SPACES

AREA ALLOWANCE

S1 OCCUPANCY, II-B CONSTRUCTION, NS CATEGORY, 55' ALLOWABLE HEIGHT (TABLE 504.3), 2 STORY ALLOWABLE (TABLE 504.4), 17,500 S.F. ALLOWABLE (TABLE 506.2), 1,150' L.F. PERIMETER, 1,150' L.F. FRONTAGE, If = 0.63 (TABLE 506.3.1)

MAXIMUM BUILDING AREA WITHOUT SPRINKLERS

FRONTAGE INCREASE
NOT REQUIRED

AREA MODIFICATION
NOT REQUIRED

TALLEST STRUCTURE = 26'-8"

EXISTING ANALYSIS:

TOTAL OCCUPANT LOAD (OFFICE) = 7 OCCUPANTS x 0.20 = 1.40" REQUIRED

PER CBC 1007, ALL EXITS SHALL BE ACCESSIBLE

MAXIMUM TRAVEL DISTANCE = 36'.

TRAVEL DISTANCE TO CLOSEST EXIT SHALL NOT EXCEED 250' PER TABLE 1016.2 AND SHALL BE MEASURED FROM THE MOST REMOTE POINT WITHIN A STORY ALONG THE NATURAL AND UNOBSTRUCTED PATH OF HORIZONTAL AND VERTICAL EGRESS TRAVEL TO THE ENTRANCE TO AN EXIT (CBC 1016.3)

FIRE FLOW: BASED ON 16,350 S.F. @ TYPE II-B CONST. = 2,750 GPM/2 HRS

BUILDING BREAKDOWN

OFFICE BUILDING	650 S.F.
BUILDING ONE	7,056 S.F.
BUILDING TWO	7,200 S.F.
BUILDING THREE	7,056 S.F.
BUILDING FOUR	2,800 S.F.
BUILDING FIVE	2,800 S.F.
BUILDING SIX	3,600 S.F.
BUILDING SEVEN	7,200 S.F.
BUILDING EIGHT	7,200 S.F.
BUILDING NINE	2,000 S.F.
BUILDING TEN	12,150 S.F.
BUILDING ELEVEN	12,150 S.F.
BUILDING TWELVE	12,150 S.F.
BUILDING THIRTEEN	8,100 S.F.
BUILDING FOURTEEN	16,350 S.F.
BUILDING FIFTEEN	16,350 S.F.

UNIT BREAKDOWN

5x5	34 UNITS
10x5	99 UNITS
10x10	166 UNITS
10x15	86 UNITS
10x20	141 UNITS
10x25	99 UNITS
12x24	4 UNITS
12x30	96 UNITS
	725 TOTAL

REQUIRED ACCESSIBLE UNITS
10 + 2%(725–200) = 21 UNITS

VICINITY MAP

REV.	DESCRIPTION	DATE	APPR.
1	—	-/-/-	

OWNER
SUMMIT POINT PARTNERS, LLC
ATTN: MANISH SHAH
P.O. BOX 1223
AMERICAN FORK, UT 84003
PHONE: (385) 229-7719

PROJECT
PROPOSED
KIKI-STORAGE FACILITY
APN: 3053-007-046
SWC AVENUE S & CEMETERY RD
PALMDALE, CA 93551

SHEET TITLE
OVERALL SITE PLAN

PRELIMINARY FOR REVIEW

Antelope Valley Engineering

DRAWN: BM / JWS
DATE: 1-27-25
JOB No.: 24-072
SHEET: SPR-1
OF . SHEETS

2.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

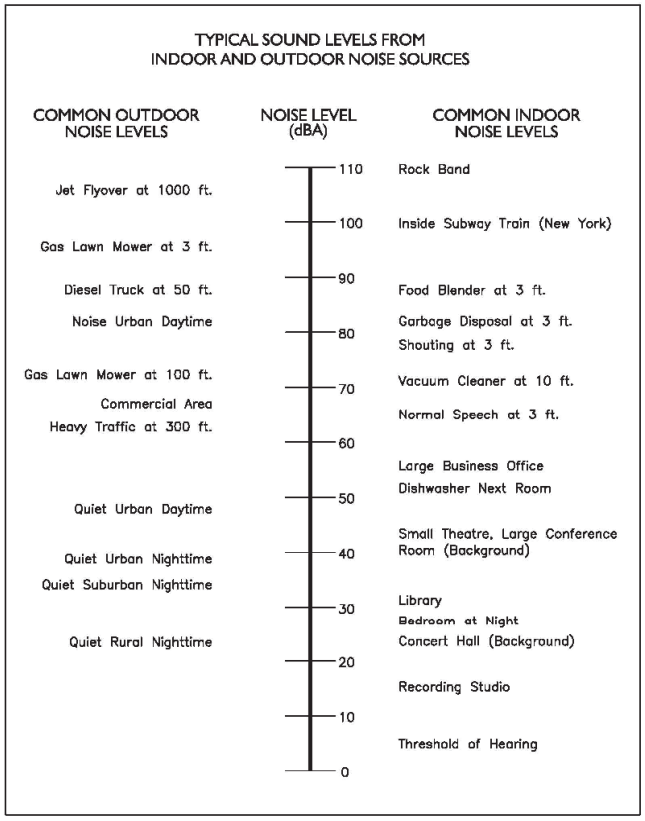
2.1 Sound, Noise and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding), and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch from 20 Hz to the high pitch of 20,000 Hz.

Exhibit C: Typical A-Weighted Noise Levels



2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels, abbreviated dB. Exhibit C illustrates reference sound levels for different noise sources.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds or equal SPL are combined, they will produce an SPL three (3) dB greater than the original single SPL. In other words, sound energy must be doubled to produce a three (3) dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz (A-weighted scale), and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of three (3) dB. A change in five (5) dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a three (3) dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud

https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns; others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels in the evening from 7:00 AM to 10:00 PM and after the addition of 10 decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

2.7 Traffic Noise Prediction

Noise levels associated with traffic depend on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2 axle) and heavy truck percentage (three axle and greater), and sound propagation. The greater the volume of traffic, higher speeds, and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately three (3) dB; reasons for this are discussed in the sections above.

2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of six (6) dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of three (3) dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet or more from a noise source. Wind, temperature, air humidity and turbulence can further impact have far sound can travel.

3.0 Ground-Borne Vibration Fundamentals

3.1 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude.

VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wavefront, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wavefront. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wavefront. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by six (6) VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown

to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 Regulatory Setting

The proposed project is located in the City of Palmdale, and noise regulations are addressed through the efforts of various federal, state and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated, leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible for regulating noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible for regulating noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being constructed adjacent to a highway or that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix.” The matrix allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 of the California Building Code (CBC) which in some cases requires acoustical analyses to outline exterior noise levels and to ensure interior noise levels do not exceed the interior threshold. The State mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan.

The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

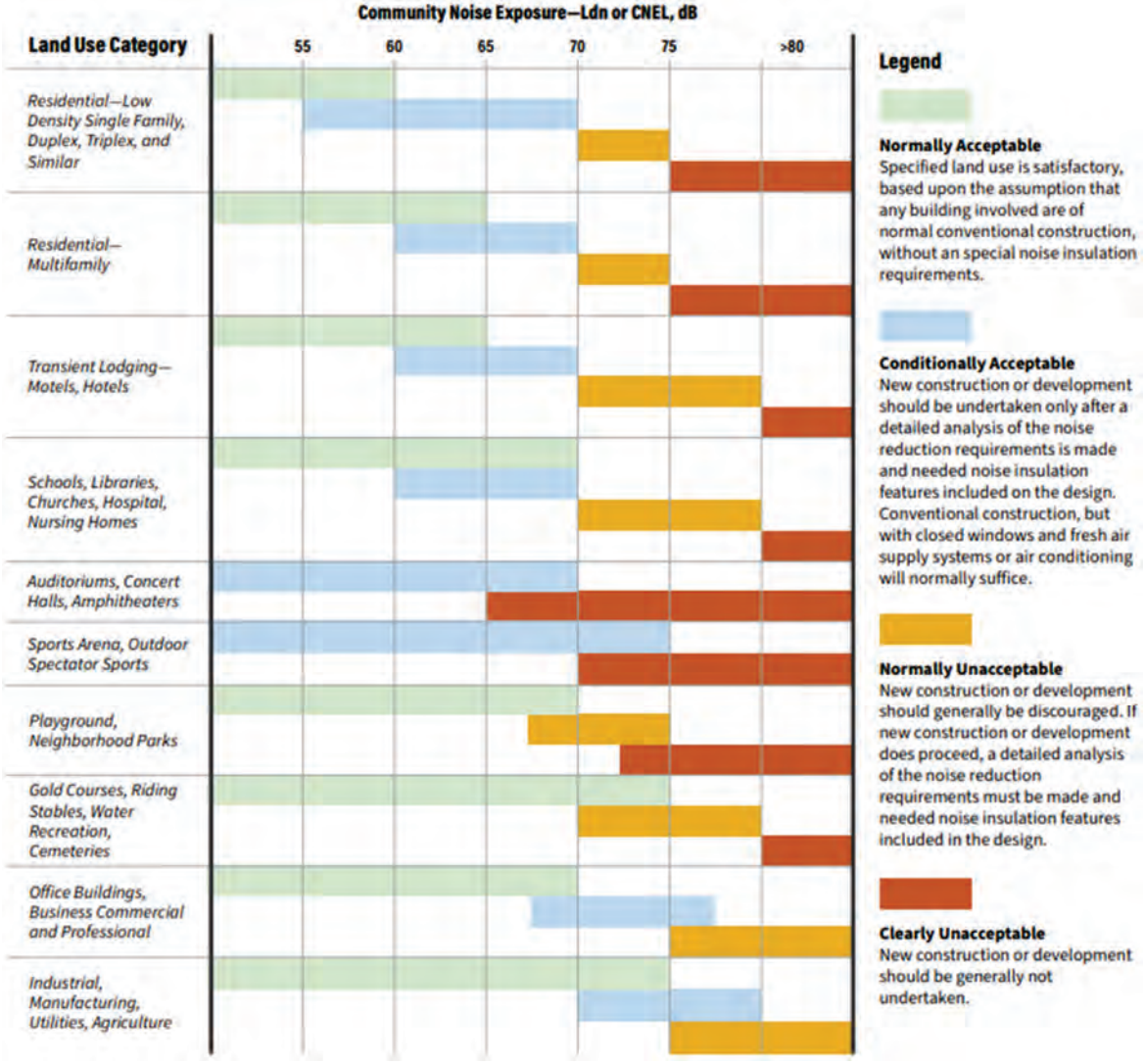
4.3 City of Palmdale Noise Regulations

The City of Palmdale outlines their noise regulations and standards within the Noise Element from the City's General Plan (Palmdale 2045) and Chapter 9.18 – Disturbing, Excessive, Loud, or Offensive Noise from the City's Municipal Code.

City of Palmdale General Plan

Applicable policies and standards governing environmental noise in the City of Palmdale are set forth in the General Plan Noise Element. Table 16.1 (Land Use Compatibility Guidelines) (Exhibit D of this report) of the City's Noise Element outlines the exterior noise standards for community noise environments.

Exhibit D: Land Use Compatibility Guidelines



General Plan Noise Element goals and policies applicable to the proposed project are presented below.

Goal N-1: Minimize resident exposure to excessive noise.

Policy N-1.1: Use the state-recommended noise level guidelines shown in Table 16.1 (Land Use Compatibility Guidelines) *(Exhibit D of this report)* to determine the compatibility of proposed land uses with the existing and future noise environment of each proposed development site.

Policy N-1.2: Restrict noise sensitive land uses near existing or future air, rail, or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.

Policy N-1.3: When proposed stationary noise sources could exceed an exterior noise level of 65 dBA CNEL at the property line or could impact future noise sensitive land uses, require preparation of an acoustical analysis and mitigation measures to reduce exterior noise levels to no more than 65 dBA CNEL at the property line.

Policy N-1.4: Explore the use of noise abatement strategies such as natural barriers, sound walls, and other buffers to mitigate excessive noise.

Goal N-2: Maintain acceptable noise environments throughout the City.

Policy N-2.2: Restrict construction activities in the vicinity of sensitive receptors during the evening, early morning, and weekends and holidays.

Policy N-2.3: Utilize any or all the following measures to maintain acceptable noise environments throughout the city:

- Control of noise at its source, including noise barriers and other muffling devices built into the noise source.
- Provision of buffer areas and/or wide setbacks between the noise source and other development.
- Reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad).
- Use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels.
- Designation of appropriate land uses adjacent to known noise sources.

Policy N-2.4: Where deemed appropriate based upon available information, require acoustical analysis and appropriate mitigation for noise-sensitive land uses proposed in areas

that may be adversely impacted by significant intermittent noise sources. Such noise sources may include but not be limited to railroads, racetracks, stadiums, aircraft overflights and similar uses.

Goal N-4: Minimize adverse noise impacts associated with transportation.

City of Palmdale Municipal Code

Chapter 9.18 – Disturbing, Excessive, Loud, or Offensive Noise and Chapter 8.28 – Building Construction Hours of Operation and Noise Control of the City of Palmdale's Municipal Code outlines the City's noise standards as it relates to stationary and construction noise sources.

Section 9.18.010 Noise

A. It shall be unlawful for any person to willfully make or continue, or cause or permit to be made or continued, any loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

B. The characteristics and conditions, which may be considered in determining whether such noise violates the provisions of this section, shall include, but not be limited to, the following:

(1) The volume of the noise;

(2) The intensity of the noise;

(3) Whether the nature of the noise is usual or unusual;

(4) Whether the origin of the noise is natural or unnatural;

(5) The volume and intensity of the background noise, if any;

(6) The proximity of the noise to sleeping facilities;

(7) The nature and zoning of the area within which the noise emanates;

(8) The density of the inhabitation of the area within which the noise emanates;

(9) The time of the day or night the noise occurs;

(10) The duration of the noise;

(11) Whether the noise is recurrent, intermittent, or constant;

(12) Whether the noise is produced by a commercial or noncommercial activity.

Section 8.28.030 Construction noise prohibited in residential zones

Except as otherwise provided in this chapter, no person shall perform any construction or repair work on any Sunday, or any other day after 8:00 p.m. or before 6:30 a.m., in any residential zone or within 500 feet of any residence, hotel, motel or recreational vehicle park. For the purposes of this section, construction and repair work includes work of any kind upon any building or structure, earth excavating, filling, or moving, and delivery, preparation or operation of construction equipment, materials or supplies where any of the foregoing entails the use of an air compressor, jack hammer, power-driven

drill, riveting machine, excavator, semi-truck, diesel power truck, tractor, cement truck, or earth moving equipment, hand hammer, or other machine, tool, device or equipment which makes loud noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness sleeping or residing in the area.

4.4 CEQA Guidelines

According to CEQA guidelines, the project would have a potential impact if it resulted in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Generation of excessive groundborne vibration or groundborne noise levels?

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

5.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

5.1 Noise Measurement Procedure and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as the first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

MD conducted the sound level measurements in accordance to the County's and Caltrans (TeNS) technical noise specifications. All measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed five (5)-feet above the ground for all measurements
- Sound level meters were calibrated (Larson Davis CAL 200) before and after each measurement
- Following the calibration of equipment, a windscreen was placed over the microphone
- Frequency weighting was set on "A" and slow response
- Results of the long-term noise measurements were recorded on field data sheets
- During any short-term noise measurements, any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

5.2 Noise Measurement Locations

The noise monitoring locations were selected to obtain a baseline of the existing noise environment. Two short-term 15-minute noise measurements were conducted at the Project site, and long-term data was extrapolated based on traffic patterns. Appendix A includes photos, the field sheet, and measured noise data. Exhibit E illustrates the location of the measurements.

5.3 FHWA Roadway Construction Noise Model

The construction noise analysis utilizes the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RNCM), together with several key construction parameters. Key inputs include distance to the sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site.

The project was analyzed based on the different construction phases. The construction noise calculation output worksheet is in Appendix D.

= Short-Term Monitoring Location

APN: 3057-007-046
Entitlement Number: SPR25-0005

Exhibit E

Measurement Locations



6.0 Existing Noise Environment

Two (2) 15-minute noise measurements were conducted at the project site to document the existing noise environment. The measurements include the 15-minute Leq, Lmin, Lmax, and other statistical data (e.g., L2, L8). Noise measurement field sheets are provided in Appendix A.

6.1 Short-Term Noise Measurement Results

The results of the short-term noise data are presented in Table 1 (Short-Term Noise Measurement Data). Measurement locations are in Exhibit E.

Table 1: Short-Term Noise Measurement Data[1]

Location	Start Time	Stop Time	L_{EQ}	L_{MAX}	L_{MIN}	L_2	L_8	L_{25}	L_{50}	L_{90}	Estimated CNEL[2]
NM1	11:52 AM	12:07 PM	47.6	68.5	35.6	54.1	48.0	42.9	40.2	37.3	51.1
NM2	12:26 PM	12:41 PM	57.7	71.6	42.9	65.7	61.0	57.5	54.2	47.7	61.1

Notes:
[1.] Short-term noise monitoring locations are illustrated in Exhibit E.
[2.] CNEL estimated based off typical traffic patterns. See Appendix A.

Noise data indicates the ambient noise level ranged from 48 to 58 dBA Leq at the surrounding uses. Additional field notes are provided in Appendix A.

7.0 Future Noise Environment Impacts and Mitigation

This assessment analyzes future noise impacts to and from the project and compares the results to the City's Noise Standards. The analysis details the estimated exterior noise levels associated with traffic from adjacent roadway sources. The project area is outside of any airport 65 dBA CNEL contours and therefore, there is no aircraft impact.

7.1 Future Exterior Noise

The exterior noise level off-site of the project will be impacted by transportation-related sources and stationary sources from the site. The following outlines the impacts associated with exterior noise levels.

7.1.1 Future Off-Site Traffic Noise Impact

The project does not require a traffic study, therefore, a full traffic impact analysis is not provided in this assessment. However, the following provides a brief description of potential traffic noise impact. Traffic noise along East Avenue S is the main source of noise impacting the project site and the surrounding area. E Avenue S has an existing ADT of 30,106, per the City of Palmdale Traffic Volume Map. It takes a change of three (3) dB or more to hear an audible difference, which would occur with a doubling of traffic. The project is not anticipated to double the traffic volumes along East Avenue S, and the noise impact due to project traffic will be less than significant.

7.1.2 Noise Impacts to Off-Site Receptors Due to Stationary Sources

Sensitive receptors that may be affected by project operational noise include adjacent residences to the east, south, and northeast.

On-site operational noise includes transformers and HVAC units. Only the office building will be climate controlled. HVAC equipment is assumed to be located on the rooftop of the office building. Equipment will be at least 130 feet away from the nearest residences to the east. The maximum sound power level from a single unit is 72 dBA. At 130 feet away, the sound pressure level is estimated to be 32 dBA. Assuming three (3) units are located on the office building and are running simultaneously, the sound level is 37 dBA Leq. If the units ran simultaneously for 24 hours, the noise level would be 44 dBA CNEL. This does not take into account the property line wall, which would lower the operational noise at the residential receptors. According to Policy N-1.3 (Acoustical Analysis for Stationary Noise Sources) of the City's General Plan Noise Element, the noise at residential properties must not exceed 65 dBA CNEL. The worst-case noise due to the HVAC units operating simultaneously will be 44 dBA CNEL, and thus meets the City's noise level limit for residential properties. See Appendix D.

Per ANSI and NEPA requirements for transformer noise, transformers must be no louder than 65 dBA at six (6) feet. Transformers should be placed at least 20 feet from the adjacent residential receptors or should be shielded to stay below the noise level limit.

Operational noise complies with the Palmdale General Plan Noise Element. The impact is, therefore, less than significant.

7.2 Noise Impacts to On-Site Receptors Due to Traffic

Traffic noise from East Avenue S was evaluated and compared to the City's guidelines. Per the Noise Element of the General Plan, commercial uses are normally acceptable up to 70 dBA CNEL and conditionally acceptable up to 77.5 dBA CNEL. Using cumulative traffic, the edge of the Project site closest to East Avenue S will be up to 72 dBA CNEL and falls within the conditionally acceptable land use compatibility.

8.0 Construction Noise Impact

The degree of construction noise may vary for different areas of the project site and also vary depending on the construction activities. Noise levels associated with the construction will vary with the different phases of construction. The construction noise and vibration level projections are provided in the sections below.

8.1 Construction Noise

The Environmental Protection Agency (EPA) has compiled data regarding the noise characteristics of typical construction activities. The data is presented in Table 2 (Typical Construction Noise Levels).

Table 2: Typical Construction Noise Levels[1]

Equipment Powered by Internal Combustion Engines

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86

Impact Equipment

Type	Noise Levels (dBA) at 50 Feet
Saws	71 - 82
Vibrators	68 - 82

Notes:
[1] Referenced Noise Levels from the Environmental Protection Agency (EPA)

Construction is anticipated to occur during the permissible hours as described in the City's Municipal Code Section 8.28.030 – Construction Noise Prohibited in Residential Zones. Construction noise is considered a short-term impact and would be considered significant if construction occurs outside the allowable times as described in the City's Municipal Code. Construction noise will have a temporary or

periodic increase in the ambient noise level above the existing within the project vicinity. Construction noise level projections are provided below.

Sensitive land uses surrounding the site include existing residential uses to the south and east. These uses are an average of 455 feet away from construction activities and as close as 80 feet from construction activities.

CalEEMod methodology was utilized to determine the construction equipment. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels are in Table 3 (Construction Noise Levels at Existing Adjacent Residences). A likely worst-case construction noise scenario assumes equipment operating as close as 80 feet and an average of 455 feet from the nearest sensitive receptor. Leq levels represent the average construction noise level during each phase.

Table 3: Construction Noise Levels at Existing Adjacent Residences

Phase	dBA Leq	dBA Lmax
Site Prep	68.5	79.9
Grading	68.2	80.9
Build	67.0	79.9
Paving	63.1	78.9
Arch Coating	54.8	73.9

Construction noise will range from 55 to 69 dBA Leq and 74 to 81 dBA Lmax at the nearest sensitive receptors. Construction will occur during the permissible hours. This does not take into account the property line wall, which would decrease the construction noise at the surrounding residential uses. Therefore, the impact is considered less than significant.

8.2 Construction Vibration

Construction activities can produce vibration that may be felt by adjacent land uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary vibration source during construction may be from a vibratory roller. A vibratory roller has a vibration impact of 0.210 inches per second peak particle velocity (PPV) at 25 feet which is perceptible but below any risk to architectural damage.

The fundamental equation used to calculate vibration propagation through average soil conditions and distance is as follows:

$$PPV_{equipment} = PPV_{ref} (100/D_{rec})^{n}$$

Where: PPV_{ref} = reference PPV at 100ft.

D_{rec} = distance from equipment to receiver in ft.
n = 1.1 (the value related to the attenuation rate through ground)

The thresholds from the Caltrans Transportation and Construction Induced Vibration Guidance Manual in Table 4: Guideline Vibration Damage Potential Threshold Criteria (below) provides general thresholds and guidelines as to the vibration damage potential from vibratory impacts.

Table 4: Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Table 19, Transportation and Construction Vibration Guidance Manual, Caltrans, Sept. 2013.
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 5 (Vibration Source Levels for Construction Equipment) gives approximate vibration levels for particular construction activities. This data provides a reasonable estimate for a wide range of soil conditions.

Table 5: Vibration Source Levels for Construction Equipment[1]

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

[1] Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

All proposed construction is at least 85 feet from any existing structures. At a distance of 85 feet, a vibratory roller would yield a worst-case 0.055 PPV (in/sec) which may be perceptible but below any risk of damage (0.5 in/sec PPV is the threshold of old residential structures). The impact is less than significant, and no mitigation is required.

9.0 CEQA Analysis

The California Environmental Quality Act Guidelines establishes thresholds for noise impact analysis as presented below:

(a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise Code, or applicable standards of other agencies?

Transportation Noise Impacts

The main source of noise due to traffic near the project site is due to traffic from East Avenue S. It takes a change in noise level of three (3) dB for the human ear to perceive a difference, which takes a doubling of traffic. The project is not anticipated to double traffic volumes along East Avenue S. Thus, the impact is not perceptible and the impact is less than significant.

Stationary Noise Sources

Stationary noise impacts would be considered significant if they result in exceedances of 65 dBA CNEL at residential uses according to Policy N-1.3 (Acoustical Analysis for Stationary Noise Sources) of the General Plan Noise Element. Implementation of the proposed project may result in stationary noise related to HVAC Systems. The projected noise level at the nearest residential uses will be 44 dBA CNEL and will be below the City's residential noise standard. Thus, the project is less than significant.

Construction Noise and Vibration

Construction is anticipated to occur during the permissible hours as described in the City's Municipal Code Section 8.28.030 – Construction Noise Prohibited in Residential Zones. Construction noise is considered a short-term impact and would be considered significant if construction occurs outside the allowable times as described in the City's Municipal Code.

The site preparation and grading phases of on-site construction activities will generate the highest temporary noise levels. The loudest construction equipment on the site will be tractors, graders, scrapers, rollers, and dozers. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three or four minutes at lower power settings. Construction at the nearest residential uses will be up to 69 dBA Leq. This does not take into account the property line wall, which would decrease the construction noise at the residential uses. The construction noise will occur during the allowable times, thus, the impact is less than significant.

b) Generate excessive ground-borne vibration or ground-borne noise levels?

Construction vibration will be significant if vibration exceeds levels that would result in structural damage to existing buildings. All proposed construction is at least 85 feet from any existing structures. At a distance of 85 feet, a vibrational roller would yield a worst-case 0.055 PPV (in/sec), which may be

perceptible but is below the threshold of any risk of damage. Therefore, the impact is less than significant.

10.0 References

State of California General Plan Guidelines: 1998. Governor's Office of Planning and Research

City of Palmdale: 2045 General Plan Noise Element.

City of Palmdale: Municipal Code Chapter 9.18 – Disturbing, Excessive, Loud, or Offensive Noise.

Caltrans Noise Technical Manual. 2013

Federal Highway Administration. Noise Barrier Design Handbook. June 2017.

Federal Transit Administration. Transit Noise and Vibration Impact Assessment Manual. September 2018

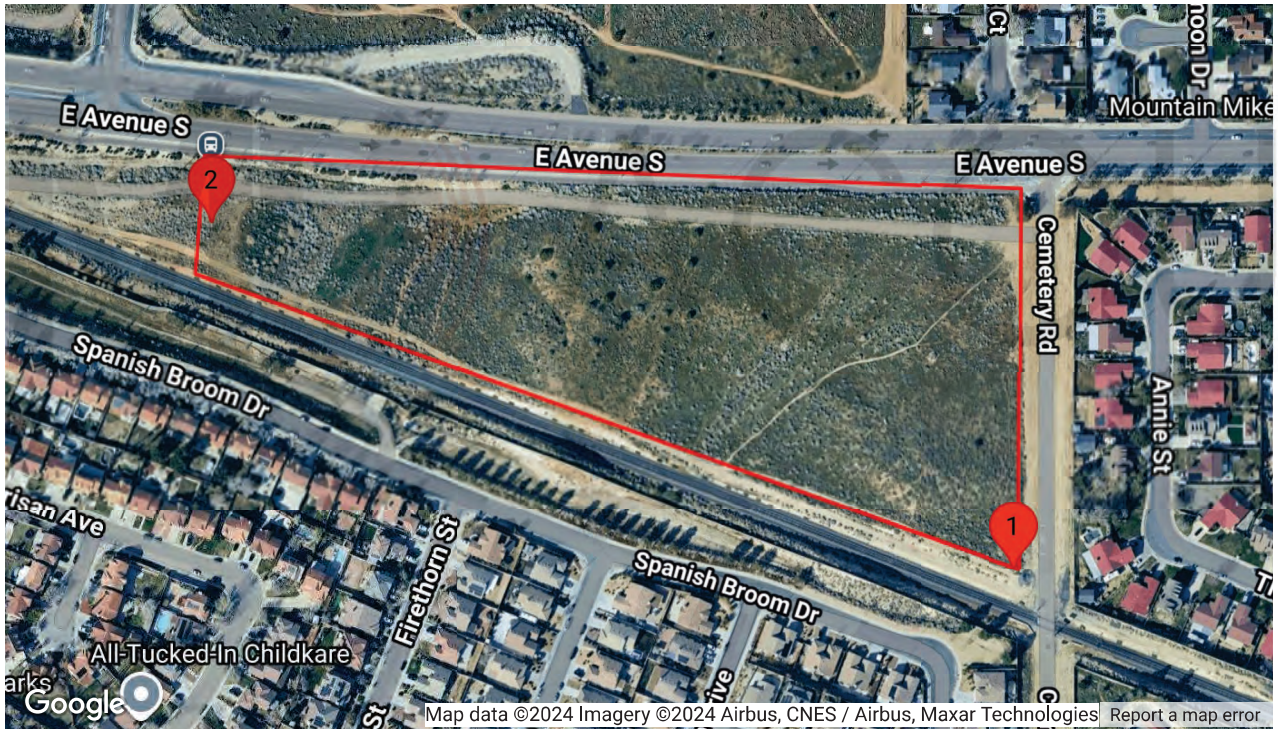
Appendix A:

Field Measurement Data

15-Minute Continuous Noise Measurement Datasheet - NM1, NM2

Project Name:	E Ave S Mini Storage Noise	APN:3057-007-046 SPR25-0005	**Site Observations:**
Project: #/Name:	1269-2024-007		Clear Skies, temp 60F winds 0-3MPh, partly cloudy.
Site Address/Location:	E Avenue S & 25th Street E		
Date:	12/02/2024		
Field Tech/Engineer:	Jason Schuyler / Rachel Edelman		

Sound Meter:	XL2, NTI	**SN:** A2A-08562-E0	
Settings:	A-weighted, slow, 1-sec, 15-minute interval		
Site Id:	NM1, NM2		



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont. - NM1, NM2

Project Name: E Ave S Mini Storage Noise APN:3057-007-046 SPR25-0005

Site Address/Location: E Avenue S & 25th Street E

Site Id: NM1, NM2

Calibrator:

Cal Check: Pre-test: **Post Test:**

Figure 1: NM1



Figure 2: NM1



Figure 3: NM2



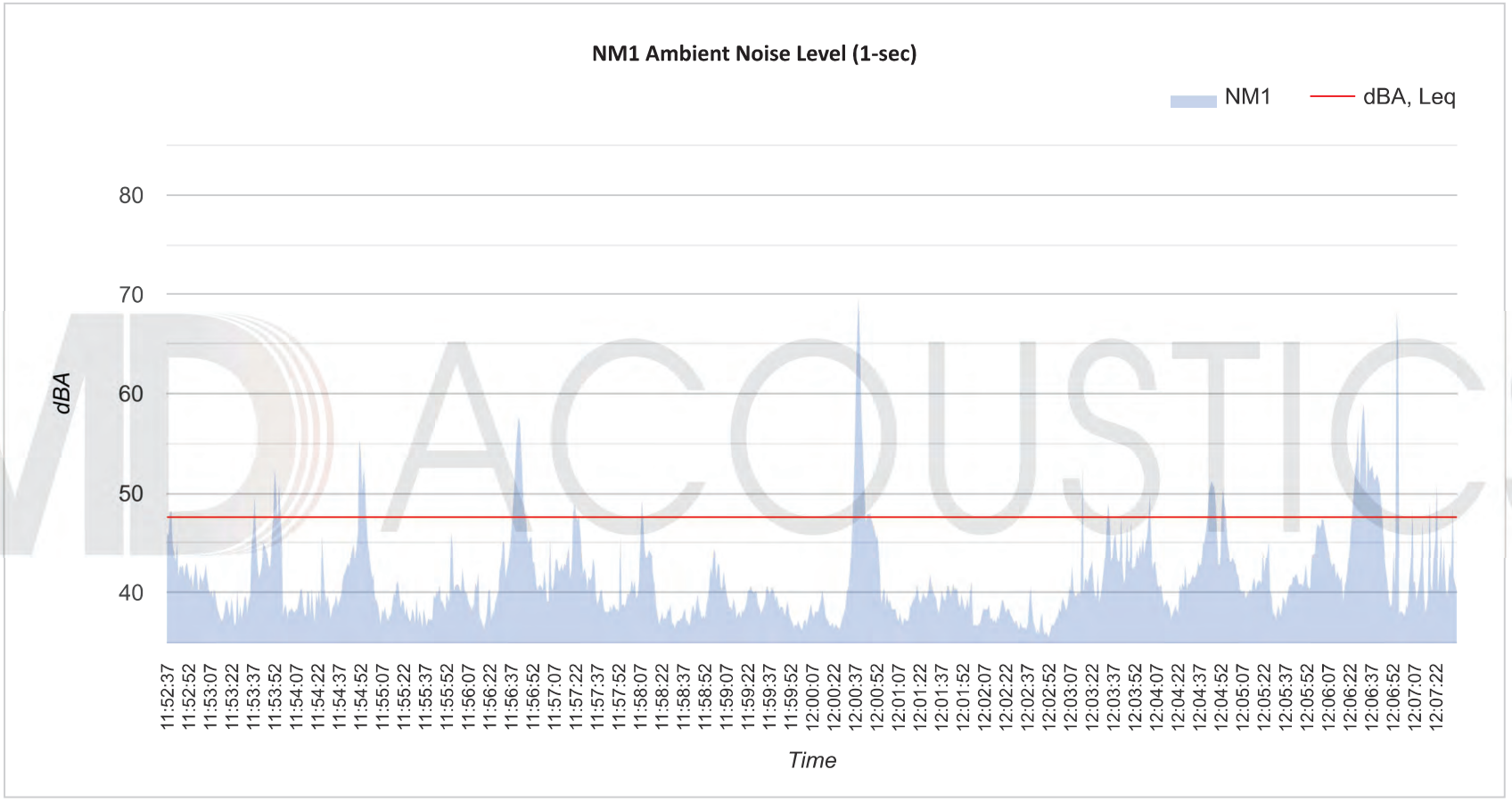
Table 1: Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
NM1	11:52 AM	12:07 PM	47.6	68.5	35.6	54.1	48	42.9	40.2	37.3
NM2	12:26 PM	12:41 PM	57.7	71.6	42.9	65.7	61	57.5	54.2	47.7

MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont. - NM1

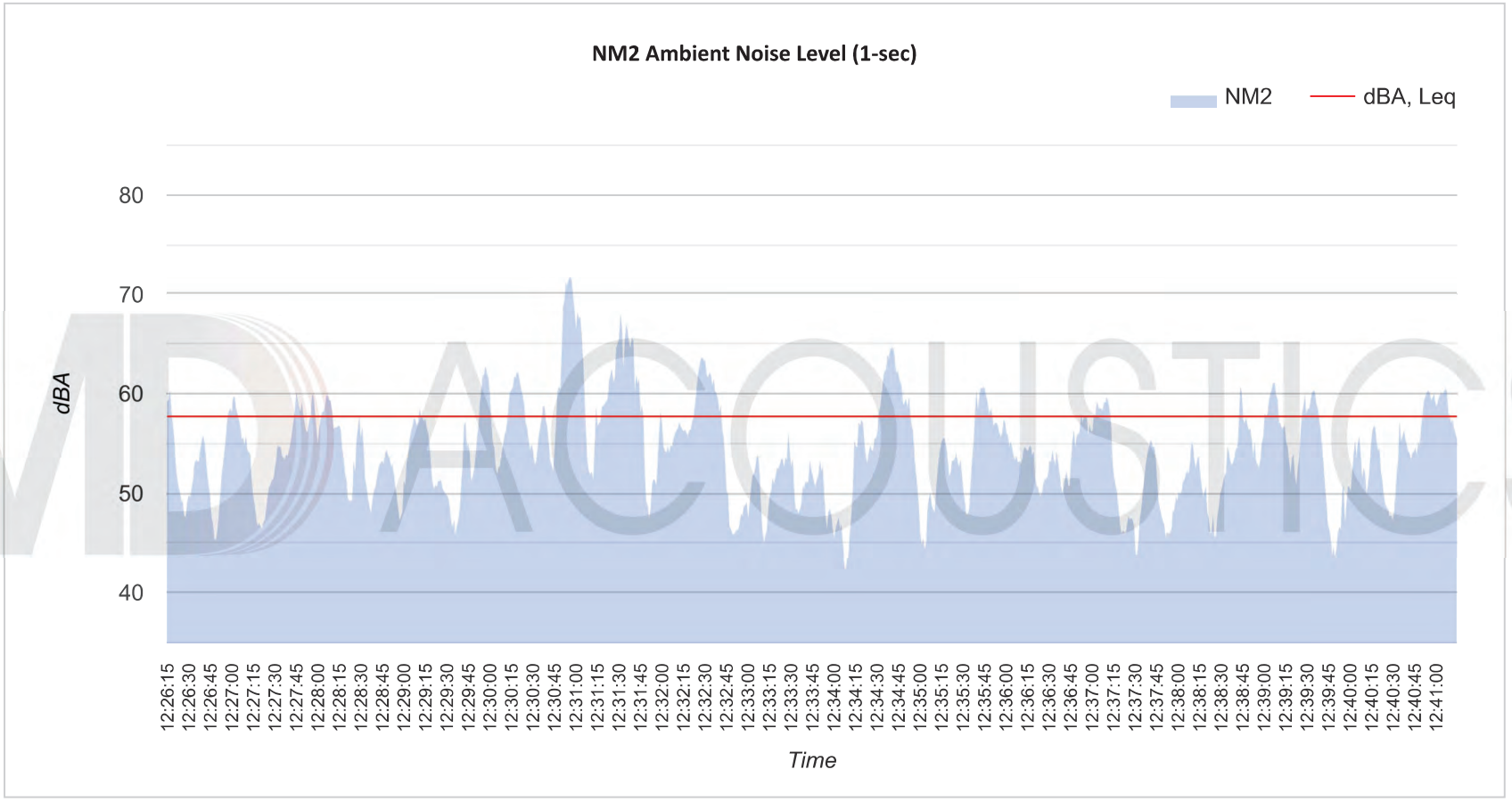
Project Name:	E Ave S Mini Storage Noise	3057-007-046 SPR25-0005	**Site Topo:**	Flat open desert with a few tree	**Noise Source(s) w/ Distance:**
Site Address/Location:	E Avenue S & 25th Street E		**Meteorological Cond.:**	61F Clear skies winds 1-3 Mph	traffic noise
Site Id:	NM1		**Ground Type:**	Open soil lot, Sand, clay, rock	



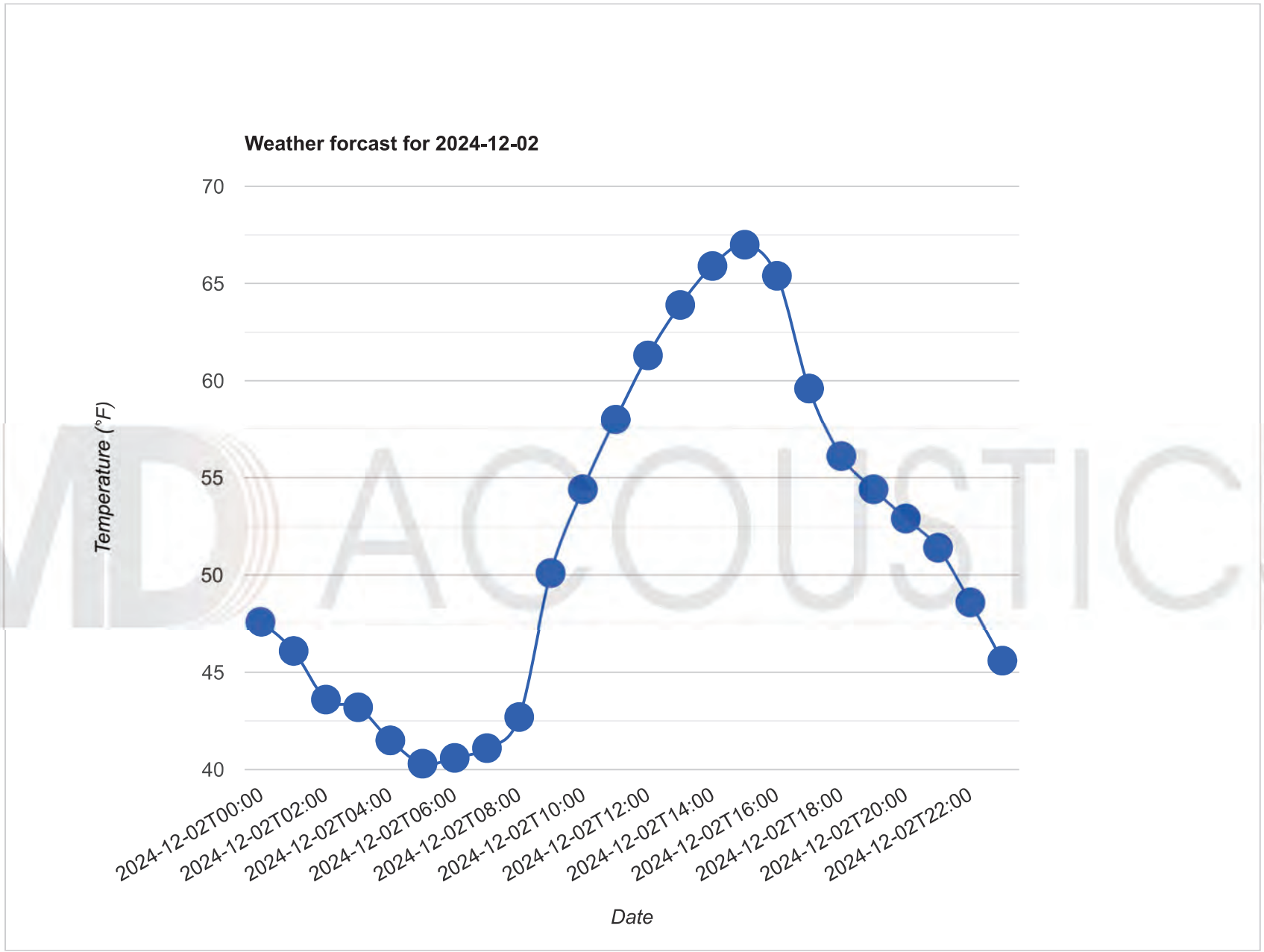
MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont. - NM2

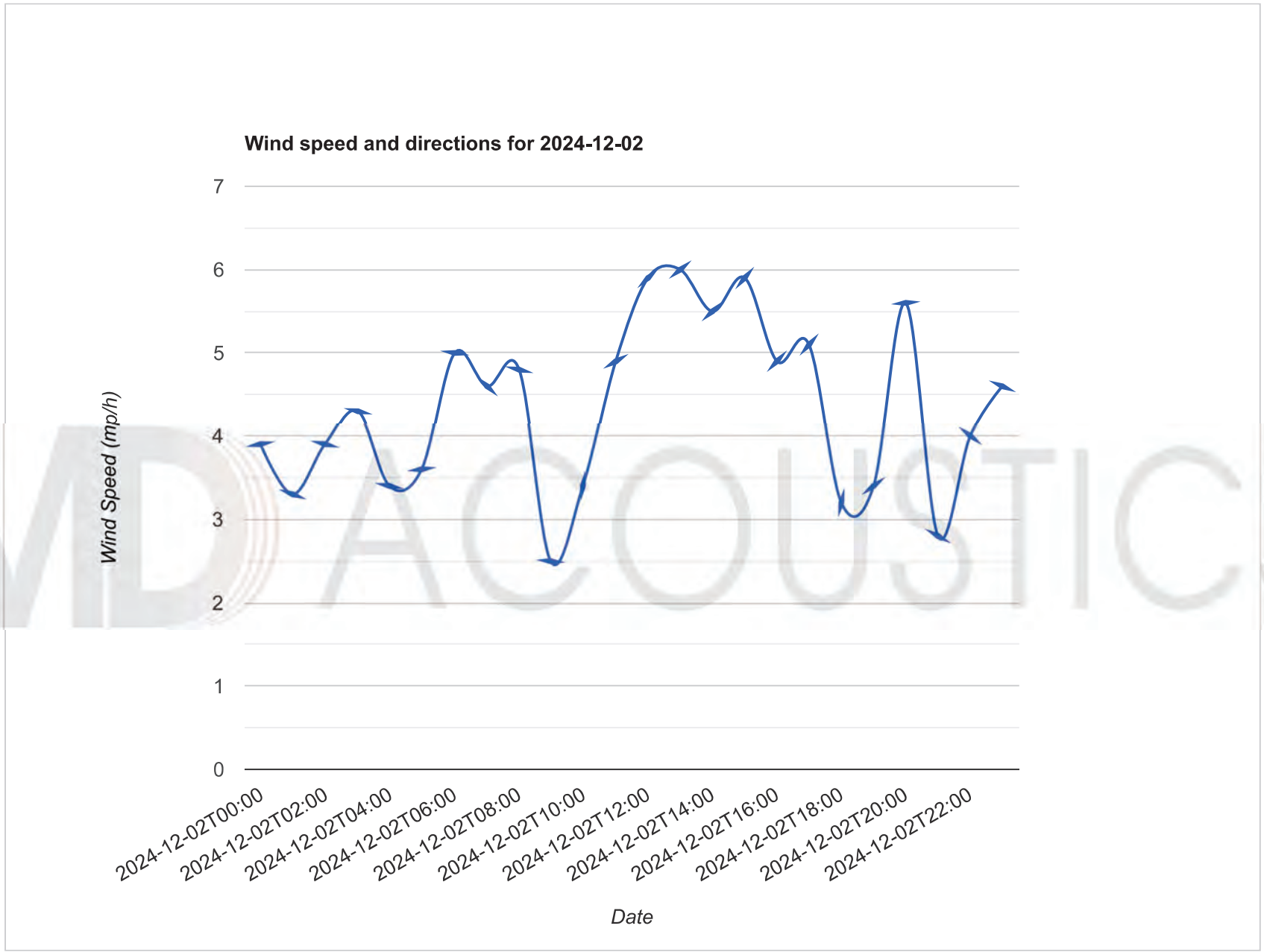
Project Name:	E Ave S Mini Storage Noise 3057-007-046 SPR25-0005	**Site Topo:**	Flat open desert with a few tree	**Noise Source(s) w/ Distance:**	
Site Address/Location:	E Avenue S & 25th Street E	**Meteorological Cond.:**	61F Clear skies winds 1-3 Mph	traffic noise	
Site Id:	NM2	**Ground Type:**	Open soil lot, Sand, clay, rock		



MD ACOUSTICS



MD ACOUSTICS



Source: Global Forecast System (GFS) weather forcast model

Appendix B:

Traffic Noise Modeling Output

APN:3057-007-046
SPR25-0005

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

PROJECT: PALMDALE MINI STORAGE FACILITY
ROADWAY: E AVENUE S
LOCATION: ON-SITE

JOB #: 1922-06-02
DATE: 12-Dec-24
ENGINEER: R.Edelman

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	30,106	
SPEED =	55	
PK HR % =	10	
NEAR LANE/FAR LANE DI	60	
ROAD ELEVATION =	0.0	
GRADE =	1.0	%
PK HR VOL =	3,011	

RECEIVER INPUT DATA

RECEIVER DISTANCE =	115	
DIST C/L TO WALL =	115	
RECEIVER HEIGHT =	5.0	
WALL DISTANCE FROM RECEIVER	0	
PAD ELEVATION =	0.5	
ROADWAY VIEW: LF ANGLE=	-90	
RT ANGLE=	90	
DF ANGLE=	180	

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.9742
MEDIUM TRUCK	0.848	0.049	0.103	0.0184
HEAVY TRUCKS	0.865	0.027	0.108	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	111.07	- -
MEDIUM TRUCKS	4.0	111.03	- -
HEAVY TRUCKS	8.0	111.05	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	69.3	67.5	61.4	70.1	70.7
MEDIUM TRUCKS	61.0	59.5	53.2	51.6	60.1	60.3
HEAVY TRUCKS	61.1	59.6	50.6	51.8	60.2	60.3
NOISE LEVELS (dBA)	71.9	70.1	67.7	62.3	70.9	71.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	69.3	67.5	61.4	70.1	70.7
MEDIUM TRUCKS	61.0	59.5	53.2	51.6	60.1	60.3
HEAVY TRUCKS	61.1	59.6	50.6	51.8	60.2	60.3
NOISE LEVELS (dBA)	71.9	70.1	67.7	62.3	70.9	71.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	159	502	1587	5020
LDN	140	444	1403	4437

Appendix C:

Construction Noise Modeling Output

Receptor - Surrounding Residences

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Edge of Site to Receptor, feet	Center of Site to Receptor, feet	Item Usage Percent[1]	Ground Factor[2]	Usage Factor	Receptor Item Lmax, dBA	Recptor. Item Leq, dBA
DEMO									
Excavator	3	81	**80**	**455**	40	**0**	0.40	76.9	57.8
Dozer	2	82	80	455	40	0	0.40	77.9	58.8
Concrete Saw	1	90	80	455	20	0	0.20	85.9	63.8
Tractor	0	84	80	455	40	0	0.40	0.0	0.0
							Log Sum	85.9	67.6
SITE PREP									
Grader	0	85	80	455	40	0	0.40	0.0	0.0
Tractor	4	84	80	455	40	0	0.40	79.9	60.8
Dozer	3	82	80	455	40	0	0.40	77.9	58.8
Scraper	0	84	80	455	40	0	0.40	0.0	0.0
							Log Sum	79.9	68.5
GRADE									
Dozer	1	82	80	455	40	0	0.40	77.9	58.8
Tractor	3	84	80	455	40	0	0.40	79.9	60.8
Grader	1	85	80	455	40	0	0.40	80.9	61.8
Excavator	1	81	80	455	40	0	0.40	76.9	57.8
Scraper	0	84	80	455	40	0	0.40	0.0	0.0
								80.9	68.2
BUILD									
Crane	1	81	80	455	16	0	0.16	76.9	53.9
Man lift	3	75	80	455	20	0	0.20	70.9	48.8
Tractor	3	84	80	455	40	0	0.40	79.9	60.8
Welder/Torch	1	74	80	455	40	0	0.40	69.9	50.8
Generator	1	81	80	455	50	0	0.50	76.9	58.8
								79.9	67.0
PAVE									
Paver	2	77	80	455	50	0	0.50	72.9	54.8
Concrete Mixer Truck	0	79	80	455	40	0	0.40	0.0	0.0
Roller	2	80	80	455	20	0	0.20	75.9	53.8

Tractor	0	84	80	455	40	0	0.40	0.0	0.0
Compactor (ground)	2	83	80	455	20	0	0.20	78.9	56.8
								78.9	63.1
ARCH COAT									
Compressor (air)	1	78	80	455	40	0	0.40	73.9	54.8
								73.9	54.8

[1]FHWA Construction Noise Handbook: Table 9.1 RCNM Default Noise Emission Reference Levels and Usage Factors

VIBRATION LEVEL IMPACT

Project:	Mini Storage Facility	Date: 12/12/24
Source:	Vibratory Roller	
Scenario:	Unmitigated	
Location:	East Residences	
Address:	Palmdale, CA	

PPV = PPVref(25/D)^n (in/sec)

DATA INPUT

Equipment = Type	1	Vibratory Roller	INPUT SECTION IN BLUE
PPVref =	0.21	Reference PPV (in/sec) at 25 ft.	
D =	85.00	Distance from Equipment to Receiver (ft)	
n =	1.10	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

DATA OUT RESULTS

PPV =	**0.055**	IN/SEC	OUTPUT IN RED

Appendix J. Sewer Report

City of Palmdale
Sewer Area Study

Office Flex Space Development
Ave S. and 25th Street East
Palmdale, CA 93550

Prepared For:

Markus Jones

markusjones@gmail.com



Prepared By:

Duke Engineering
759 West Lancaster Blvd
Lancaster, California 93534
Phone: (661) 952-7918

ENGINEER'S CERTIFICATION:

The Registered Professional Engineer Certifies that the Sewer Facilities have been designed in accordance with the County of Los Angeles Engineering Design Guidelines Policies & Procedures.

Table of Contents

1. **Introduction** 3
2. **Approach** 3
3. **Purpose** 3
4. **Project Location** 3
5. **Project Use** 3
6. **Analysis** 3
   - **6.1 On-Site Effluent Flow Analysis** 3
     - Table 1: On-site Analysis 3
     - **6.1.1 On-Site Results** 3
   - **6.2 Off-Site Sewer Area Analysis** 3
     - Table 2: Off-site Analysis 4
7. **Conclusion** 4

Appendix A: Sewer Area Map 5

Appendix B: Daily Flow Value Table 7

Appendix C: Existing Sewer Main Capacity Analysis 9

1. Introduction

The purpose of this study is to determine the increase in effluent produced by the proposed project and project its impact on the existing sanitary sewer infrastructure.

2. Approach

The approach that will be used in determining this increase in effluent for the on-site analysis will be with the Los Angeles County Estimated Sewer Flow provided by LA County Public Works.

3. Purpose

The purpose of this analysis will be to determine the increase in effluent to the existing sanitary sewer system.

4. Project Location

The project site is located west of the intersection of 25th St. E and Ave S in Palmdale.

5. Project Use

The project will construct a new 10.2-acre office flex space development.

6. Analysis

The values for this analysis will come from the Los Angeles County Estimated Sewer Flow.

6.1 On-Site Effluent Flow Analysis

See Appendix B for the flow coefficient values used in this section.

Table 1: On-site Analysis

Zoning	Ammt.	Average Flow Factor	Average Flow Rate	Peak Flow Rate
OFX	129395 sf	26.7361 cfs/1000sf	0.24 cfs	0.6 cfs

6.1.1 On-Site Results

The total peak effluent from the site is 0.54 cfs in total.

6.2 Off-Site Sewer Area Analysis

From the project's point of connection on Ave S all the way to 25th St. E, the existing sewer is a 10" sewer at a constant slope of 0.84%. Therefore, the entire tributary area is analyzed once with the full effluent and compared to the capacity in a 10" sewer.

The table below shows that the full tributary area to the trunk point of connection provides a peak flow rate of 1.73 cfs, and an average flow rate of 0.693 cfs. The LA County Sewer guidelines specify that the average flow rate in a sewer should produce a flow depth of half of the sewer diameter (50% full). The 10" sewer at 5" flow depth allows for a flow rate of 0.942 cfs, which is greater than the proposed average flow in the pipe. The 10" sewer at ¾ full allows for a flowrate of 1.75 cfs, which is greater than the proposed peak flow. See Appendices C and D for these Kuttering calculations.

Table 2: Off-site Analysis

Zoning	Ammt.	Average Flow Factor	Average Flow Rate	Peak Flow Rate
SFR 3	120 SFRs	40 cf/dwelling unit	0.333 cfs	0.83 cfs
NC	113843 sf	13.3681cf/1000sf	0.12 cfs	0.3 cfs

7. Conclusion

This report shows that the City of Palmdale sewer has sufficient capacity to safely convey the increase in effluent to the LACSD Trunk.

Sincerely,

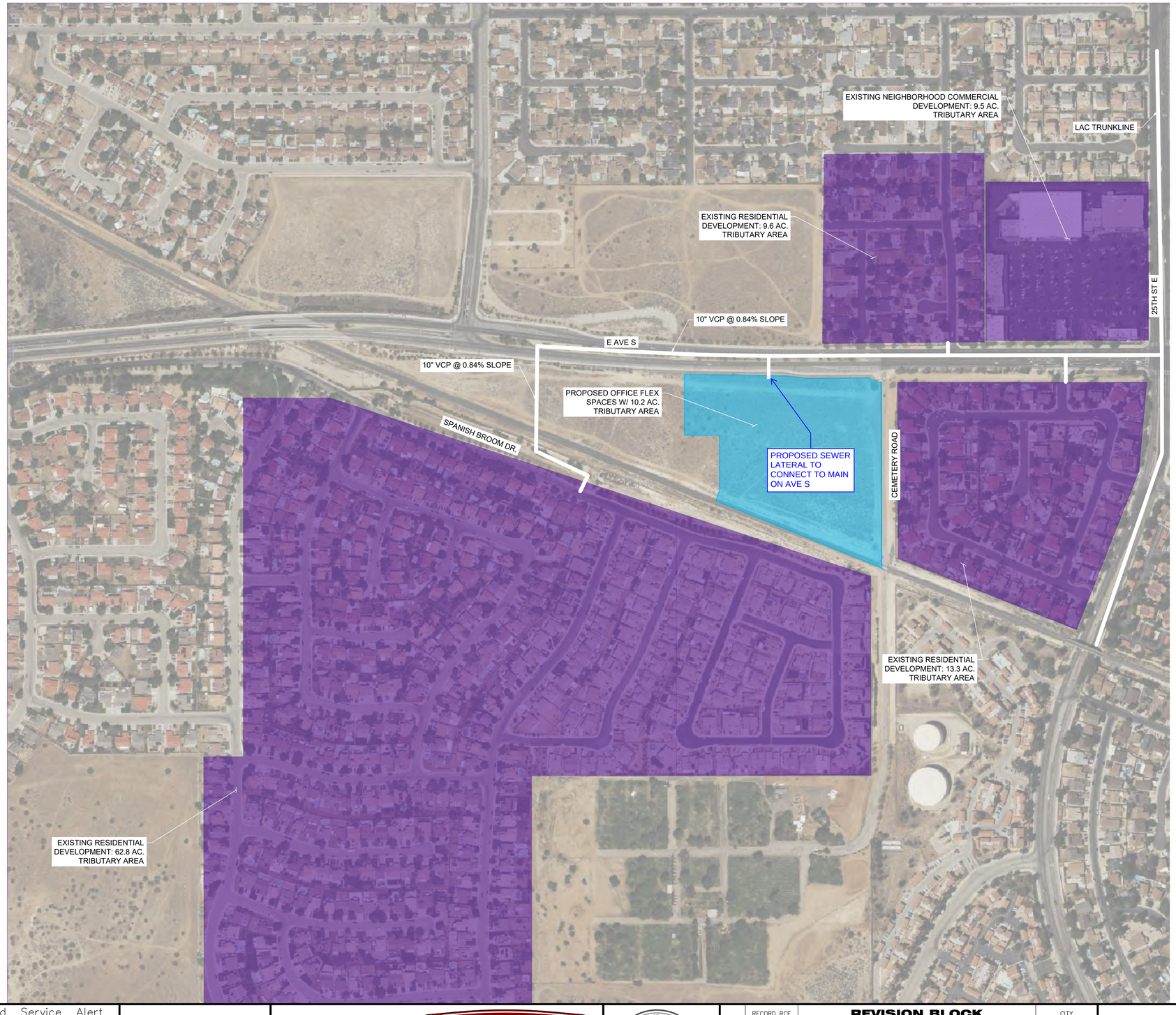


Ryan Duke P.E.

RCE 79729

Principle Engineer

Appendix A: Sewer Area Map



QUANTITIES:
120 EXISTING SFRs
113843 SF OF EXISTING NEIGHBORHOOD COMMERCIAL
129395 SF OF PROPOSED OFFICE FLEX

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

Underground Service Alert
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

PROJECT OWNER
MARKUS JONES

MARKUSNJONES@GMAIL.COM
(385) 229-7709

ENGINEER OF RECORD
759 WEST LANCASTER BLVD
LANCASTER, CA 93534
(661) 952-7918

DUKE ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
RYAN DUKE
CIVIL
STATE OF CALIFORNIA

	RECORD RCE		REVISION BLOCK	CITY	
REV #	APPR.	DATE	REVISION DESCRIPTION	APPR.	DATE
△					

CITY OF PALMDALE
SEWER AREA STUDY MAP
PROPOSED STORAGE BUILDINGS
APN: 3053-007-046

SCALE: PER PLAN
DESIGNED: RD
DRAWN: EI
CHECKED: RD
DUKE ENG 24116
SHEET NO.
1 OF 1

Appendix B: Daily Flow Value Table

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	150	gal/D.U.
1 bedroom dwelling units	Apt	200	gal/D.U.
2 bedroom dwelling units	Apt	250	gal/D.U.
3 bedroom or more dwelling units	Apt	300	gal/D.U.
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	MB	150	gal/unit
Office Buildings	Off	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture ----------	0.001
Residential*:	
R-1 ----------	0.004
R-2 ----------	0.008
R-3 ----------	0.012
R-4 ----------	0.016*
Commercial:	
C-1 through C-4 ----------	0.015*
Heavy Industrial:	
M-1 through M-4 ----------	0.021*

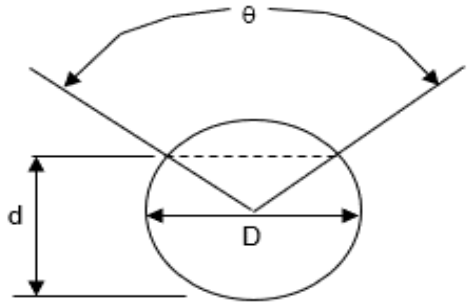
* Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown

* Use 0.001 (cfs/unit) for condominiums only

Appendix C: Existing Sewer Main Capacity Analysis

Duke Engineering
CIVIL & STRUCTURAL
LANCASTER - CALIFORNIA

PROJECT SITE TO TRUNK -- 10" @ 0.4%



R = A/P	D =	10	in
A = Cross Section Area	d =	5	in
P = Wetted Perimeter	n =	0.013	[-]
S = Slope of Channel	Angle =	180.000	θ
n = Manning's Roughness Coefficient	S =	0.0084	ft/ft

$$c = \frac{41.65 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \left[41.65 + \frac{0.00281}{S}\right] * \frac{n}{\sqrt{R}}}$$

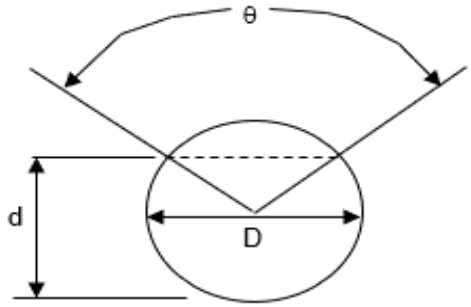
c = 82.564 [-]

Kutter Formula = Q = A*c*(R*S)$^{1/2}$

Area, ft^2	Wetted Perimeter (ft)	Hydraulic Radius	Velocity (ft/s)	Flow Rate (cfs)
0.273	1.309	0.208	3.682	0.942
Q = 0.942 CFS Allowable				

Duke Engineering
CIVIL & STRUCTURAL
LANCASTER - CALIFORNIA

PROJECT SITE TO TRUNK -- 10" @ 0.4%



R = A/P	D =	10	in
A = Cross Section Area	d =	7.5	in
P = Wetted Perimeter	n =	0.013	[-]
S = Slope of Channel	Angle =	120.000	θ
n = Manning's Roughness Coefficient	S =	0.0084	ft/ft

$$c = \frac{41.65 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \left[41.65 + \frac{0.00281}{S}\right] * \frac{n}{\sqrt{R}}}$$

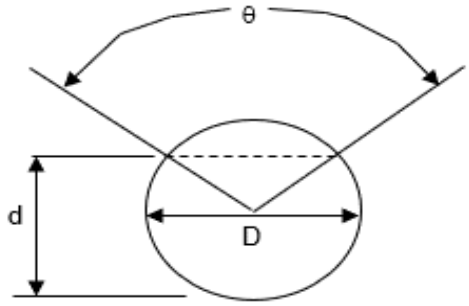
c = 86.803 [-]

Kutter Formula = Q = A*c*(R*S)$^{1/2}$

Area, ft^2	Wetted Perimeter (ft)	Hydraulic Radius	Velocity (ft/s)	Flow Rate (cfs)
0.439	1.745	0.251	4.173	1.750
Q = 1.75 CFS Allowable				

Duke Engineering
CIVIL & STRUCTURAL
LANCASTER - CALIFORNIA

PROJECT SITE TO TRUNK -- 10" @ 0.4%



R = A/P	D =	10	in
A = Cross Section Area	d =	3	in
P = Wetted Perimeter	n =	0.013	[-]
S = Slope of Channel	Angle =	132.844	θ
n = Manning's Roughness Coefficient	S =	0.0084	ft/ft

$$c = \frac{41.65 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \left[41.65 + \frac{0.00281}{S}\right] * \frac{n}{\sqrt{R}}}$$

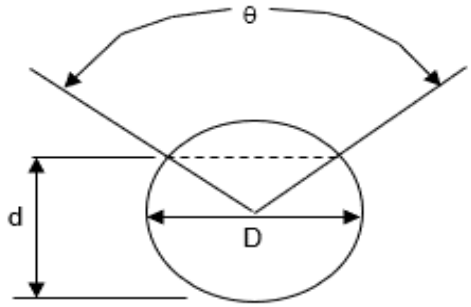
c = 74.115 [-]

Kutter Formula = Q = A*c*(R*S)$^{1/2}$

Area, ft^2	Wetted Perimeter (ft)	Hydraulic Radius	Velocity (ft/s)	Flow Rate (cfs)
0.138	0.966	0.142	2.857	0.693
Q = 0.693 CFS < 0.942 CFS. OK.				

Duke Engineering
CIVIL & STRUCTURAL
LANCASTER - CALIFORNIA

PROJECT SITE TO TRUNK -- 10" @ 0.4% (ACTUAL)



R = A/P	D =	10	in
A = Cross Section Area	d =	6	in
P = Wetted Perimeter	n =	0.013	[-]
S = Slope of Channel	Angle =	120.000	θ
n = Manning's Roughness Coefficient	S =	0.0084	ft/ft

$$c = \frac{41.65 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \left[41.65 + \frac{0.00281}{S}\right] * \frac{n}{\sqrt{R}}}$$

c = 86.803 [-]

Kutter Formula = Q = A*c*(R*S)$^{1/2}$

Area, ft^2	Wetted Perimeter (ft)	Hydraulic Radius	Velocity (ft/s)	Flow Rate (cfs)
0.439	1.745	0.251	4.173	1.730
Q = 1.73 CFS < 1.75 CFS. OK.				

Appendix K

VMT Analysis

RUETTGERS & SCHULER CIVIL ENGINEERS | PROVOST & PRITCHARD

1518 Mill Rock Way, Suite 100, Bakersfield, CA 93311-1351 • Tel: (661) 616-5900
www.provostandpritchard.com

August 28, 2025

Patty de la Cruz
Duke Engineering
759 W. Lancaster Blvd.
Lancaster, CA 93534

RE: Trip Generation and Vehicle Miles Traveled Analysis for Proposed Self-Storage Warehouse in Palmdale, CA

Dear Ms. De la Cruz:

This letter is in response to the City's request for trip generation analysis for a proposed self-storage warehouse on the southwest corner of Avenue S & Cemetery Road in Palmdale, CA. The project will consist of 725 storage units as shown on the site plan (attached).

Trip Generation

Trip generation volumes for the proposed land use were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition. The trip generation is based on the ITE Code 151 (Mini-Warehouse). The results are shown in Table 1.

Table 1
Trip Generation

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
151	Mini-Warehouse	124.34 1000 sq ft GFA	1.29	160	0.08	59% 6	41% 4	0.14	48% 8	52% 9

As shown in Table 1, the proposed project is anticipated to generate 160 daily trips, 10 AM peak hour trips, and 17 PM peak hour trips. Since peak hour project traffic is less than 50 vehicle trips, level of service analysis is not required.

Vehicle Miles Traveled

In 2013, the state of California enacted legislation (SB 743) which required the Governor's Office of Planning and Research (OPR) to recommend new metrics for assessing and mitigating transportation impacts within the California Environmental Quality Act (CEQA). Regulatory changes to CEQA

Guidelines adopting the use of vehicle miles traveled (VMT) metric were approved on December 28, 2018. Statewide implementation began July 1, 2020.

OPR also released a Technical Advisory on December 28, 2018, which provides guidance related to the evaluation of VMT as part of a transportation impact analysis under CEQA. The advisory contains recommendations regarding VMT assessment, significance thresholds and mitigation measures. Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies or rely on thresholds and methodologies recommended by other agencies, provided such guidelines are supported by substantial evidence. The VMT analysis for this project was conducted in accordance with *Analyzing Vehicle Miles Traveled (VMT) for CEQA Compliance: SB 743 VMT Implementation Guidelines for the City of Palmdale,* dated May 13, 2024.

The City of Palmdale Guidelines identify project types that are presumed to have a less-than-significant impact on VMT, and therefore, a less-than-significant impact on transportation. The City of Palmdale Guidelines contain "screening thresholds" for identifying whether a land use project should be expected to result in a less than significant transportation impact. Projects meeting one or more of these screening criteria would not be required to undergo a detailed VMT analysis.

One screening threshold pertains to small projects. The City of Palmdale Guidelines states that "…any other exclusive land use projects or a combination of multiple land uses that in total produce less than 3,000 metric tons of CO_2 equivalent emissions…" are presumed to cause a less-than-significant impact.

A CalEEMOD model was run using the project trip generation and the report is attached. Based on the model, the project is anticipated to generate 680 metric tons of CO_2 per year. This is below the threshold of 3,000 metric tons of CO_2 per year; therefore, the project is expected to have a less-than-significant VMT impact.

Please contact me should you have any questions.

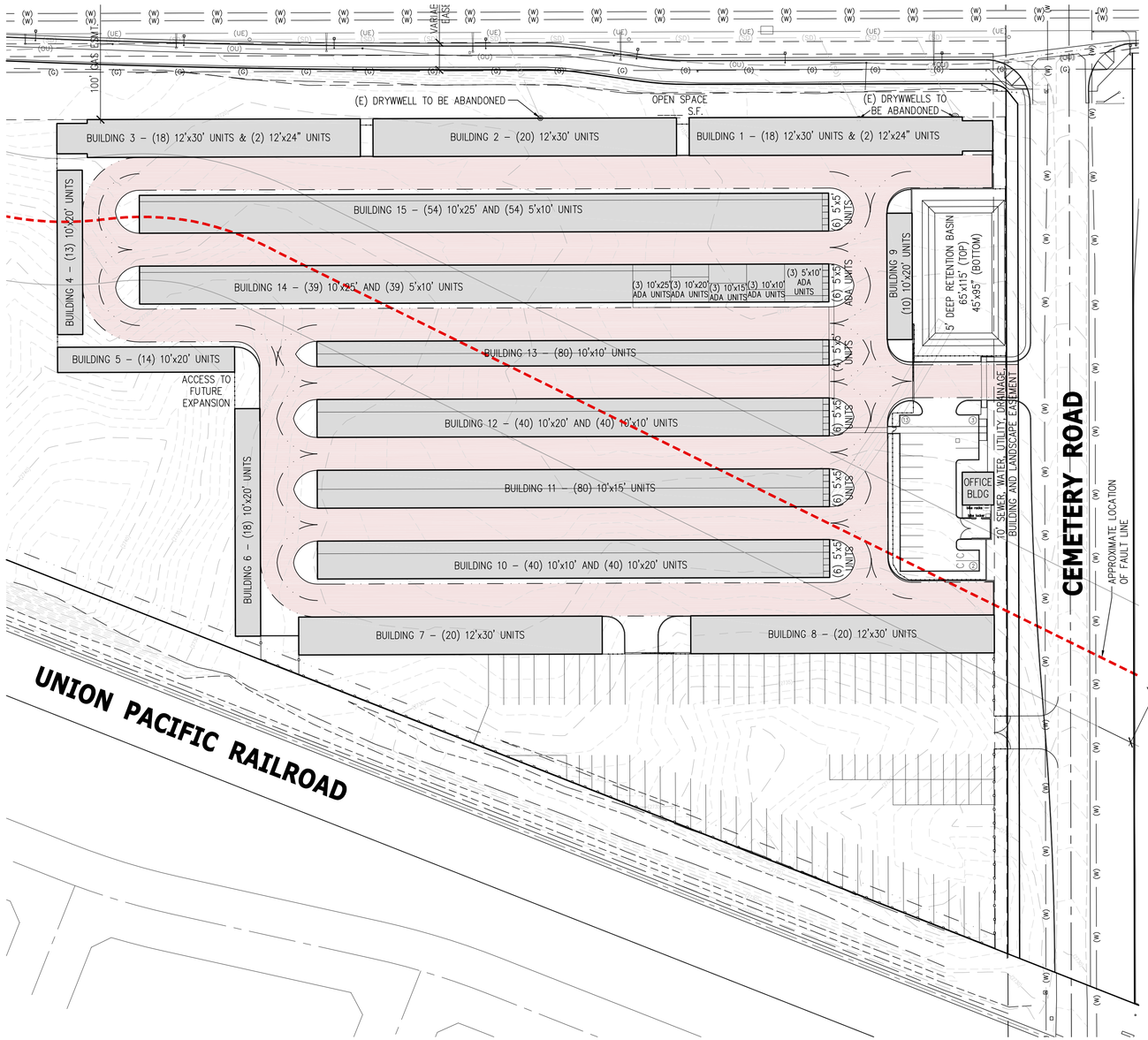
Very truly yours,





Ian J. Parks
R.C. E. 58155

Attachment



725 UNITS / 75 = 10 SPACES
3/1,000 S.F. OFFICE x 650 = 3 SPACES
GROSS AREA:
123,962 STORAGE AREA
650 S.F. OFFICE AREA
124,342 S.F. x 3% = 3,731 OPEN AREA REQUIRED
725 UNITS
– 10 + 2% over 200 = x 5% = 21 ADA UNITS
DEVELOPED AREA: 390,196 x 10% = 39,020 S.F. LANDSCAPE REQUIRED

Avenue S Self Storage Project Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

2. Emissions Summary

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Avenue S Self Storage Project
Operational Year	2025
Lead Agency	City of Palmdale
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.50
Precipitation (days)	13.0
Location	Cemetery Rd, Palmdale, CA 93550, USA
County	Los Angeles-Mojave Desert
City	Palmdale
Air District	Antelope Valley AQMD
Air Basin	Mojave Desert
TAZ	3635
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	124	1000sqft	2.85	124,342	39,020	—	—	—
Parking Lot	266	1000sqft	6.10	0.00	0.00	—	—	—

2. Emissions Summary

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	CO2e
Daily, Summer (Max)	—
Mobile	2,570
Area	22.3
Energy	1,553
Water	398
Waste	220
Total	4,763
Daily, Winter (Max)	—
Mobile	2,339
Area	—
Energy	1,553
Water	398
Waste	220
Total	4,510
Average Daily	—
Mobile	2,150
Area	11.0
Energy	1,553
Water	398
Waste	220
Total	4,332
Annual	—
Mobile	356

Area	1.82
Energy	257
Water	65.9
Waste	36.5
Total	717

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Unrefrigerated Warehouse-No Rail	2,570
Parking Lot	0.00
Total	2,570
Daily, Winter (Max)	—
Unrefrigerated Warehouse-No Rail	2,339
Parking Lot	0.00
Total	2,339
Annual	—
Unrefrigerated Warehouse-No Rail	356
Parking Lot	0.00
Total	356

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Unrefrigerated Warehouse-No Rail	559
Parking Lot	224
Total	783
Daily, Winter (Max)	—
Unrefrigerated Warehouse-No Rail	559
Parking Lot	224
Total	783
Annual	—
Unrefrigerated Warehouse-No Rail	92.6
Parking Lot	37.0
Total	130

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Unrefrigerated Warehouse-No Rail	770
Parking Lot	0.00
Total	770
Daily, Winter (Max)	—
Unrefrigerated Warehouse-No Rail	770
Parking Lot	0.00
Total	770
Annual	—

Unrefrigerated Warehouse-No Rail	128
Parking Lot	0.00
Total	128

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	CO2e
Daily, Summer (Max)	—
Consumer Products	—
Architectural Coatings	—
Landscape Equipment	22.3
Total	22.3
Daily, Winter (Max)	—
Consumer Products	—
Architectural Coatings	—
Total	—
Annual	—
Consumer Products	—
Architectural Coatings	—
Landscape Equipment	1.82
Total	1.82

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Unrefrigerated Warehouse-No Rail	398
Parking Lot	0.00
Total	398
Daily, Winter (Max)	—
Unrefrigerated Warehouse-No Rail	398
Parking Lot	0.00
Total	398
Annual	—
Unrefrigerated Warehouse-No Rail	65.9
Parking Lot	0.00
Total	65.9

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Unrefrigerated Warehouse-No Rail	220
Parking Lot	0.00
Total	220
Daily, Winter (Max)	—
Unrefrigerated Warehouse-No Rail	220
Parking Lot	0.00
Total	220
Annual	—

Unrefrigerated Warehouse-No Rail	36.5
Parking Lot	0.00
Total	36.5

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	160	175	124	57,444	2,757	3,013	2,137	987,286
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	186,513	62,171	15,951

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	581,966	349	0.0330	0.0040	2,396,835
Parking Lot	232,888	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	28,754,088	631,511
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	117	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Adjusted trip rates to reflect 12th Edition ITE Land Use Code 151

Appendix L

Public Comment Letters

1. Ft. Yuma Quechan Tribe Historic Preservation Office, 29 July 2025
2. AT&T, 6 August 2025
3. Antelope Valley Air Quality Management District, 11 August 2025
4. California Department of Transportation, 28 August 2025
5. Fernandeño Tataviam Band of Mission Indians, 3 September 2025

Subject: Re: [EXTERNAL]:Conditional Use Permit 25-0002 and Site Plan Review 25-0005

Jill Mccormick <historicpreservation@quechantribe.com> Tue, Jul 29, 12:17 PM
to Kathy Inman, Juan Lopez, Brenda Magana

Good afternoon,
This email is to inform you that the Ft. Yuma Quechan Tribe Historic Preservation Office does not wish to comment on this project. We defer to the local Tribes and support their determinations on this matter.

Jill

H. Jill McCormick, M.A.
Historic Preservation Office
Ft. Yuma Quechan Indian Tribe
P.O. Box 1899
Yuma, AZ 85366-1899
Office: 760-919-3631
Cell: 928-920-6521

From: Kathy Inman <kinman@cityofpalmdaleca.gov>
Sent: Tuesday, July 29, 2025 11:46 AM
Cc: Juan Lopez <jlopez@cityofpalmdaleca.gov>; Brenda Magana <bmagana@cityofpalmdaleca.gov>
Subject: [EXTERNAL]:Conditional Use Permit 25-0002 and Site Plan Review 25-0005

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The Initial Study / Mitigated Negative Declaration is available for public review beginning today and will end on August 29, 2025. Please use this link to view the documents on the City's website (https://www.cityofpalmdaleca.gov/277/Environmental-Documents). All written comments should be sent to:

Brenda Magaña, Planning Manager

City of Palmdale, Economic and Community Development Department, Planning Division

38250 Sierra Highway

Palmdale, CA 93550

bmagana@cityofpalmdaleca.gov

Thank you,

--

Kathy Inman

Senior Administrative Assistant



Economic and Community Development | Planning

38250 Sierra Highway

Palmdale, CA 93550

(661)267-5229 Direct

(661)267-5200 Main

www.cityofpalmdale.org

Hours: Monday – Thursday, 7:30 am to 6:00 pm ~ closed Friday

22311 Brookhurst Street Suite203
Huntington Beach Ca 92646

NO CONFLICT

August 6, 2025

City of Palmdale
Planning
Attn: Kathy Inman
38250 Sierra Highway
Palmdale, CA 93550

Re: CUP 25-002 SPR 25-005, E. Avenue S. & Cemetery Road, Mini Storage, Palmdale, CA

Dear Ms. Inman,

This is in response to your Inquiry Letter dated July 29, 2025, regarding the above referenced project. After reviewing your location maps, please be advised that AT&T Network Services (long distance) has no active facilities (Transcontinental Fiber Optics Lines) within the vicinity of this project.

Thank you for notifying AT&T of the pending project referenced above. Notification of future proposed work, performed in this vicinity should be directed to:

AT&T INQUIRIES
22311 Brookhurst Street, Suite 203
Huntington Beach, CA 92646
joef@forkertengineering.com

Should you have any questions or concerns regarding this project, please contact Mr. Joseph Forkert at (714) 963-7964 or me at your earliest convenience.

Please Note

AT&T Drawings are Proprietary Information Pursuant to Company instructions–This Office does not distribute drawings for Pre–Planning and Design Engineering purposes.

Please contact your local City, County, Utility Notification Center or AT&T on Site Plant Protection Workforce to identify AT&T facilities prior to contacting AT&T Engineering. If you are referred to our office because of a possible conflict with AT&T lines, we will confirm and provide you with the appropriate drawings and pertinent information required to avoid a conflict with AT&T lines prior to the start of your construction project.

Sincerely,

Joseph Forkert for
Tanya Hernandez
OSP Maintenance Engineer
(619) 200-7896

In reply, please refer to AV0825/101

August 11, 2025

Brenda Magaña
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Project: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

To Whom It May Concern:

The Antelope Valley Air Quality Management District (District) has received the request to review **Conditional Use Permit 25-0002 and Site Plan Review 25-0005** requesting to develop a mini-storage facility consisting of 15 storage buildings of varying sizes with a total of 695 storage units, RV storage parking, a retention basin, and a ~1,050 sf office building. This project site is located at the southwest corner of East Avenue S and Cemetery Road in the City of Palmdale (APNs: 3053-007-046 and -908).

Prior to the start of any grading/construction activity, the District requires the proposed project to comply with the following:

- Project Information Form
- Rule 302-Construction Excavation Fee
- Dust Control Plan (DCP) with Signage
- Rule 219-Permitting
- CARB Equipment

Grant funding is available for electric vehicle charging stations at public commercial/industrial locations. For more information or to apply, contact the District.

Thank you for the opportunity to review this planning document. If you have any questions/concerns regarding the information presented in this letter, please contact me at (661) 723-8070 ext. 23 or blods@avaqmd.ca.gov.

Sincerely,

Barbara Lods

Barbara Lods
BJL/SS
Sent via Email

California Department of Transportation

DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 407-6607
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

August 28, 2025

Brenda Magana
City of Palmdale
38250 Sierra Highway
Palmdale, California 93550

RE: Conditional Use Permit (CUP) 25-0002 Site Plan Review (SPR) 25-0005 (MND)
SCH # 2025071273
GTS # 07-LA-2025-04870

Dear Brenda Magana,

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced project. The City of Palmdale is proposing the development of mini-storage facility consisting of 15 storage buildings of varying sizes with a total of 695 storage units, recreational (RV) storage parking, a retention basin, and an approximately 1,050 square foot office building. The self-storage building space will be approximately 123,962 square feet. The facility will include parking, supporting infrastructure (roads, utilities), and landscaping. The facility will disturb approximately eight acres of the approximately 15- acre site.

The nearest State facilities are U.S. State Highway 14. After reviewing the Mitigated Negative Declaration (MND), Caltrans has the following comments:

Caltrans encourages the Lead Agency to incorporate multi-modal infrastructure along and within the development boundaries to meet community placemaking and safe urban design objectives. This infrastructure, encompassing ADA-compliant design, adequate sidewalks, high-visibility crosswalks, Class IV bike lanes, and bike parking, is crucial for establishing a fully accessible Complete Street that supports pedestrians, bicyclists, and transit riders.

Caltrans recommends limiting large truck travel and construction traffic to off-peak commute hours. A permit for any heavy construction equipment and or materials that require the use of oversized transport vehicles on State highways. If construction traffic is expected to cause issues on any State facilities, please submit a construction traffic control plan detailing potential impacts for Caltrans review.

Should you have any questions, please feel free to contact Nestor Lemus, the project coordinator, at Nestor.Lemus@dot.ca.gov and refer to GTS # 07-LA-2025-04870.

Sincerely,

Miya Edmonson

MIYA EDMONSON
LDR/CEQA Branch Chief

cc: State Clearinghouse

Fwd: FW: [EXTERNAL] Re: Recommended Edits and Additions to Mitigation Measures – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility)

From: Markus Jones (markusnjones@gmail.com)

To: wnaturelover1@aol.com; wdeal777@gmail.com; shawna@duke-engineering.com; taylor@smith.net; mark.skyfinancial@gmail.com; ryan@duke-engineering.com

Date: Wednesday, September 3, 2025 at 03:58 PM PDT

Hi Mark and Wanda,

Please see the forwarded email from Juan with the written comments from the FTBMI tribe.

Thanks,
Markus Jones
Phone: 385.229.7709

---------- Forwarded message ---------
From: **Juan Lopez** <jlopez@cityofpalmdaleca.gov>
Date: Wed, Sep 3, 2025 at 4:54 PM
Subject: FW: [EXTERNAL] Re: Recommended Edits and Additions to Mitigation Measures – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility)
To: markusnjones@gmail.com <markusnjones@gmail.com>
Cc: Brenda Magana <bmagana@cityofpalmdaleca.gov>

Hi Markus,

As discussed during our call earlier, below are the requested additions to the mitigation measures related to the IS/MND for CUP25-0002 and SPR25-0005. After reviewing these additions, and as noted below, these measures are requests to replace or supplement the proposed mitigation measures (Tribe-1 through Tribe-3). I have confirmed that these requests are consistent with past projects in the City. Please feel free to contact me if you have any questions.

Thank you,

Juan Lopez

Assistant Planner

CITY OF PALMDALE

Economic and Community Development | Planning

38250 Sierra Highway
Palmdale, CA 93550

661/267-5219 Direct

661/267-5200 Main

www.CityofPalmdaleCA.gov

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

The Planning Division's Counter is closed Monday-Thursday from 11:30 am-1:30 pm.

The Planning Division now accepts applications online and has updated all forms and resources.

To submit a new application, please create an account in the Accela Citizen Portal platform.

From: Miguel Luna, Chief Administrative Officer <Miguel.Luna@tataviam-nsn.us>
Sent: Wednesday, September 3, 2025 2:11 PM
To: Juan Lopez <jlopez@cityofpalmdaleca.gov>; Brenda Magana <bmagana@cityofpalmdaleca.gov>
Cc: THCP CRMD <crm@tataviam-nsn.us>
Subject: [EXTERNAL] Re: Recommended Edits and Additions to Mitigation Measures – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility)

CAUTION: This email originated from outside of the organization.

Subject: Recommended Edits and Additions to Mitigation Measures – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility)

Dear Brenda Magaña and Juan Lopez:

Thank you again for coordinating with the Fernandeño Tataviam Band of Mission Indians (FTBMI) on the Mini-Storage Facility project (CUP 25-0002 / SPR 25-0005), located at the southwest corner of East Avenue S and Cemetery Road in the City of Palmdale.

Following a detailed review of the IS/MND and consultation materials, the Tribe supports the intent of the proposed mitigation measures Trib-1 through Trib-3, but respectfully requests the following edits and additions to ensure they reflect the appropriate level of protection based on our Medium Sensitivity determination.

Requested Additions to the Mitigation Measures (to replace or supplement Trib-1 to Trib-3):

WEAP Training

Prior to the start of construction, a Qualified representative, procured by the Fernandeño Tataviam Band of Mission Indians and retained by the Project Applicant, shall conduct a Tribal Cultural Resources Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the aspects of Tribal Cultural Resources and the procedures for notifying the Fernandeño Tataviam Band of Mission Indians should Tribal Cultural Resources be discovered by construction staff.

Training can be done in conjunction with Cultural Resources WEAP training, if such training is requested by the proposed project's archaeologist. (This training is about 15 minutes in length)

300-2.3 Treatment and Disposition Plan

A Treatment and Disposition Plan (TDP) shall be established, in consultation with the Fernandeño Tataviam Band of Mission Indians, prior to the commencement of any and all ground-disturbing activities for the Project, including any archaeological testing. The TDP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

300-2.4 Inadvertent Discovery

300-2.4.1 In the Event of an Inadvertent Discovery

If cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant shall assess the find. Work on the portions of the Projects outside of the buffered area may continue during this assessment period. The Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted about any pre-contact and/or post-contact finds and be provided information after the archaeologist makes their initial assessment of the nature of the find, to provide Tribal input with regards to significance and treatment.

300-2.4.2 Disposition and Treatment of Inadvertent Discoveries

The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

300-2.5 Human Remains

300-2.5.2 In the Event of Inadvertent Discovery, Human Remains

If human remains or funerary objects are encountered during any activities associated with the Project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code shall be enforced for the duration of the Project.

Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

301-2.2 Cultural Resources Monitoring and Mitigation Plan

A Cultural Resources Monitoring and Mitigation Plan (CRMMP) shall be prepared, in consultation with the Fernandeño Tataviam Band of Mission Indians, prior to the commencement of any and all ground-disturbing activities for the Project, including any archaeological testing. The CRMMP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Tribe, as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

301-2.3.1 Full Time Monitoring, Initial Pass, (1) Monitor

The project applicant shall retain a professional Tribal Monitor procured by the Fernandeño Tataviam Band of Mission Indians to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity during the initial pass (the first disturbance of all soil to the total depth of which it will be disturbed). If Cultural Resources are not encountered after observing the initial pass of all ground-disturbance, additional Tribal Monitoring is not required. If Cultural Resources are encountered during the initial pass, the Tribal Monitor(s) shall observe all remaining ground-disturbing activities, no matter the depth or frequency to which the soil was previously observed, until all ground-disturbing activities are complete. Tribal Monitoring Services will continue until confirmation is received from the project applicant, in writing, that all scheduled activities pertaining to Tribal Monitoring are complete, be it initial pass or all disturbance, dependent upon inadvertent discovery. If the Project's scheduled activities require the Tribal Monitor(s) to leave the Project for a period of time and return, confirmation shall be submitted to the Tribe by Client, in writing, upon completion of each set of scheduled activities and 5 days' notice (if possible) shall be submitted to the Tribe by project applicant, in writing, prior to the start of each set of scheduled activities. If cultural resources are encountered, the Tribal Monitor will have the authority to request that ground-disturbing activities cease within 60 feet of discovery and a qualified archaeologist meeting Secretary of Interior standards retained by the project applicant as well as the Tribal Monitor shall assess the find.

Justification for Medium Sensitivity

The Tribe has determined the project site qualifies as Medium Sensitivity due to the following factors:

- Ground disturbance reaching up to 7 feet into native alluvium
- Proximity to documented lithic scatter and midden soils
- Historical lack of AB 52 consultation in surrounding development areas

We respectfully request these recommended measures be incorporated into the final MND. Please let us know if a redline or tracked version would be helpful for your CEQA file.

Respectfully,

Miguel Luna
Chief Administrative Officer

Tribal Administration
Fernandeño Tataviam Band of Mission Indians
818-837-0794
1019 2nd Street, San Fernando, CA 91340
Native Sovereign Nation of Northern Los Angeles County

IMPORTANT: The contents of this email and any attachments are confidential. They are intended for the named recipient(s) only. If you have received this email by mistake, please notify the sender immediately and do not disclose the contents to anyone or make copies thereof.

Fernandeño Tataviam Band of Mission Indians

Proactively establishing entities to overcome systemic barriers:

From: Miguel Luna, Chief Administrative Officer <Miguel.Luna@tataviam-nsn.us>
Date: Wednesday, August 13, 2025 at 8:01 PM
To: Juan Lopez <jlopez@cityofpalmdaleca.gov>, Brenda Magana <bmagana@cityofpalmdaleca.gov>
Cc: THCP CRMD <crm@tataviam-nsn.us>, Kathy Inman <kinman@cityofpalmdaleca.gov>, Itati Ortega, Administrative Assistant <itati.ortega@tataviam-nsn.us>
Subject: Re: [EXTERNAL] Re: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

Subject: Scheduling Consultation – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility, Palmdale)

Dear Brenda Magaña and Juan Lopez,

Thank you for your continued coordination regarding the Proposed Project identified as Conditional Use Permit 25-0002 and Site Plan Review 25-0005, located at the southwest corner of East Avenue S and Cemetery Road in the City of Palmdale (APNs: 3053-007-046 and -908).

We have received the completed Consultation Form from the project proponent and are ready to proceed with the next step in the consultation process.

To assist in scheduling the consultation meeting, please feel free to review my availability using the following link: **https://ftbmiluna.youcanbook.me**

I am cc'ing Ms. Ortega here to assist with scheduling in case you are unable to book directly.

During the consultation meeting, we will share preliminary findings from our internal archival review, discuss the applicable mitigation measures for this **Medium Sensitivity** site, and provide an opportunity for project-specific questions or clarifications.

Please feel free to send any recent project updates or additional documents ahead of the meeting for our review.

We look forward to continuing our coordination.

Thank you,

Miguel Luna
Chief Administrative Officer

Tribal Administration
Fernandeño Tataviam Band of Mission Indians
818-837-0794
1019 2nd Street, San Fernando, CA 91340
Native Sovereign Nation of Northern Los Angeles County

IMPORTANT: The contents of this email and any attachments are confidential. They are intended for the named recipient(s) only. If you have received this email by mistake, please notify the sender immediately and do not disclose the contents to anyone or make copies thereof.

Fernandeño Tataviam Band of Mission Indians
Proactively establishing entities to overcome systemic barriers:

From: Miguel Luna, Chief Administrative Officer <Miguel.Luna@tataviam-nsn.us>
Date: Wednesday, August 6, 2025 at 7:13 PM
To: Juan Lopez <jlopez@cityofpalmdaleca.gov>, Brenda Magana <bmagana@cityofpalmdaleca.gov>
Cc: THCP CRMD <crm@tataviam-nsn.us>, Kathy Inman <kinman@cityofpalmdaleca.gov>
Subject: Re: [EXTERNAL] Re: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

Subject: Request for Completion of Consultation Form – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility)

Dear Brenda Magaña and Juan Lopez,

Thank you for your continued coordination regarding the Proposed Project identified as Conditional Use Permit 25-0002 and Site Plan Review 25-0005, located at the southwest corner of East Avenue S and Cemetery Road in the City of Palmdale (APNs: 3053-007-046 and -908).

Following review of the project materials and the geotechnical report, the Fernandeño Tataviam Band of Mission Indians has determined that the site qualifies as **Medium Sensitivity** under our Standard Specifications due to the depth of planned excavation, presence of undocumented fill over native alluvium, and proximity to previously recorded Tribal Cultural Resources.

We kindly ask that the **project proponent** complete the required **Consultation Form** at the following link:

https://www.tataviam-nsn.us/project-consultation-form/

When prompted, please have the proponent select **Medium Sensitivity** so that we may proceed with the appropriate level of consultation and mitigation recommendations.

Once we receive the completed Consultation Form and corresponding fee, our Cultural Resources

Management Division will conduct an internal review and initiate formal consultation. This includes:

- Introductory and initial archival research specific to the project area
- Coordination of a consultation meeting, if necessary
- Issuance of formal tribal comments and recommended mitigation measures

Please let us know once the proponent has submitted the form, or if you have any questions about the process.

Thank you,

Miguel Luna
Chief Administrative Officer

Tribal Administration
Fernandeño Tataviam Band of Mission Indians
818-837-0794
1019 2nd Street, San Fernando, CA 91340
Native Sovereign Nation of Northern Los Angeles County

IMPORTANT: The contents of this email and any attachments are confidential. They are intended for the named recipient(s) only. If you have received this email by mistake, please notify the sender immediately and do not disclose the contents to anyone or make copies thereof.

From: Juan Lopez <jlopez@cityofpalmdaleca.gov>
Date: Wednesday, August 6, 2025 at 1:33 PM
To: Miguel Luna, Chief Administrative Officer <Miguel.Luna@tataviam-nsn.us>, Brenda Magana <bmagana@cityofpalmdaleca.gov>
Cc: THCP CRMD <crm@tataviam-nsn.us>, Kathy Inman <kinman@cityofpalmdaleca.gov>
Subject: RE: [EXTERNAL] Re: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

[CAUTION] EXTERNAL Email. Exercise caution.

Hi Miguel,

It appears that the attached PDF is related to a different project within the LA County Regional Planning jurisdiction. There might have been a mix-up when attaching the PDF.

Thank you,

Juan Lopez

Assistant Planner

Economic and Community Development | Planning

38250 Sierra Highway
Palmdale, CA 93550

661/267-5219 Direct

661/267-5200 Main

www.CityofPalmdaleCA.gov

** I will be out of the office from July 24 through August 2· **

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

The Planning Division's Counter is closed Monday-Thursday from 11:30 am-1:30 pm.

The Planning Division now accepts applications online and has updated all forms and resources.

To submit a new application, please create an account in the Accela Citizen Portal platform.

From: Miguel Luna, Chief Administrative Officer <Miguel.Luna@tataviam-nsn.us>
Sent: Wednesday, August 6, 2025 7:41 AM
To: Brenda Magana <bmagana@cityofpalmdaleca.gov>
Cc: THCP CRMD <crm@tataviam-nsn.us>; Juan Lopez <jlopez@cityofpalmdaleca.gov>; Kathy Inman <kinman@cityofpalmdaleca.gov>
Subject: [EXTERNAL] Re: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

CAUTION: This email originated from outside of the organization.

Subject: Mitigation Measures – CUP 25-0002 / SPR 25-0005 (Mini-Storage Facility)

Dear Brenda Magana,

Thank you again for providing the current notice regarding the Proposed Project identified as Conditional Use Permit 25-0002 and Site Plan Review 25-0005, located at the southwest corner of East Avenue S and Cemetery Road in the City of Palmdale.

We note that the current project proponent, Markus Jones, has completed the required Project Intake Form with our office.

The Fernandeño Tataviam Band of Mission Indians (FTBMI) previously consulted on this project under Project No. PRJ2021-004194 / CUP RPPL2022008796, as documented in the Mitigation Monitoring and Reporting Program (MMRP) dated May 14, 2025, prepared by Mark Hagan. We are generally in agreement with the mitigation measures outlined—specifically TR 5.1, TR 5.2, and CUL 5.3—which were incorporated into the Initial Study/Mitigated Negative Declaration, though we do have a few recommended revisions.

The Tribe supports the continued implementation of these previously established mitigation measures. In addition, we have further recommendations based on updated internal review. We will share those once we receive confirmation that the measures in the MMRP will remain in effect.

Thank you for your continued coordination.

Miguel Luna
Chief Administrative Officer

Tribal Administration
Fernandeño Tataviam Band of Mission Indians
818-837-0794
1019 2nd Street, San Fernando, CA 91340
Native Sovereign Nation of Northern Los Angeles County

IMPORTANT: The contents of this email and any attachments are confidential. They are intended for the named recipient(s) only. If you have received this email by mistake, please notify the sender immediately and do not disclose the contents to anyone or make copies thereof.

From: Miguel Luna, Chief Administrative Officer <Miguel.Luna@tataviam-nsn.us>
Date: Thursday, July 31, 2025 at 12:20 AM
To: Kathy Inman <kinman@cityofpalmdaleca.gov>
Cc: Juan Lopez <jlopez@cityofpalmdaleca.gov>, Brenda Magana <bmagana@cityofpalmdaleca.gov>, THCP CRMD <crm@tataviam-nsn.us>
Subject: Re: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

Subject: Request for Project Intake – CUP 25-0002 / SPR 25-0005 (Palmdale Mini-Storage Facility)

Dear Brenda Magana,

On behalf of the Fernandeño Tataviam Band of Mission Indians (FTBMI), thank you for your notice regarding the Proposed Project identified as Conditional Use Permit 25-0002 and Site Plan Review 25-0005, located at the southwest corner of East Avenue S and Cemetery Road (APNs: 3053-007-046 and -908), in the City of Palmdale, Los Angeles County.

To proceed with our sensitivity assessment and fulfill consultation responsibilities under AB 52, we request that the project proponent complete the mandatory Project Intake Form at the following link:

https://www.tataviam-nsn.us/project-intake/

This step is required before the Fernandeño Tataviam Band of Mission Indians can initiate archival review, determine the appropriate sensitivity category, or issue Mitigation Measures. The form must be submitted within 21 days of the AB 52 notification date.

Please ensure the project proponent is made aware of this requirement and completes the form promptly.

Miguel Luna
Chief Administrative Officer

Tribal Administration
Fernandeño Tataviam Band of Mission Indians
818-837-0794
1019 2nd Street, San Fernando, CA 91340
Native Sovereign Nation of Northern Los Angeles County

IMPORTANT: The contents of this email and any attachments are confidential. They are intended for the named recipient(s) only. If you have received this email by mistake, please notify the sender immediately and do not disclose the contents to anyone or make copies thereof.

From: Kathy Inman <kinman@cityofpalmdaleca.gov>
Date: Tuesday, July 29, 2025 at 11:47 AM
To:
Cc: Juan Lopez <jlopez@cityofpalmdaleca.gov>, Brenda Magana <bmagana@cityofpalmdaleca.gov>
Subject: Conditional Use Permit 25-0002 and Site Plan Review 25-0005

You don't often get email from kinman@cityofpalmdaleca.gov. Learn why this is important

[CAUTION] EXTERNAL Email. Exercise caution.

The Initial Study / Mitigated Negative Declaration is available for public review beginning today and will end on August 29, 2025. Please use this link to view the documents on the City's website

(https://www.cityofpalmdaleca.gov/277/Environmental-Documents). All written comments should be sent to:

Brenda Magaña, Planning Manager

City of Palmdale, Economic and Community Development Department, Planning Division

38250 Sierra Highway

Palmdale, CA 93550

bmagana@cityofpalmdaleca.gov

Thank you,

--

Kathy Inman

Senior Administrative Assistant

Economic and Community Development | Planning

38250 Sierra Highway

Palmdale, CA 93550

(661)267-5229 Direct

(661)267-5200 Main

www.cityofpalmdale.org

Hours: Monday – Thursday, 7:30 am to 6:00 pm ~ closed Friday

Appendix M

Distribution List

IS / MND DISTRIBUTION LIST

Project Information	Routing Information
Case No: CUP 25-0002 / SPR 25-0005	Routing sent on:
Planner: Juan Lopez	If applicable, agency mailed on:
Location: SWC of Avenue S and Cemetery Rd	Comments due:
Project Description: Self-storage facility consisting of 15 buildings totaling 124,612 square feet	

Applicant	Markus Jones Summit Point Partners, LLC PO Box 1212 American Fork, UT 84003
Applicant's Representative	Barry Munz Antelope Valley Engineering 129 West Pondera Street Lancaster, CA 93534

City Departments (always add these to distribution):

Division	Contact
Counter Copies: City Hall Library Planning P&R	
City Website	
Director of P&R	ksmith@cityofpalmdaleca.gov
Planning	bmagana@cityofpalmdaleca.gov
City Engineer	hhashemian@cityofpalmdaleca.gov
Director of PW	ltorres@cityofpalmdaleca.gov

Los Angeles County Agencies:

Agency	Contact	Send to if:
LA County Fire Department	Wally Collins – wally.collins@fire.lacounty.gov Per Wally, the request must be submitted through EPIC-LA under **Fire - Environmental Review (EIR) - City Requests**	*New development*
LA County Sheriff's Department	Deputy Jason Hill – jr2hill@lasd.org	***ALWAYS***

Other:

Agency	Contact	Send to if:
AVAQMD	Barbara Lods - blods@avaqmd.ca.gov Sandra Sarabia – ssarabia@avaqmd.ca.gov	
AV Transit Authority	Geraldina “Geri” Romo - gromo@avta.com Karen Conrad – kconrad@avta.com	*The project will affect transit routes or services*
CREED LA (Coalition for Responsible Equitable Economic Development)	jeff@creedla.com	
Fernandeno Tataviam Band of Mission Indians	thcp@tataviam-nsn.us	*Use FTBMI’s mandatory digital project intake form at https://www.tataviam-nsn.us/project-intake/*
Lozeau Drury, LLP	Richard Drury - Richard@lozeaudrury.com Madeline Dawson – madeline@lozeaudrury.com Leslie Reider – leslie@lozeaudrury.com Chase Preciado – chase@lozeaudrury.com	***ALWAYS***
Morongo Band of Mission Indians	Ann Brierty - ABrierty@morongo-nsn.gov Joan Schneider - jschneider@morongo-nsn.gov	
Quechan Tribe	historicpreservation@quechantribe.com executivesecretary@quechantribe.com	
San Fernando Band of Mission Indians	Donna Yocum - ddyocum@comcast.net	
Serrano Nation of Mission Indians	Serranonation1@gmail.com	
Tribal Historic Preservation Office	thpo@morongo-nsn.gov	
Union Pacific Railroad	environmental@up.com	*The project is adjacent to or in proximity to the railroad right-of-way*

Yuhaaviatam of San Manuel Nation	Alexandra.McCleary@sanmanuel-nsn.gov	

School District:

District	Contact
AV Union High School District	Monica Garcia - mgarcia@avhsd.org Scott Fish – sfish@avhsd.org Kevin Vensko – kvensko@avhsd.org
Palmdale School District	Gratziella Wolf – glwolf@palmdalesd.org developerfees@palmdalesd.org (661-789-6626)

State:

Agency	Contact	Send to if:
California Department of Fish and Wildlife (Region 5)	Victoria Tang - Victoria.tang@wildlife.ca.gov Julisa Portugal - Julisa.portugal@wildlife.ca.gov Jennifer Turner - Jennifer.turner@wildlife.ca.gov	
California Native American Heritage Commission	nahc@nahc.ca.gov	*The project contains known archaeological remains or significant archaeological sites, the project is a General Plan Amendment, Specific Plan or Specific Plan Amendment*
Lahontan Regional Water Quality Control Board (Region 6)	lahontan@waterboards.ca.gov	*The project has the potential to impact water quality*
Office of Historic Preservation	calshpo.ohp@parks.ca.gov	*The project contains known historic sites*
Public Utilities Commission	320 W 4th Street, Suite 500 Los Angeles, CA 90013	*The project will affect transmission lines or the gas line along Avenue S*

Utilities:

Agency	Contact	Send to if:
AT&T	Joe Forkert - joef@forkertengineering.com	***ALWAYS***
So. Calif. Edison Co.	Dara Frutos – dara.frutos@sce.com Sean Douglass – sean.douglass@sce.com	*Comments on the development plans*

	Stephanie Jones – stephanie.jones@sce.com Raul Valenzuela – raul.valenzuela@sce.com	
So. Cal. Gas	SoCalGas Set Desk - setdesk@socalgas.com	*Comments on the development plans*
Spectrum	Adam Perkins – adam.perkins@charter.com	
Waste Management – Antelope Valley Landfill	Ashley Cortes – acortes1@wm.com	*The project is adjacent to the landfill or will create substantial amounts of solid waste*

Water District/Agency/Company:

Agency	Contact	Send to if:
Palmdale Water District	Chris Vidal – cvidal@palmdalewater.org Daniel Maldonado – dmaldonado@palmdalewater.org Lilian Lopez Contreras – lcontreras@palmdalewater.org	*Is located within PWD*

Planning Commission Staff Report

DATE: **OCTOBER 9, 2025**

TO: **HONORABLE CHAIR AND PLANNING COMMISSIONERS**

FROM: **ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION**

APPLICANT: **CITY OF PALMDALE**

DISTRICT: **ALL**

SUBJECT: **ADOPT RESOLUTION NO. PC-2025-022, A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, RECOMMENDING CITY COUNCIL APPROVAL OF GENERAL PLAN AMENDMENT 25-0002, ZONING ORDINANCE AMENDMENT 25-0003, AND ZONE CHANGE 25-0002 TO AMEND THE ZONING ORDINANCE AND LAND USE AND ZONING MAPS, TO ADDRESS INCONSISTENCIES AND STREAMLINE REVIEW PROCEDURES, AND FINDING THAT THE PROJECT IS CONSISTENT WITH PROGRAM ENVIRONMENTAL IMPACT REPORT 22-002 PREPARED AND CERTIFIED IN CONJUNCTION WITH THE CITY'S GENERAL PLAN (PALMDALE 2045)**

RECOMMENDATION

Staff recommends that the Planning Commission adopt Resolution No. PC-2025-022, recommending City Council approval of General Plan Amendment (GPA) 25-0002, Zoning Ordinance Amendment (ZOA) 25-0003, and Zone Change (ZC) 25-0002, and finding that the project is consistent with Program Environmental Impact Report (PEIR) 22-002 prepared and certified in conjunction with the City's General Plan (Palmdale 2045).

BACKGROUND

On September 21, 2022, Palmdale 2045 was adopted by the City Council and replaced the previously adopted General Plan (1993). State law requires that the regulations governing the use and development of lands within the municipal limits of a city be consistent with the adopted General Plan for that city. Ordinance No. 1603 was adopted by the City Council on March 15, 2023, which amended Title 17 of the Palmdale Municipal Code (PMC) to implement the vision of Palmdale 2045 as well as support new land use.

On August 16, 2023, the City Council adopted Ordinance Nos. 1613 and 1614, which included minor amendments to the PMC necessary to address inconsistencies, clarify review procedures, and section references, as well as update the associated Zoning Map. On December 6, 2023, the City Council adopted Ordinance No. 1627 was adopted, to further clarify review procedures within Title 17 related to measuring distance requirements and uses within the Mixed-Use, Public Facility, and Industrial zones.

On February 7, 2024, the City Council adopted Ordinance No. 1639, and amended the Noise Element of the General Plan, the Development Standards for Mixed-Use zones, the Land Use map, and Zoning map to address inconsistencies and clarify review procedures.

On June 5, 2024, the City Council adopted Ordinance No. 1641 to amend and update the Health and Wellness designation and Medical Flex zone density requirements, Minor Exception process, Aerospace Industrial zone allowed uses, industrial open space requirements, and the General Plan Land Use Map and Zoning Map.

On December 22, 2024, the City Council adopted Ordinance No. 1647 to address and update review procedures and streamline review processes for City projects.

On July 15, 2025, the City Council adopted Ordinance No. 1658 to address and update residential development standards for single-family residences and accessory dwelling units (ADUs) as required by State law.

On August 19, 2025, the City Council adopted Ordinance No. 1659 to modify commercial standards within the Zoning Ordinance.

Since then, City staff has identified further minor amendments necessary to address inconsistencies and clarify review procedures.

ANALYSIS

General Plan and Zone Change

GPA 25-0002 and ZC 25-0002 will update the General Plan land use and zoning map to more accurately reflect the existing land uses of two project sites. The first project site is owned and operated by Southern California Edison (SCE) and consists of two parcels totaling approximately 1.86 acres, located at the northwest corner of East Avenue R-4 and 40th Street East, and is developed as an electrical substation. The land use designation of the site is split with a Utilities (U) designation for one parcel, which is consistent with the existing development of the site, and a Single Family Residential 3 (SFR 3) designation for the other parcel, which is not consistent. The zone of both parcels is proposed be changed to Utilities and Rights-of-Way (U-ROW) to be consistent with the

Utilities designation of one parcel and the redesignation to Utilities of the other parcel. There is no proposed change in the use or development of the project site as the electrical substation, a non-residential development, will remain, and the proposed zone change is to accurately reflect the current land use and, as such, will not have an adverse effect on the surrounding properties or the community. Therefore, staff proposes that the land use designation for one parcel be changed from SFR 3 to Utilities, and that the zone of both parcels be changed from SFR 3 to Utilities Rights-of-Way (U-ROW). The existing and proposed land use and zoning maps of the SCE parcels are shown below in Figures 1 through 4.

FIGURE 1 - EXISTING LAND USE DESIGNATIONS

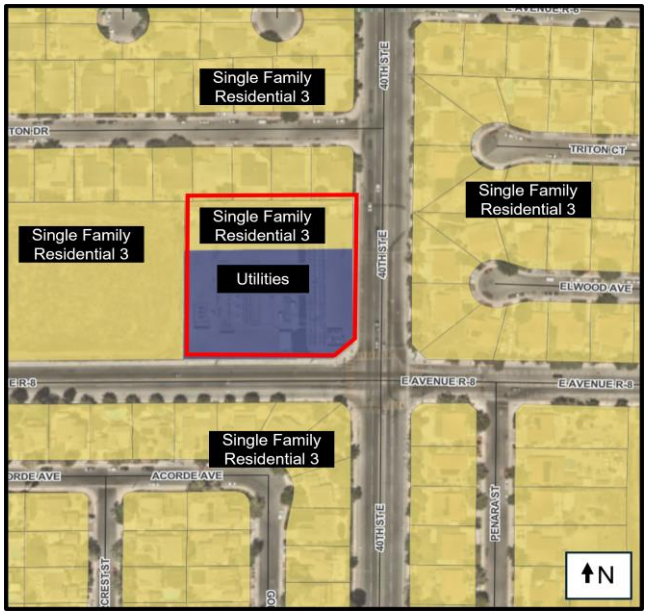


FIGURE 2 - PROPOSED LAND USE DESIGNATION



FIGURE 3 - EXISTING ZONING

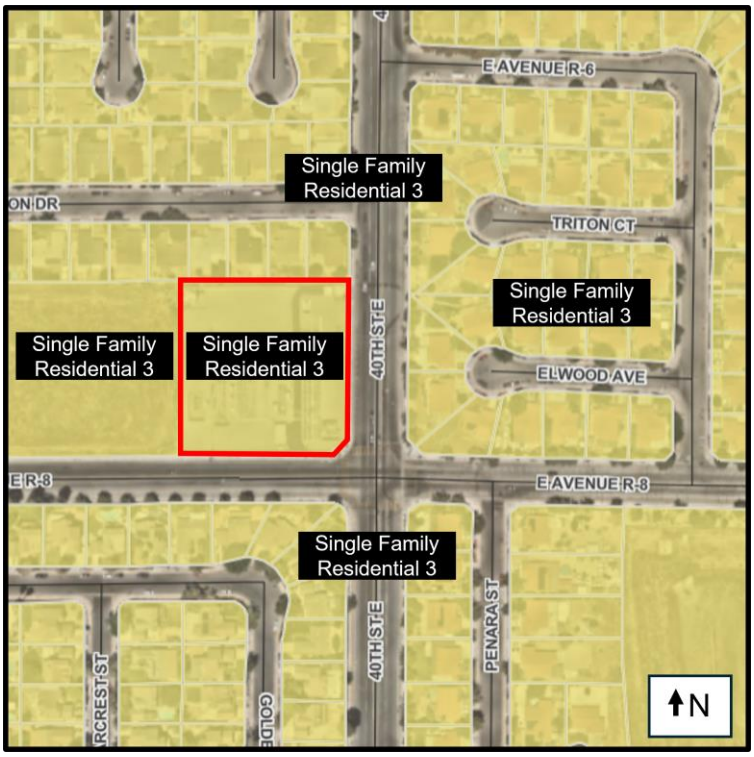
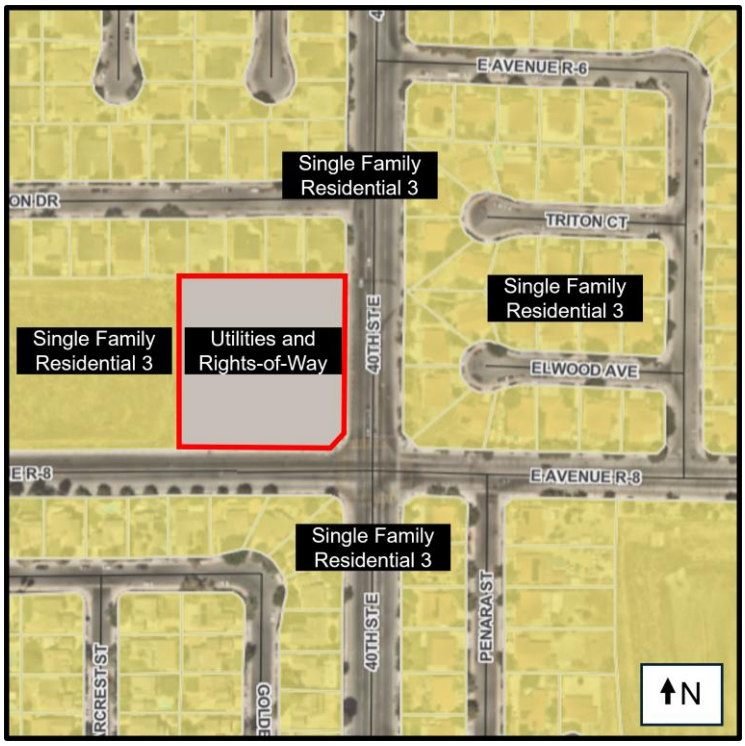


FIGURE 4 - PROPOSED ZONING



The second project site is owned by the Palmdale School District and consists of five vacant parcels with a total area of 67.6 acres, located north of East Avenue Q between 40th Street East and 45th Street East (PSD Parcels). The intended future uses will serve and further the school district's educational purposes. For this reason, the existing land use designations are not consistent with the intended uses of the site, which will not be commercial or industrial, and need to be changed to reflect the ownership by the school district. As a public school district site, any future on-site development will be subject to review by the Division of the State Architect (DSA), and off-site improvements will be reviewed by the City. The zone change will not have an adverse effect on surrounding properties or the community as the intent of the zone change is to accurately reflect the land use of the project site. Therefore, staff proposes that the existing land use designations be modified from Employment Flex (EMPFX) and Regional Commercial (RC) to Educational Flex (EDFX) and that the zoning be changed from Light Industrial (LI), Office Flex (OFX), and Regional Commercial (RC) to Educational Flex (EDFX). The existing and proposed land use and zoning maps of the PSD Parcels are shown below in Figures 5 through 8.

FIGURE 5 - EXISTING LAND USE DESIGNATIONS

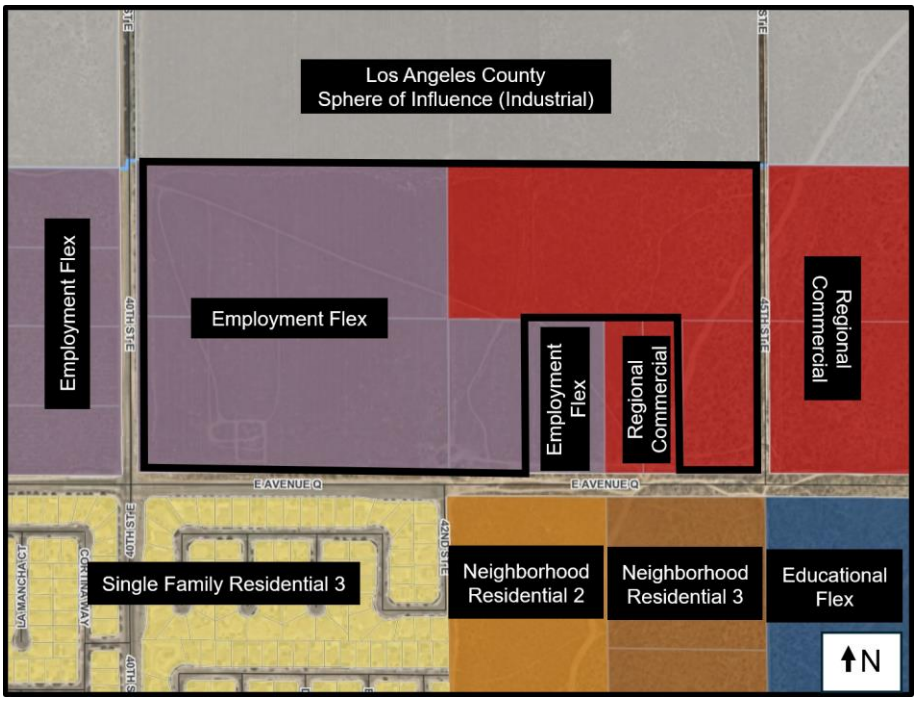


FIGURE 6 - PROPOSED LAND USE DESIGNATION

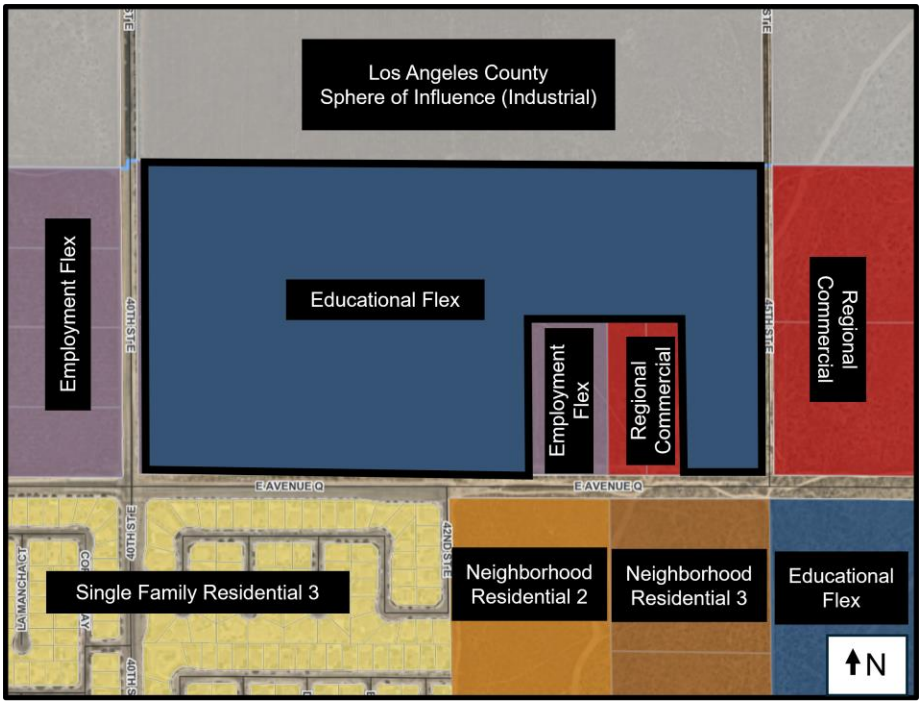


FIGURE 7 - EXISTING ZONING

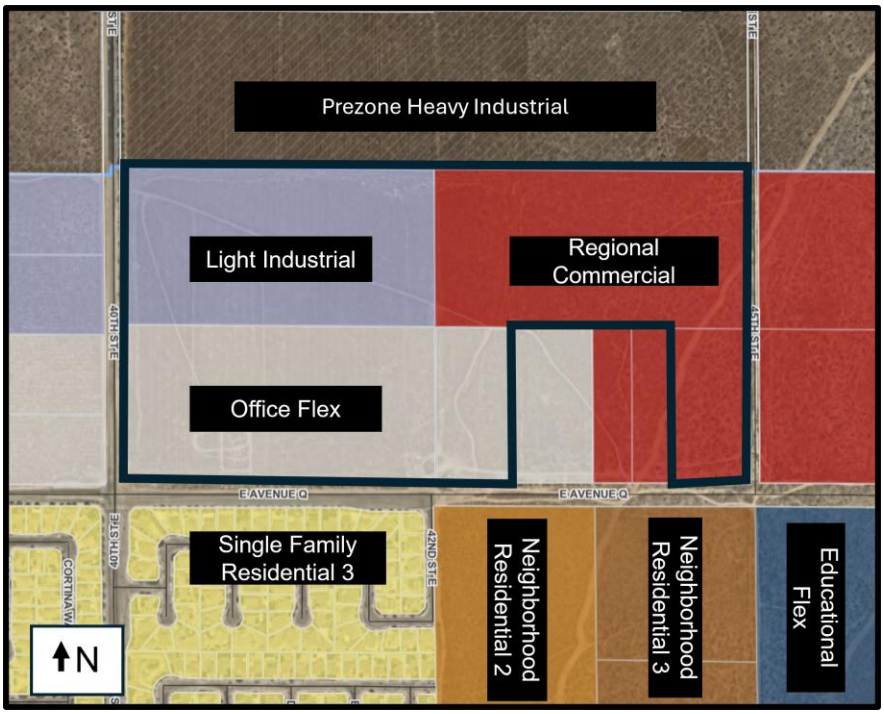
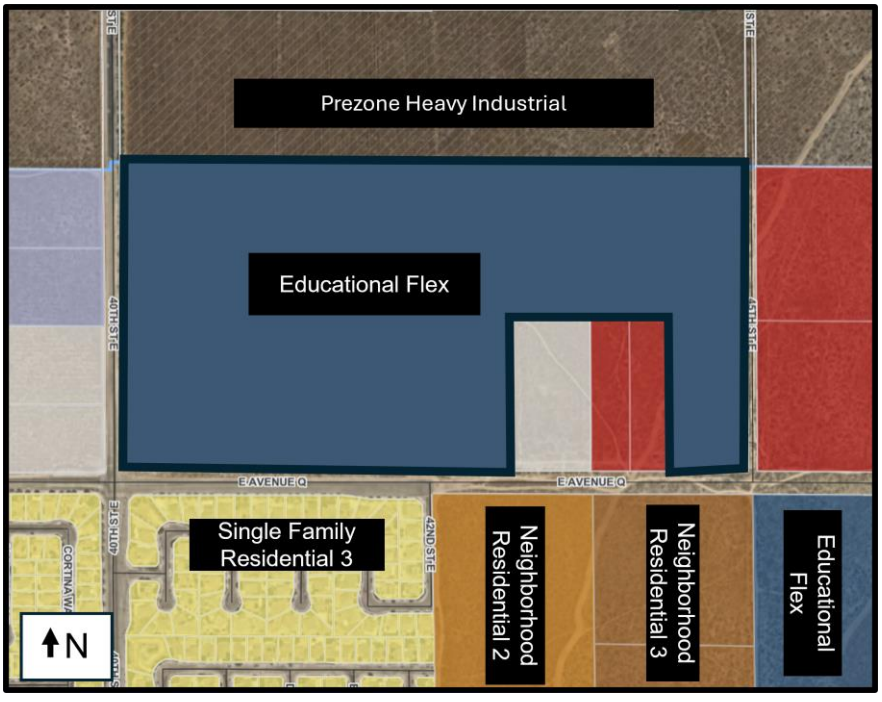


FIGURE 8 - PROPOSED ZONING



Zoning Ordinance Amendment

When Palmdale 2045 was adopted by the City Council on September 21, 2022, the Council directed City staff to collaborate with the Mainstreet Coalition to address concerns raised about the updated commercial development standards in the City. Since then, staff has been working diligently with the Mainstreet Coalition and have incorporated some modifications to resolve those concerns within a series of prior Zoning Ordinance Amendments. ZOA 25-0003 will further amend the special regulations for commercial uses in PMC Chapter 17.92, specifically Sections 17.92.050 (Drive-through restaurants and drive-through services) and 17.92.070 (Fueling station/vehicle and equipment services and repair) to conclude the coordination efforts with the Mainstreet Coalition.

Development standards for new drive-through restaurants will be simplified and streamlined. Currently, a new drive-through restaurant cannot be located closer than 500 feet from an existing or proposed drive-through restaurant, unless it meets a waiver requirement, in which case no more than three drive-through restaurants can be located within a 500-foot buffer, as measured in a straight line from the nearest proposed menu board to the nearest menu board of the subject property. To simplify this standard, the buffer will be uniformly set to a 250-foot buffer between the proposed menu board and any existing or other proposed menu board, and the waiver provision will be eliminated.

Development standards will also be modified for fueling stations to provide flexibility to the review process. Currently, a new fueling station must be located at a minimum distance of 500 feet from an existing or proposed fueling station. The proposed revision will require a minimum distance of 300 feet from an existing or proposed fueling station, which is measured in a straight line from the nearest proposed fueling pump to the nearest fueling pump of the subject project, in all directions,.

The proposed amendments address concerns that were raised by the Mainstreet Coalition group when Palmdale 2045 was adopted and are necessary to clarify review procedures in a continued effort to streamline processes and provide flexibility. The proposed amendments provide for public safety, convenience, and general welfare by allowing for the siting of drive-through restaurants and fueling stations in locations that are suitable and appropriate by setting buffer requirements and requiring compliance with the development standards specific to these commercial uses. These changes are consistent with the goals and applicable policies of the General Plan, as shown in Table 1.

TABLE 1 - GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification
Economic Development	ED-2: Attract diverse and high-quality job options that contribute to the City's economic growth by diversifying the economic base.	Yes	The proposed amendment will clarify and streamline approval processes and expand business potential, which will attract businesses to the City.
Land Use & Community Design	LUD-18: Attraction and stimulation of new employment uses through flexible land use regulations and supportive policies/actions.	Yes	The proposed amendment provides flexible land use regulations and supportive policies/actions by implementing locational standards for drive-through restaurants and fueling stations that will account for site-specific considerations and performance standards, which will result in the attraction and stimulation of new employment uses.
Equitable and Healthy Communities	EHC-14.6: Limit drive-through restaurants and off-sale alcohol beverage establishments—as defined in the municipal code—in neighborhoods with a significant concentration of stores (e.g., multiple stores on the same block or intersection) and child-sensitive areas, such as schools, parks, and childcare facilities.	Yes	The proposed amendment requires a minimum buffer of 250 feet between a new and existing drive-through restaurant and requires compliance with development standards for the use.

ENVIRONMENTAL REVIEW

The project has been determined to be consistent with PEIR 22-002 (State Clearinghouse # 2021060494), which was prepared and certified by the City Council Resolution No. CC-2022-096 on September 21, 2022, for approval of the City's General Plan, Palmdale 2045. As part of the environmental analysis, PEIR 22-002 also considered the adoption and implementation of the comprehensive zoning update and its associated map. Staff review has determined that a subsequent or supplemental PEIR as described in California Environmental Quality Act Guidelines Sections 15162, 15163, or 15164, is not required because the proposed project modifies the zoning ordinance and the land use and zoning map to ensure compliance with the recently adopted General Plan and applicable laws, and would not require major revisions of the PEIR, there are no significant changes in circumstances and there is no new information of substantial importance that will involve new significant environmental effects or increase the severity of previously identified significant effects. As such, staff concluded that the request is consistent with the previous PEIR in accordance with California Environmental Quality Act Guidelines.

Prepared by:	Andrew Svitek, Senior Planner
Approved by:	Brenda Magaña, Planning Manager
Approved as to form:	Alexandra Severino, City Attorney

ATTACHMENTS

Resolution No. PC-2025-022

PLANNING COMMISSION
CITY OF PALMDALE, CALIFORNIA
RESOLUTION NO. PC-2025-022

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, RECOMMENDING CITY COUNCIL APPROVAL OF GENERAL PLAN AMENDMENT 25-0002, ZONING ORDINANCE AMENDMENT 25-0003, AND ZONE CHANGE 25-0002 TO AMEND THE ZONING ORDINANCE AND LAND USE AND ZONING MAPS, TO ADDRESS INCONSISTENCIES AND STREAMLINE REVIEW PROCEDURES, AND FINDING THAT THE PROJECT IS CONSISTENT WITH PROGRAM ENVIRONMENTAL IMPACT REPORT 22-002 PREPARED AND CERTIFIED IN CONJUNCTION WITH THE CITY'S GENERAL PLAN (PALMDALE 2045)

WHEREAS, The City of Palmdale (City) has filed an application that applies to the City and the City's sphere of influence, requesting approval of General Plan Amendment (GPA) 25-0002, Zoning Ordinance Amendment (ZOA) 25-0003, and Zone Change (ZC) 25-0002, to amend the Zoning Ordinance and Land Use and Zoning Maps, to address inconsistencies and streamline review procedures as indicated in Exhibits A through D, and finding that the project is consistent with Program Environmental Impact Report (PEIR) 22-002 prepared and certified in conjunction with the City's General Plan (hereinafter referred to as "Application"); and,

WHEREAS, State law requires that the regulations governing the use and development of lands within the municipal limits of a city be consistent with the adopted General Plan for that city. On September 21, 2022, the City Council adopted a comprehensive update to the General Plan (Palmdale 2045), which required a comprehensive update to Title 17 of the Palmdale Municipal Code (PMC); and,

WHEREAS, On March 15, 2023, the City Council of the City of Palmdale adopted Ordinance No. 1603 a comprehensive Zoning Code and Map update; and,

WHEREAS, On August 16, 2023, the City Council of the City of Palmdale adopted Ordinance No. 1613 AND 1614 which identified minor amendments to the PMC necessary to address inconsistencies, clarify review procedures, correct typographical errors and section references, as well as update the associated Zoning Map; and,

WHEREAS, On December 6, 2023, the City Council of the City of Palmdale adopted Ordinance No. 1627 which identified minor amendments to Title 17 necessary to address inconsistencies and clarify review procedures; and,

WHEREAS, On February 7, 2024, the City Council of the City of Palmdale adopted Ordinance No. 1639 which amended the Noise Element of the General Plan, the Development Standards for Mixed-Use zones, the Land Use map, and Zoning map to address inconsistencies and clarify review procedures; and,

WHEREAS, On June 5, 2024, the City Council of the City of Palmdale adopted Ordinance No. 1641, to amend and update the Health and Wellness designation and Medical Flex zone density requirements, Minor Exception process, Aerospace Industrial zone allowed uses, industrial open space requirements, and the General Plan Land Use Map and Zoning Map; and,

WHEREAS, On December 22, 2024, the City Council of the City of Palmdale adopted Ordinance No. 1647, to address review procedures and streamline review processes for City projects; and,

WHEREAS, On July 15, 2025, the City Council of the City of Palmdale adopted Ordinance No. 1658, to address residential development standards for single-family residences and accessory dwelling units (ADUs) as required by State law; and,

WHEREAS, On August 19, 2025, the City Council of the City of Palmdale adopted Ordinance No. 1659, to modify commercial standards within the Zoning Ordinance; and,

WHEREAS, On October 9, 2025, the Planning Commission of the City of Palmdale conducted a duly noticed public hearing on the Application and concluded said hearing on that date. All legal prerequisites to the adoption of this Resolution have occurred.

NOW THEREFORE, BE IT RESOLVED, THE PLANNING COMMISSION OF THE CITY OF PALMDALE DOES HEREBY FIND, DETERMINE, RESOLVE AND ORDER AS FOLLOWS:

SECTION 1. The Planning Commission hereby specifically finds that all the facts set forth in the Recitals of this Resolution, are true and correct.

SECTION 2. The Planning Commission hereby finds as follows with respect to the environmental document:

A. The project has been determined to be consistent with PEIR 22-002 (State Clearinghouse # 2021060494), which was prepared and certified by the City Council Resolution No. CC-2022-096 on September 21, 2022, for approval of the City's General Plan, Palmdale 2045. As part of the environmental analysis, PEIR 22-002 also considered the adoption and implementation of the comprehensive zoning update and its associated map. Staff review has determined that a subsequent or supplemental program Environmental Impact Report as described in California Environmental Quality Act Guidelines Sections 15162, 15163, or 15164, is not required because the proposed project modifies the zoning ordinance and the land use and zoning map to ensure compliance with the recently adopted General Plan and applicable laws, and would not require major revisions of the PEIR, there are no significant changes in circumstances and there is no new information of substantial importance that will

involve new significant environmental effects or increase the severity of previously identified significant effects. As such, staff concluded that the request is consistent with the previous PEIR in accordance with California Environmental Quality Act Guidelines.

B. The custodian of records for the environmental document, and all other materials which constitute the record of proceedings upon which the Planning Commission's decision is based, is the Planning Manager of the City of Palmdale. These documents are available for public review in the Planning Division of the City of Palmdale located at 38250 Sierra Highway, Palmdale, California 93550, telephone (661) 267-5200. In addition, the Final PEIR is available at: https://palmdale2045gp.org/wp-content/uploads/2022/10/PalmdaleGP_FinalEIRAppendicesResponsetoCommentsFindingofFactandStatementofOverridingConsiderations.pdf.

SECTION 3. Based upon substantial evidence presented to this Commission during the October 9, 2025, public hearing, including public testimony, and written and oral staff report, this Commission specifically finds as follows:

A. The proposed change in land use is consistent with State law. (GPA)

B. The amendment is reasonable and beneficial. (GPA)

C. The proposed zone change is consistent with the goals, policies, and objectives of the General Plan. (ZC)

D. The proposed Zoning Ordinance Amendment conforms with the goals, objectives, and policies of the General Plan, as shown on Exhibit A attached hereto. (ZOA)

The Application includes a corresponding zone change for parcels that will be redesignated to ensure consistency with the General Plan.

The first project site is owned and operated by Southern California Edison (SCE) and consists of two parcels totaling approximately 1.86 acres, located at the northwest corner of East Avenue R-4 and 40th Street East, and is developed as an electrical substation. The land use designation of the site is split with a Utilities (U) designation for one parcel, which is consistent with the existing development of the site, and a Single Family Residential 3 (SFR 3) designation for the other parcel, which is not consistent. The zone of both parcels is proposed be changed to Utilities and Rights-of-Way (U-ROW) to be consistent with the Utilities designation of one parcel and the redesignation to Utilities of the other parcel. There is no proposed change in the use or development of the project site as the electrical substation, a non-residential development, will

remain, and the proposed zone change is to accurately reflect the current land use and as such will not have an adverse effect on the surrounding properties or the community. Therefore, it is proposed that the land use designation for one parcel be changed from SFR 3 to Utilities, as shown on Exhibit B, and that the zoning of both parcels be changed from SFR 3 to Utilities Rights-of-Way (U-ROW), as shown on Exhibit D.

The second project site is owned by the Palmdale School District and consists of five vacant parcels with a total area of 67.6 acres, located north of East Avenue Q between 40th Street East and 45th Street East (PSD Parcels). The intended future uses will serve and further the school district's educational purposes. For this reason, the existing land use designations are not consistent with the intended uses, which will not be commercial or industrial, and need to be changed to reflect the ownership by the school district. As a public school district site, any future on-site development will be subject to review by the Division of the State Architect (DSA), and off-site improvements will be reviewed by the City. The zone change will not have an adverse effect on surrounding properties or the community as the intent of the zone change is to accurately reflect the land use of the project site. Therefore, it is proposed that the land use designations be modified from Employment Flex and Regional Commercial to Educational Flex (EDFX), as shown on Exhibit C, and the zoning will be changed from Light Industrial, Office Flex, and Regional Commercial to Educational Flex (EDFX), as shown on Exhibit E.

E. The proposed zone change will not have a substantial adverse effect on surrounding properties or the community in general. (ZC)

The proposed zone change of two parcels to U-ROW will make the property consistent with the existing development on the property, which is an electrical substation owned by SCE, and will not have any effect on surrounding properties. The proposed zone change to EDFX will make the zoning consistent with the ownership of the property by the Palmdale School District.

F. The proposed Zoning Ordinance Amendment is necessary to implement the General Plan and to provide for public safety, convenience and/or general welfare. (ZOA)

The proposed Zoning Ordinance Amendment provides for public safety, convenience, and general welfare by allowing for the siting of drive-through restaurants and fueling stations in locations that are suitable and appropriate by setting buffer requirements and requiring compliance with the development standards specific to these commercial uses.

SECTION 4. Based on the findings and conclusions outlined in Sections 1, 2 and 3 above, this Commission hereby recommends City Council approval of GPA 25-0002 as shown on Exhibits B and C, and ZC 25-0002 as shown on Exhibits D and E and ZOA 25-0003 as shown on Exhibit F and finds that the project is consistent with PEIR 22-002 prepared and certified for Palmdale 2045.

SECTION 5. The Deputized Clerk shall certify the adoption of this Resolution.

PASSED, APPROVED and ADOPTED this 9th day of October 2025.

_____
Dean Henderson
Chair, Planning Commission

ATTEST:

_____
Sylvia Magallanes, Deputized Clerk

I, Sylvia Magallanes, Deputized Clerk of Palmdale, California, do hereby certify that the foregoing resolution was duly approved, and adopted by the Planning Commission of the City of Palmdale at a regular meeting of said Commission held on October 9, 2025, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____ ABSENT: _____

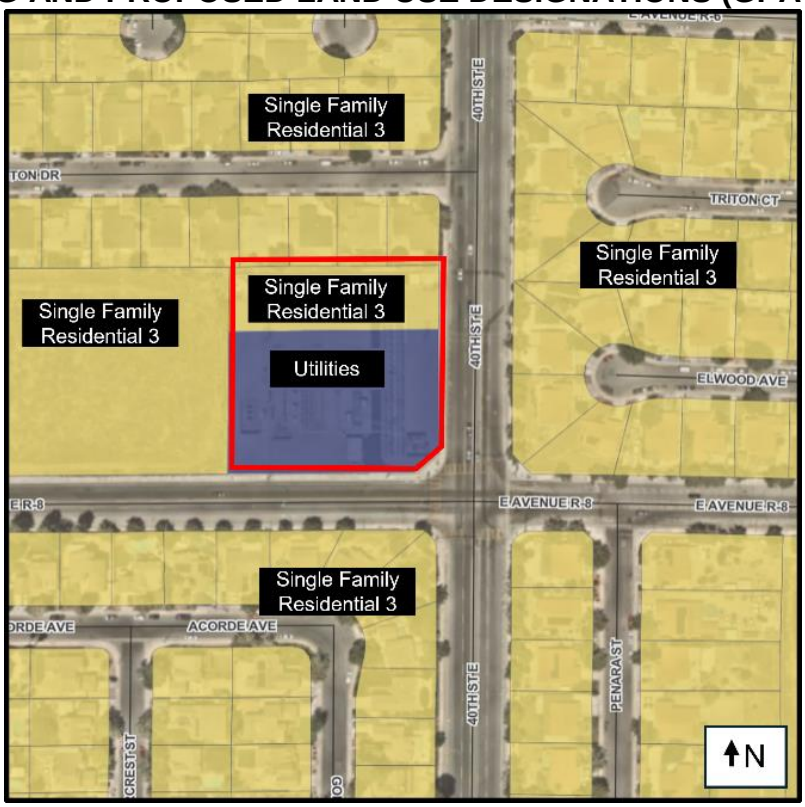
EXHIBIT A

GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification
Economic Development	ED-2: Attract diverse and high-quality job options that contribute to the City's economic growth by diversifying the economic base.	Yes	The proposed amendment will clarify and streamline approval processes and expand business potential, which will attract businesses to the City.
Land Use & Community Design	LUD-18: Attraction and stimulation of new employment uses through flexible land use regulations and supportive policies/actions.	Yes	The proposed amendment provides flexible land use regulations and supportive policies/actions by implementing locational standards for drive-through restaurants and fueling stations that will account for site-specific considerations and performance standards, which will result in the attraction and stimulation of new employment uses.
Equitable and Healthy Communities	EHC-14.6: Limit drive-through restaurants and off-sale alcohol beverage establishments—as defined in the municipal code—in neighborhoods with a significant concentration of stores (e.g., multiple stores on the same block or intersection) and child-sensitive areas, such as schools, parks, and childcare facilities.	Yes	The proposed amendment requires a minimum buffer of 250 feet between a new and existing drive-through restaurant and requires compliance with development standards for the use.

EXHIBIT B

EXISTING AND PROPOSED LAND USE DESIGNATIONS (GPA 25-0002)



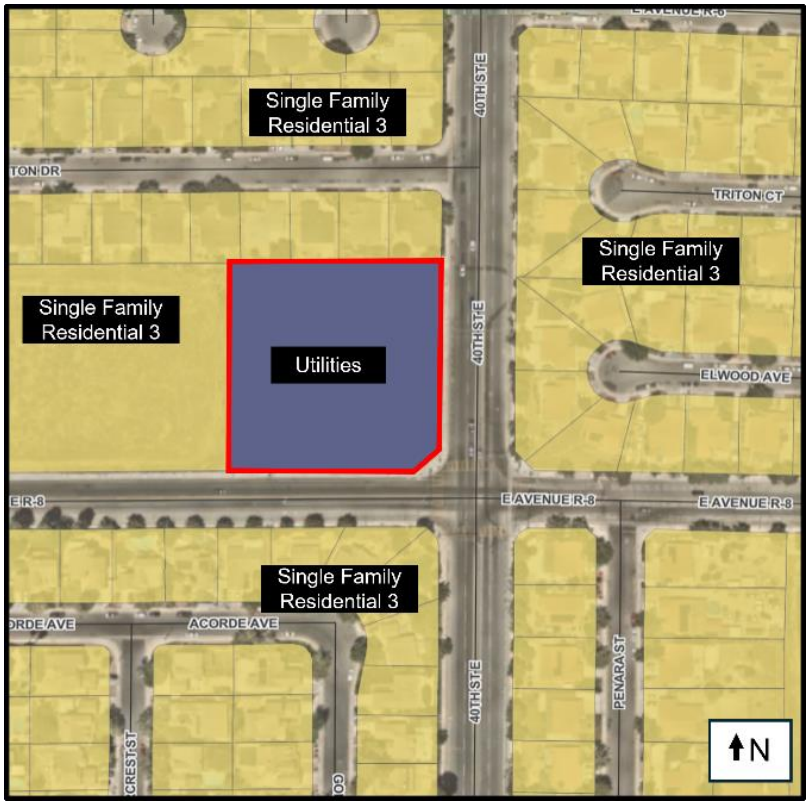
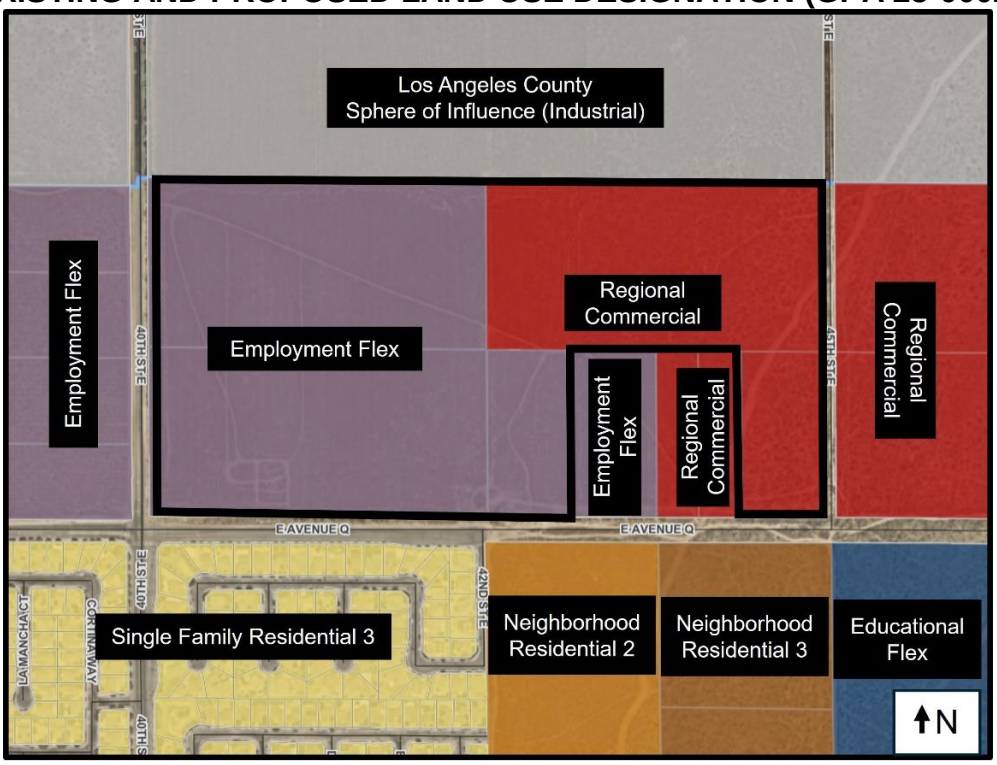


EXHIBIT C

EXISTING AND PROPOSED LAND USE DESIGNATION (GPA 25-0002)



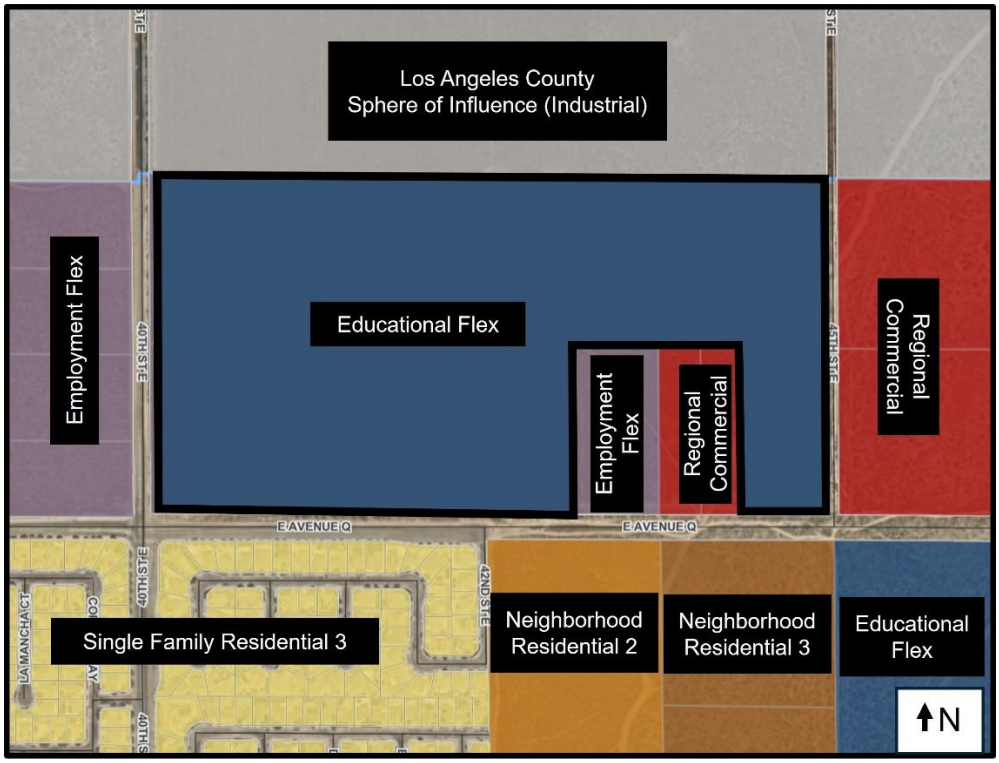
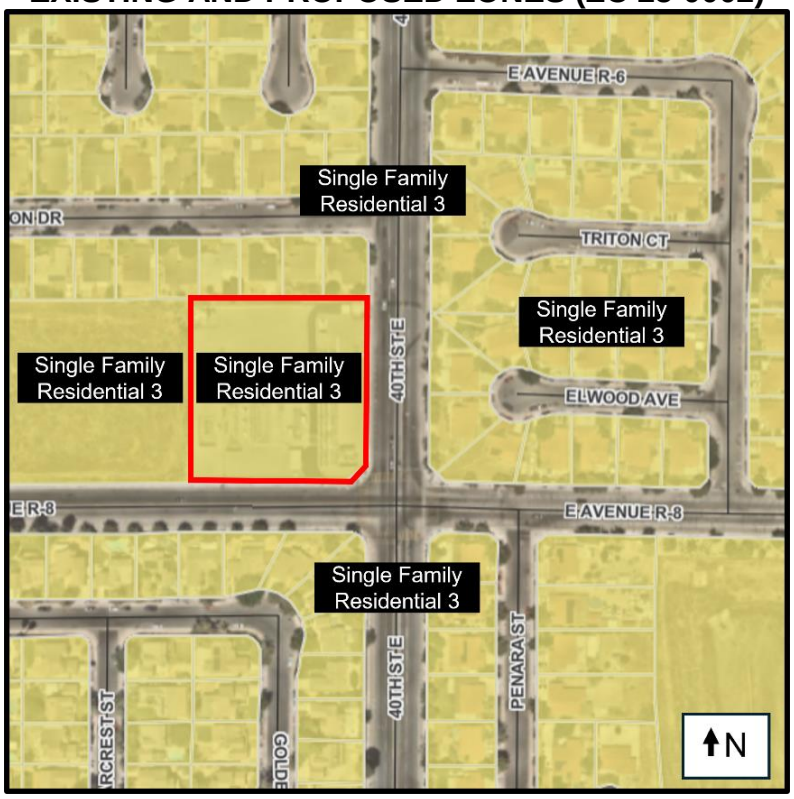


EXHIBIT D

EXISTING AND PROPOSED ZONES (ZC 25-0002)



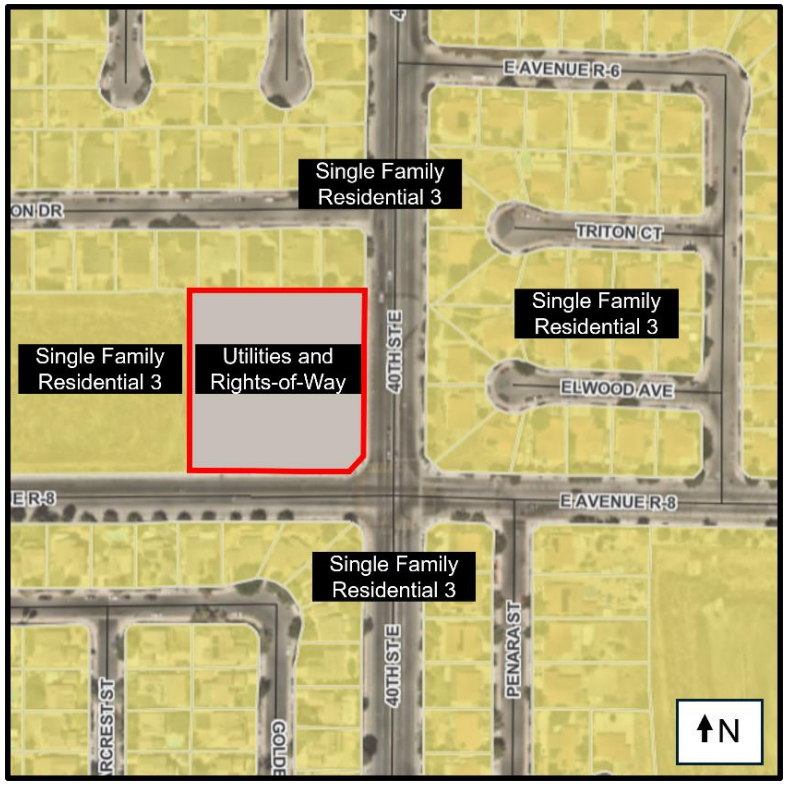
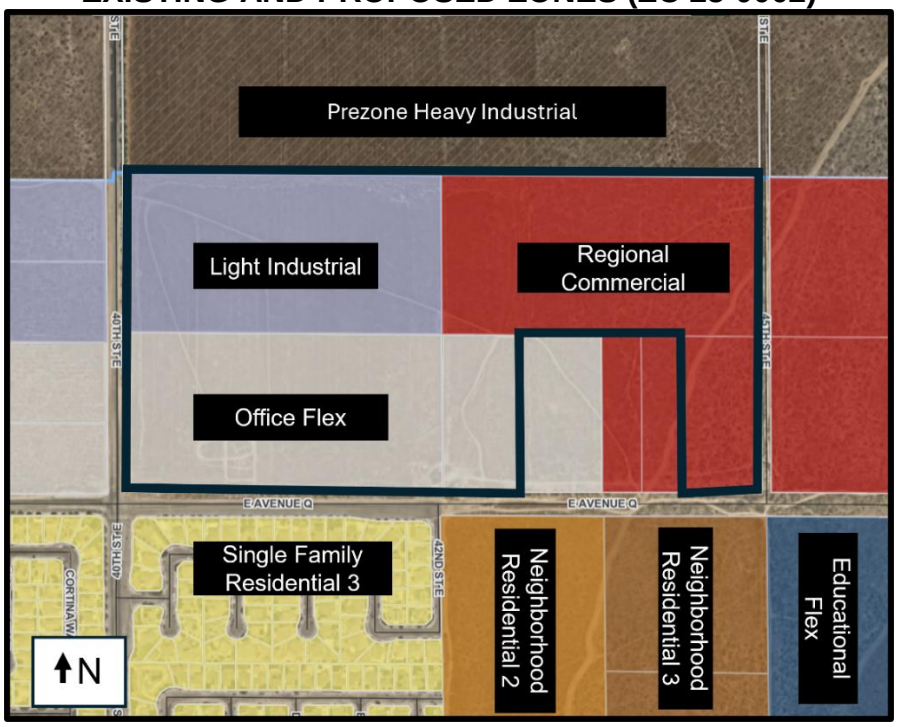


EXHIBIT E

EXISTING AND PROPOSED ZONES (ZC 25-0002)



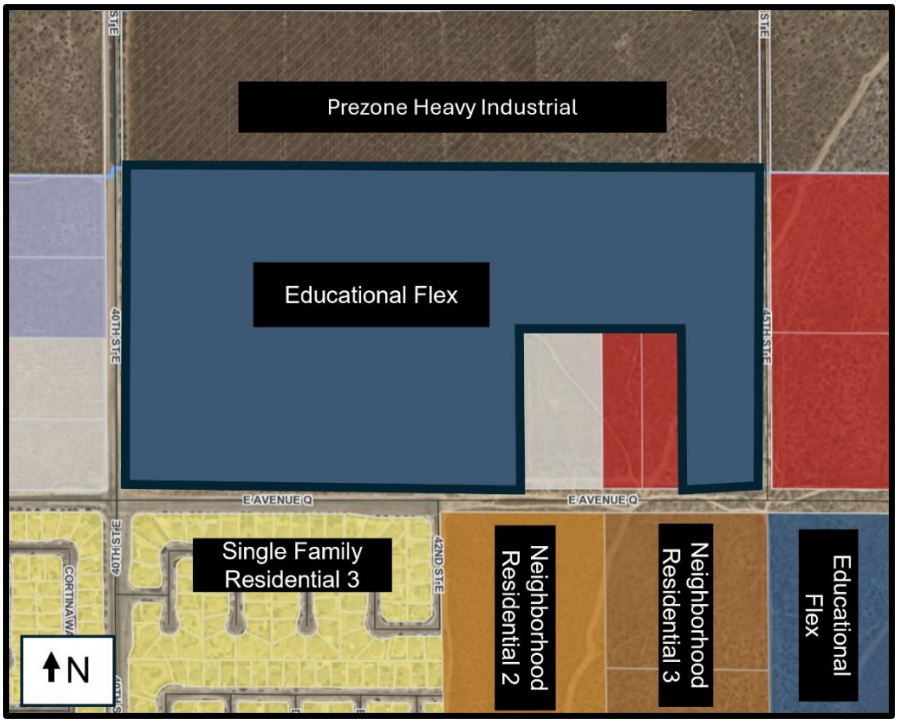


EXHIBIT F

PMC Section 17.92.050.C Development Standards

~~(1) Site design should locate the drive-through aisle so that pedestrians do not need to cross the aisle in order to access the main building entrance from the parking lot or street. If a pedestrian walkway intersects a drive-through aisle, the walkway shall be highlighted with enhanced paving and lighting and shall be located for maximum visibility of pedestrians.~~

(1)~~(2)~~ Drive-through aisles shall have a minimum 15-foot width on curves and a minimum 12-foot width on straight sections, with a minimum inside turning radius of 15 feet.

(2)~~(3)~~ Drive-through aisles and structures shall be set back from the ultimate curb face of an adjacent public right-of-way a minimum of 20 feet, or as otherwise determined by the Review Authority.

(3)~~(4)~~ Drive-through aisles shall be screened with a combination of decorative walls and landscape to a minimum height of 40 inches to prevent headlight glare and direct visibility of vehicles from adjacent streets and parking lots. Any wall shall comply with sight triangle requirements of PMC Chapter 17.82 (Setbacks and Location of Buildings) and shall not be located in a required setback.

(4)~~(5)~~ Each drive-through entrance and exit shall be at least 100 feet from an intersection of public rights-of-way, measured at the closest intersecting curbs, and at least 25 feet from the nearest curb cut on an adjacent property.

(5)~~(6)~~ Drive-through restaurants and drive-through services within an integrated shopping center shall have an architectural style consistent with the theme established in the center. The architecture of any drive-through shall provide compatibility with surrounding uses in form, materials, colors, scale, and other design elements.

(6)~~(7)~~ Other than menu boards, signs for drive-through restaurants and services shall conform to PMC Chapter 17.88.

(7)~~(8)~~ Drive-through restaurants ~~shall~~ may be required to include a minimum 11-foot-wide bypass lane, which allows vehicles already served or other vehicles to navigate around a drive-through lane. A bypass lane shall not include parking spaces. This requirement may be modified or waived at the discretion of the Review Authority ~~where site constraints make a bypass lane infeasible~~.

(8)~~(9)~~ No new drive-through restaurant use may be approved if located within ~~500~~250 feet from an existing or proposed drive-through restaurant use as measured according to PMC Section 17.17.020 (Measuring distances).

~~(D) The location standard described in Subsection (C)(9) of this Section shall not apply if:~~

~~(1) A minimum of 50 percent of the products sold at the proposed drive-through restaurant establishment are beverages or are not available at an existing drive-through restaurant establishment within 500 feet of the project location;~~
~~(2) The drive-through queuing lane does not impact pedestrian access throughout the development, including but not limited to points of ingress and egress to the development and access to public rights-of-way;~~
~~(3) The proposed drive-through restaurant establishment does not require more than 10 vehicle queuing spaces;~~
~~(4) The proposed drive-through restaurant establishment is situated on a parcel of at least one acre and is approved concurrently with a larger development; and~~
~~(5) The proposed drive-through restaurant establishment will not constitute the fourth drive-through restaurant establishment within a 500-foot radius.~~
~~(E) Review Process. Uses subject to this Section shall be subject to the permit requirements as specified in the applicable zone pursuant to the permissions tables in Divisions 3 through 7 of this Title. In making the decision for approval of the proposed drive-through, the Review Authority shall consider possible air quality, traffic safety, and visual impacts, as well as consistency with this Section and other applicable provisions of this Title. (Ord. 1603 § 4 (Exh. I), 2023)~~

PMC Section 17.92.070.B

(4) All ~~parking,~~ loading~~, circulation aisles,~~ and pump island bay areas shall be constructed with plain cement concrete.

(11) Distance Requirements. No new fueling station/vehicle and equipment services and repair facility shall be located within ~~500~~300 feet from another fueling station/vehicle and equipment services and repair facility as measured according to PMC Section 17.17.20 (Measuring distances).

Planning Commission Staff Report

DATE: **OCTOBER 9, 2025**

TO: **HONORABLE CHAIR AND PLANNING COMMISSIONERS**

FROM: **ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION**

APPLICANT: **PALMDALE FAMILY HOUSING, LP**

DISTRICT: **5**

SUBJECT: **ADOPT RESOLUTION NO. PC-2025-023, A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, RECOMMENDING CITY COUNCIL APPROVAL OF A FORM OF AGREEMENT 25-0002, APPROVING SITE PLAN REVIEW 25-0011, TO FACILITATE THE CONSTRUCTION OF A 264-UNIT MULTI-FAMILY RESIDENTIAL DEVELOPMENT ON ONE VACANT PARCEL TOTALING APPROXIMATELY 9.95 ACRES LOCATED ON THE WEST SIDE OF 15TH STREET EAST AND APPROXIMATELY 375 FEET NORTH OF EAST AVENUE Q, AND FIND THAT THE PROJECT IS EXEMPT FROM ENVIRONMENTAL REVIEW**

RECOMMENDATION

Staff recommends that the Planning Commission adopt Resolution No. PC-2025-023, recommending the City Council approve a form of Agreement (AGR) 25-0002, approving Site Plan Review (SPR) 25-0011, and find that the project is exempt from environmental review.

BACKGROUND

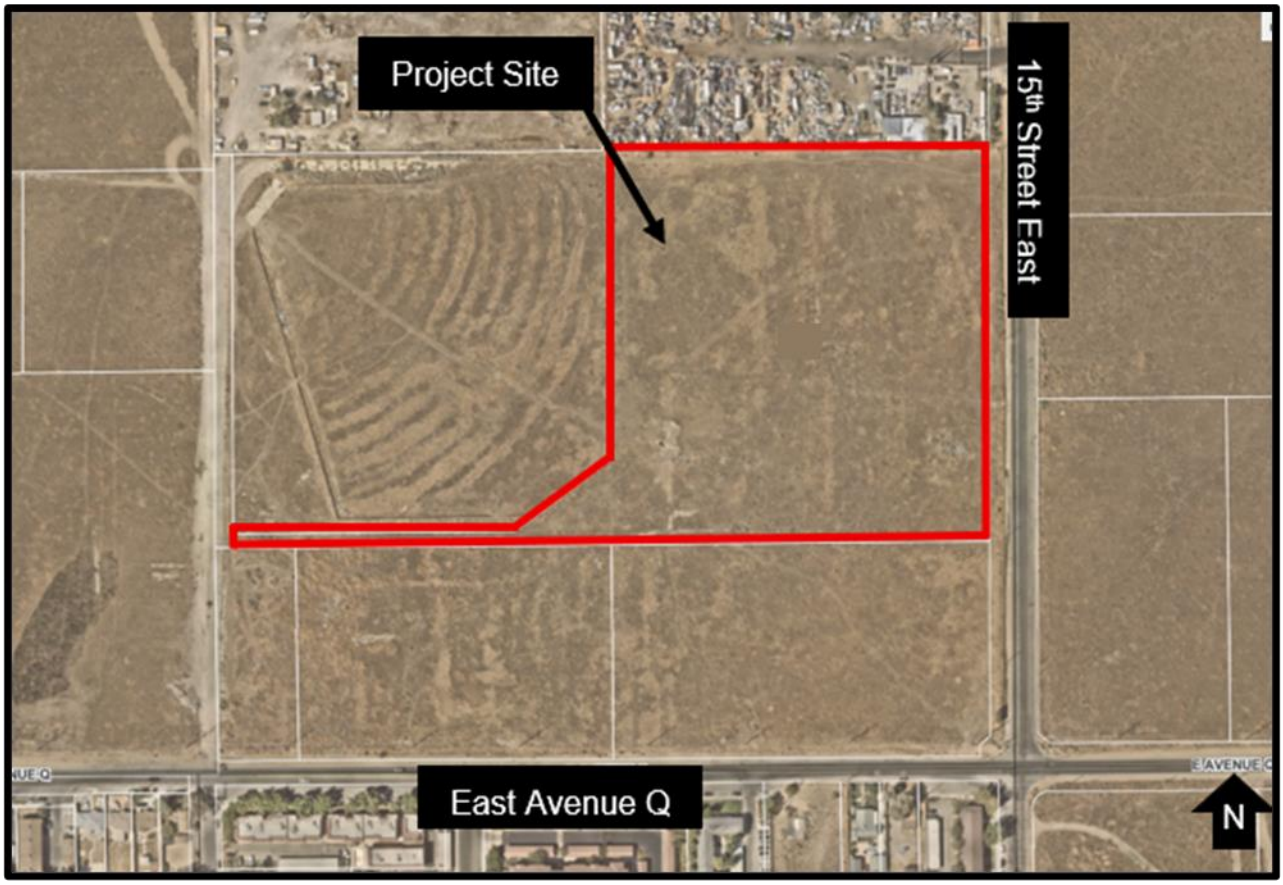
The applications were submitted on March 25, 2025, reviewed by staff, and deemed incomplete. Subsequently, the applicant resubmitted and after resolution of completeness items the project was deemed complete on September 4, 2025, and scheduled for the October 9, 2025, Planning Commission meeting.

Noticing/Agency Comments

TABLE 1 - AFFECTED AGENCIES

	Agency	Comments
Water Service:	Palmdale Water District	The applicant will need to submit a conceptual water plan.
School District(s):	Antelope Valley Union High School District	No comments received.
	Palmdale School District	No comments received.
Other:	Los Angeles County Sanitation District	The applicant will be required to pay connection fees.
	Southern California Gas Company	No comments received.
	AT&T	No conflict.

FIGURE 1 - AERIAL MAP



ANALYSIS

The applicant is requesting that the Planning Commission approve SPR 25-0011 with a recommendation to City Council for the approval of a form of AGR 25-0002 to construct eleven, three-story buildings containing 264 dwelling units and three community buildings totaling 303,143 square feet. The project site consists of one vacant parcel totaling approximately 9.95 acres and is located at the west side of 15th Street East and approximately 375 feet north of East Avenue Q. State law requires jurisdictions provide an inventory of land suitable for residential development as part of its Housing Element to assist in meeting the City's Regional Housing Needs Assessment Allocation (RHNA) and the project site is identified in that list.

The proposed multi-family residential development is located within the Residential Neighborhood 3 (RN 3) General Plan land use designation and zone. The proposed development includes site improvements, landscaping, trash enclosures, and community buildings. The proposed recreational amenities consist of a children's play area, a swimming pool area, a basketball half-court, a pickleball court, a splash pad, a large dog play area, a small dog play area, and a vegetable garden for tenants. In addition, there is a centralized mailroom, maintenance, and laundry room in one amenity building, and a breakroom for resident services, managers' offices, conference room, an indoor gym, learning center, and community room in the second amenity building. Lastly, the project will provide site improvements such as parking areas, drive aisles, open space, and landscaping. The development is designed to support a high-density residential community, consistent with the site's zone and General Plan land use designation.

Of the proposed 264 dwelling units, 100 percent of the total units will be designated for households with incomes not exceeding the low-income threshold established by the California Department of Housing and Community Development (HCD). In accordance with the State Density Bonus Law (Government Code Section 65915), the applicant is requesting five concessions from the City's development standards to facilitate the provision of affordable housing.

Density Bonus

Pursuant to the Palmdale Municipal Code (PMC), AGR and SPR approval are required to allow the proposed development. The project has been reviewed for consistency with applicable design standards and policies related to density, site planning, circulation, landscaping, and building form. As a result, the applicant is entitled to and is requesting multiple incentives and concessions under the Density Bonus Law and PMC Section 17.25.020, as follows:

1 A concession pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow less than the minimum 30 feet open-to-the-sky separation between structures when project includes more than one building and minimum 30 feet open-to-the-sky building break or alternative as required by the Multi-Family and Mixed-Use Design Standards Section 5.2.2 (Multi-Family Building Break Standards).

2 A concession pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow less than the minimum required storage space: 125 cubic feet of private enclosed storage space within the parking garage, carport, or immediately adjacent to the dwelling unit as required by PMC Section 13.36.010-2 (Development Standards - Multifamily Residential).

3 A concession pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to waive the following requirement: Each dwelling unit must be equipped with connections for installation of a standard-sized washer and dryer, or common laundry facilities must be provided containing a minimum of one washing machine and one dryer for every five dwelling units or a fraction thereof, if common laundry facilities are provided, they must be dispersed throughout the project either in every building and/or every other floor. If individual facilities are provided, the proposed floor plans must demonstrate this requirement per the PMC Section 17.38.070 (Dwelling Unit Requirements).

4 A concession pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow less than the minimum parking ratio requirement: one space per studio or one-bedroom unit, one and one-half spaces per two-bedroom unit, two spaces per unit with three or more bedrooms. Minimum half space per unit must be covered. Plus 0.2 guest space per unit as required by PMC Section 17.87.060 (Required vehicle spaces).

5 A concession pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow parking in required rear yard per PMC Section 17.87.090 (Parking design standards).

These requested concessions are intended to facilitate the construction of high-quality affordable housing while accommodating the site’s physical constraints and design needs. The project complies with all other applicable zoning regulations and supports the City’s goals for housing production and affordability.

The Housing Division has determined that granting the concessions listed above will result in actual and identifiable cost reductions to provide affordable housing. In addition, the proposed project will contribute to the City’s RHNA allocation.

In addition to the requested concessions, the applicant is requesting three waivers to facilitate the construction of the proposed project upon recommendation from the Planning Commission due to financial constraints. The waivers will be reviewed and approved or denied by the City Council. The applicant has provided their justification for the waivers requested and are incorporated in the section below:

1 A waiver pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow for Buildings B, D & F to exceed the 150-feet maximum distance between residential buildings and the nearest trash enclosure. Building B and D are 201-221 feet from the nearest trash enclosure, exceeding the maximum allowed only by 50-100 feet. Furthermore, only 48 units are impacted by this distance exceeding the maximum of 150 feet. Due to the current layout of the project, it is physically infeasible to rearrange the trash enclosure or residential building locations to reduce the distance between the nearest trash enclosures and Buildings B and D to 150 feet. Furthermore, adding a trash enclosure to serve only the 48 units in buildings B, D & F impacted by the additional 50-100 feet distance to the currently placed nearest trash enclosure would pose a cost burden that would exceed the current project budget.

2 A waiver pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow for the leasing office amenity building to exceed the 17-foot height requirement for accessory structures. Leasing offices, resident services offices, and the main electrical room are necessary for the overall project to operate, and thus cannot be removed from the site plan or reduced in size to accommodate the 17-foot height requirement for accessory structures. Furthermore, creating an additional standalone building to accommodate relocating the second-floor amenities of this building would be physically infeasible within the current site plan and would create a cost burden that would exceed the current project budget. The estimated cost for an additional standalone building is $4,142,857 based on the most recent general contractor estimate for structures. This cost overrun would exceed the current project budget of $58,000,000 for all 14 current structures.

3 A waiver pursuant to PMC Section 17.25.020 (Density Bonus Agreement), to allow for a reduction in the total amount of electric vehicle (EV) charging stations at the project site due to Southern California Edison’s (SCE) inability to provide the capacity required to power the amount of EV charging stations required by the PMC. In order to meet this demand SCE determined that the required upgrades will take approximately 45 months to complete. Because this project includes Low Income California Tax Credit Allocation Committee (CTCAC) tax credits and California Debt Limit Allocation Committee (CDLAC), which require the project to begin construction by November 17, 2025 and be completed within less than 45 months from construction start, it is physically infeasible to provide the full amount

of EV chargers required by the PMC. Los Angeles County Green Code Section 4.106.4 exception 1 allows for reduction or removal of all EV chargers on site when "there is no local utility power supply or the local utility is unable to supply adequate power" and "where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Green Code Section 4.106.4, may adversely impact the construction cost of the project". As stated above, the utility company lacks adequate power and the costs to upgrade the existing SCE substation would adversely impact construction costs.

TABLE 2 - EXISTING LAND USE / ZONING / GENERAL PLAN

	Land Use	Zoning	General Plan
Subject Site	Vacant parcel	Residential Neighborhood 3 (RN 3)	Residential Neighborhood 3 (RN 3)
North	Commercial storage facility	Office Flex (OFX)	Employment Flex (EMPFX)
South	Vacant parcel	Residential Neighborhood 3 (RN 3)	Residential Neighborhood 3 (RN 3)
East	Vacant parcel	Office Flex (OFX)	Employment Flex (EMPFX)
West	Vacant parcel	Residential Neighborhood 3 (RN 3) and Palmdale Transit Area Specific Plan Urban Core (T6)	Residential Neighborhood 3 (RN 3) and Palmdale Transit Area Specific Plan Urban Core (T6)

TABLE 3 - GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-4.1: Quality Construction. Use simple, urban building forms made with permanent materials with high-quality detailing that stands the test of time.	Yes	The proposed project incorporates durable, high-quality building materials, including standing seam metal roofing, composite metal paneling, breeze block, and cement board panels, and urban architectural forms that align with the City's long-term vision for residential developments. The buildings feature clean lines, contemporary massing, and permanent exterior finishes designed to minimize maintenance needs while maintaining visual appeal over time. In addition, the proposed project includes varied rooflines, prominent building entrances, and intentional façade articulation to create visual interest along the street frontage.
	LUD-4.3: Promote high-quality, cohesive architectural design by encouraging building forms, materials, and styles that are durable, compatible with surrounding development, and supportive of long-term community character.	Yes	
	LUD-4.7: Iconic Architecture. Allow iconic and memorable building designs, particularly on larger non-residential properties.	Yes	

TABLE 3 - GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-5.3: Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.	Yes	The project is located within the Palmdale Water District and the Los Angeles County Sanitation District. Both agencies have reviewed the project and provided conditions of approval to ensure the project can be adequately served by existing water and wastewater facilities upon approval of development plans. Additionally, the project has been conditioned by the Engineering Division to provide roadways, curbs, gutters, and sidewalks to adequately serve future residents.
	LUD-10.6: Implement urban design guidelines and features that encourage pedestrian activity and reduce automobile use.	Yes	The proposed project incorporates urban design features that promote walkability and reduce car dependency. The project includes pedestrian pathways, shade trees, and long-term bike parking further enhances pedestrian comfort and supports alternative transportation. The site's proximity to transit and its compact, connected layout align with the City's vision for transit-oriented, pedestrian-friendly development.

TABLE 3 - GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-22.5 Varying Housing Types. Encourage and allow a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multifamily apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.	Yes	The proposed project is located on a vacant site and will provide a new multifamily development for low-income individuals. The site is within a half-mile distance of a major bus corridor at the intersection of Palmdale Boulevard and 15th Street East, which provides alternative transportation mobility for the residents. The proposal meets this land use goal by providing a different type of housing than what is currently within the immediate vicinity and by serving the need for multifamily developments.
	ED-5.2: Increase the supply and diversity of housing options to support different types of households, including seniors, young adults, families, empty nesters, individuals or families with special needs, and multigenerational families.	Yes	The proposed project supports the General Plan goal to increase the supply and diversity of housing options by offering a mix of unit sizes ranging from one to four bedrooms to accommodate a wide range of household types, and ensures more inclusive and flexible housing opportunities within the community.

**Justification is based on a review of the plans date stamped 'Received September 2, 2025'.*

TABLE 4 - PMC STANDARDS

	Standard	Standard Met?	Justification*
Density	Minimum Density: 30 dwelling units per acre Maximum Density: 50 dwelling units per acre	Yes	The proposed project would accommodate the development of 264 multifamily residential units on a 9.95-acre site, resulting in a residential density of approximately 26.5 dwelling units per acre.
Lot Size	Minimum: 20,000 square feet	Yes	The proposed project is situated on a 9.95 acre site which exceeds the minimum requirement.
Lot Width	Minimum: 60 feet	Yes	The proposed project has a lot width of approximately 652 feet.
Lot Depth	Minimum: 100 feet	Yes	The proposed project has a minimum lot depth of approximately 628 feet.
Setbacks	Front: 15 feet Street Side: 10 feet Interior: 0 feet Rear: 15 feet	Yes	Front: 15 feet Interior: Five feet Rear: 15 feet
Building Height	Maximum Height: 65 feet or five stories	Yes	The proposed project is approximately 42 feet in height and three stories
Building Separation	A minimum 30 feet of open-to-the-sky separation between structures and/or less than the minimum 30-foot open-to-the-sky building break required for buildings over 425 feet in length.	No	The applicant is requesting a concession to reduce the required minimum 30 feet of open-to-the-sky separation between structures.

TABLE 4 - PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Private Storage	Minimum required 125 cubic feet of enclosed private storage space per unit	No	The applicant has submitted a concession to allow the project to not provide any private storage space for any of the units.
Landscaping	30 percent of the minimum required front yard area shall be landscaped, of which half must be planted with live plant material	Yes	The front yard area of the proposed project is landscaped with live plant material with the exception of walkways and a monument sign.
Parking	Utilizing the state density bonus for parking spaces, 482 spaces would be required.	No	The proposed project includes 436 parking spaces for which a concession is requested.
	Parking spaces shall not be located within any required rear yard.	No	The project proposes parking spaces within the required 15-foot rear yard setback, a seven and one-half-foot rear setback for parking spaces only. The applicant has requested a concession for this requirement.
Accessory Structure Height	Maximum Height: 17 feet and one story for an accessory building	No	The proposed project has submitted a waiver to exceed the maximum accessory structure height of 17 feet. The applicant proposes a two-story accessory building with a maximum height of 34 feet as part of the waiver request.

TABLE 4 - PMC STANDARDS (CONTINUED)

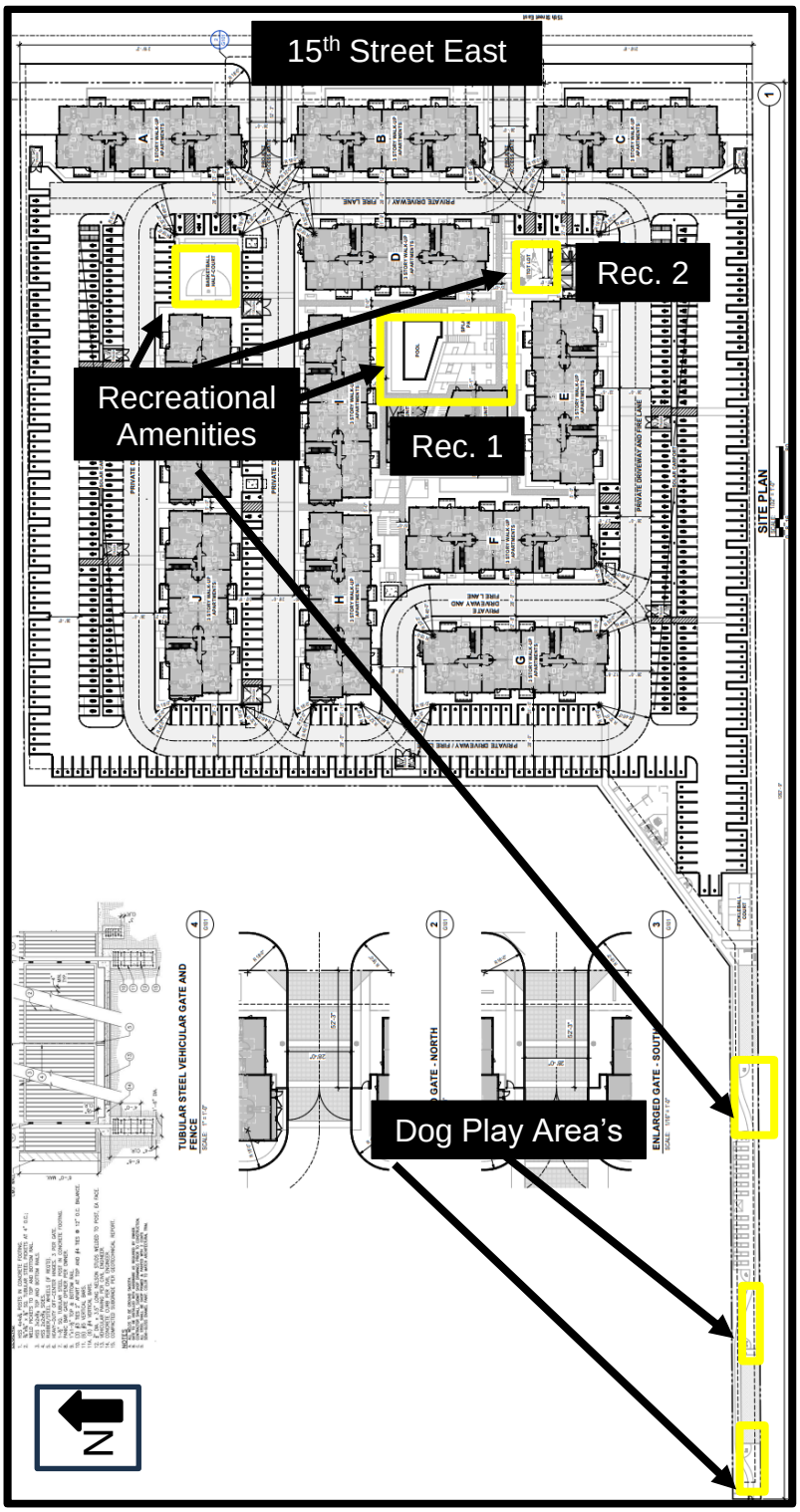
	Standard	Standard Met?	Justification*
Laundry Facilities	Each dwelling unit shall be equipped with connections for standard-sized washer and dryer, or common laundry facilities shall be provided containing a minimum of one washing machine and one dryer for every five dwelling units or a fraction thereof, if common laundry facilities are provided, they shall be dispersed throughout the project either in every building and/or every other floor.	No	The project proposes one centralized laundry room to service the entire development. The applicant has requested a concession to deviate from the requirement.
Trash Enclosure	Refuse and recycling enclosures shall be located in order to be easily accessible to refuse collection trucks and to site users. In general, distance from a building entry to the trash enclosure should not exceed 150 feet.	No	The project requests to allow Buildings B, D & F to exceed the 150-feet maximum distance between residential buildings to a total distance of 201 to 221 feet. This request would only impact a total 48 units. The applicant is requesting a waiver to deviate from this requirement.
Amenities	Five amenities are required for the 264 residential unit project.	Yes	Amenities include: a children's play area; a swimming pool area; a basketball half-court, a pickleball court, a splash pad, a large dog play area, a small dog play area, a vegetable garden, and indoor gym.

TABLE 4 - PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Electric Vehicle	Multifamily Residential Development with 40 or more parking spaces shall be equipped with raceways, wiring, and power to support future Level 2 EV charging stations at a rate of one for every 20 parking spaces.	No	The applicant has submitted a waiver to not provide any EV charging stations due to cost and existing infrastructure that would delay the project construction and exceed the project funding.

**Justification is based on a review of the plans date stamped 'Received September 2, 2025'.*

FIGURE 2 - SITE PLAN



Site Layout

The site layout includes a gated entry for controlled access. In addition to the previously mentioned amenities, which are centrally located for convenience, the proposal includes a mailroom, bicycle storage, and laundry facilities. The site also includes nine trash enclosures spread throughout the property to ensure convenient access and maintain cleanliness. The layout is designed to balance functionality with walkability.

Access

The project proposal includes street improvements to provide internal circulation as well as connections to existing roads. Two primary access driveways will be provided along 15th Street East. The City Engineer and Los Angeles County Fire Department have reviewed the proposed site layout and confirmed that the project is designed to provide adequate and safe vehicular access.

Architecture

The proposed project features a modern architectural style and incorporates a mix of durable and visually appealing materials, including cement board panels and metal panels for siding material, a standing seam metal roof, breeze block veneer, stucco siding with complimentary colors all of which provide for a clean-lined aesthetic. The design emphasizes vertical and horizontal articulation to break up massing and add visual interest throughout the site.

Perimeter fencing utilizes minimalist designs that maintain openness while providing privacy and security. Amenity buildings vary in design from one-story to two-story structures with matching exterior finish materials to ensure a unified architectural theme. The amenity buildings are further complemented with large covered entries to provide shade and to provide focal points and character of shared outdoor spaces.

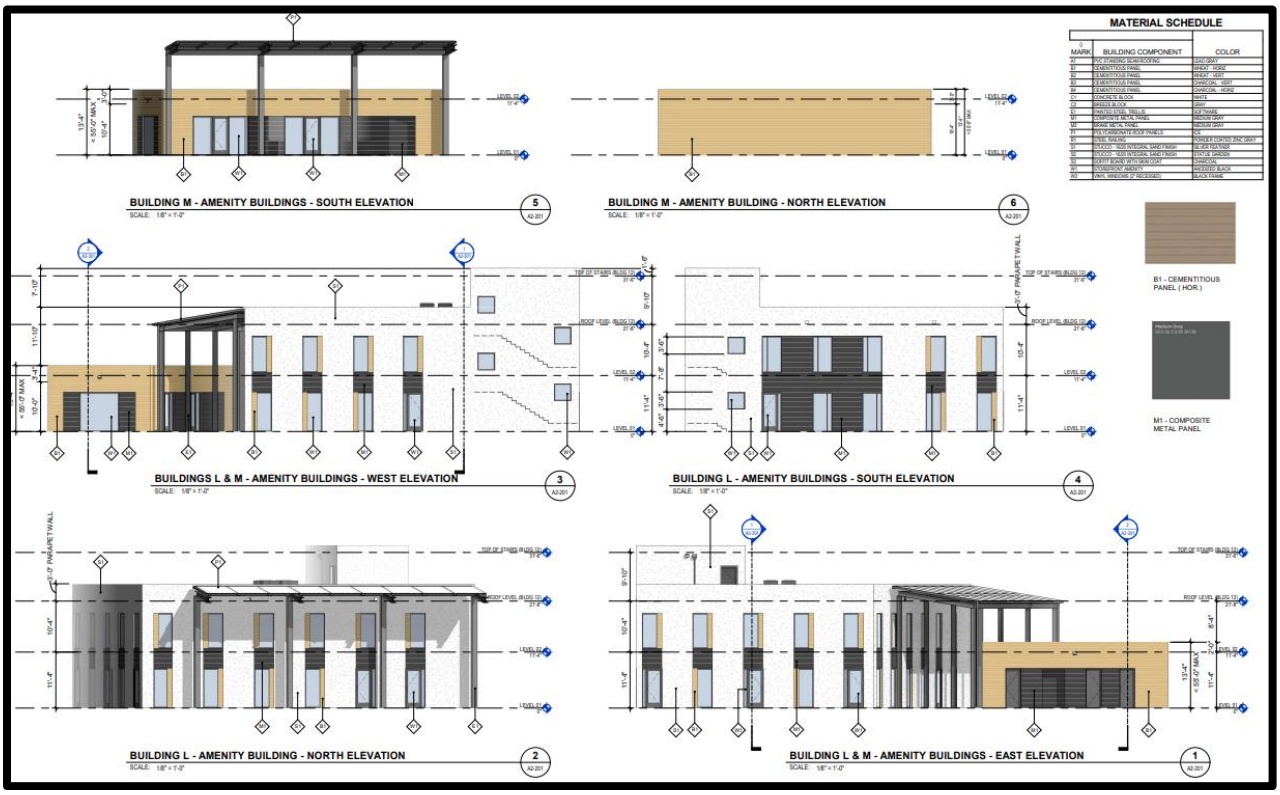
Together, the architectural elements of the project reflect a contemporary, high-quality residential community that provide durable materials and thoughtfully planned amenities for future residents.

FIGURE 3 - ELEVATIONS





FIGURE 4 - ELEVATIONS - CLUBHOUSE AND POOL HOUSE





ENVIRONMENTAL REVIEW

This project has been determined to be exempt pursuant to California Government Code Section 65583.2, subdvs. (i), which exempts a “project” for purposes of Division 13 (commencing with Section 21000) of the Public Resources Code” from the California Environmental Quality Act (CEQA) review for by right projects.

While the site may contain western Joshua trees - a candidate species under the California Endangered Species Act - any removal or disturbance will be subject to compliance with California Department of Fish and Wildlife (CDFW) requirements, including securing an Incidental Take Permit.

Prepared by:	Ivan Galeazzi, Associate Planner
Approved by:	Brenda Magaña, Planning Manager
Approved as to form:	Alexandra Severino, City Attorney

ATTACHMENTS

Resolution No. PC-2025-023

PLANNING COMMISSION
CITY OF PALMDALE, CALIFORNIA
RESOLUTION NO. PC-2025-023

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, RECOMMENDING CITY COUNCIL APPROVAL OF A FORM OF AGREEMENT 25-0002, APPROVING SITE PLAN REVIEW 25-0011; TO FACILITATE THE CONSTRUCTION OF A 264-UNIT, MULTI-FAMILY RESIDENTIAL DEVELOPMENT ON ONE VACANT PARCEL TOTALING APPROXIMATELY 9.95 ACRES LOCATED ON THE WEST SIDE OF 15TH STREET EAST AND APPROXIMATELY 375 FEET NORTH OF EAST AVENUE Q, AND FIND THAT THE PROJECT IS EXEMPT FROM ENVIRONMENTAL REVIEW

WHEREAS, Patrick Sin, on behalf of Palmdale Family Housing, has filed an application requesting approval of a form of an Agreement (AGR) 25-0002 and Site Plan Review (SPR) 25-0011, and,

WHEREAS, the request is for the development of an approximately 9.95-acre site for the construction of a 264-unit multifamily project, described herein as "Application", and,

WHEREAS*,* The Application applies to a parcel located on the west side of 15th Street East and approximately 375 feet north of East Avenue Q, as indicated on the Los Angeles Assessor roll as Assessor Parcel Number 3022-015-012, legally described on Exhibit A hereto and shown on the map attached as Exhibit B, and,

WHEREAS*,* On October 9, 2025, the Planning Commission of the City of Palmdale conducted a duly noticed public hearing on the Application and concluded said hearing on that date.

NOW THEREFORE, BE IT RESOLVED, THE PLANNING COMMISSION OF THE CITY OF PALMDALE DOES HEREBY FIND, DETERMINE, RESOLVE AND ORDER AS FOLLOWS:

SECTION 1. The Planning Commission hereby finds that all of the facts set forth in the foregoing Recitals are true and correct.

SECTION 2. The Planning Commission hereby finds as follows with respect to the environmental document:

A Pursuant to the California Environmental Quality Act (CEQA), this project has been determined to be exempt pursuant to California Government Code Section 65583.2, subdvs. (i), which exempts a "project" for purposes of Division 13 (commencing with Section 21000) of the Public Resources Code" from the CEQA review for by right projects.

B The custodian of records for all other materials which constitute the record of proceedings upon which the Planning Commission's decision is based, is the Planning Manager of the City of Palmdale. These documents are available for public review in the Planning Division of the City of Palmdale located at 38250 Sierra Highway, Palmdale, California 93550, telephone (661) 267-5200.

SECTION 3. Based upon substantial evidence presented to this Commission during the above-referenced October 9, 2025, public hearing, including public testimony, and written and oral staff report, this Commission specifically finds as follows:

A The proposed Density Bonus Agreement is consistent with the maps and policies of the General Plan and any applicable Specific Plan. (AGR)

B The City's General Plan and any applicable Specific Plan. (SPR)

C The development standards set forth in this Title. (SPR)

D Any applicable design guidelines. (SPR)

The proposed project, as demonstrated in Exhibits C and D, is consistent with the Residential Neighborhood 3 (RN 3) General Plan land use designation and zone, which allow for high-density residential development on the project site. The project meets applicable land use, density, and development standards, and no General Plan amendments or zone changes are required. The project site is located within the City's Regional Housing Needs Assessment Allocation (RHNA). State law requires jurisdictions provide an inventory of land suitable for residential development as part of its Housing Element to assist in meeting the City's RHNA, and the project site was identified in that list. Additionally, the project supports the City's goals for increasing affordable housing and promoting compact, infill development in areas served by existing infrastructure and transit, further aligning with General Plan objectives. As demonstrated in Exhibit D, the proposed project meets the density, lot size, lot width, and lot depth requirements of the RN 3 zone, and is therefore suitable for the type and density of the proposed development.

The proposed project complies with the applicable development standards set forth in Title 17 of the Palmdale Municipal Code (PMC), except where deviations are allowed pursuant to Government Code Section 65915 (Density Bonus Law). The project meets all baseline zoning requirements for multi-family residential development, including total amenities provided, primary structure building height, primary structure setbacks, and open space standards, or has received appropriate concessions and waivers as permitted

for qualifying affordable housing projects. The agreement, which is outlined in Exhibit E, contains concessions and waivers that are necessary in order to physically accommodate the project. The concessions and waivers do not result in any adverse impacts to health, safety, or the physical environment. In addition, the proposed project is consistent with the City's applicable design guidelines for multifamily residential development. The site layout emphasizes connectivity, security, and convenience through features such as community buildings, a centrally located mailroom, pedestrian walkways, and centrally located recreational amenities. Together, these features demonstrate conformance with the City's intent to encourage attractive and context-sensitive residential development

E The proposed Density Bonus Agreement complies with the requirements of California Government Code Section 65915. (AGR)

The proposed Density Bonus Agreement, as outlined in Exhibit E, complies with the requirements of California Government Code Section 65915 by providing the required percentage of affordable housing units in exchange for density bonuses and development incentives. The project includes deed-restricted affordable units for lower-income households, consistent with state-mandated eligibility thresholds. In accordance with Section 65915, the applicant has requested concessions and waivers that facilitate the development of affordable housing, and the City has verified that all requests meet the statutory criteria. As such, the agreement fully aligns with the provisions and intent of California's Density Bonus Law.

SECTION 4. Based on the findings and conclusions set forth in Sections 1, 2, and 3 above, this Commission hereby recommends City Council approval of a form of AGR 25-0002 as set forth in Exhibit E, approves SPR 25-0011 subject to the Conditions of Approval as set forth in Exhibit F, and finds that the project is exempt from environmental review.

SECTION 5. The Deputized Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED and **ADOPTED** this 9th day of October 2025.

_____
Dean Henderson
Chair, Planning Commission

ATTEST:

_____
Sylvia Magallanes, Deputized Clerk

I, Sylvia Magallanes, Deputized Clerk of Palmdale, California, do hereby certify that the foregoing resolution was duly approved and adopted by the Planning Commission of the City of Palmdale at a regular meeting of said Commission held on the 9th day of October, 2025, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____ ABSENT: _____

Date: _____ _____
Sylvia Magallanes, Deputized Clerk

EXHIBIT A

LEGAL DESCRIPTION FOR AGR 25-0002 SPR 25-0011

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF LOT 5 OF TRACT NO. 7672, IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 120 PAGES 72 AND 73 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 5, TRACT NO. 7672, THENCE SOUTH 0° 00' 59" EAST 652.28 FEET; THENCE SOUTH 89° 38' WEST 1279.2 FEET; THENCE NORTH 0° 00' 10" EAST 25 FEET; THENCE NORTH 89° 38' EAST 475 FEET; THENCE NORTHEAST 197.58 FEET TO A POINT SOUTH 89° 38' WEST 643.45 FEET AND SOUTH 0° 00' 10" WEST 510.28 FEET FROM THE POINT OF BEGINNING; THENCE NORTH 0° 00' 10" EAST 510.28 FEET; THENCE NORTH 89° 38' EAST TO THE BEGINNING PART OF LOT 5.

ASSESSOR’S PARCEL NUMBER: 3022-015-012

EXHIBIT B

AERIAL MAP FOR AGR 25-0002 SPR 25-0011

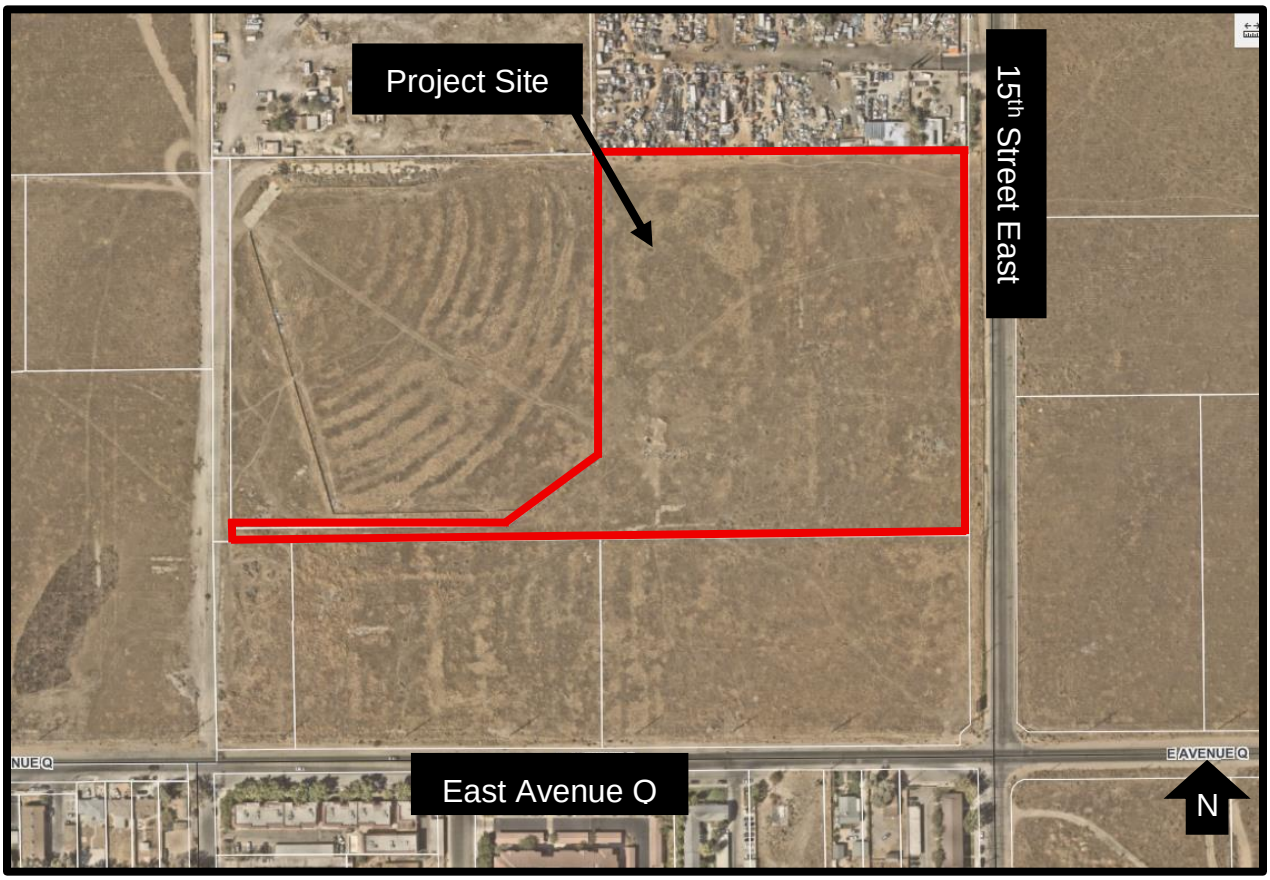


EXHIBIT C

GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-4.1: Quality Construction. Use simple, urban building forms made with permanent materials with high-quality detailing that stands the test of time. LUD-4.3: Promote high-quality, cohesive architectural design by encouraging building forms, materials, and styles that are durable, compatible with surrounding development, and supportive of long-term community character. LUD-4.7: Iconic Architecture. Allow iconic and memorable building designs, particularly on larger non-residential properties.	Yes Yes Yes	The proposed project incorporates durable, high-quality building materials, including standing seam metal roofing, composite metal paneling, breeze block, and cement board panels, and urban architectural forms that align with the City's long-term vision for residential developments. The buildings feature clean lines, contemporary massing, and permanent exterior finishes designed to minimize maintenance needs while maintaining visual appeal over time. In addition, the proposed project includes varied rooflines, prominent building entrances, and intentional façade articulation to create visual interest along the street frontage.

GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-5.3: Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.	Yes	The project is located within the Palmdale Water District and the Los Angeles County Sanitation District. Both agencies have reviewed the project and provided conditions of approval to ensure the project can be adequately served by existing water and wastewater facilities upon approval of development plans. Additionally, the project has been conditioned by the Engineering Division to provide roadways, curbs, gutters, and sidewalks to adequately serve future residents.
	LUD-10.6: Implement urban design guidelines and features that encourage pedestrian activity and reduce automobile use.	Yes	The proposed project incorporates urban design features that promote walkability and reduce car dependency. The project includes pedestrian pathways, shade trees, and long-term bike parking further enhances pedestrian comfort and supports alternative transportation. The site's proximity to transit and its compact, connected layout align with the City's vision for transit-oriented, pedestrian-friendly development.

GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-22.5 Encourage and allow a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multifamily apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.	Yes	The proposed project is located on a vacant site and will provide a new multifamily development for low-income individuals. The site is within a half-mile distance of a major bus corridor at the intersection of Palmdale Boulevard and 15th Street East, which provides alternative transportation mobility for the residents. The proposal meets this land use goal by providing a different type of housing than what is currently within the immediate vicinity and by serving the need for multifamily developments.
	ED-5.2: Increase the supply and diversity of housing options to support different types of households, including seniors, young adults, families, empty nesters, individuals or families with special needs, and multigenerational families.	Yes	The proposed project supports the General Plan goal to increase the supply and diversity of housing options by offering a mix of unit sizes ranging from one to four bedrooms to accommodate a wide range of household types, and ensures more inclusive and flexible housing opportunities within the community.

**Justification is based on a review of the plans date stamped 'Received September 2, 2025'.*

EXHIBIT D

PMC STANDARDS

	Standard	Standard Met?	Justification*
Density	Minimum Density: 30 dwelling units per acre Maximum Density: 50 dwelling units per acre	Yes	The proposed project would accommodate the development of 264 multifamily residential units on a 9.95-acre site, resulting in a residential density of approximately 26.5 dwelling units per acre.
Lot Size	Minimum: 20,000 square feet	Yes	The proposed project is situated on a 9.95 acre site which exceeds the minimum requirement.
Lot Width	Minimum: 60 feet	Yes	The proposed project has a lot width of approximately 652 feet.
Lot Depth	Minimum: 100 feet	Yes	The proposed project has a minimum lot depth of approximately 628 feet.
Setbacks	Front: 15 feet Street Side: 10 feet Interior: 0 feet Rear: 15 feet	Yes	Front: 15 feet Street Side: N/A Interior: Five feet Rear: 15 feet
Building Height	Maximum Height: 65 feet or five stories	Yes	The proposed project is approximately 42 feet in height and three stories
Building Separation	A minimum 30 feet of open-to-the-sky separation between structures and/or less than the minimum 30-foot open-to-the-sky building break required for buildings over 425 feet in length.	No	The applicant is requesting a concession to reduce the required minimum 30 feet of open-to-the-sky separation between structures.

PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Private Storage	Minimum required 125 cubic feet of enclosed private storage space per unit	No	The applicant has submitted a concession to allow the project to not provide any private storage space for any of the units.
Landscaping	30 percent of the minimum required front yard area shall be landscaped, of which half must be planted with live plant material	Yes	The front yard area of the proposed project is landscaped with live plant material with the exception of walkways and a monument sign.
Parking	Utilizing the state density bonus for parking spaces, 482 spaces would be required.	No	The proposed project includes 436 parking spaces for which a concession is requested.
	Parking spaces shall not be located within any required rear yard.	No	The project proposes parking spaces within the required 15-foot rear yard setback, a seven and one-half-foot rear setback for parking spaces only. The applicant has requested a concession for this requirement.
Accessory Structure Height	Maximum Height: 17 feet and one story for an accessory building	No	The proposed project has submitted a waiver to exceed the maximum accessory structure height of 17 feet. The applicant proposes a two-story accessory building with a maximum height of 34 feet as part of the waiver request.

PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Laundry Facilities	Each dwelling unit shall be equipped with connections for standard-sized washer and dryer, or common laundry facilities shall be provided containing a minimum of one washing machine and one dryer for every five dwelling units or a fraction thereof, if common laundry facilities are provided, they shall be dispersed throughout the project either in every building and/or every other floor.	No	The project proposes one centralized laundry room to service the entire development. The applicant has requested a concession to deviate from the requirement.
Trash Enclosure	Refuse and recycling enclosures shall be located in order to be easily accessible to refuse collection trucks and to site users. In general, distance from a building entry to the trash enclosure should not exceed 150 feet.	No	The project requests to allow Buildings B, D & F to exceed the 150-feet maximum distance between residential buildings to a total distance of 201 to 221 feet. This request would only impact a total 48 units. The applicant is requesting a waiver to deviate from this requirement.
Amenities	Five amenities are required for the 264 residential unit project.	Yes	Amenities include: a children's play area; a swimming pool area; a basketball half-court, a pickleball court, a splash pad, a large dog play area, a small dog play area, a vegetable garden, and indoor gym.

PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Electric Vehicle	Multifamily Residential Development with 40 or more parking spaces shall be equipped with raceways, wiring, and power to support future Level 2 EV charging stations at a rate of one for every 20 parking spaces.	No	The applicant has submitted a waiver to not provide any EV charging stations due to cost and existing infrastructure that would delay the project construction and exceed the project funding.

**Justification is based on a review of the plans date stamped 'Received September 2, 2025'.*

EXHIBIT F

DRAFT

CONDITIONS OF APPROVAL FOR

SITE PLAN REVIEW 25-0011

APPROVAL DATE: OCTOBER 9, 2025
EFFECTIVE DATE: OCTOBER 21, 2025
EXPIRATION DATE: OCTOBER 21, 2028

These Conditions of Approval apply to Site Plan Review (SPR) 25-0011 to facilitate the construction of a 264 multi-family residential development on one vacant parcel totaling approximately 9.95 acres located on the west side of 15th Street East and approximately 375 feet north of East Avenue Q (APN: 3022-015-012). Any proposed change of use or expansion of the area, or modifications to the site plan or structures shall be submitted to the Planning Division, along with the required application and fee, for review. For the purpose of these conditions, the term "applicant" shall also mean the developer, the owner or any successor(s) in interest to the terms of this approval. For the purposes of these conditions, an * indicates that the condition is a mitigation measure.

GENERAL CONDITIONS:

1 This approval shall not become effective for any purposes until any appeal period has passed and the applicant has filed at the office of the Planning Division their notarized affidavit stating that they agree to and accept all of the Conditions of Approval as approved by the Reviewing Authority as set for in Resolution No. PC-2025-023. (P)

2 Should the City Council deny or revise Density Bonus Agreement (AGR) 25-0002 this SPR shall be modified as necessary to ensure consistency with AGR 25-0002, which may require additional reviews and/or approvals. (P)

3 Site Plan Review 25-0011 shall be inaugurated within three years during the initial approval period, an extension of time may be submitted prior to the expiration date. Applications for time extensions must be filed a minimum of 90 days prior to the expiration date. Request for time extensions must be accompanied by a formal application, all required exhibits and plans, and required application fees. (P)

4 Should this project not be inaugurated during the initial approval period, an extension of time not to exceed an additional two years may be granted by the Review Authority. Applications for time extensions must be filed a minimum of 90 days prior to the expiration date. Requests for time extensions must be accompanied by a formal application, all required exhibits and plans and required application fees. (P)

5 Immediately upon approval of this project by the Review Authority, the applicant shall submit to the City a cashier's check or check, payable to Los Angeles County Clerk in the amount of $75 for the environmental filing fee in compliance with the California Environmental Quality Act (CEQA) Guidelines. Furthermore, if the California Department of Fish and Wildlife (CDFW) determines that this project is not exempt from a filing fee imposed pursuant to Fish and Wildlife Code Section 711.4 because the project has more than a de minimis impact on fish and wildlife, then the applicant shall also pay to CDFW any fee and any fine which the Department determines to be owed. (P)

6 The applicant shall defend, indemnify, and hold harmless the City its elected and appointed officials, officers, employees, and agents from and against any claim, action, or proceeding against the City, its elected and appointed officials, officers, employees, or agents to attack, set aside, void, or annul any approval or condition of approval of the City concerning this project, including but not limited to any approval or condition of approval of the Review Authority. The City shall promptly notify the applicant of any claim, action, or proceeding concerning the project and the City shall cooperate fully in the defense of the matter. The City reserves the right, at its own option, to choose its own attorney to represent the City, its elected and appointed officials, officers, employees, and agents in the defense of the matter. (P)

7 Pursuant to Government Code Section 66020(a), any party may protest the imposition of any fees, dedications, reservations, or other exactions imposed on this development project. Required fees must be paid in full or arrangements must be made to pay the fee when due. Written notice of payment under protest must be filed with the City at the time of approval or conditional approval of this project or within 90 days after the date of the imposition of the fees, dedications, reservations, or other exactions imposed on this project. (P)

8 The applicant shall be responsible for informing all subcontractors, consultants, engineers, or other business entities providing services related to the project of their responsibilities to comply with all pertinent requirements in the PMC, including the requirement that a business license be obtained by all entities doing business in the City. (P)

9 The use shall meet the standards and shall be developed within the limits established by the PMC as related to emissions of noise, odor, dust, vibration, wastes, fumes, or any public nuisances arising or occurring incidental to the establishment or operation. (P)

10 The applicant shall be responsible for the on-going maintenance and upkeep of undeveloped portions of the site, in accordance with the property maintenance

requirements as set forth in the PMC Chapter 8.36 (Regulation of Property Maintenance). (P)

11 The applicant shall comply with all requirements of the PMC, all requirements of the City ordinances, resolutions, and all applicable standards and policies that are in effect at the time that building permits are issued for the development. (P)(E)

12 When exhibits and written Conditions of Approval are inconsistent, the written conditions shall prevail. (P)(E)

13 Off-site public improvements (streets, drainage, sewers, etc.) may be necessary to adequately serve this subdivision/development. If off-site public improvements are required, said improvements shall be located within public easements. This project approval is subject to the applicant's acceptance of the City requirements for acquisition of said public easements, at the sole cost and expense of the applicant. The City Engineer shall have the authority to withhold approval of any affected improvement plans for failure to satisfy this Condition. (E)

14 The applicant shall participate in such on-site and off-site water service improvements or wells as may be required by the serving water purveyor/master. (E)

15 Coordination with utility companies by the applicant's engineer during design shall be required to ensure that required public improvements are not in conflict with existing or proposed utilities. (E)

16 Transmission or distribution lines less than 50kV and all other utility lines, existing and proposed, shall be installed underground in accordance with the PMC Chapter 12.04 (Underground Utilities). (E)

17 All plans, specifications, studies, reports, calculations, maps, notes, legal documents, and designs, shall be prepared, signed, and stamped (when required) only by those individuals legally authorized to do so. Development plans must be prepared, signed, and stamped by a California Registered Civil Engineer. (E)

18 Sign approval for the project is a separate process requiring the issuance of a sign permit and building permits and shall be subject to review and approval by the Planning Division and Building and Safety Division. (P)(B&S)

19 Left-turn ingress and/or egress at all access locations shall be subject to approval of the City Engineer and may be restricted in the future due to traffic operational or safety concerns. Alternatives to such restrictions may be considered. (TE)

20 Intersection sight distance and stopping sight distance shall be shown to meet the required standards both horizontally and vertically at all vehicular ingress/egress locations including consideration for walls, landscaping, grading, and vegetation. (TE)

21 Adequate sight distance shall be provided and plotted at each egress point, including consideration of landscaping and any other potential obstructions. (TE)

22 Truck access to the property shall be addressed to assure adequate geometrics. Truck access/circulation be designed and shown to accommodate the intended design vehicle without intruding significantly into the adjacent and/or on-coming travel lanes. (TE)

23 The applicant shall provide a complete set of street improvement plans for review and comment to utility providers including but not limited to the following: (E)

23.1 Water District

23.2 Southern California Edison

23.3 Southern California Gas Company

23.4 AT&T

23.5 Cable TV

24 The applicant shall provide standard street improvements for Connector/Neighborhood roadway classification streets, along 15th Street East within the project boundary, face of curb to face of curb width of 68 feet (84 foot right-of-way). Improvements listed below shall be constructed and operational prior to occupancy release. These improvements shall consist of: (E)

24.1 Curb and gutter,

24.2 Sidewalk (width = eight feet),

24.3 Roadway grading and paving, overlay and/or match-up, as directed by City Engineer,

24.4 Traffic control signs and devices as required by the City Engineer,

24.5 Pavement transition from the project boundaries to the satisfaction of the City Engineer,

24.6 Wheelchair ramp(s) at all walk returns,

24.7 Roadway drainage device(s),

24.8 Streetlights,

24.9 Raised Median,

24.10 Dedicate and construct a four-foot-wide minimum Americans with Disabilities Act (ADA) by-pass at all proposed driveway approaches,

24.11 Provide a minimum four-foot sidewalk clearance around any object, and,

24.12 Dedicate an additional two feet of right of way along the 15th Street East project frontage.

THE FOLLOWING CONDITIONS SHALL BE ADDRESSED WITH THE SUBMITTAL OF GRADING PLANS OR PRIOR TO ISSUANCE OF A GRADING PERMIT:

25 The applicant shall submit the final site plan, floor plans, architectural elevations(s), and photometric lighting plans to the Planning Division for review and approval, along with the required fee(s) for plan check review through the Accela Citizen Access portal. Such plans shall be fully dimensioned and in substantial conformity with those approved by the Review Authority. Plans shall address the following: (P)(TE)(B&S)(PS)

Screening

25.1 Utility and transformer boxes, backflow devices, and other similar equipment facilities shall be placed underground unless otherwise specified and approved. Screening shall be compatible with main structures and include landscaping where appropriate. All electrical switchgear shall be located within an electrical or utility room within the building which may be accessible from an exterior door or doors. Exterior surface-mounted switchgear shall be prohibited.

25.2 The location of all devices required by the water district shall be shown on the site plan. All such devices shall be screened with a low-profile wall to match the building or another method as approved by the Planning Manager.

25.3 The location and method of screening for all roof-mounted equipment shall be demonstrated, including but not limited to air conditioning and heating

units, plumbing flues and vents. All equipment shall be screened from public view. All roof-mounted equipment shall be screened from view by parapet walls or other architectural means. The applicant shall demonstrate to the satisfaction of the Planning Manager that no roof-mounted equipment will be visible from the public right-of-way. A line of-sight drawing showing full screening of the roof-mounted equipment by the building parapets shall be submitted to the satisfaction of the Planning Manager.

25.4 Exterior ladders providing roof access and exterior downspouts shall be prohibited. Access to the roof and all gutters/downspouts shall be concealed within buildings.

25.5 Any proposed bollards shall include a decorative cover consistent with the architectural style of the associated building. Safety Yellow colored pipe style bollards shall only be permitted in areas hidden from the public right-of-way.

25.6 The location and enclosure details of refuse containment areas are to be in compliance with PMC Chapter 17.85.020 (Refuse and Recycling). Refuse and recycling enclosures shall be screened by a six-foot decorative masonry block wall/material compatible with the main structure(s). A self-closing gate constructed of solid metal material painted to match the enclosure and a solid decorative roof treatment shall be provided. Refuse enclosures shall be designed to meet or exceed the minimum capacity requirements of the development as determined by PMC Chapter 15.30 (CALGreen Recycling Requirements), PMC Chapter 17.85 (Utilities and Services), and waste hauler. Enclosures shall be located to provide unobstructed 24-hour access to refuse collection vehicles.

Lighting

25.7 The photometric lighting plan for parking areas shall comply with applicable standards contained in the PMC Section 17.86.030 (Outdoor Lighting).

25.8 All exterior lighting shall be decorative and appropriate for the architecture of the associated building. Light fixtures shall comply with PMC Section 17.86.030 (Outdoor Lighting) and shall not project above the fascia or roof line of the building.

25.9 Buildings shall have exterior security lighting fixtures or wall packs installed that are protected by a weather and vandal-resistant covering. Security lighting must follow the specifications of the PMC Section 17.86.030 (Outdoor Lighting).

25.10 Parking lot lighting shall comply with applicable height and design standards contained in the PMC and shall not be obstructed by trees or other landscaping.

25.11 Pedestrian walkways shall have sufficient decorative pathway lighting.

25.12 Each entry, patio, balcony and pedestrian garage shall be equipped with its own light source.

25.13 Exterior door, perimeter, canopy, and parking area lights shall be controlled by photocell and shall be left on during hours of darkness or diminished lighting.

25.14 Parking area lights shall be controlled by photocell and shall be left on during hours of darkness or diminished lighting.

25.15 All parking lots, aisles, and grounds contiguous to walkways shall be provided with sufficient lighting to provide adequate illumination for the safety and security of vehicles and pedestrians using the site during the hours of darkness or diminished lighting. Such lighting shall be equipped with vandal and weather-resistant covers/lenses and comply with the specifications of the PMC.

Architectural Design

25.16 Architectural elevations shall note proposed materials, colors, height, dimensions, window, roof, and treatments for all four sides of proposed structure(s).

25.17 If glass skylights are installed on the roof, they shall be provided with rated burglary resistant glass or glass like acrylic material. Iron bars of at least one-half inch round or by one-fourth inch flat steel material spaced no more than five inches apart or a steel grill of at least one-eighth inch material or two-inch mesh, shall be securely fastened over the skylight to prevent entry.

25.18 Iron bars or steel grills, with the same specifications as for skylights, shall be used on air ducts or air vent openings exceeding eight inches by 12 inches located on the roof or exterior walls to prohibit access by unauthorized persons.

25.19 Primary living areas and windows of individual units should be focused for observation of common use areas, adjacent units, recreational areas, and tenant parking to allow for natural surveillance and a sense of community.

Circulation/Parking Safety and Loading Areas

25.20 The site plan shall identify the interior traffic flow pattern.

25.21 The site plan shall identify all pedestrian access ways and traffic crossings. Crossings shall be clearly marked, lighted, and identified throughout the interior of the project. Design of these areas shall be reviewed and approved by the applicable City departments and shall comply with Title 24 Accessibility Standards and current City Building Codes.

25.22 The site plan shall indicate the alignment of all adjacent streets, turn lanes, medians, bus turnouts, the location of project entrance(s), drive aisles, traffic control devices, sidewalks, landscape setbacks, and the location of other infrastructure.

25.23 The site plan shall indicate the location and method of operation of any vehicle restricting gates. The gates shall be subject to the approval of the City Engineer and the Los Angeles County Fire Department. Where utilized, a portion of the guest spaces shall be accessible without passing through a security entrance and residents shall not be required to pay additional costs to receive devices to open a security gate.

25.24 The site plan shall note the location and dimensions for all assigned, guest, bicycle, and ADA standard features for the site, and shall be in compliance with the latest version of Title 24 of the California Code of Regulations. A minimum of 436 parking spaces, of which a maximum of 25 percent may be compact spaces, shall be provided on the site.

25.25 All walkways perpendicular to parking stalls shall be a minimum of seven feet in width.

25.26 The site plan shall clearly indicate no parking areas and fire lanes and indicate how such areas will be designated on the site.

25.27 If gated, the applicant shall provide some means of access for law enforcement purposes by way of a keypad, or some other method as approved by the Los Angeles County Fire Department and Los Angeles County Sheriff's Department.

25.28 The gate shall remain open during leasing office hours between 8:00 am and 5:00 pm Monday through Friday if parking for the leasing office is not provided outside of the gate.

Development Landscaping Requirements

26 The landscape plans shall comply with all provisions of PMC Chapter 14.05 (Water Efficient Landscape and City Landscaping Standards). (E)

27 The applicant shall submit landscape and irrigation plans for all project landscaping improvements to the Engineering Division for review and approval, through the Accela Citizen Access Portal. The applicant is responsible to pay all plan review fees for the improvements reflected on the landscape plans prior to the plans being reviewed. All landscape permit and inspection fees shall be paid prior to the issuance of a landscape permit. These plans shall include, but not be limited to, the following items: (P)(E)(PS)

27.1 Trees in the parkways shall not exceed a spacing approved by the City Engineer for the species proposed.

27.2 Where trees are incorporated into the landscape design of common or open areas, all trees shall be a minimum one-inch caliper in a 15-gallon or larger container size. Fifty percent of the trees shall be a minimum two-inch caliper in a 24-inch box size or larger container. Twenty percent of the trees shall be a minimum two-and-a-half-inch caliper in a 36-inch box size or larger container. The trunk caliper shall be measured four and a half feet above the root crown. Any Washingtonia spp. or similar palm trees proposed shall have a minimum of 12 feet of brown trunk height.

27.3 All shrubs shall be a minimum five-gallon size. If one-gallon plants are proposed to be used as a ground cover (i.e., with drip irrigation), such planting shall be supplemented with additional five-gallon plant material to provide variation in texture and height.

27.4 All plant material shall be indicated on the landscape plans with symbols that are 75 percent of a diameter of the mature size of the plant. When determining mature plant size, the lower end of the size range shall be used (for example, if a plant is indicated to have a mature size of six to -ten feet, a six-foot diameter shall be used when graphically indicating the plant material on the plan).

27.5 All landscape areas shall be enclosed by a six-inch raised concrete curb. Differences in planting areas or landscaping ground cover materials shall be separated by approved landscape edging or concrete mow strips.

27.6 All slopes steeper than 3:1 shall be landscaped for erosion control per the Engineering Design Standards.

27.7 Backflow devices shall be screened with a solid Le Meur cover or equivalent and landscaping.

27.8 All plant material sizes and calipers shall conform to the American Standard for Nursery Stock, ANSI (Z60.1) 2014.

27.9 Landscaping shall be provided within parking areas so that at least 15 percent of the surface area of the parking lot is landscaped (excluding perimeter and front setback landscaping). Landscaping shall be dispersed throughout the parking lot to provide shade throughout the lot.

27.10 A minimum of one canopy tree for every four parking stalls (or eight parking stalls when two rows of four share a common frontage) shall be provided.

27.11 A minimum 50 percent of the parking lot trees shall be a minimum 24-inch box size and with a minimum two-inch caliper. Twenty percent of the trees shall be a minimum two-and-a-half-inch caliper in a 36-inch box size or larger container.

27.12 Landscape planters shall be a minimum of six feet in width (inside dimension), except that tree wells located between parking rows and spaces may be a minimum of four feet in width (inside dimension). All landscaping and planting within paved areas shall be contained within raised planters surrounded by six-inch concrete curbs. Tree areas shall be planted a minimum of five feet from walls, walkways, or buildings. To protect the hardscape and encourage deep root development, root barriers shall be installed during planting operations.

27.13 Wheel stops or curbs shall be placed a minimum of 30 inches away from the trunk of any tree.

27.14 Landscape islands, a minimum 10 feet in width with minimum aisle turning radii of 10 feet shall be provided at the end of all parking rows, except where parking rows directly abut buildings, sidewalks, wall, or similar features.

27.15 Parking rows containing 15 or more spaces shall contain one landscape island within the interior of the parking row for each 15 parking spaces in addition to the required row end landscape islands.

27.16 Landscape islands shall not extend closer than three feet from the aisle end of the adjacent parking space(s).

27.17 Landscape islands shall be designed with a six-inch curb and a minimum one-foot paved area where abutting the side of parking stalls. Paved areas of landscape islands shall not be counted toward fulfilling landscape requirements.

27.18 All landscape islands, which are located at the front of head-in parking spaces, shall be designed with a minimum two-and-a-half-foot area free from vegetation where the front of a vehicle may overhang the island. The overhang area shall be surfaced with non-living landscape material such as gravel or rock. Two and a half feet of the overhang area may be counted as part of the overall parking space length.

27.19 Landscaping along the north, south, and west property line shall be defined by use of a six-inch concrete curb, a block wall or six-inch concrete mowing strip or a combination thereof.

27.20 Parking areas located adjacent to 15th Street East shall contain a low-profile wall, berm, or lowered parking area, at least three feet in height, designed to screen vehicles from the adjacent street.

27.21 Landscaping located within the vehicle sight distance triangle shall be designed and maintained in a manner that does not block the view at driveways and adjacent intersections. Landscaping shall not exceed three feet in height within the sight distance triangle.

27.22 On-site landscaping should not provide hiding places. Limit surrounding landscaping to low-growth plants no higher than two feet.

27.23 Trees that will not block area surveillance or light distribution shall be utilized. Tree canopies shall be no lower than six feet.

27.24 Landscaping located beneath a window shall be no taller than the windowsill and maintained at this standard. Barrier plants shall be used below and to the sides of windows, when feasible.

28 Slope erosion control and street trees shall be installed to the satisfaction of the City Engineer. (E)

Project Grading/Wall/Fences Requirements

29 The applicant shall submit a current Title Report for the subject property, dated within six months of the date for civil plan submittal. This submittal shall include a declaration of all easements of record and copies of all easements/declaration instruments referenced within the report. (E)

30 Grading and wall plans shall be submitted for review and approval to the Engineering Division, through the Accela Citizen Access Portal. Approval by both the City Engineer and Planning Manager shall be obtained prior to the issuance of a Grading Permit. Final grading and wall concepts shall be in substantial conformance with those shown on the approved site plan, conceptual grading plan, and in accordance with the following: (P)(E)(B&S)

30.1 Northerly Boundary - The applicant shall provide a six foot high decorative wall constructed of masonry, wrought iron, durable vinyl, or other similar durable materials as approved by the Planning Manager.

30.2 Southerly Boundary - The applicant shall provide a six foot high decorative wall constructed of masonry, wrought iron, durable vinyl, or other similar durable materials as approved by the Planning Manager.

30.3 Westerly Boundary - The applicant shall provide a six foot high decorative wall constructed of masonry, wrought iron, durable vinyl, or other similar durable materials as approved by the Planning Manager.

30.4 If a wall is not proposed, where commercial or industrial property share a property line with a commercially or industrially designated property, a minimum of a six-inch wide concrete mow strip shall be provided.

30.5 Proposed retaining walls or engineered free standing walls shall be submitted to Building and Safety Division for review and approval. Said wall types shall require a building permit prior to construction.

31 In all cases where a required wall is to be located adjacent to the top of a 2:1 or greater slope the wall shall be set back a minimum two and a half feet from the crest of that slope on the level side. All slope and wall configurations shall meet the setback requirements of the City Building Code. (P)(E)(B&S)

32 The exterior face and footings of all project perimeter walls shall be located no more than two inches from the property line on the subject property except where appropriate off-site easements have been obtained. (P)(E)

33 Double boundary walls between developments are prohibited except as approved by the Planning Manager and City Engineer. (P)(E)

34 The final grading plan shall indicate that all slopes are up slopes to property lines as indicated on the Site Plan. (P)(E)

35 The applicant shall incorporate into the project design all existing easements within the project boundaries or obtain abandonment of said easements from the affected easement holder(s). If this requirement cannot be accomplished, the project shall be redesigned accordingly to the satisfaction of the Planning Manager, City Engineer, or the Review Authority. (P)(E)

36 The applicant shall obtain off-site easements from the affected property owner(s) for all proposed off-site improvements (i.e., slopes and related grading activities, street improvements, walls drainage, etc.). If said easements cannot be obtained, the project shall be redesigned to incorporate these improvements entirely within the project boundary to the satisfaction of the Planning Manager or the Review Authority. The City Engineer shall have the right to withhold approval of the affected improvement plans for failure to satisfy this condition. (P)(E)

37 All manufactured slopes on or adjacent to project boundaries shall meet the setback requirements of the current City Building Code. A recorded off-site Slope Acceptance Letter from all affected property owners shall be submitted to the City Engineer prior to approval of grading plans for any off-site slope not meeting these requirements. In addition, all slopes are required to meet City Standards with respect to erosion control. (E)

38 The applicant shall submit a temporary erosion control and sedimentation plan for approval by the City Engineer prior to grading plan approval and grading permit issuance when grading activity will occur between October 1st and April 15th. Said erosion control plan shall provide appropriate dust control measures per City and Antelope Valley Air Quality Management District (AVAQMD) Standards to minimize nuisance from dust at all times. (E)

39 The applicant shall submit a dust control plan to AVAQMD for review and shall obtain clearance from said agency prior to issuance of a City grading permit. The applicant shall provide proof of compliance with all AVAQMD requirements and applicable fees. (E)

40 From the beginning of the first ground disturbing activity until the use has been released for occupancy, the following are required of the applicant: 1) have erosion control measures, per an approved Erosion Control and Sedimentation Plan, in place during the rainy season (October 15 - April 15); 2) provide appropriate dust control measures, per City and AVAQMD Standards, to minimize nuisance from dust at all times. (E)(B&S)

41 This project shall be designed and constructed in accordance with the stormwater pollution control requirements of the Lahontan Region of the California Regional Water Quality Control Board. Prior to the issuance of a grading permit, the

applicant shall file a Notice of Intent with the Lahontan Region of the California Regional Water Quality Control Board to comply with the applicable National Pollution Discharge Elimination System (NPDES) requirements. The applicant shall submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the City Engineer. (E)

42 A drainage acceptance letter from each affected property owner shall be submitted to the City Engineer when the pre-developed storm runoff onto any adjacent property is increased, concentrated, diverted, or changed in any form as required by State law. (E)

43 A final hydrology study and hydraulics report shall be prepared for this project and approved by the City Engineer. The hydrology study and hydraulics report shall address on-site and off-site conditions and impacts, based on the City of Palmdale adopted Storm Water Management Policy. (E)

44 Based on the findings of the final hydrology and hydraulics report, the applicant shall be responsible, at their own expense, for any and all improvements imposed on the project by the Engineering Department to the satisfaction of the City Engineer. (E)

45 All nuisance water generated from this development shall be mitigated on-site in accordance with City's Design Standards requirements. (E)

46 An on-site storm drainage basin (detention) shall be required for this development. Such basin(s) shall be granted in easement to the City (for emergency maintenance only), but regular maintenance shall be the responsibility of the applicant, or their City approved designee. (E)

47 This development shall be designed in accordance with the City's Floodplain Management Ordinance, Master Plan of Drainage, and related criteria within the Engineering Design Standards. (E)

48 Dry wells and or an alternative percolation system shall be required for this project to dispose of on-site nuisance water in accordance with the approved drainage plan. No nuisance water generated from this development shall be allowed outside the boundaries of this development unless authorized by the City Engineer. Appropriate measures shall be taken to protect dry wells and basins from silt during grading operations and any off-site flow from undeveloped areas designed to flow through subdivision. (E)

49 The applicant shall submit geotechnical reports, prepared in accordance with the City's Engineering Design Standards, to the City Engineer for review and approval prior to the approval of a grading permit. (E)

50 The applicant shall enter into a Development Improvement Agreement and post securities for grading operations with the City and pay all applicable fees. Grading activities extending beyond phase boundaries shall require approval of the City Engineer and Planning Manager. Such grading activity shall be reflected in the Subdivision/Development Improvement Agreement of the phase which request such grading. (E)

51 Grading shall be designated "Engineering Grading" per City Building Code and shall be done in accordance with an approved grading plan. All grading work shall be performed in one continuous operation, or in phases as approved by the Planning Manager and the City Engineer. (E)

52 A sanitary sewer-area study for this project shall be prepared and submitted to the City Engineer for review and approval. A public sanitary sewer system is to be constructed and dedicated to the City. The system shall be designed and installed as the only method of sewage disposal for this development. Coordination and clearance must be obtained from Los Angeles County Sanitation District prior to issuance of a sewer permit. (E)

53 The applicant shall obtain sufficient off-site sewer easements and design and construct an off-site outfall sewer with supplemental size, capacity, and length as required by the City Engineer. The City Engineer shall have the right to withhold approval of any affected improvement plans for failure to satisfy this condition. (E)

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO OR IN CONJUNCTION WITH RECORDATION OF THE FINAL MAP OR ANY PHASE THEREOF:

54 The applicant shall provide written evidence to the Planning and Engineering Divisions that approval has been obtained from the Los Angeles County Fire Department. (F)(P)(E)

55 The applicant shall enter into an Development Improvement Agreement and post securities with the City and pay all applicable fees prior to permit issuance for the development. If any transfer of ownership/title of land within this proposed development takes place prior to release of all agreements and securities, the new applicant shall be required to enter into a separate Improvement Agreement with the City and pay all applicable fees. Agreement and securities with the prior

applicant will be released after the agreement and securities with the new applicant take effect. (E)

56 Access rights shall be granted to the City for the purpose of allowing access over private drives within the development for all City vehicles, including police, fire, and other emergency vehicles. The document(s) recording this access shall be prepared by the applicant for review and approval by the City Engineer (E)

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO OR IN CONJUNCTION WITH ISSUANCE OF BUILDING PERMITS (FOR ANY PHASE OF THE DEVELOPMENT):

57 The applicant shall pay all fees at the time fees are determined payable and comply with all requirements of the applicable Federal, State, and local agencies including, but not limited to, the following:(E)(TE)(B&S)(PA)(PS)

Antelope Valley Air Quality Management District
Los Angeles County Consolidated Fire District
Los Angeles County Sanitation District
Palmdale School District
Palmdale Water District
Regional Water Resources Control Board

The duty of inquiry as to such requirements shall be upon the applicant. Receipt and proof of payment shall be provided to the Building and Safety Division prior to issuance of any building permits. (P)(E)(F)(B&S)

58 The applicant shall comply with all applicable development regulations and requirements prior to the issuance of any building permits on the subject property. (P)(E)(B&S)

59 The project shall comply with all requirements of PMC Chapter 13.05 (Sewer Collection Service Charges). (E)

60 Water mains shall be designed to meet or exceed the total flow requirements determined from domestic flow and fire flow for this development. Required domestic flow shall be calculated by the applicant’s engineer. Fire flow shall be determined by the Los Angeles County Fire Department. (E)

61 The plans and specifications for the water delivery system shall be submitted for approval to the responsible water purveyor prior to final approval of this development by the City Engineer. In all cases where water system facilities have not been installed prior to filing this development with the City Engineer for final

approval, the applicant shall submit a Labor and Materials bond in addition to one of the following: (E)

61.1 An Agreement and Faithful Performance bond in the amount approved by the City Engineer to be sufficient to guarantee installation of the improvements; or

61.2 An Agreement and evidence satisfactory to the City Engineer showing that the applicant has entered into a contract with the serving water utility for establishing a security guaranteeing payment for the installation of the improvements.

62 Street lighting plans shall be reviewed and approved separate of the approval of the street improvement plans. Street lighting plans and electrical plans shall be submitted to the City Engineer for review and approval and to Southern California Edison (SCE) for reference. Electrical plans shall be prepared by a Registered California Electrical Engineer. (E)

63 The applicant shall petition the City to annex to the City's Streetlight Assessment District for the maintenance of streetlights and appurtenant facilities and/or request annexation into an existing streetlight maintenance assessment district. Such annexation shall be completed at the sole cost and expense of the applicant, and the applicant's deposit of the estimated costs thereof shall be required prior to such actions by the City. If the City is unsuccessful in the annexation to the Streetlight Assessment District, the Developer shall propose and receive approval for an alternative maintenance entity. The developer shall remain solely responsible for the maintenance of the streetlights and appurtenant facilities until such time that an alternative maintenance entity assumes the maintenance. All costs associated with the formation of an alternative maintenance entity shall be paid by the Developer. (E)

64 Easements for all on-site utilities, public and private, shall be granted and recorded for maintenance and upkeep. Such easements may include, but are not limited to, sewer, water, electric, gas, telephone, storm drains, detention basins, and landscaping. (E)

65 All sanitary sewer mains to be dedicated to the City area required to submit as-built plans, and have TV video inspection prior to final acceptance for maintenance. (E)

66 At completion of rough grading, the applicant shall submit appropriate reports and statements (Certifications) to the City Engineer, for review and approval, prior to release of rough grading. The City of Palmdale Building Code requires these

reports from the field or supervising grading engineer, the soils engineer, the geologist, and the grading contractor. (E)(B&S)

67 The applicant shall obtain addresses established by the Building and Safety Division upon application for a building permit. (E)(B&S)

68 The project may be required to relocate the existing streetlight and fire hydrant due to the new driveway approach location. (TE)

69 Appropriate right-of-way for right-turn lane(s) shall be provided at the all driveways access. Design shall be subject to the approval of the City Engineer. (TE)

70 A striping and signing plan shall be provided for all roadway improvements and shall be subject to the approval of the City Engineer as part of the approval of the street improvement plans. (TE)

71 Driveways into the site shall have a clear throat distance of 50 feet without interference with circulation aisles. (TE)

72 All driveways shall have a minimum radius of 15 feet. (TE)

Impact Fees

73 The applicant shall comply with the provisions of PMC Chapter 3.34 (Parkland Dedication). The applicant shall pay to the Building and Safety Division the applicable Parkland development fees in the amount that is in effect at the time such fees are to be collected pursuant to PMC Chapter 3.34 (Parkland Dedication). (Pk)(B&S)

74 This development is located within the Annaverde Natural Drainage Area/Basin as defined by the City's Master Drainage Plan and approved by Resolution 89-75. The applicant shall comply with the provisions of PMC Chapter 3.38 (Drainage Fee Requirements). The applicant shall pay the applicable drainage fees to the Engineering Division in the amount that is in effect at the time such fees are to be collected. Payment of drainage fees for all areas within the map boundaries which are disturbed by grading are due upon submittal of rough grade certification, prior to building permit issuance. (E)

75 The applicant shall comply with the provisions of PMC Chapter 3.40 (Traffic Impact Fee Requirements). The applicant shall pay the applicable traffic impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected pursuant to the provisions of PMC Chapter 3.40 (Traffic Impact Fee Requirements). (TE)(B&S)

76 The applicant shall comply with the provisions of PMC Chapter 3.42 (Fire Facility Impact Fee Requirements). The applicant shall pay the applicable fire facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

77 The applicant shall comply with the provisions of PMC Chapter 3.45 (Public Facility Development Impact Fee Requirements). The applicant shall pay the applicable public facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

78 The applicant shall be required to prepare, submit for approval, and record a Voluntary Lot Merger. (E)

THE FOLLOWING CONDITIONS SHALL BE MET WHILE CONSTRUCTION ACTIVITIES ARE ON-GOING:

79 Adequate sanitary disposal facilities shall be required on-site during all phases of construction. (E)(B&S)

80 The applicant shall provide solid waste disposal containers on-site during all phases of construction. The accumulation of refuse and debris which may constitute an unsightly/unsafe public nuisance to surrounding properties is not permitted. (P)

81 Grading shall be done in accordance with a grading plan prepared by the applicant's Registered Civil Engineer. All grading work shall be performed in one continuous operation or in phases as approved by the Planning Manager and the City Engineer. (P)(E)

82 All existing utilities interfering with the new construction shall be relocated at the developers expense. (E)

83 In the event of an unforeseen encounter of subsurface materials suspected to be of an archaeological or paleontological nature, all grading or excavation shall cease in the immediate area, and the find left untouched until a qualified professional archaeologist or paleontologist, whichever is appropriate, is contacted and called in to evaluate the find and make recommendations as to disposition, mitigation, and/or salvage. The applicant shall be liable for costs associated with the professional investigation. (P)

84 The City Engineer shall be notified a minimum of 60 days prior to anticipated opening of any street to public travel. (TE)(E)

85 The applicant shall comply with all City and State guidelines and requirements for traffic control during construction and prior to final project acceptance. (TE)

86 Additional pavement may be required in order to provide for striped left turn lanes at project driveways. (TE)

87 Additional pavement shall be constructed in order to provide for intersection widening to accommodate traffic signal and separate left turn lane at East Avenue Q and 15th Street East.

88 The project will be required to install a traffic signal at the intersection of East Avenue Q and 15th Street East. The traffic signal plan shall be subject to the approval of the City Engineer. (TE)

89 The proposed traffic signal shall be eligible to receive traffic impact fees credit not to exceed the total traffic impact fee required for this project. The final credit amount shall be subject to City Engineer approval. (TE)

90 Electric Meter Installations: SCE's rules and policies require that all metering equipment be located to provide 24-hour access to the Utility. Metering equipment may be installed inside a building when located in an illuminated meter room directly accessible from the outside and readily accessible 24 hours a day. Southern California Edison requires their approval on all metering equipment prior to installation. (P)(SCE)(B&S)

THE FOLLOWING CONDITIONS SHALL BE MET PRIOR TO OCCUPANCY OF THIS PROJECT:

91 The applicant shall contact the Planning Division a minimum of two weeks prior to final inspection by the Building and Safety Division to make arrangements for a final walk-through inspection by the Planning Division. (P)

92 All public improvements shall be completed and accepted by the City. (E)

93 At completion of final grading, the applicant shall submit appropriate statements (Certifications) to the City Engineer prior to release of final grading. The City requires that these be submitted by the field or supervising grading engineer, and/or the landscape architect. (E)

94 Any broken, damaged or non-compliance curb, gutter, sidewalk, and pavement on streets within or along the frontage of the development shall be repaired. Any existing driveways that are not to be used shall be replaced with standard curb, gutter, and sidewalk. (E)

95 The applicant shall improve any private street(s) or access drives for this project according to the plans approved by the City Engineer. (E)

96 The project shall be constructed in accordance with all the approved plans, including but not limited to site plans, grading plans, wall plans, landscape/irrigation plans, lighting plans, and elevations. (P)(E)

97 Street name signs shall be purchased and installed in accordance with City of Palmdale standards. The number and location of signs will be as directed by the City Engineer. (TE)(E)

98 A detailed security/management plan that includes security procedures, lease/rental agreement, application, tenant screening procedures, hours of operation of common facilities and offices shall be submitted to the Public Safety Division a minimum of two weeks prior to issuance of a certificate of occupancy. (PS)

THE FOLLOWING CONDITIONS SHALL BE MET AS AN ON-GOING ELEMENT OF THE PROJECT:

99 Payment of the public art in-lieu contribution or installation of the public art in accordance with the final public art project plan submitted shall be demonstrated by the applicant in compliance with the PMC Section 15.01.090 (Public Art in Private Development). (PA)

100 All parking facilities shall be maintained in good condition in accordance with the provisions of PMC Chapter 17.87 (Off-Street Parking and Loading). The maintenance thereof may include, but shall not be limited to, the repaving, oiling, and striping of a parking area and the repair, restoration and/or replacement of any parking area design features when deemed necessary by the Planning Manager to insure the health, safety, and welfare of the general public. (P)(E)

101 All owners, future owners, heirs, or assigns of the property shall be required to maintain all private drainage facilities in good working condition, as determined by the City Engineer, and shall be responsible for any damages associated with the private drainage facilities and for any costs incurred by the City for emergency maintenance, repairs, and any other efforts to keep the private drainage facilities in good working condition and/or to insure the health, safety, and welfare of the general public. The developer shall record a covenant upon the property regarding said maintenance. (E)

102 The applicant shall fully cooperate with any adjacent property development to provide improved site access in the future, including but not limited to, the closure,

removal, sharing, or relocation of project parking, landscaping, driveways, and drive-aisles. (TE)

103 The installation of speed humps shall be prohibited as required by PMC Section 10.04.100. If any of these devices are installed while this ordinance is in effect the owner shall be required to remove these devices at their own expense. (TE)

104 All agency approvals for permit issuance shall be on file with the Building and Safety Division. (B&S)(F)

105 The applicant shall be required to post 'No Trespassing' signs on the property wall/fence. One printed sign shall be posted in a conspicuous manner at every walkway and driveway entering any enclosed private property or portion thereof, and at a minimum of every fifty feet along the boundary of any unenclosed lot. The sign shall contain the following language which shall be printed in letters not less than two inches high: (PS)

THIS PROPERTY CLOSED TO THE PUBLIC
No Entry Without Permission
P.M.C. Sec. 9.44.030
Palmdale Sheriff's Station 272-2400

106 The premises shall always be properly maintained and kept in a neat and orderly condition per PMC Section 8.36.050 (Conditions constituting a nuisance). This includes, but is not limited to, building and parking lot lighting and trash and debris removal. (PS)

107 Graffiti shall be removed by the owner within 72 hours of discovery as specified within PMC Section 9.30.080 (Graffiti Removal from Private Property by Owner). Consider graffiti mitigation measures such as vining/climbing and barrier plants along block walls. (PS)

108 Trash enclosures shall be kept locked when not in use to discourage illegal dumping and other improper uses. (PS)

109 Outside electrical outlets and water spigots/hose bibs shall be secured to prevent unauthorized use. (PS)

110 All doors shall be equipped with single cylinder dead bolt lock with a minimum throw of one inch and an embedment of not less five-eighths inch into the holding device. (PS)

111 All front doors shall have a peephole installed for security purposes. (PS)

112 Primary building address numbers shall be located on the building side where the main entrance is located. The development shall display an additional set of numbers on the secondary frontage (street side) when the building does not front on the street of address. Numbers shall be no less than eight inches in height, if located less than 100 feet from the centerline of the addressed street or 12-inches in height if placed further than 100 feet from the centerline of the addressed street. Numbers shall be of a color contrasting to the background to which they are affixed. (PS)

113 The management of this development shall undergo training and certification through the Partners Against Crime (PAC) program and shall remain active in this program during the life of the development. Contact the Public Safety Office at publicsafety@cityofpaldmale.org or (661) 267-5170 for more information. (PS)

114 This site shall be subject to periodic site inspections by the City and Sheriff's Department for the purpose of maintaining compliance with City regulations, project conditions of approval and public health and safety. (PS)

115 All entrances to the parking area shall be posted with appropriate signs per California Vehicle Code Section 22658(a) to assist in removing vehicles at the property. (PS)

Key to Departmental Conditions:

(B&S) Building and Safety Division (661-267-5353)
(E) Engineering Division (661-267-5272)
(F) Los Angeles County Fire Department (661-949-6319)
(Pk) Parks and Recreation Department (661-267-5611)
(P) Planning Division (661-267-5200)
(PA) Public Art (661-267-5686)
(PS) Public Safety Division (661-267-5170)
(SCE) Southern California Edison (661-726-5617)
(TE) Traffic Engineering (661-267-5300)

EXHIBIT E

OFFICIAL BUSINESS
Document entitled to free
Recording per California
Government Code Section 27383

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

City of Palmdale
38300 Sierra Highway, Suite C
Palmdale, CA 93550
Attn: City Clerk

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

APN: 3022-015-012

DENSITY BONUS HOUSING AGREEMENT
Palmdale Family Housing
Agreement No. A-9332

THIS DENSITY BONUS HOUSING AGREEMENT (this "Agreement"), dated as of _____, 2025, is entered into by and between the City of Palmdale, a municipal corporation of the State of California (the "City"), and Palmdale Family Housing, L.P., a California limited partnership and/or its assigns (the "Owner"), as follows:

RECITALS

A. The Owner is the owner of a fee interest in certain real property located in the City of Palmdale, County of Los Angeles, State of California, identified as APN 3022-015-012, located at 38851 15th Street East, Palmdale, CA 93550 and legally described in Exhibit "A" attached hereto and incorporated by reference (the "Property").

B. The Owner will construct a 264-unit affordable housing development (including four managers' units), with eleven residential buildings and included amenities (the "Residential Development"). The project provides for units of varying types, one-, two-, three-, and four-bedroom flats. The project will provide 447 parking stalls onsite.

C. The Owner proposes construction of a rental housing development of 264 units for very low income and low income individuals and families (including four managers' units). One hundred percent (100 percent) of the units (exclusive of the four managers' units) will be available to and occupied by households at an affordable rent, including a reasonable utility allowance, that shall not exceed the rents prescribed by deed restrictions or regulatory agreements pursuant to the

terms of the public financing or public financial assistance for the Residential Development awarded by the California Tax Credit Allocation Committee (the "CTCAC").

D. Under California Government Code Section 65915, *et seq*. and Palmdale Municipal Code Section (PMC) 17.25.020, the City must, upon the request of an applicant, grant a density bonus and/or certain incentives/concessions and/or waivers/modifications for any development applicant that seeks and agrees to construct a minimum number of housing units that are affordable to low or very low income households (the "Density Bonus Law").

E. The subject site has a General Plan Land Use Designation of Residential Neighborhood 3 and is zoned Residential Neighborhood 3 (RN3) (20-30 dwelling units per acre). The Density Bonus Law requires that, when an applicant includes at least 20 percent low-income units, the City must grant a 35 percent density bonus over the base density, which would allow an additional 10 units per acre in the Residential Development. Therefore, the Density Bonus Law requires the City to permit the Residential Development's proposed density of 26.5 dwelling units per acre. Additionally, in order to provide for affordable housing cost of the low-income units, the Owner has requested cost-saving concessions in accordance with California Government Code Section 65915, *et seq*. and PMC Section 17.25.020, as follows:

a. An incentive or concession pursuant to PMC Section 17.25.020, to allow less than the minimum 30 feet open-to-the-sky separation between structures when project includes more than one building and Minimum 30 feet open-to-the-sky building break or alternative allowed by the Director or his/her/their designee for buildings greater than 425 feet in length.

b. An incentive or concession pursuant to PMC Section 17.25.020, to allow less than the minimum required storage space: "125 cubic feet of private enclosed storage space within the parking garage, carport, or immediately adjacent to the dwelling unit."

c. An incentive or concession pursuant to PMC Section 17.25.020, to waive the following requirement: " Each dwelling unit shall be equipped with connections for installation of a standard-sized washer and dryer, or common laundry facilities shall be provided containing a minimum of one washing machine and one dryer for every five dwelling units or a fraction thereof, if common laundry facilities are provided, they shall be dispersed throughout the project either in every building and/or every other floor. If individual facilities are provided, the proposed floor plans shall demonstrate this requirement" pursuant to PMC Section 17.38.070 (Dwelling Unit Requirements).

d. An incentive or concession pursuant to PMC Section 17.25.020, to allow less than the minimum parking ratio requirement: "1 space per studio or one-bedroom unit, 1.5 spaces per two-bedroom unit, 2 spaces per unit with

three or more bedrooms. Minimum 0.5 space per unit shall be covered. Plus 0.2 guest space per unit," pursuant to PMC Section 17.87.060 (Required Vehicle Spaces)

e. An incentive or concession PMC Section 17.25.020, to allow parking in required rear yard per PMC Section 17.87.090 (Parking design standards).

ADD SECTION DISCUSSING DIFFERENCE BETWEEN CONCESSIONS AND WAIVERS

f. A waiver pursuant to PMC Section 17.25.020, to allow for Buildings B, D & F to exceed the 150-feet maximum distance between residential buildings and the nearest trash enclosure. Building B and D are 201-221 feet from the nearest trash enclosure, exceeding the maximum allowed only by 50-100 feet. Furthermore, only 48 units are impacted by this distance exceeding the maximum of 150 feet. Due to the current layout of the project, it is physically infeasible to rearrange the trash enclosure or residential building locations to reduce the distance between the nearest trash enclosures and Buildings B and D to 150 feet. Furthermore, adding a trash enclosure to serve only the 48 units in buildings B, D & F impacted by the additional 50-100 feet distance to the currently placed nearest trash enclosure would pose a cost burden that would exceed the current project budget. (ADD CODE SECTION)

g. A waiver pursuant to PMC Section 17.25.020, to allow for our leasing office amenity building to exceed the 17 feet height requirement for accessory structures. Leasing offices, resident services offices, and the main electrical room are necessary for the overall project to operate, and thus cannot be removed from the site plan or reduced in size to accommodate the 17 feet height requirement for accessory structures. Furthermore, creating an additional standalone building to accommodate relocating the second-floor amenities if this building would be physically infeasible within the current site plan and would create a cost burden that would exceed the current project budget. The estimated cost for an additional standalone building is $4,142,857 based on the most recent general contractor estimate for structures. This cost overrun would exceed the current project budget of $58,000,000 for all 14 current structures. Pursuant to PMC Section (ADD CODE SECTION)

h. A waiver pursuant to PMC Section 17.25.020, to allow for a reduction in the total amount of electric vehicle charging stations at the project site due to Southern California Edison's inability to provide the capacity required to power the amount of EV charging stations required by Palmdale Municipal Code. SCE's Engineering Analysis Report (EAR) for 38851 15th Street East dated August 6, 2025 identified the Oasis Substation and the Beone 12kV

circuit as the closest and most suitable for the project site. The EAR determined that an upgrade to SCE's Distribution System is required to accommodate our request to meet the 7 KVA capacity demand to power the project as it stands and including the full required EV charging stations. SCE determined in this EAR that the required upgrades will take approximately 45 months to complete from the time of the EAR. Because this project includes Low Income Housing Tax Credits from CTAC and CDLAC, which require the project to begin construction by November 17, 2025 and be completed within less than 45 months from construction start, it is physically infeasible to provide the full amount of EV charges required by PMC. Los Angeles County Green Code Section 4.106.4 exception 1 allows for reduction or removal of all EV charging on site when "there is no local utility power supply or the local utility is unable to supply adequate power" and "where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project". Per above the utility lacks adequate power and the costs to upgrade the existing SCE substation would adversely impact construction costs.

F. The City and the Owner enter into this Agreement pursuant to and in accordance with California Government Code Section 65915, *et seq*., and Section 17.25.020 of the Palmdale Municipal Code, in order to provide housing for lower income households.

G. The City finds that granting the concessions listed under Recital E, above, will result in actual and identifiable cost reductions to provide for affordable housing cost, will not have an adverse impact upon public health and safety, the physical environment, or any property that is listed in the California Register of Historical Resources, and is consistent with state and federal law. The City also finds that the Residential Development is consistent with the General Plan.

NOW, THEREFORE, in consideration of the mutual covenants and provisions contained herein, the parties hereto agree as follows:

AGREEMENT

1. Recitals. The Recitals set forth above are true and correct, and incorporated herein.

2. Definitions. For purposes of this Agreement, the terms listed below shall have the meanings thereafter specified:

a. "Adjusted for Household Size Appropriate for the Unit" means either (i) a household of two persons in the case of a one-bedroom unit, three persons

in the case of a two-bedroom unit, and four persons in case of a three-bedroom unit, or (ii) if the Property is regulated by California Tax Credit Allocation Committee ("CTCAC"), the applicable adjustment pursuant to CTCAC rules.

b. "Affordable Rent" means a rent that, when added to the Utility Allowance, does not exceed thirty (30) percent of eighty (80) percent of the Los Angeles County median income as determined annually by CTCAC, adjusted for household size appropriate for the unit.

c. "Affordable Unit" means a dwelling unit that will be offered for rent exclusively to an Income Eligible Household at an Affordable Rent pursuant to this Agreement.

d. "Director" means City's Department of Housing Director, or his or her designee.

e. "Income Eligible Household" means a Low Income Household which is eligible to rent a particular Affordable Unit.

f. "Low Income Household" shall have the meaning ascribed to it under California Health and Safety Code Section 50079.5. The upper income limit for Low Income Households shall be the income limits for such households published annually by the CTCAC with adjustments for household size.

g. "Management Plan" means a plan prepared by the Owner and approved by the Director describing in detail the management of the Affordable Units, including marketing of the Affordable Units, tenant selection criteria and process, waiting list management, application of Utility Allowances in setting Affordable Rents, and similar details of the operation, annual monitoring inspections and file review, and a schedule of initial rents.

h. "Occupancy Date" means the earlier to occur of (i) issuance of a Certificate of Occupancy by the City or (ii) issuance of a Temporary Certificate of Occupancy by the City.

i. "Owner" means the person or entity defined as such in the introductory paragraph of this Agreement, and includes all successors and assigns of that person or entity.

j. "Property" shall have the meaning defined in Recital A, as more particularly described in Exhibit "A" attached hereto and incorporated herein.

k. "Residential Development" shall have the meaning given in Recital B.

l. "Utility Allowance" means an amount designated annually by the City as a reasonable estimate of the cost of utilities for the Affordable Unit, for purposes of calculating the applicable Affordable Rent or as determined using the California Utility Allowance Calculator.

3. Approvals. The Residential Development shall be developed in accordance with all applicable provisions of the Palmdale Municipal Code.

4. Affordable Units. The Owner hereby covenants and agrees that, for the entire Term (as hereinafter defined), one hundred percent (100%) of the units (exclusive of the four managers' units) shall be available to and occupied by households at an Affordable Rent.

5. Affordable Rents. Affordable Rents for Affordable Units, including Utility Allowances, shall be based on the Los Angeles County Area Median Income published by the CTCAC, as may be amended from time to time. Affordable Rents may not be increased more frequently than annually to reflect increases in Area Median Income.

6. Term of Affordability Covenants. The covenants to restrict the rental of the Affordable Units in accordance with this Agreement shall remain in effect for a term commencing on the Occupancy Date and continuing for fifty-five (55) years (the "Term"). Prior to recording of this Agreement, the Owner must deliver to the City a Lender's Consent and Subordination Agreement ("Lender Consent"), in the form appended to this Agreement, from each lender of record as of the date of recording that will continue to hold a security interest in the Property subsequent to the date of recording of this Agreement. Such Lender Consents shall be recorded as a substantive part of this Agreement.

7. Management Plan. The Owner shall submit the Management Plan for the Director's consideration and approval at least one hundred eighty (180) days prior to the date that the Owner applies for a Certificate of Occupancy for the Residential Development. Such approval shall not be unreasonably withheld. In addition to other components, the Management Plan shall contain the following:

i. Whenever an Affordable Unit becomes available, the Director shall be notified promptly in writing.

ii. The Owner shall conduct affirmative marketing of the Affordable Units, as they become available from time to time, including wide circulation of information and public notice of the availability of Affordable Units for rent during the marketing period required by the Management Plan.

iii. The Owner shall determine eligibility of Low Income Households that may lease the Affordable Units in accordance with the Management Plan.

8. Changes in Tenant Income. A tenant who initially qualified as a Low Income Household, but who, due to an increase in income, no longer qualifies as a Low Income Household shall pay as rent an amount that is the least of the amount that would be payable by the tenant under (i) low income housing tax credit regulations, (ii) State or local law, or (iii) thirty percent (30%) of the household's adjusted gross income.

9. Utilization of Affordable Rental Units. All Affordable Units required by this Agreement shall be leased or rented and fully utilized in accordance with this Agreement; notwithstanding any other provision of law to the contrary, no Affordable Unit shall be withdrawn from the market or otherwise held vacant other than vacancy periods for unit turnovers, restoration, or pending tenant refers, if required by a governmental authority with oversight over the Property.

10. No Sublease. A tenant occupying an Affordable Unit may not sublet the unit without the written permission of both the Owner and the City. The City shall not grant permission to lease, rent, or sublet the unit if it finds that the prospective tenant or occupant is not an Income Eligible Household. Any individual who subleases an Affordable Unit in violation of the provisions of this Agreement shall be required to forfeit to the City all monetary amounts so obtained. The Owner shall not be liable to the City for any sublease of an Affordable Unit by a tenant which is done without the Owner's expressed written consent.

11. Rent Roll. To the extent not included in the annual report provided pursuant to Section 13 below, a certified copy of the rent roll covering all Affordable Units shall be delivered to the City's Department of Housing within ten (10) days of written request of the City, not more than once per annum.

12. Maintenance of Units. The Owner shall: (a) maintain and operate all units on the Property so as to provide decent, safe and sanitary housing consistent with federal housing quality standards and the Palmdale Municipal Code 8.36; (b) make any required repairs or provide any required cleanup to operate the Property consistent with section (a); and (c) provide the Affordable Units with the same levels of services and maintenance as are provided to any of the other dwelling units on the Property.

13. Annual Report. The Owner shall maintain complete and accurate records pertaining to the Affordable Units and shall prepare and provide the Director with a written annual report commencing one year after the Occupancy Date and continuing every year for fifty-five (55) years, regarding the rental status of the units. The report shall include information regarding the name, address, and income of each resident of the Affordable Units, identify the number of bedrooms of the unit and the monthly rent paid by the tenant. The City acknowledges that the Owner's CTCAC annual compliance report, containing all requisite information as specified above, shall be deemed sufficient to meet the Owner's reporting requirement pursuant to this Agreement. So long as permitted by law, concurrently with the submittal of each annual report to the City, the Owner shall pay a monitoring fee to the City in the amount of Three Thousand Dollars ($3,000) with a maximum increase of 2% per year to defray the City's cost of monitoring the Owner's compliance with this Agreement. The Owner's failure to make such required payment

shall be a default under this Agreement. Pursuant to California Government Code Section 65915.3(b), the foregoing monitoring fee requirement shall not apply during any period when the Property is subject to a CTCAC regulatory agreement and all other requirements of Section 65915.3(b) are met.

14. Federal and State Laws. Notwithstanding the above provisions, nothing contained herein shall require the Owner or the City to do anything contrary to or refrain from doing anything required by Federal and State laws and regulations promulgated thereunder applicable to the construction, management, maintenance, and rental of Affordable Units in the City of Palmdale.

15. Prohibition Against Discrimination. The Owner shall not discriminate against any tenant or potential tenant on the basis of sex, color, race, ethnicity, religion, ancestry, national origin, age, pregnancy, marital status, family composition, sexual orientation, or the potential or actual occupancy of minor children. The Owner further agrees to take affirmative action to ensure that no such person is discriminated against for any of the above-mentioned reasons.

16. Indemnification. The Owner shall defend, indemnify, and hold harmless the City of Palmdale and its officers, agents, employees, representatives, and volunteers from and against any loss, liability, claim, or judgment relating solely to this Agreement, including those claims that arise out of: (a) a breach of this Agreement by the Owner; (b) related in any manner to the Owner's administration of this Agreement; or (c) arising out of the City's interest in this Agreement or Affordable Units. This indemnification shall not apply to claims arising out of the negligence or willful misconduct of the City, its officers, agents, employees, representatives, or volunteers. Notwithstanding anything herein to the contrary, any mortgagee (or its designee) who takes possession of the Property by foreclosure (or acceptance of a deed in lieu of foreclosure or similar realization upon the Property, such events being referred to as a "Foreclosure Action"), and any successor thereto, shall not have any liability or obligation to indemnify any party under this Agreement for any loss, liability, claim, or judgement arising from events which occurred prior to final completion of such Foreclosure Action.

17. City's Right to Inspect Units and Documents. The City may inspect the Affordable Units (subject to the tenant's privacy rights and lease provisions) and any documents (including leases) or records relating thereto, at any reasonable time in order to determine the Owner's compliance with this Agreement.

18. Successors and Assigns. Except as otherwise set forth herein, this Agreement and its covenants and conditions shall run with the land and be binding upon and inure to the benefit of the City and the Owner, and their respective successors, owners by deed, deed *in-lieu* of foreclosure, foreclosure or otherwise, and assigns. The City reserves the right to designate another public agency within the City of Palmdale to perform the City's obligations or to exercise the City's rights under this Agreement.

19. Notices. All notices required herein shall be sent by certified mail, return receipt requested, or express delivery service with a delivery receipt and shall be deemed to be effective on the date received or the date delivery was refused as indicated on the return receipt, as follows:

To Owner:
Palmdale Family Housing, L.P.
c/o Affirmed Housing Group, Inc.
13520 Evening Creek Dr. N. #160
San Diego, CA 92128
Attn: James P. Silverwood

with a copies to:
Katten Muchin Rosenman LLP
2121 Avenue of the Stars, Suite 100
Los Angeles, CA 90067
Attn: David P. Cohen

WNC Holding, LLC
WNC Institutional Tax Credit Prop Fund – 2, LLC
c/o WNC & Associates, Inc.
17782 Sky Park Circle
Irvine, California 92614-6404
Attn: Melanie Wenk

Holland & Knight LLP
10 St. James Ave., 11th Floor
Boston, MA 02116
Attn: Jonathan I. Sirois, Esq.

To City:
City of Palmdale
38250 Sierra Highway, 2nd Floor
Palmdale, California 93550-4798
Attn: Director of Housing

with a copy to:
City of Palmdale
38300 Sierra Highway
Palmdale, California 93550-4798
Attn: City Attorney

The parties hereto may subsequently change addresses by providing written notice of the change in address to the other party hereto in accordance with this Section.

20. Governing Law. The laws of the State of California shall govern this Agreement. Any legal action brought under this Agreement must be instituted in the Superior Court of the County of Los Angeles, State of California, in an appropriate municipal court in that County, or in Federal District Court in the Central District of California.

21. Default. Failure or delay by either party hereto to perform any term or provision of this Agreement, which is not cured within thirty (30) days after receipt of notice from the other party, constitutes a default under this Agreement, provided, however, that if such default cannot be cured within thirty (30) days, then the Owner shall have such additional time to cure as is reasonably necessary so long as the Owner commences to cure within the initial thirty (30) -day period and is diligently working to completion. The party who so fails or delays must immediately commence to cure, correct, or remedy such failure or delay, and shall complete such cure, correction, or remedy with due diligence. The injured party shall give written notice of default to the party in default specifying the default complained of by the injured party. Except as required to protect against further damages, the injured party may not initiate proceedings against the party in default until thirty (30) days after giving such notice. Failure or delay in giving such notice shall not constitute a waiver of any default, nor shall it change the time of default. If applicable, the City agrees to accept cures tendered by any lender or the Investor Limited Partner of the Owner, or its disgnee, within the cure periods provided in this Agreement.

22. Remedies.

a. The City may institute a legal action or proceeding compelling specific performance of the covenants and obligations set forth herein as necessary to ensure compliance with this Agreement.

b. It is agreed and understood that the covenants to maintain the Affordable Units as set forth herein are a requirement of the Palmdale Municipal Code and as a condition to receiving zoning and parking concessions/incentives under Section 17.25.020 of the Palmdale Municipal Code, the Owner agrees that a breach of the covenants to maintain the Affordable Units as affordable housing for the Term specified herein constitutes a violation of the Palmdale Municipal Code, subject to enforcement by an action for specific performance of the covenants and obligations of Owner hereunder.

23. Attorneys' Fees. In any action brought to declare the rights granted herein or to enforce or to interpret any of the terms of this Agreement, the prevailing party shall be entitled to an award of reasonable attorneys' fees and costs in an amount determined by the court.

24. Non-Waiver. Failure to exercise any right either party hereto may have or be entitled to in the event of default hereunder shall not constitute a waiver of such right or any other right in the event of a subsequent default.

25. Further Assurances and Recordation. The parties hereto shall cause this Agreement to be recorded in the Official Records of the County of Los Angeles. The Owner shall execute any further documents consistent with the terms of this Agreement, including documents in recordable form and do such further acts as may be necessary, desirable, or proper as the City shall

from time to time find necessary or appropriate in order to effectuate its purpose in entering into this Agreement.

26. Entire Agreement. This Agreement, including any Lender's Consent and Subordination Agreements, and all attached Exhibits, constitutes the entire agreement between the parties hereto. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Each party to this Agreement acknowledges that no representations, inducements, promises, or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein, and that any other agreement, statement, or promise not contained in this Agreement shall not be valid or binding. This Agreement may be amended only by written instrument signed by both the City and the Owner.

27. Third Party Beneficiaries. There are no third party beneficiaries of or to this Agreement.

28. Amendment of Agreement.

a. Generally. This Agreement may be amended from time to time in whole or in part by mutual written consent of the original parties hereto or their successors in interest, in accordance with this Agreement, the Palmdale Municipal Code, and the Density Bonus Law.

b. City Consent by City Manager to Amendments. The consent of the City to any amendment to this Agreement, whether requested by the Owner or by the City, which does not relate to the Term; the number, percentage, or type of Affordable Units; or the number or type of any incentives or concessions given by the City, may be determined by the City Manager to be an administrative amendment and, if so, the City Manager shall approve the administrative amendment without notice to or hearing of the City Council.

29. Counterparts. This Agreement may be executed by each party hereto on a separate signature page, and when the executed signature pages are combined, shall constitute one single instrument.

[*signatures follow*]

IN WITNESS WHEREOF, the City and the Owner have executed this Agreement as of the date set forth above.

CITY
CITY OF PALMDALE,
a municipal corporation

By: _____
Salvador Mendez
City Manager Pro Tem

Dated: _____

ATTEST:

By: _____
Roxanne Faber
City Clerk

APPROVED AS TO FORM:

By: _____
Alexandra M. Halfman
City Attorney

KANE, BALLMER & BERKMAN
City Special Counsel

By: _____
Todd C. Mooney

PALMDALE FAMILY HOUSING, L.P.
a California limited partnership
By: AHG Palmdale, LLC,
a California limited liability company,
its Administrative General Partner

By: Affirmed Housing Group, Inc.
a Delaware corporation

By: _____
James P. Silverwood
President

Dated: _____

By: CFAH Housing LLC
a California limited liability company,
its Managing General Partner

By: Compass for Affordable Housing
a California nonprofit public benefit corporation
its Manager

By: _____
Robin Martinez
Executive Director

Dated: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

FORM OF
LENDER'S CONSENT AND SUBORDINATION AGREEMENT

NOTICE: THIS LENDER'S CONSENT AND SUBORDINATION RESULTS IN YOUR SECURITY INTERESTS IN THE PROPERTY BECOMING SUBJECT TO AND OF A LOWER PRIORITY THAN THIS DENSITY BONUS HOUSING AGREEMENT

The undersigned (the "Lender"), as owner and holder of security interests ("Security Interests") evidenced by that certain [Deed of Trust With Absolute Assignment of Leases and Rents, Security Agreement and Fixture Filing] made by the Owner as trustor in favor of _____ as beneficiary, dated as of _____ and recorded on _____ as Instrument No._____ in the Official Records of the County of Los Angeles, State of California, hereby acknowledges its consent to the terms and provisions of this Density Bonus Housing Agreement. The undersigned further agrees that its Security Interests are and shall unconditionally be and remain at all times junior, subordinate, and subject to the terms, covenants, conditions, and restrictions of this Density Bonus Housing Agreement, provided that in consideration of the Lender's covenants and agreements contained in this Agreement, the City and its designated agencies hereby agree for the benefit of the Lender that concurrently with any notice from the City to the Owner that a default or breach exists under the terms of this Density Bonus Housing Agreement, the City shall send a copy of such notice to the Lender, and the Lender shall have the right, but not the obligation, to cure any defaults within thirty (30) days after the expiration of any cure period set forth in the notice from the City to the Owner regarding such Owner default. The provisions of this consent are intended to supplement, and not to limit, waive, modify, or replace those provisions of law pertaining to notice and cure rights of junior lenders including, without limitation, those set forth in California Civil Code Sections 2924b and 2924c. The Lender intentionally and unconditionally waives, relinquishes, and subordinates the lien or charge of the Security Interests in favor of this Density Bonus Housing Agreement.

AGREED AND ACKNOWLEDGED:

Dated as of: _____ "LENDER"

By. _____
Name: _____
Title: _____

[*notarized signature required*]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

EXHIBIT “A”

Legal Description of Property

Real property in the City of Palmdale, County of Los Angeles, State of California, described as follows:

THAT PORTION OF LOT 5 OF TRACT NO. 7672, IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 120 PAGES 72 AND 73 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 5, TRACT NO. 7672, THENCE SOUTH 0° 00' 59" EAST 652.28 FEET; THENCE SOUTH 89° 38' WEST 1279.2 FEET; THENCE NORTH 0° 00' 10" EAST 25 FEET; THENCE NORTH 89° 38' EAST 475 FEET; THENCE NORTHEAST 197.58 FEET TO A POINT SOUTH 89° 38' WEST 643.45 FEET AND SOUTH 0° 00' 10" WEST 510.28 FEET FROM THE POINT OF BEGINNING; THENCE NORTH 0° 00' 10" EAST 510.28 FEET; THENCE NORTH 89° 38' EAST TO THE BEGINNING PART OF LOT 5.

APN: 3022-015-012

Planning Commission Staff Report

DATE: **OCTOBER 9, 2025**

TO: **HONORABLE CHAIR AND PLANNING COMMISSIONERS**

FROM: **ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION**

APPLICANT: **LINCOLN AVENUE COMMUNITIES**

DISTRICT: **5**

SUBJECT: **ADOPT RESOLUTION NO. PC-2025-015, A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, RECOMMENDING CITY COUNCIL APPROVAL OF A FORM OF AGREEMENT 25-0003, APPROVING SITE PLAN REVIEW 25-0009, TO FACILITATE THE CONSTRUCTION OF A 272-UNIT MULTI-FAMILY RESIDENTIAL DEVELOPMENT ON TWO VACANT PARCELS TOTALING APPROXIMATELY 9.8 ACRES LOCATED AT THE NORTHWEST CORNER OF EAST AVENUE Q AND 25TH STREET EAST, AND FIND THAT THE PROJECT IS EXEMPT FROM ENVIRONMENTAL REVIEW**

RECOMMENDATION

Staff recommends that the Planning Commission adopt Resolution No. PC-2025-015, recommending the City Council approve a form of Agreement (AGR) 25-0003, approving Site Plan Review (SPR) 25-0009 and finding that the project is exempt from environmental review.

BACKGROUND

The applications were submitted on September 12, 2024, reviewed by staff, and deemed incomplete. Subsequently, the applicant resubmitted and after resolution of completeness items the project was deemed complete on June 30, 2025, and scheduled for the October 9, 2025, Planning Commission meeting.

Noticing/Agency Comments

TABLE 1 - AFFECTED AGENCIES

	Agency	Comments
Water Service:	Palmdale Water District	The applicant will need to submit a conceptual water plan
School District(s):	Antelope Valley Union High School District	No comments received.
	Palmdale School District	No comments received.
Other:	Los Angeles County Sanitation District	The applicant will be required to pay connection fees.
	Southern California Gas Company	No comments received.
	AT&T	No conflict.

FIGURE 1 - AERIAL MAP



ANALYSIS

The applicant is requesting the Planning Commission recommend City Council approval of a form of AGR 25-0003 and approve SPR 25-0009 to construct thirteen, three-story buildings containing a total of 272 dwelling units and two recreational amenity buildings on two vacant parcels totaling approximately 9.8 acres, located at the northwest corner of East Avenue Q and 25th Street East. State law requires jurisdictions provide an inventory of land suitable for residential development as part of its Housing Element to assist in meeting the City's Regional Housing Needs Assessment Allocation (RHNA) and the project site was identified in that list.

The proposed recreational amenities consist of an outdoor community gathering area with a pergola shade structure and barbecue with table seating and benches; a children's play area; a swimming pool area; and four garden courtyards throughout the site. In addition, it will provide site improvements such as parking areas, drive aisles, open space, and landscaping. The development is designed to support a high-density residential community, consistent with the Mixed Use 3 (MU 3) General Plan land use designation and zone.

Of the proposed 272 dwelling units, 100 percent of the total units will be designated for households with incomes not exceeding the low-income threshold established by the California Department of Housing and Community Development (HCD). In accordance with the State Density Bonus Law (Government Code Section 65915), the applicant at this time is not requesting any concessions from the City's development standards to facilitate the provision of affordable housing.

Although the project will be 100 percent affordable and restricted as such under a future California Tax Credit Allocation Committee (CTCAC) regulatory agreement, the applicant requests that the project be reviewed and approved as a 10 percent Lower Income project. The Project consists of 10 percent affordable Lower Income units and qualifies under Government Code Section 65915(b)(1)(AG) for one concession pursuant to Government Code Section 65915(d)(2)(AD). At this time, the applicant is not requesting any concessions.

Density Bonus

Pursuant to the Palmdale Municipal Code (PMC), a Density Bonus Agreement and Site Plan Review approval are required to allow the proposed development. The project has been reviewed for consistency with applicable design standards and policies related to density, site planning, circulation, landscaping, and building form. As a result, the applicant is not requesting incentives or concessions, but is requesting multiple waivers under the Density Bonus Law and PMC Section 17.25.020, as follows:

1 A waiver to allow less than the minimum 15-foot front setback and 20-foot rear setback requirements.

The applicant proposed a 10-foot front setback and a nine-foot rear setback. The applicants justification is that meeting the development standard would physically preclude the project and require the removal of 24 units.

2 A waiver to allow parking garages that are smaller than the required dimensions of 10 feet in width by 40 feet in length.

The project will provide tandem garages that are 10 feet in width by 35 feet in length and uncovered tandem spaces that are nine feet in width by 33 feet in length. The proposal would provide approximately 42 percent of tandem parking spaces. The applicants justification is that meeting the development standard would physically preclude the project and require the removal of 24 units.

3 A waiver to allow parking spaces to be located more than 200 feet from the dwelling units they serve.

The applicants justification is that due to the site configuration and building typology necessary to achieve 30 du/acre, it is not feasible to meet the max 200-foot distance from parking to the unit served.

4 A waiver to allow less than the minimum 30 feet of open-to-the-sky separation between structures and/or less than the minimum 30-foot open-to-the-sky building break required for buildings over 425 feet in length, subject to approval by the Planning Director or designee.

The project proposes to provide a break between multi-family structures between 12 feet and 21 feet. The applicant's justification is that meeting the development standard would physically preclude the project and require the removal of 48 units

5 An incentive to allow less than the minimum required 125 cubic feet of enclosed private storage space per unit.

The project proposes to provide no private enclosed storage, for which 125 cubic feet of storage is required. The total building area needed to comply with this requirement is approximately 3,808 square feet, (14 square feet by 272 units = 3,808 square feet) for the entire project. The applicants justification is that meeting the development standard would physically preclude the project and require the removal of four to five units.

These requested waivers are intended to facilitate the construction of high-quality affordable housing while accommodating the site's physical constraints and design needs. The project complies with all other applicable zoning regulations and supports the City's goals for housing production and affordability.

The Housing Division has determined that granting the waivers listed above will result in actual and identifiable cost reductions to provide affordable housing. In addition, the proposed project will contribute to the City's RHNA allocation.

TABLE 2 - EXISTING LAND USE / ZONING / GENERAL PLAN

	Land Use	Zoning	General Plan
Subject Site	Vacant parcel	Mixed Use 3 (MU 3)	Mixed Use 3 (MU 3)
North	Vacant parcel	Office Flex (OFX)	Employment Flex (EMPFX)
South	Single-family residence and church	Single-Family Residential 3 (SFR 3)	Single-Family Residential 3 (SFR 3)
East	Commercial, landscaping company	Mixed Use 3 (MU 3)	Mixed Use 3 (MU 3)
West	Commercial, self-storage facility	Office Flex (OFX)	Employment Flex (EMPFX)

TABLE 3 - GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-4.1: Quality Construction. Use simple, urban building forms made with permanent materials with high-quality detailing that stands the test of time.	Yes	The proposed project incorporates durable, high-quality building materials that include stucco in complementary tones, stone veneer, and cement board panels, urban architectural forms that align with the City's long-term vision for residential developments. The buildings feature clean lines, breaks in building massing, and permanent exterior finishes designed to minimize maintenance needs while maintaining visual appeal over time. In addition, the proposed project includes varied rooflines, prominent building entrances, and intentional façade articulation to create visual interest along the street frontage.
	LUD-4.3: Promote high-quality, cohesive architectural design by encouraging building forms, materials, and styles that are durable, compatible with surrounding development, and supportive of long-term community character.	Yes	
	LUD-4.7: Iconic Architecture. Allow iconic and memorable building designs, particularly on larger non-residential properties.	Yes	

TABLE 3 - GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-5.3: Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.	Yes	The project is located within the Palmdale Water District and the Los Angeles County Sanitation District. Both agencies have reviewed the project and provided conditions of approval to ensure the project can be adequately served by existing water and wastewater facilities upon approval of development plans. Additionally, the project has been conditioned by the Engineering Division to provide roadways, curbs, gutters, and sidewalks to adequately serve future residents.
	LUD-10.6: Implement urban design guidelines and features that encourage pedestrian activity and reduce automobile use.	Yes	The proposed project incorporates urban design features that promote walkability and reduce car dependency. The project includes pedestrian pathways, shade trees, and long-term bike parking further enhances pedestrian comfort and supports alternative transportation. The site's proximity to transit and its compact, connected layout align with the City's vision for transit-oriented, pedestrian-friendly development.

TABLE 3 - GENERAL PLAN CONSISTENCY (CONTINUED)

Land Use	LUD-22.5 Varying Housing Types. Encourage and allow a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multifamily apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.	Yes	The proposed project is located on a vacant site and will provide a new multifamily development for low-income individuals. The site is within a half-mile distance of a major bus corridor, which provides alternative transportation mobility for the residents. The proposal meets this land use goal by providing a different type of housing than what is currently within the immediate vicinity and by serving the need for multifamily developments.
Economic Development	ED-5.2: Increase the supply and diversity of housing options to support different types of households, including seniors, young adults, families, empty nesters, individuals or families with special needs, and multigenerational families.	Yes	The proposed project supports the General Plan goal to increase the supply and diversity of housing options by offering a mix of unit sizes ranging from one to four bedrooms to accommodate a wide range of household types, and ensures more inclusive and flexible housing opportunities within the community.

**Justification is based on a review of the plans date stamped 'Received June 25, 2025'.*

TABLE 4 - PMC STANDARDS

	Standard	Standard Met?	Justification*
Density	Minimum Density: 30 dwelling units per acre Maximum Density: 50 dwelling units per acre	Yes	The proposed project would accommodate the development of 272 multifamily residential units on an approximately 9.8-acre site, resulting in a residential density of approximately 28.2 dwelling units per acre.
Lot Size	Minimum: 20,000 square feet	Yes	The proposed project is situated on an approximately 9.8 acre site which exceeds the minimum requirement.
Lot Width	Minimum: 60 feet	Yes	The proposed project has a lot width of approximately 590 feet.
Lot Depth	Minimum: 100 feet	Yes	The proposed project has a lot depth of approximately 600 feet.
Setbacks	Front: 15 feet Street Side: 10 feet Interior: 0 feet Rear: 15 feet	No	The applicant proposes a 10-foot front yard, a 15-foot street side, a five-foot interior, and a nine-foot rear yard setback. The applicant has submitted a waiver to reduce the required front setback from 15 feet to 10 feet and the required rear setback from 15 feet to nine feet, because it would require the removal of 24 units.
Building Height	Maximum Height: 65 feet or five stories	Yes	The proposed project is 36 feet in height and three stories.
Private Storage	Minimum required 125 cubic feet of enclosed private storage space per unit	No	The applicant has submitted a waiver to allow the project to not provide any private storage space for any of the units.

TABLE 4 - PMC STANDARDS (CONTINUED)

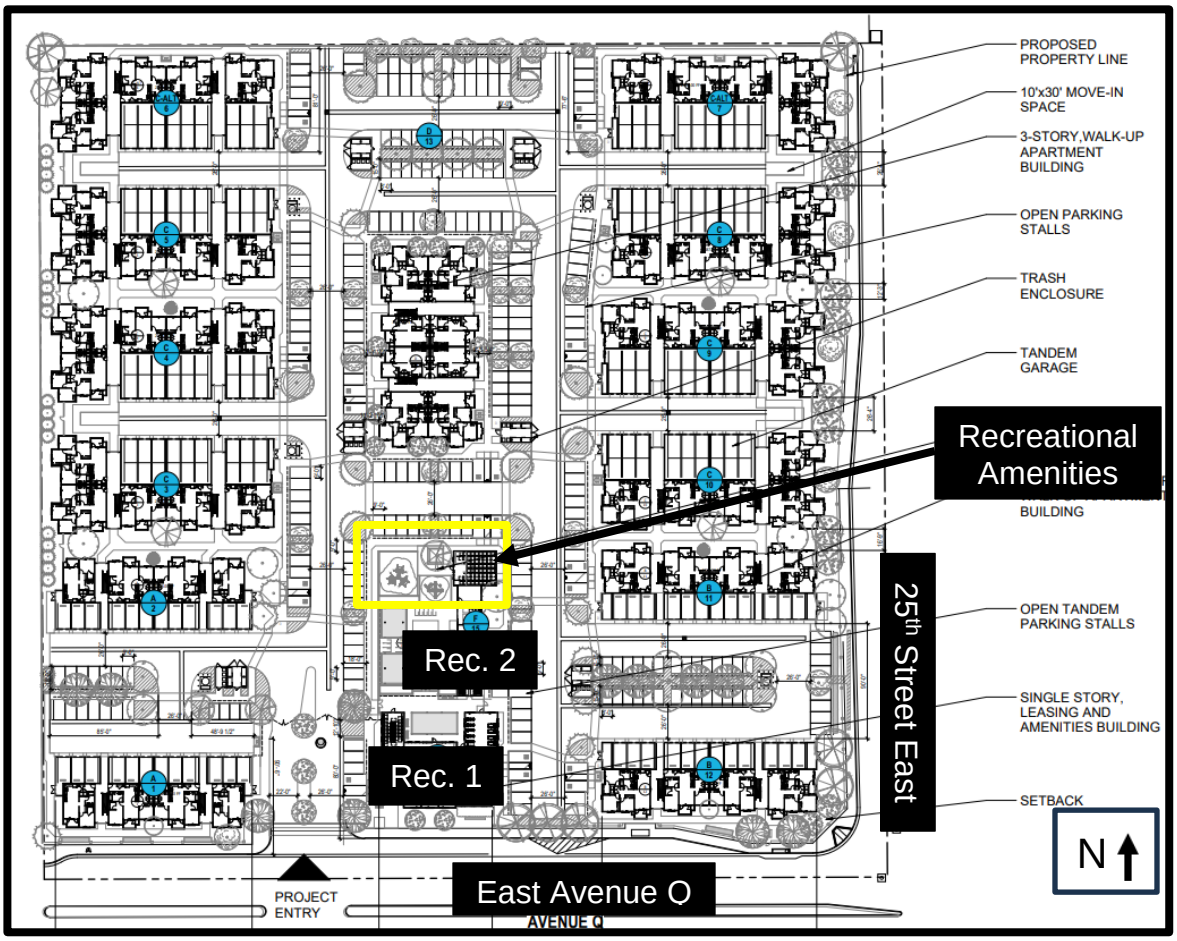
	Standard	Standard Met?	Justification*
Landscaping	30 percent of the minimum required front yard area shall be landscaped, of which half must be planted with live plant material	Yes	The front yard area of the proposed project is landscaped with live plant material with the exception of walkways and a monument sign.
Building Separation	A minimum 30 feet of open-to-the-sky separation between structures and/or less than the minimum 30-foot open-to-the-sky building break required for buildings over 425 feet in length.	No	The applicant is requesting a waiver to reduce the required minimum 30 feet of open-to-the-sky separation between structures.
Parking	Utilizing the state density bonus for parking spaces, 422 spaces would be required.	Yes	The proposed project includes 453 parking spaces.
	Tandem parking garages shall be a minimum dimension of 10 feet in width by 40 feet in length.	No	The project will provide tandem garages 10 feet in width by 35 feet in length and uncovered tandem spaces 9 feet in width by 33 feet in length. The applicant has submitted a waiver to reduce this requirement.
	A waiver to allow parking spaces to be located more than 200 feet from the dwelling units they serve.	No	The applicant is requesting a waiver to deviate from this requirement.

TABLE 4 - PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Amenities	Five amenities are required for the 272 residential unit project.	Yes	Amenities include: a community gathering area with a pergola shade structure and barbecue with table seating and benches; a children's play area; a swimming pool area; and four garden courtyards.

**Justification is based on a review of the plans date stamped 'Received June 25, 2025'.*

FIGURE 2 -SITE PLAN



Site Layout

The site layout includes a gated entry for controlled access. In addition to the previously mentioned amenities, which are centrally located for convenience, the proposal includes a mailroom, bicycle storage, and laundry facilities. The site also includes seven trash enclosures spread throughout the property to ensure convenient access and maintain cleanliness. The layout is designed to balance functionality with walkability.

Access

The project proposal includes street improvements to provide internal circulation as well as connections to existing roads. Primary project access will be provided along East Avenue Q. As identified in the scoping memo accepted by the Traffic Division, a signal warrant analysis for the intersection of East Avenue Q and 25th Street East will be included in the required Traffic Impact Study, prepared in accordance with Los Angeles County Traffic Impact Analysis (TIA) Guidelines. The City Engineer and Los Angeles County Fire Department have reviewed the proposed site layout and confirmed that the project is designed to provide adequate and safe vehicular access.

Architecture

The proposed project features a cohesive architecture across the project and incorporates a mix of durable and visually appealing materials, including stone veneer at the base, two stucco colors, and cement board panels that contribute to a clean-lined aesthetic. The design emphasizes vertical and horizontal articulation to break up massing and add visual interest throughout the site.

Many residential units include tandem garage spaces located on the ground floor, supporting both functionality and efficient land use. Perimeter fencing utilizes minimalist designs that maintain openness while providing privacy and security. The pool house and clubhouse are designed as one-story structures with matching stone veneer to ensure a unified architectural theme. These are further complemented by a pergola shade structure that reflects the overall project design, enhancing both the usability and character of shared outdoor spaces.

Together, the architectural elements of the project reflect a contemporary, high-quality residential community that provide durable materials and thoughtfully planned amenities for future residents.

FIGURE 3 - ELEVATIONS

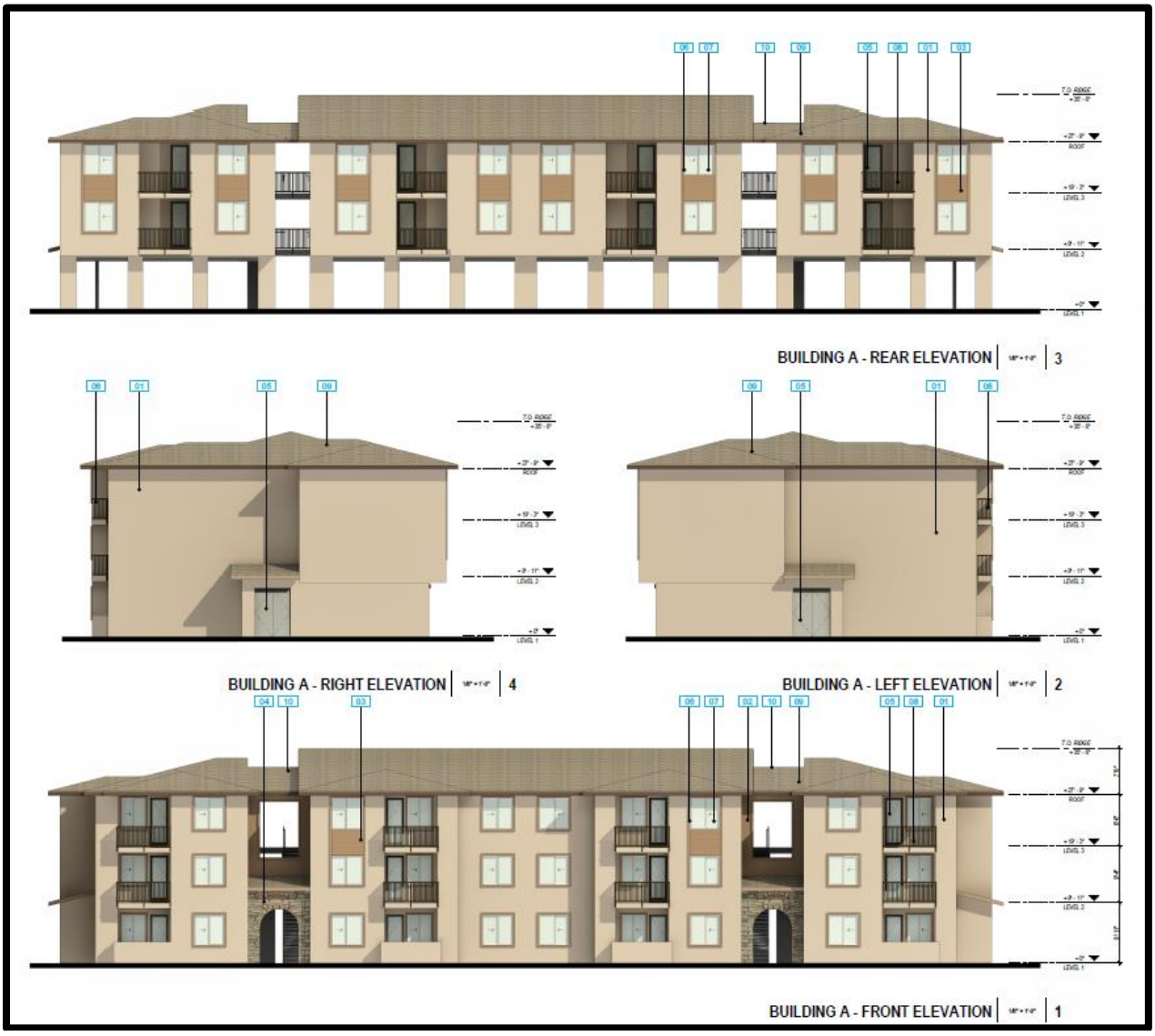
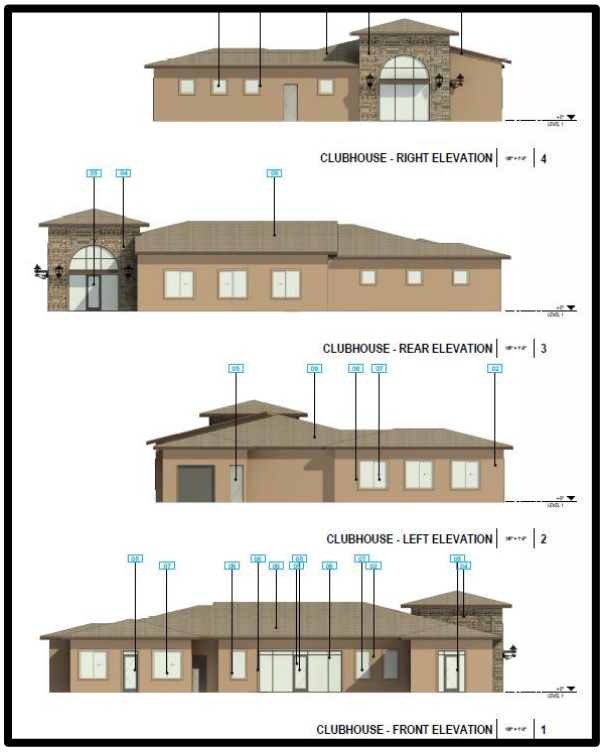
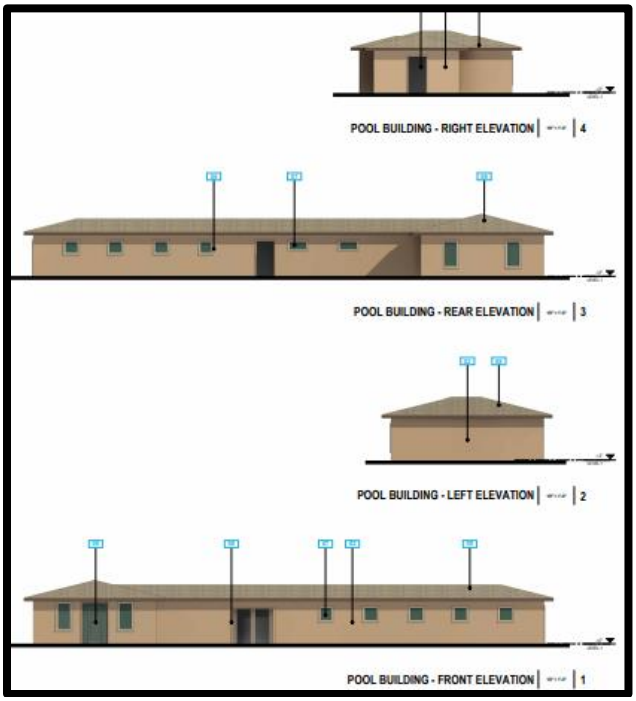


FIGURE 4 - ELEVATIONS - CLUBHOUSE AND POOL HOUSE





ENVIRONMENTAL REVIEW

This project has been determined to be exempt pursuant to California Government Code section 65583.2, subdvs. (i), which exempts a “project” for purposes of Division 13 (commencing with Section 21000) of the Public Resources Code” from the California Environmental Quality Act (CEQA) review for by right projects.

While the site may contain western Joshua trees - a candidate species under the California Endangered Species Act - any removal or disturbance will be subject to compliance with California Department of Fish and Wildlife (CDFW) requirements, including securing an Incidental Take Permit.

Prepared by:	Liz Golden, Contract Planner
Approved by:	Brenda Magaña, Planning Manager
Approved as to form:	Alexandra Severino, City Attorney

ATTACHMENTS

Resolution No. PC-2025-015

PLANNING COMMISSION
CITY OF PALMDALE, CALIFORNIA
RESOLUTION NO. PC-2025-015

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PALMDALE, CALIFORNIA, RECOMMENDING CITY COUNCIL APPROVAL OF A FORM OF AGREEMENT 25-0003, APPROVING SITE PLAN REVIEW 25-0009; TO FACILITATE THE CONSTRUCTION OF A 272-UNIT, MULTI-FAMILY RESIDENTIAL DEVELOPMENT ON TWO VACANT PARCELS TOTALING APPROXIMATELY 9.8 ACRES LOCATED AT THE NORTHWEST CORNER OF EAST AVENUE Q AND 25TH STREET EAST, AND FIND THAT THE PROJECT IS EXEMPT FROM ENVIRONMENTAL REVIEW

WHEREAS, Lincoln Avenue Communities has filed an application requesting approval of Agreement (AGR) 25-0003 and Site Plan Review (SPR) 25-0009, a request to develop approximately 9.8 acres into a 272-unit multi-family residential project, described herein as "Application".

WHEREAS*,* The Application applies to a parcel located on the northwest corner of East Avenue Q and 25th Street East indicated on the Los Angeles Assessor roll as Assessor Parcel Numbers 3022-012-036 and -037, legally described on Exhibit A hereto and shown on the map attached as Exhibit B.

WHEREAS*,* On October 9, 2025, the Planning Commission of the City of Palmdale conducted a duly noticed public hearing on the Application and concluded said hearing on that date.

NOW THEREFORE, BE IT RESOLVED, THE PLANNING COMMISSION OF THE CITY OF PALMDALE DOES HEREBY FIND, DETERMINE, RESOLVE AND ORDER AS FOLLOWS:

SECTION 1. The Planning Commission hereby finds that all of the facts set forth in the foregoing Recitals are true and correct.

SECTION 2. The Planning Commission hereby finds as follows with respect to the environmental document:

A Pursuant to the California Environmental Quality Act (CEQA), this project has been determined to be exempt pursuant to California Government Code section 65583.2, subdvs. (i), which exempts a "project" for purposes of Division 13 (commencing with Section 21000) of the Public Resources Code" from the CEQA review for by right projects.

B The custodian of records for all other materials which constitute the record of proceedings upon which the Planning Commission's decision is based, is the Planning Manager of the City of Palmdale. These documents are available for public review in the Planning Division of the City of Palmdale located at 38250 Sierra Highway, Palmdale, California 93550, telephone (661) 267-5200.

SECTION 3. Based upon substantial evidence presented to this Commission during the above-referenced October 9, 2025, public hearing, including public testimony, and written and oral staff report, this Commission specifically finds as follows:

A The proposed density bonus agreement is consistent with the maps and policies of the General Plan and any applicable Specific Plan. (AGR)

B The City's General Plan and any applicable Specific Plan. (SPR)

C The development standards set forth in this Title. (SPR)

D Any applicable design guidelines. (SPR)

The proposed project as demonstrated in Exhibits C and D, is consistent with the Mixed Use 3 (MU 3) General Plan land use designation and zone, which allow for high-density residential development on the project site. The project meets applicable land use, density, and development standards, and no General Plan amendments or zone changes are required. The project site is located within the City's Regional Housing Needs Assessment Allocation (RHNA). Additionally, the project supports the City's goals for increasing affordable housing and promoting compact, infill development in areas served by existing infrastructure and transit, further aligning with General Plan objectives. As demonstrated in Exhibit D, the proposed project meets the density, lot size, lot width, and lot depth requirements of the MU 3 zone, and is therefore suitable for the type and density of the proposed development.

The proposed project complies with the applicable development standards set forth in Title 17 of the PMC, except where deviations are allowed pursuant to Government Code Section 65915 (Density Bonus Law). The project meets all baseline zoning requirements for multifamily residential development, including height, setbacks, parking, and open space standards, or has received appropriate waivers as permitted for qualifying affordable housing projects. These waivers are necessary to physically accommodate the project and do not result in any adverse impacts to health, safety, or the physical environment. In addition, the proposed project is consistent with the City's applicable design guidelines for multifamily residential development. The site layout emphasizes connectivity, security, and convenience through features

such as gated entry, pedestrian walkways, and centrally located amenities. Together, these features demonstrate conformance with the City's intent to encourage attractive and context-sensitive residential development.

E The proposed density bonus agreement complies with the requirements of California Government Code Section 65915. (AGR)

The proposed Density Bonus Agreement complies with the requirements of California Government Code Section 65915 by providing the required percentage of affordable housing units in exchange for density bonuses and development incentives. The project includes deed-restricted affordable units for lower-income households, consistent with state-mandated eligibility thresholds. In accordance with Section 65915, the applicant has requested waivers that facilitate the development of affordable housing, and the City has verified that all requests meet the statutory criteria. As such, the agreement fully aligns with the provisions and intent of California's Density Bonus Law.

SECTION 4. Based on the findings and conclusions set forth in Sections 1, 2, and 3 above, this Commission hereby recommends City Council approval of a form of AGR 25-0003 as set forth in Exhibit E, approves SPR 25-0009 subject to the Conditions of Approval as set forth in Exhibit F, and finds that the project is exempt from environmental review.

SECTION 5. The Deputized Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED and **ADOPTED** this 9th day of October 2025.

_____
Dean Henderson
Chair, Planning Commission

ATTEST:

_____
Sylvia Magallanes, Deputized Clerk

I, Sylvia Magallanes, Deputized Clerk of Palmdale, California, do hereby certify that the foregoing resolution was duly approved, and adopted by the Planning Commission of the City of Palmdale at a regular meeting of said Commission held on the 9th day of October, 2025, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____ ABSENT: _____

Date: _____ _____
Sylvia Magallanes, Deputized Clerk

EXHIBIT A

LEGAL DESCRIPTION FOR AGR 25-0003 SPR 25-0009

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THE NORTH HALF OF THE SOUTH HALF OF THE EAST HALF OF LOT 14 IN SECTION 19, TOWNSHIP 6 NORTH, RANGE 11 WEST, SBBM, IN PALMDALE COLONY LANDS, AS PER MAP RECORDED IN BOOK 11, PAGE 11 OF MISCELLANEOUS RECORDS IN THE OFFICE OF THE COUNTY RECORDER OF SAID LOS ANGELES COUNTY.

PARCEL TWO:

THE SOUTH HALF OF THE SOUTH HALF OF THE EAST HALF OF LOT 14 IN SECTION I9, TOWNSHIP 6 NORTH, RANGE 11 WEST, SBBM, IN PALMDALE COLONY LANDS, AS PER MAP RECORDED IN BOOK 11, PAGE 11 OF MISCELLANEOUS RECORDS IN THE OFFICE OF THE COUNTY RECORDER OF SAID LOS ANGELES COUNTY.

APN’S: 3022-012-036 AND -037

EXHIBIT B

VICINITY MAP FOR AGR 25-0003 AND SPR 25-0009



EXHIBIT C

TABLE 3 - GENERAL PLAN CONSISTENCY

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-4.1: Quality Construction. Use simple, urban building forms made with permanent materials with high-quality detailing that stands the test of time.	Yes	The proposed project incorporates durable, high-quality building materials that include stucco in complementary tones, stone veneer, and cement board panels, urban architectural forms that align with the City's long-term vision for residential developments. The buildings feature clean lines, breaks in building massing, and permanent exterior finishes designed to minimize maintenance needs while maintaining visual appeal over time. In addition, the proposed project includes varied rooflines, prominent building entrances, and intentional façade articulation to create visual interest along the street frontage.
	LUD-4.3: Promote high-quality, cohesive architectural design by encouraging building forms, materials, and styles that are durable, compatible with surrounding development, and supportive of long-term community character.	Yes	
	LUD-4.7: Iconic Architecture. Allow iconic and memorable building designs, particularly on larger non-residential properties.	Yes	

TABLE 3 - GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-5.3: Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.	Yes	The project is located within the Palmdale Water District and the Los Angeles County Sanitation District. Both agencies have reviewed the project and provided conditions of approval to ensure the project can be adequately served by existing water and wastewater facilities upon approval of development plans. Additionally, the project has been conditioned by the Engineering Division to provide roadways, curbs, gutters, and sidewalks to adequately serve future residents.
	LUD-10.6: Implement urban design guidelines and features that encourage pedestrian activity and reduce automobile use.	Yes	The proposed project incorporates urban design features that promote walkability and reduce car dependency. The project includes pedestrian pathways, shade trees, and long-term bike parking further enhances pedestrian comfort and supports alternative transportation. The site's proximity to transit and its compact, connected layout align with the City's vision for transit-oriented, pedestrian-friendly development.

TABLE 3 - GENERAL PLAN CONSISTENCY (CONTINUED)

Element	Goal, Objective, or Policy	Standard Met?	Justification*
Land Use	LUD-22.5 Varying Housing Types. Encourage and allow a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multifamily apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.	Yes	The proposed project is located on a vacant site and will provide a new multifamily development for low-income individuals. The site is within a half-mile distance of a major bus corridor, which provides alternative transportation mobility for the residents. The proposal meets this land use goal by providing a different type of housing than what is currently within the immediate vicinity and by serving the need for multifamily developments.
Economic Development	ED-5.2: Increase the supply and diversity of housing options to support different types of households, including seniors, young adults, families, empty nesters, individuals or families with special needs, and multigenerational families.	Yes	The proposed project supports the General Plan goal to increase the supply and diversity of housing options by offering a mix of unit sizes ranging from one to four bedrooms to accommodate a wide range of household types, and ensures more inclusive and flexible housing opportunities within the community.

**Justification is based on a review of the plans date stamped 'Received June 25, 2025'.*

EXHIBIT D

PMC STANDARDS

	Standard	Standard Met?	Justification*
Density	Minimum Density: 30 dwelling units per acre Maximum Density: 50 dwelling units per acre	Yes	The proposed project would accommodate the development of 272 multifamily residential units on an approximately 9.8-acre site, resulting in a residential density of approximately 28.2 dwelling units per acre.
Lot Size	Minimum: 20,000 square feet	Yes	The proposed project is situated on an approximately 9.8-acre site, which exceeds the minimum requirement.
Lot Width	Minimum: 60 feet	Yes	The proposed project has a lot width of approximately 590 feet.
Lot Depth	Minimum: 100 feet	Yes	The proposed project has a lot depth of approximately 600 feet.
Setbacks	Front: 15 feet Street Side: 10 feet Interior: 0 feet Rear: 15 feet	No	The applicant proposes a 10-foot front yard, a 15-foot street side, a five-foot interior, and a nine-foot rear yard setback. The applicant has submitted a waiver to reduce the required front setback from 15 feet to 10 feet and the required rear setback from 15 feet to nine feet, because it would require the removal of 24 units.
Building Height	Maximum Height: 65 feet or five stories	Yes	The proposed project is 36 feet in height and three stories.
Private Storage	Minimum required 125 cubic feet of enclosed private storage space per unit	No	The applicant has submitted a waiver to allow the project to not provide any private storage space for any of the units.

PMC STANDARDS (CONTINUED)

	Standard	Standard Met?	Justification*
Landscaping	30 percent of the minimum required front yard area shall be landscaped, of which half must be planted with live plant material	Yes	The front yard area of the proposed project is landscaped with live plant material with the exception of walkways and a monument sign.
Building Separation	A minimum 30 feet of open-to-the-sky separation between structures and/or less than the minimum 30-foot open-to-the-sky building break required for buildings over 425 feet in length.	No	The applicant is requesting a waiver to reduce the required minimum 30 feet of open-to-the-sky separation between structures.
Parking	Utilizing the state density bonus for parking spaces, 422 spaces would be required.	Yes	The proposed project includes 453 parking spaces.
	Tandem parking garages shall be a minimum dimension of 10 feet in width by 40 feet in length.	No	The project will provide tandem garages 10 feet in width by 35 feet in length and uncovered tandem spaces 9 feet in width by 33 feet in length. The applicant has submitted a waiver to reduce this requirement.
	A waiver to allow parking spaces to be located more than 200 feet from the dwelling units they serve.	No	The applicant is requesting a waiver to deviate from this requirement.
Amenities	Five amenities are required for the 272 residential unit project.	Yes	Amenities include: a community gathering area with a pergola shade structure and barbecue with table seating and benches; a children's play area; a swimming pool area; and four garden courtyards.

**Justification is based on a review of the plans date stamped 'Received June 25, 2025'.*

EXHIBIT F

DRAFT

CONDITIONS OF APPROVAL FOR

SITE PLAN REVIEW 25-0009

APPROVAL DATE: OCTOBER 9, 2025
EFFECTIVE DATE: OCTOBER 21, 2025
EXPIRATION DATE: OCTOBER 21, 2028

These Conditions of Approval apply to Site Plan Review (SPR) 25-0009 to facilitate the construction of a 272 multi-family residential development on two vacant parcels totaling approximately 9.8 acres located at the northwest corner of 25th Street East and Avenue Q (APN(s): 3022-012-036 and 037). Any proposed change of use or expansion of the area, or modifications to the site plan or structures shall be submitted to the Planning Division, along with the required application and fee, for review. For the purpose of these conditions, the term "applicant" shall also mean the developer, the owner or any successor(s) in interest to the terms of this approval. For the purposes of these conditions, an * indicates that the condition is a mitigation measure.

GENERAL CONDITIONS:

1 This approval shall not become effective for any purposes until any appeal period has passed and the applicant has filed at the office of the Planning Division their notarized affidavit stating that they agree to and accept all of the Conditions of Approval as approved by the Reviewing Authority as set for in Resolution PC-2025-015. (P)

2 Should the City Council deny or revise Density Bonus Agreement (AGR) 25-0003, this SPR shall be modified to ensure consistency with AGR 25-0003, which may require additional reviews and/or approvals. (P)

3 Site Plan Review 25-0009 shall be inaugurated within three years during the initial approval period; an extension of time may be submitted prior to the expiration date. Applications for time extensions must be filed a minimum of 90 days prior to the expiration date. Request for time extensions must be accompanied by a formal application, all required exhibits and plans, and required application fees. (P)

4 Should this project not be inaugurated during the initial approval period, an extension of time not to exceed an additional two years may be granted by the Review Authority. Applications for time extensions must be filed a minimum of 90 days prior to the expiration date. Requests for time extensions must be accompanied by a formal application, all required exhibits and plans and required application fees. (P)

5 Immediately upon approval of this project by the Review Authority, the applicant shall submit to the City a cashier's check or check, payable to Los Angeles County Clerk in the amount of $75 for the environmental filing fee in compliance with the California Environmental Quality Act (CEQA) Guidelines. Furthermore, if the California Department of Fish and Wildlife (CDFW) determines that this project is not exempt from a filing fee imposed pursuant to Fish and Wildlife Code Section 711.4 because the project has more than a de minimis impact on fish and wildlife, then the applicant shall also pay to CDFW any fee and any fine which the Department determines to be owed. (P)

6 The applicant shall defend, indemnify, and hold harmless the City and its elected and appointed officials, officers, employees, and agents from and against any claim, action, or proceeding against the City, its elected and appointed officials, officers, employees, or agents to attack, set aside, void, or annul any approval or condition of approval of the City concerning this project, including but not limited to any approval or condition of approval of the Review Authority. The City shall promptly notify the applicant of any claim, action, or proceeding concerning the project and the City shall cooperate fully in the defense of the matter. The City reserves the right, at its own option, to choose its own attorney to represent the City, its elected and appointed officials, officers, employees, and agents in the defense of the matter. (P)

7 Pursuant to Government Code Section 66020(a), any party may protest the imposition of any fees, dedications, reservations, or other exactions imposed on this development project. Required fees must be paid in full or arrangements must be made to pay the fee when due. Written notice of payment under protest must be filed with the City at the time of approval or conditional approval of this project or within 90 days after the date of the imposition of the fees, dedications, reservations, or other exactions imposed on this project. (P)

8 The applicant shall be responsible for informing all subcontractors, consultants, engineers, or other business entities providing services related to the project of their responsibilities to comply with all pertinent requirements in the PMC, including the requirement that a business license be obtained by all entities doing business in the City. (P)

9 The use shall meet the standards and shall be developed within the limits established by the PMC as related to emissions of noise, odor, dust, vibration, wastes, fumes, or any public nuisances arising or occurring incidental to the establishment or operation. (P)

10 The applicant shall be responsible for the on-going maintenance and upkeep of undeveloped portions of the site, in accordance with the property maintenance

requirements as set forth in the PMC Chapter 8.36 (Regulation of Property Maintenance). (P)

11 The applicant shall comply with all requirements of the PMC, all requirements of the City ordinances, resolutions, and all applicable standards and policies that are in effect at the time that building permits are issued for the development. (P)(E)

12 When exhibits and written Conditions of Approval are inconsistent, the written conditions shall prevail. (P)(E)

13 Off-site public improvements (streets, drainage, sewers, etc.) may be necessary to adequately serve this subdivision/development. If off-site public improvements are required, said improvements shall be located within public easements. This project approval is subject to the applicant's acceptance of the City requirements for acquisition of said public easements, at the sole cost and expense of the applicant. The City Engineer shall have the authority to withhold approval of any affected improvement plans for failure to satisfy this Condition. (E)

14 The applicant shall participate in such on-site and off-site water service improvements or wells as may be required by the serving water purveyor/master. (E)

15 Coordination with utility companies by the applicant's engineer during design shall be required to ensure that required public improvements are not in conflict with existing or proposed utilities. (E)

16 Transmission or distribution lines less than 50kV and all other utility lines, existing and proposed, shall be installed underground in accordance with the PMC Chapter 12.04 (Underground Utilities). (E)

17 All plans, specifications, studies, reports, calculations, maps, notes, legal documents, and designs, shall be prepared, signed, and stamped (when required) only by those individuals legally authorized to do so. Development plans must be prepared, signed, and stamped by a California Registered Civil Engineer. (E)

18 Sign approval for the project is a separate process requiring the issuance of a sign permit and building permits and shall be subject to review and approval by the Planning Division and Building and Safety Division. (P)(B&S)

19 Left-turn ingress and/or egress at all access locations shall be subject to approval of the City Engineer and may be restricted in the future due to traffic operational or safety concerns. Alternatives to such restrictions may be considered. (TE)

20 Intersection sight distance and stopping sight distance shall be shown to meet the required standards both horizontally and vertically at all vehicular ingress/egress locations including consideration for walls, landscaping, grading, and vegetation. (TE)

21 The applicant shall provide a complete set of street improvement plans for review and comment to utility providers including but not limited to the following: (E)

21.1 Water District

21.2 Southern California Edison

21.3 Southern California Gas Company

21.4 AT&T

21.5 Cable TV

22 The applicant shall provide standard street improvements for Regional/Crosstown roadway classification streets, along the western half of 25th Street East across the project frontage. The design shall be based on a 104-foot right-of-way on an acceptable centerline profile extending a minimum of 300 feet beyond the project, where applicable. Improvements listed below shall be constructed and operational prior to occupancy release. These improvements shall consist of: (E)

22.1 Curb and gutter,

22.2 Sidewalk (width = eight feet),

22.3 Roadway grading and paving, overlay and/or match-up, as directed by City Engineer,

22.4 Traffic control signs and devices as required by the City Engineer,

22.5 Pavement transition from the project boundaries to the satisfaction of the City Engineer,

22.6 Wheelchair ramp(s) at all walk returns,

22.7 Roadway drainage device(s),

22.8 Streetlights,

22.9 Raised median,

22.10 Dedicate an additional 17-feet of right-of-way and construct improvements as required by Traffic Division,

22.11 Dedicate sufficient right-of-way for corner cut-off in accordance with City's Engineering Design Standards,

22.12 Dedicate and construct a four-foot-wide minimum Americans with Disabilities Act (ADA) by-pass at all proposed driveway approaches,

22.13 Provide a minimum four-foot sidewalk clearance around any object, and,

22.14 Dedicate additional right of way for a right turn lane per the Traffic Division dimension requirements.

23 The applicant shall provide standard street improvements for Regional/Crosstown roadway classification streets, along the northern half of East Avenue Q across the project frontage. The design shall be based on a 104-foot right-of-way on an acceptable centerline profile extending a minimum of 300 feet beyond the project where applicable. Improvements listed below shall be constructed and operational prior to occupancy release. These improvements shall consist of: (E)

23.1 Curb and gutter,

23.2 Sidewalk (width = eight feet),

23.3 Roadway grading and paving, overlay and/or match-up, as directed by City Engineer,

23.4 Traffic control signs and devices as required by the City Engineer,

23.5 Pavement transition from the project boundaries to the satisfaction of the City Engineer,

23.6 Wheelchair ramp(s) at all walk returns,

23.7 Roadway drainage device(s),

23.8 Streetlights,

23.9 Raised median,

23.10 Dedicate an additional 17-feet of right-of-way and construct improvements as required by Traffic Division,

23.11 Dedicate sufficient right-of-way for corner cut-off in accordance with City's Engineering Design Standards,

23.12 Dedicate and construct a four-foot-wide minimum Americans with Disabilities Act (ADA) by-pass at all proposed driveway approaches,

23.13 Provide a minimum four-foot sidewalk clearance around any object, and,

23.14 Dedicate additional right of way for a right turn lane per the Traffic Division dimension requirements.

THE FOLLOWING CONDITIONS SHALL BE ADDRESSED WITH THE SUBMITTAL OF GRADING PLANS OR PRIOR TO ISSUANCE OF A GRADING PERMIT:

Screening

24 The applicant shall submit the final site plan, floor plans, architectural elevations(s), and photometric lighting plans to the Planning Division for review and approval, along with the required fee(s) for plan check review through the Accela Citizen Access portal. Such plans shall be fully dimensioned and in substantial conformity with those approved by the Review Authority. Plans shall address the following: (P)(TE)(B&S)(PS)

24.1 Utility and transformer boxes, backflow devices, and other similar equipment facilities shall be placed underground unless otherwise specified and approved. Screening shall be compatible with main structures and include landscaping where appropriate. All electrical switchgear shall be located within an electrical or utility room within the building which may be accessible from an exterior door or doors. Exterior surface-mounted switchgear shall be prohibited.

24.2 The location of all devices required by the water district shall be shown on the site plan. All such devices shall be screened with a low-profile wall to match the building or another method as approved by the Planning Manager.

24.3 The location and method of screening for all roof-mounted equipment shall be demonstrated, including but not limited to air conditioning and heating units, plumbing flues and vents. All equipment shall be screened from public view. All roof-mounted equipment shall be screened from view by parapet walls or other architectural means. The applicant shall demonstrate to the satisfaction of the Planning Manager that no roof-mounted equipment will be visible from the public right-of-way. A line of-sight drawing showing

full screening of the roof-mounted equipment by the building parapets shall be submitted to the satisfaction of the Planning Manager.

24.4 Exterior ladders providing roof access and exterior downspouts shall be prohibited. Access to the roof and all gutters/downspouts shall be concealed within buildings.

24.5 Any proposed bollards shall include a decorative cover consistent with the architectural style of the associated building. Safety Yellow colored pipe style bollards shall only be permitted in areas hidden from the public right-of-way.

24.6 The location and enclosure details of refuse containment areas are to be in compliance with PMC Chapter 17.85.020 (Refuse and Recycling). Refuse and recycling enclosures shall be screened by a six-foot decorative masonry block wall/material compatible with the main structure(s). A self-closing gate constructed of solid metal material painted to match the enclosure and a solid decorative roof treatment shall be provided. Refuse enclosures shall be designed to meet or exceed the minimum capacity requirements of the development as determined by PMC Chapter 15.30 (CALGreen Recycling Requirements), PMC Chapter 17.85 (Utilities and Services), and waste hauler. Enclosures shall be located to provide unobstructed 24-hour access to refuse collection vehicles.

Lighting

24.7 The photometric lighting plan for parking areas shall comply with applicable standards contained in the PMC Section 17.86.030 (Outdoor Lighting).

24.8 All exterior lighting shall be decorative and appropriate for the architecture of the associated building. Light fixtures shall comply with PMC Section 17.86.030 (Outdoor Lighting) and shall not project above the fascia or roof line of the building.

24.9 Buildings shall have exterior security lighting fixtures or wall packs installed that are protected by a weather and vandal-resistant covering. Security lighting must follow the specifications of the PMC Section 17.86.030 (Outdoor Lighting).

24.10 Parking lot lighting shall comply with applicable height and design standards contained in the PMC and shall not be obstructed by trees or other landscaping.

24.11 Pedestrian walkways shall have sufficient decorative pathway lighting.

24.12 Each entry, patio, balcony and pedestrian garage shall be equipped with its own light source.

24.13 Exterior door, perimeter, canopy, and parking area lights shall be controlled by photocell and shall be left on during hours of darkness or diminished lighting.

24.14 Parking area lights shall be controlled by photocell and shall be left on during hours of darkness or diminished lighting.

24.15 All parking lots, aisles, and grounds contiguous to walkways shall be provided with sufficient lighting to provide adequate illumination for the safety and security of vehicles and pedestrians using the site during the hours of darkness or diminished lighting. Such lighting shall be equipped with vandal and weather-resistant covers/lenses and comply with the specifications of the PMC.

Architectural Design

24.16 Architectural elevations shall note proposed materials, colors, height, dimensions, window, roof, and treatments for all four sides of proposed structure(s).

24.17 If glass skylights are installed on the roof, they shall be provided with rated burglary resistant glass or glass like acrylic material. Iron bars of at least one-half inch round or by one-fourth inch flat steel material spaced no more than five inches apart or a steel grill of at least one-eighth inch material or two-inch mesh, shall be securely fastened over the skylight to prevent entry.

24.18 Iron bars or steel grills, with the same specifications as for skylights, shall be used on air ducts or air vent openings exceeding eight inches by 12 inches located on the roof or exterior walls to prohibit access by unauthorized persons.

24.19 Primary living areas and windows of individual units should be focused for observation of common use areas, adjacent units, recreational areas, and tenant parking to allow for natural surveillance and a sense of community.

Circulation/Parking Safety and Loading Areas

24.20 The site plan shall identify the interior traffic flow pattern.

24.21 Driveways shall have a minimum radius of 15 feet.

24.22 The site plan shall identify all pedestrian access ways and traffic crossings. Crossings shall be clearly marked, lighted, and identified throughout the interior of the project. Design of these areas shall be reviewed and approved by the applicable City departments and shall comply with Title 24 Accessibility Standards and current City Building Codes.

24.23 The site plan shall indicate the alignment of all adjacent streets, turn lanes, medians, bus turnouts, the location of project entrance(s), drive aisles, traffic control devices, sidewalks, landscape setbacks, and the location of other infrastructure.

24.24 The site plan shall indicate the location and method of operation of any vehicle restricting gates. The gates shall be subject to the approval of the City Engineer and the Los Angeles County Fire Department. Where utilized, a portion of the guest spaces shall be accessible without passing through a security entrance and residents shall not be required to pay additional costs to receive devices to open a security gate.

24.25 The applicant shall coordinate with Antelope Valley Transit Authority (AVTA) to ensure that right-of-way and street construction includes the provision of a bus turnout along East Avenue Q. Design shall be subject to the approval of the City Engineer.

24.26 All walkways perpendicular to parking stalls shall be a minimum of seven feet in width.

24.27 The site plan shall clearly indicate no parking areas and fire lanes and indicate how such areas will be designated on the site.

24.28 If gated, the applicant shall provide some means of access for law enforcement purposes by way of a keypad, or some other method as approved by the Los Angeles County Fire Department and Los Angeles County Sheriff's Department.

Development Landscaping Requirements

25 The landscape plans shall comply with all provisions of PMC Chapter 14.05 (Water Efficient Landscape and City Landscaping Standards). (E)

26 The applicant shall submit landscape and irrigation plans for all project landscaping improvements to the Engineering Division for review and approval, through the Accela Citizen Access Portal. The applicant is responsible to pay all plan review fees for the improvements reflected on the landscape plans prior to the plans being reviewed. All landscape permit and inspection fees shall be paid prior to the

issuance of a landscape permit. These plans shall include, but not be limited to, the following items: (P)(E)(PS)

26.1 Trees in the parkways shall not exceed a spacing approved by the City Engineer for the species proposed.

26.2 Where trees are incorporated into the landscape design of common or open areas, all trees shall be a minimum one-inch caliper in a 15-gallon or larger container size. Fifty percent of the trees shall be a minimum two-inch caliper in a 24-inch box size or larger container. Twenty percent of the trees shall be a minimum two-and-a-half-inch caliper in a 36-inch box size or larger container. The trunk caliper shall be measured four and a half feet above the root crown. Any Washingtonia spp. or similar palm trees proposed shall have a minimum of 12 feet of brown trunk height.

26.3 All shrubs shall be a minimum five-gallon size. If one-gallon plants are proposed to be used as a ground cover (i.e., with drip irrigation), such planting shall be supplemented with additional five-gallon plant material to provide variation in texture and height.

26.4 All plant material shall be indicated on the landscape plans with symbols that are 75 percent of a diameter of the mature size of the plant. When determining mature plant size, the lower end of the size range shall be used (for example, if a plant is indicated to have a mature size of six to -ten feet, a six-foot diameter shall be used when graphically indicating the plant material on the plan).

26.5 All landscape areas shall be enclosed by a six-inch raised concrete curb. Differences in planting areas or landscaping ground cover materials shall be separated by approved landscape edging or concrete mow strips.

26.6 All slopes steeper than 3:1 shall be landscaped for erosion control per the Engineering Design Standards.

26.7 Backflow devices shall be screened with a solid Le Meur cover or equivalent and landscaping.

26.8 All plant material sizes and calipers shall conform to the American Standard for Nursery Stock, ANSI (Z60.1) 2014.

26.9 Landscaping shall be provided within parking areas so that at least 15 percent of the surface area of the parking lot is landscaped (excluding perimeter and front setback landscaping). Landscaping shall be dispersed throughout the parking lot to provide shade throughout the lot.

26.10 A minimum of one canopy tree for every four parking stalls (or eight parking stalls when two rows of four share a common frontage) shall be provided.

26.11 A minimum 50 percent of the parking lot trees shall be a minimum 24-inch box size and with a minimum two-inch caliper. Twenty percent of the trees shall be a minimum two-and-a-half-inch caliper in a 36-inch box size or larger container.

26.12 Landscape planters shall be a minimum of six feet in width (inside dimension), except that tree wells located between parking rows and spaces may be a minimum of four feet in width (inside dimension). All landscaping and planting within paved areas shall be contained within raised planters surrounded by six-inch concrete curbs. Tree areas shall be planted a minimum of five feet from walls, walkways, or buildings. To protect the hardscape and encourage deep root development, root barriers shall be installed during planting operations.

26.13 Wheel stops or curbs shall be placed a minimum of 30 inches away from the trunk of any tree.

26.14 Landscape islands, a minimum 10 feet in width with minimum aisle turning radii of 10 feet shall be provided at the end of all parking rows, except where parking rows directly abut buildings, sidewalks, wall, or similar features.

26.15 Parking rows containing 15 or more spaces shall contain one landscape island within the interior of the parking row for each 15 parking spaces in addition to the required row end landscape islands.

26.16 Landscape islands shall not extend closer than three feet from the aisle end of the adjacent parking space(s).

26.17 Landscape islands shall be designed with a six-inch curb and a minimum one-foot paved area where abutting the side of parking stalls. Paved areas of landscape islands shall not be counted toward fulfilling landscape requirements.

26.18 All landscape islands, which are located at the front of head-in parking spaces, shall be designed with a minimum two-and-a-half-foot area free from vegetation where the front of a vehicle may overhang the island. The overhang area shall be surfaced with non-living landscape material such as gravel or rock. Two and a half feet of the overhang area may be counted as part of the overall parking space length.

26.19 Landscaping along the western and northern property line shall be defined by use of a six-inch concrete curb or a block wall or six-inch concrete mowing strip or a combination thereof.

26.20 Parking areas located adjacent to East Avenue Q Street shall contain a low-profile wall, berm, or lowered parking area, at least three feet in height, designed to screen vehicles from the adjacent street.

26.21 Landscaping located within the vehicle sight distance triangle shall be designed and maintained in a manner that does not block the view at driveways and adjacent intersections. Landscaping shall not exceed three feet in height within the sight distance triangle.

26.22 On-site landscaping should not provide hiding places. Limit surrounding landscaping to low-growth plants no higher than two feet.

26.23 Trees that will not block area surveillance or light distribution shall be utilized. Tree canopies shall be no lower than six feet.

26.24 Landscaping located beneath a window shall be no taller than the windowsill and maintained at this standard. Barrier plants shall be used below and to the sides of windows, when feasible.

27 Slope erosion control and street trees shall be installed to the satisfaction of the City Engineer. (E)

Project Grading/Wall/Fences Requirements

28 The applicant shall submit a current Title Report for the subject property, dated within six months of the date for civil plan submittal. (E)

29 Grading and wall plans shall be submitted for review and approval to the Engineering Division, through the Accela Citizen Access Portal. Approval by both the City Engineer and Planning Manager shall be obtained prior to the issuance of a Grading Permit. Final grading and wall concepts shall be in substantial conformance with those shown on the approved site plan, conceptual grading plan, and in accordance with the following: (P)(E)(B&S)

29.1 Northerly Boundary - The applicant shall provide a six-foot-high decorative wall constructed of masonry, wrought iron, durable vinyl, or other similar durable materials as approved by the Planning Manager.

29.2 Westerly Boundary - The applicant shall provide a six-foot-high decorative wall constructed of masonry, wrought iron, durable vinyl, or other similar durable materials as approved by the Planning Manager.

29.3 If a wall is not proposed, where commercial or industrial property share a property line with a commercially or industrially designated property, a minimum of a six-inch wide concrete mow strip shall be provided.

29.4 Proposed retaining walls or engineered free-standing walls shall be submitted to Building and Safety Division for review and approval. Said wall types shall require a building permit prior to construction.

30 In all cases where a required wall is to be located adjacent to the top of a 2:1 or greater slope the wall shall be set back a minimum two and a half feet from the crest of that slope on the level side. All slope and wall configurations shall meet the setback requirements of the City Building Code. (P)(E)(B&S)

31 The exterior face and footings of all project perimeter walls shall be located no more than two inches from the property line on the subject property except where appropriate off-site easements have been obtained. (P)(E)

32 Double boundary walls between developments are prohibited except as approved by the Planning Manager and City Engineer. (P)(E)

33 The applicant shall incorporate into the project design all existing easements within the project boundaries or obtain abandonment of said easements from the affected easement holder(s). If this requirement cannot be accomplished, the project shall be redesigned accordingly to the satisfaction of the Planning Manager, City Engineer, or the Review Authority. (P)(E)

34 The applicant shall obtain off-site easements from the affected property owner(s) for all proposed off-site improvements (i.e., slopes and related grading activities, street improvements, walls drainage, etc.). If said easements cannot be obtained, the project shall be redesigned to incorporate these improvements entirely within the project boundary to the satisfaction of the Planning Manager or the Review Authority. The City Engineer shall have the right to withhold approval of the affected improvement plans for failure to satisfy this condition. (P)(E)

35 All manufactured slopes on or adjacent to project boundaries shall meet the setback requirements of the current City Building Code. A recorded off-site Slope Acceptance Letter from all affected property owners shall be submitted to the City Engineer prior to approval of grading plans for any off-site slope not meeting these requirements. In addition, all slopes are required to meet City Standards with respect to erosion control. (E)

36 The applicant shall submit a temporary erosion control and sedimentation plan for approval by the City Engineer prior to grading plan approval and grading permit issuance when grading activity will occur between October 1st and April 15th. Said erosion control plan shall provide appropriate dust control measures per City and Antelope Valley Air Quality Management District (AVAQMD) Standards to minimize nuisance from dust at all times. (E)

37 The applicant shall submit a dust control plan to AVAQMD for review and shall obtain clearance from said agency prior to issuance of a City grading permit. The applicant shall provide proof of compliance with all AVAQMD requirements and applicable fees. (E)

38 From the beginning of the first ground disturbing activity until the use has been released for occupancy, the following are required of the applicant: 1) have erosion control measures, per an approved Erosion Control and Sedimentation Plan, in place during the rainy season (October 15 - April 15); 2) provide appropriate dust control measures, per City and AVAQMD Standards, to minimize nuisance from dust at all times. (E)(B&S)

39 This project shall be designed and constructed in accordance with the stormwater pollution control requirements of the Lahontan Region of the California Regional Water Quality Control Board. Prior to the issuance of a grading permit, the applicant shall file a Notice of Intent with the Lahontan Region of the California Regional Water Quality Control Board to comply with the applicable National Pollution Discharge Elimination System (NPDES) requirements. The applicant shall submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the City Engineer. (E)

40 A drainage acceptance letter from each affected property owner shall be submitted to the City Engineer when the pre-developed storm runoff onto any adjacent property is increased, concentrated, diverted, or changed in any form as required by State law. (E)

41 A final hydrology study and hydraulics report shall be prepared for this project and approved by the City Engineer. The hydrology study and hydraulics report shall address on-site and off-site conditions and impacts, based on the City of Palmdale adopted Storm Water Management Policy. (E)

42 Based on the findings of the final hydrology and hydraulics report, the applicant shall be responsible, at their own expense, for any and all improvements imposed on the project by the Engineering Department to the satisfaction of the City Engineer. (E)

43 All nuisance water generated from this development shall be mitigated on-site in accordance with City's Design Standards requirements. (E)

44 An on-site storm drainage basin (detention) shall be required for this development. Such basin(s) shall be granted in easement to the City (for emergency maintenance only), but regular maintenance shall be the responsibility of the applicant, or their City approved designee. (E)

45 This development shall be designed in accordance with the City's Floodplain Management Ordinance, Master Plan of Drainage, and related criteria within the Engineering Design Standards. (E)

46 Dry wells shall be required for this project to dispose of on-site nuisance water in accordance with the approved drainage plan. No nuisance water generated from this development shall be allowed outside the boundaries of this development unless authorized by the City Engineer. Appropriate measures shall be taken to protect dry wells and basins from silt during grading operations and any off-site flow from undeveloped areas designed to flow through subdivision. (E)

47 The applicant shall submit geotechnical reports, prepared in accordance with the City's Engineering Design Standards, to the City Engineer for review and approval prior to the approval of a grading permit. (E)

48 The applicant shall enter into a Development Improvement Agreement and post securities for grading operations with the City and pay all applicable fees. Grading activities extending beyond phase boundaries shall require approval of the City Engineer and Planning Manager. Such grading activity shall be reflected in the Subdivision/Development Improvement Agreement of the phase which request such grading. (E)

49 Grading shall be designated "Engineering Grading" per City Building Code and shall be done in accordance with an approved grading plan. All grading work shall be performed in one continuous operation, or in phases as approved by the Planning Manager and the City Engineer. (E)

50 A sanitary sewer-area study for this project shall be prepared and submitted to the City Engineer for review and approval. A public sanitary sewer system is to be dedicated to the City. The system shall be designed and installed as the only method of sewage disposal for this development. Coordination and clearance must be obtained from Los Angeles County Sanitation District prior to issuance of a sewer permit. (E)

51 The applicant shall obtain sufficient off-site sewer easements and design and construct an off-site outfall sewer with supplemental size, capacity, and length as

required by the City Engineer. The City Engineer shall have the right to withhold approval of any affected improvement plans for failure to satisfy this condition. (E)

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO OR IN CONJUNCTION WITH RECORDATION OF THE FINAL MAP OR ANY PHASE THEREOF:

52 The applicant shall provide written evidence to the Planning and Engineering Divisions that approval has been obtained from the Los Angeles County Fire Department. (F)(P)(E)

53 The applicant shall enter into an Improvement Agreement and post securities with the City and pay all applicable fees prior to permit issuance for the development. If any transfer of ownership/title of land within this proposed development takes place prior to release of all agreements and securities, the new applicant shall be required to enter into a separate Improvement Agreement with the City and pay all applicable fees. Agreement and securities with the prior applicant will be released after the agreement and securities with the new applicant take effect. (E)

54 Access rights shall be granted to the City for the purpose of allowing access over private drives within the development for all City vehicles, including police, fire, and other emergency vehicles. The document(s) recording this access shall be prepared by the applicant for review and approval by the City Engineer. (E)

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO OR IN CONJUNCTION WITH ISSUANCE OF BUILDING PERMITS (FOR ANY PHASE OF THE DEVELOPMENT):

55 The applicant shall pay all fees at the time fees are determined payable and comply with all requirements of the applicable Federal, State, and local agencies including, but not limited to, the following:

Antelope Valley Air Quality Management District
Los Angeles County Consolidated Fire District
Los Angeles County Department of Health Services
Los Angeles County Sanitation District
Palmdale School District
Palmdale Water District
Regional Water Resources Control Board

The duty of inquiry as to such requirements shall be upon the applicant. Receipt and proof of payment shall be provided to the Building and Safety Division prior to issuance of any building permits. (P)(E)(F)(B&S)

56 The applicant shall comply with all applicable development regulations and requirements prior to the issuance of any building permits on the subject property. (P)(E)(B&S)

57 The project shall comply with all requirements of PMC Chapter 13.05 (Sewer Collection Service Charges). (E)

58 Water mains shall be designed to meet or exceed the total flow requirements determined from domestic flow and fire flow for this development. Required domestic flow shall be calculated by the applicant's engineer. Fire flow shall be determined by the Los Angeles County Fire Department. (E)

59 The plans and specifications for the water delivery system shall be submitted for approval to the responsible water purveyor prior to final approval of this development by the City Engineer. In all cases where water system facilities have not been installed prior to filing this development with the City Engineer for final approval, the applicant shall submit a Labor and Materials bond in addition to one of the following: (E)

59.1 An Agreement and Faithful Performance bond in the amount approved by the City Engineer to be sufficient to guarantee installation of the improvements; or

59.2 An Agreement and evidence satisfactory to the City Engineer showing that the applicant has entered into a contract with the serving water utility for establishing a security guaranteeing payment for the installation of the improvements.

60 Street lighting plans shall be reviewed and approved separate of the approval of the street improvement plans. Street lighting plans and electrical plans shall be submitted to the City Engineer for review and approval and to Southern California Edison (SCE) for reference. Electrical plans shall be prepared by a Registered California Electrical Engineer. (E)

61 The applicant shall petition the City to annex to the City's Community Facilities District for the maintenance of streetlights and appurtenant facilities and/or request annexation into an existing streetlight maintenance assessment district. Such annexation shall be completed at the sole cost and expense of the applicant, and the applicant's deposit of the estimated costs thereof shall be required prior to such actions by the City. If the City is unsuccessful in the annexation to the Community Facilities District, the Developer shall propose and receive approval for an alternative maintenance entity. The developer shall remain solely responsible for the maintenance of the streetlights and appurtenant facilities until such time that an alternative maintenance entity assumes the maintenance. All costs associated

with the formation of an alternative maintenance entity shall be paid by the Developer. (E)

62 Easements for all on-site utilities, public and private, shall be granted and recorded for maintenance and upkeep. Such easements may include, but are not limited to, sewer, water, electric, gas, telephone, storm drains, detention basins, and landscaping. (E)

63 All sanitary sewer mains to be dedicated to the City area required to submit as-built plans, and have TV video inspection prior to final acceptance for maintenance. (E)

64 At completion of rough grading, the applicant shall submit appropriate reports and statements (Certifications) to the City Engineer, for review and approval, prior to release of rough grading. The City of Palmdale Building Code requires these reports from the field or supervising grading engineer, the soils engineer, the geologist, and the grading contractor. (E)(B&S)

65 The applicant shall obtain addresses established by the Building and Safety Division upon application for a building permit. (E)(B&S)

66 If a conflict exists, the project shall be required to relocate the existing streetlight and fire hydrant due to the new driveway approach location. During (TE)

67 A striping and signing plan shall be provided for all roadway improvements and shall be subject to the approval of the City Engineer as part of the approval of the street improvement plans. (TE)

68 Right-of-way and street construction shall include provision of a bus turnout at East Avenue Q. The turnout should begin a minimum 50 feet from the edge of curb radius, be 12 feet wide, 50 feet long, and include a 60-foot transition into the stop and a 40-foot transition out of the stop. Design shall be subject to the approval of the City Engineer. (TE)

69 Design and construction of East Avenue Q shall include a raised median. (TE)

70 The project driveway shall have a clear throat distance of 50 feet without interference with circulation aisles and vehicle turn around in front of the gate. (TE)

71 Driveways shall have a minimum radius of 15 feet.

72 The applicant will be required to dedicate the ultimate half-width right-of-way from centerline and provide standard street improvements along the following project frontages: (TE)

72.1 East Avenue Q: 57 feet

72.2 25th Street East: 52 feet

73 Appropriate right-of-way and construction of right-turn lane(s) shall be provided at the following locations: (TE)

73.1 Southbound 25th Street East at East Avenue Q

73.2 Project driveways access

The lanes shall be a full width of 12 feet for a distance of 250 feet with a taper of 120 feet in length. Design shall be subject to the approval of the City Engineer. (TE)

Impact Fees

74 The applicant shall comply with the provisions of PMC Chapter 3.34 (Parkland Dedication). The applicant shall pay to the Building and Safety Division the applicable Parkland development fees in the amount that is in effect at the time such fees are to be collected pursuant to PMC Chapter 3.34 (Parkland Dedication). (Pk)(B&S)

75 This development is located within the Pearland Natural Drainage Area/Basin as defined by the City's Master Drainage Plan and approved by Resolution 89-75. The applicant shall comply with the provisions of PMC Chapter 3.38 (Drainage Fee Requirements). The applicant shall pay the applicable drainage fees to the Engineering Division in the amount that is in effect at the time such fees are to be collected. Payment of drainage fees for all areas within the map boundaries which are disturbed by grading are due upon submittal of rough grade certification, prior to building permit issuance. (E)

76 The applicant shall comply with the provisions of PMC Chapter 3.40 (Traffic Impact Fee Requirements). The applicant shall pay the applicable traffic impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected pursuant to the provisions of PMC Chapter 3.40 (Traffic Impact Fee Requirements). (TE)(B&S)

77 The applicant shall comply with the provisions of PMC Chapter 3.42 (Fire Facility Impact Fee Requirements). The applicant shall pay the applicable fire facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

78 The applicant shall comply with the provisions of PMC Chapter 3.45 (Public Facility Development Impact Fee Requirements). The applicant shall pay the applicable

public facility impact fees to the Building and Safety Division in the amount that is in effect at the time such fees are to be collected. (B&S)

79 The applicant will be required to prepare, submit for approval, and record a Voluntary Lot Merger. (E)

THE FOLLOWING CONDITIONS SHALL BE MET WHILE CONSTRUCTION ACTIVITIES ARE ON-GOING:

80 Adequate sanitary disposal facilities shall be required on-site during all phases of construction. (E)(B&S)

81 The applicant shall provide solid waste disposal containers on-site during all phases of construction. The accumulation of refuse and debris which may constitute an unsightly/unsafe public nuisance to surrounding properties is not permitted. (P)

82 Grading shall be done in accordance with a grading plan prepared by the applicant's Registered Civil Engineer. All grading work shall be performed in one continuous operation or in phases as approved by the Planning Manager and the City Engineer. (P)(E)

83 In the event of an unforeseen encounter of subsurface materials suspected to be of an archaeological or paleontological nature, all grading or excavation shall cease in the immediate area, and the find left untouched until a qualified professional archaeologist or paleontologist, whichever is appropriate, is contacted and called in to evaluate the find and make recommendations as to disposition, mitigation, and/or salvage. The applicant shall be liable for costs associated with the professional investigation. (P)

84 The City Engineer shall be notified a minimum of 60 days prior to anticipated opening of any street to public travel. (TE)(E)

85 The applicant shall comply with all City and State guidelines and requirements for traffic control during construction and prior to final project acceptance. (TE)

86 The project shall be required to install a traffic signal at the intersection of East Avenue Q & 25th Street East. Traffic signal plan shall be subject to the approval of the City Engineer. (TE)

87 Additional pavement shall be constructed in order to provide for intersection widening to accommodate the traffic signal and separate left turn lane at East Avenue Q and 25th Street East. (TE)

88 Electric Meter Installations: SCE's rules and policies require that all metering equipment be located to provide 24-hour access to the Utility. Metering equipment may be installed inside a building when located in an illuminated meter room directly accessible from the outside and readily accessible 24 hours a day. Southern California Edison requires their approval on all metering equipment prior to installation. (P)(SCE)(B&S)

THE FOLLOWING CONDITIONS SHALL BE MET PRIOR TO OCCUPANCY OF THIS PROJECT:

89 The applicant shall contact the Planning Division a minimum of two weeks prior to final inspection by the Building and Safety Division to make arrangements for a final walk-through inspection by the Planning Division. (P)

90 All public improvements must be completed and accepted by the City. (E)

91 At completion of final grading, the applicant shall submit appropriate statements (Certifications) to the City Engineer prior to release of final grading. The City requires that these be submitted by the field or supervising grading engineer, and/or the landscape architect. (E)

92 Any broken, damaged or non-compliance curb, gutter, sidewalk, and pavement on streets within or along the frontage of the development shall be repaired. Any existing driveways that are not to be used shall be replaced with standard curb, gutter, and sidewalk. (E)

93 The applicant shall improve any private street(s) or access drives for this project according to the plans approved by the City Engineer. (E)

94 The project shall be constructed in accordance with all the approved plans, including but not limited to site plans, grading plans, wall plans, landscape/irrigation plans, lighting plans, and elevations. (P)(E)

95 Street name signs shall be purchased and installed in accordance with City of Palmdale standards. The number and location of signs will be as directed by the City Engineer. (TE)(E)

96 A detailed security/management plan that includes security procedures, lease/rental agreement, application, tenant screening procedures, hours of operation of common facilities and offices shall be submitted to the Public Safety Division a minimum of two weeks prior to issuance of a certificate of occupancy. (PS)

97 Payment of the public art in-lieu contribution or installation of the public art in accordance with the final public art project plan submitted shall be demonstrated by the applicant in compliance with the PMC Section 15.01.090 (Public Art in Private Development). (PA)

THE FOLLOWING CONDITIONS SHALL BE MET AS AN ON-GOING ELEMENT OF THE PROJECT:

98 A valid business license obtained from HdL Business Support Center shall be maintained while the use is in operation. (P)

99 The operation of the business shall comply fully with all the rules and regulations of the PMC. Failure to comply with the PMC shall be subject to PMC Section 1.12.010 (Misdemeanors – Infractions – Administrative Citations), which specifies the violation is a misdemeanor, and subject to penalties specified in PMC Section 1.12.020 (Punishment). (P)

100 If problems arise as a result of business practices or operations that are detrimental to public health, safety, or welfare, the Review Authority may review the CUP and, if after review, the Review Authority deems that there is sufficient evidence that the business practices or operations are detrimental to public health, safety, or welfare then the Review Authority, subsequent to a public hearing, may revoke the CUP pursuant to PMC Section 17.22.070 (Post Decision Procedures). (P)

101 Pursuant to PMC Section 17.22.050 (Approval Requirements and Conditions), the CUP approval shall apply only to the property for which the application was made and shall apply to that property as long as the use for which approval was granted is in effect, regardless of changes in ownership. (P)

102 Revisions or modifications to an approved CUP such as, but not limited to, expansions or intensification of the use, may be requested by the applicant. Such requests shall be processed through the proper application, as determined by the Review Authority. (P)

103 All parking facilities shall be maintained in good condition in accordance with the provisions of PMC Chapter 17.87 (Off-Street Parking and Loading). The maintenance thereof may include, but shall not be limited to, the repaving, oiling, and striping of a parking area and the repair, restoration and/or replacement of any parking area design features when deemed necessary by the Planning Manager to ensure the health, safety, and welfare of the general public. (P)(E)

104 The applicant shall be responsible for the establishment, maintenance, and upkeep of the landscape area and all landscape vegetation. All landscape vegetation shall be maintained in a manner to ensure proper growth. Trees and

other landscape vegetation shall be pruned as needed to ensure proper growth and give a maintained appearance. Trees shall not be “topped” or pruned excessively. (P)

105 All owners, future owners, heirs, or assigns of the property shall be required to maintain all private drainage facilities in good working condition, as determined by the City Engineer, and shall be responsible for any damages associated with the private drainage facilities and for any costs incurred by the City for emergency maintenance, repairs, and any other efforts to keep the private drainage facilities in good working condition and/or to insure the health, safety, and welfare of the general public. The developer shall record a covenant upon the property regarding said maintenance. (E)

106 The applicant shall fully cooperate with any adjacent property development to provide improved site access in the future including, but not limited to, the closure, removal, sharing, or relocation of project parking, landscaping, driveways, and drive-aisles. (TE)

107 The installation of speed bumps or humps as a means to control speed on the site shall be prohibited as required by PMC Section 10.04.100 (Regulation of Speed Bumps on Private Streets, Easements and Fire Lanes). If any of these devices are installed while this ordinance is in effect, the owner shall be required to remove these devices at their own expense. (TE)

108 The premises, while open or closed for business after dark, shall be sufficiently lighted by the use of interior night lights. (PS)

109 Storage rooms, roof access doors, maintenance, mechanical, electrical, and other room doors that contain property that may be susceptible to theft, shall be covered by a silent intrusion alarm system. These systems may terminate at the front desk. (PS)

110 Establishments shall be required to register in the City of Palmdale Business Watch Program and receive training through the Public Safety Department. To schedule enrollment and training, contact Public Safety at (661) 267-5170 / publicsafety@cityofpalmdaleca.gov. (PS)

111 Window signage shall be limited to no more than 25 percent coverage of window area provided visibility into the building is maintained as stated in PMC Section 17.88.070 (Exemptions to Sign Permit Requirements). (PS)

112 The premises shall always be properly maintained and kept in a neat and orderly condition. This includes, but is not limited to, building and parking lot lighting and

trash and debris removal as stated in PMC Section 8.36.020 (Findings and Purpose. (PS)

113 Graffiti shall be removed by the owner within 72 hours of discovery as specified within PMC Section 9.30.080 (Graffiti Removal from Private Property by Owner). Consider graffiti mitigation measures such as vining/climbing and barrier plants along block walls. (PS)

114 Trash enclosures shall be kept locked when not in use to discourage illegal dumping and other improper uses. (PS)

115 Outside electrical outlets and water spigots/hose bibs shall be secured to prevent unauthorized use. (PS)

116 Outside hinges on all exterior doors shall be provided with non-removable pins when pin-type hinges are used or shall be provided with hinge studs, to prevent removal of doors. (PS)

117 Roll-up doors and individual storage space doors shall be equipped with locking hardware including metal flanges on the lock bolts to protect the padlock shackle from being cut. (PS)

118 Overhead roll-up doors shall be so secured on the inside that the lock cannot be defeated from the outside and shall also be secured with a cylinder lock or padlock from the inside. (PS)

119 Primary building address numbers shall be located on the building side where the main entrance is located. The development shall display an additional set of numbers on the secondary frontage (street side) when the building does not front on the street of address. Numbers shall be no less than eight inches in height, if located less than 100 feet from the centerline of the addressed street or 12-inches in height if placed further than 100 feet from the centerline of the addressed street. Numbers shall be of a color contrasting to the background to which they are affixed. (PS)

120 All entrances to the parking area shall be posted with appropriate signs per California Vehicle Code Section 22658(a) to assist in removing vehicles at the property. (PS)

121 Landscaping shrubs or bushes shall be no higher than two (2) feet, and tree canopies no lower than six (6) feet. (PS)

122 A means of access for fire department and law enforcement purposes shall be provided by the agency's requested method. The Los Angeles County Sheriff's Department requires a keypad. (PS)

123 The applicant shall restrict tenant access to the property outside of normal business hours. Tenants requiring after-hours access shall submit an advance request to management to help minimize on-site activity during off-hours. (PS)

124 Install alarms on all gates to alert on-site management or alarm monitor to unauthorized entry or exit. (PS)

125 The applicant shall have adequate lighting throughout the project site and consider installing motion-activated lights in low-visibility areas or locations that may be vulnerable to unauthorized access. (PS)

98 All parking facilities shall be maintained in good condition in accordance with the provisions of PMC Chapter 17.87 (Off-Street Parking and Loading). The maintenance thereof may include, but shall not be limited to, the repaving, oiling, and striping of a parking area and the repair, restoration and/or replacement of any parking area design features when deemed necessary by the Planning Manager to insure the health, safety, and welfare of the general public. (P)(E)

99 All owners, future owners, heirs, or assigns of the property shall be required to maintain all private drainage facilities in good working condition, as determined by the City Engineer, and shall be responsible for any damages associated with the private drainage facilities and for any costs incurred by the City for emergency maintenance, repairs, and any other efforts to keep the private drainage facilities in good working condition and/or to insure the health, safety, and welfare of the general public. The developer shall record a covenant upon the property regarding said maintenance. (E)

100 The applicant shall fully cooperate with any adjacent property development to provide improved site access in the future, including but not limited to, the closure, removal, sharing, or relocation of project parking, landscaping, driveways, and drive-aisles. (TE)

101 The installation of speed humps shall be prohibited as required by PMC Section 10.04.100. If any of these devices are installed while this ordinance is in effect the owner shall be required to remove these devices at their own expense.

102 All agency approvals for permit issuance shall be on file with the Building and Safety Division. (B&S)(F)

103 The applicant shall be required to post 'No Trespassing' signs on the property wall/fence. One printed sign shall be posted in a conspicuous manner at every walkway and driveway entering any enclosed private property or portion thereof, and at a minimum of every fifty feet along the boundary of any unenclosed lot. The sign shall contain the following language which shall be printed in letters not less than two inches high: (PS)

THIS PROPERTY CLOSED TO THE PUBLIC
No Entry Without Permission
P.M.C. Sec. 9.44.030
Palmdale Sheriff's Station 272-2400

104 The premises shall always be properly maintained and kept in a neat and orderly condition per PMC Section 8.36.050 (Conditions constituting a nuisance). This includes, but is not limited to, building and parking lot lighting and trash and debris removal. (PS)

105 Graffiti shall be removed by the owner within 72 hours of discovery as specified within PMC Section 9.30.080 (Graffiti Removal from Private Property by Owner). Consider graffiti mitigation measures such as vining/climbing and barrier plants along block walls. (PS)

106 Trash enclosures shall be kept locked when not in use to discourage illegal dumping and other improper uses. (PS)

107 Outside electrical outlets and water spigots/hose bibs shall be secured to prevent unauthorized use. (PS)

108 All doors shall be equipped with single cylinder dead bolt lock with a minimum throw of one inch and an embedment of not less five-eighths inch into the holding device. (PS)

109 All front doors shall have a peephole installed for security purposes. (PS)

110 Primary building address numbers shall be located on the building side where the main entrance is located. The development shall display an additional set of numbers on the secondary frontage (street side) when the building does not front on the street of address. Numbers shall be no less than eight inches in height, if located less than 100 feet from the centerline of the addressed street or 12-inches in height if placed further than 100 feet from the centerline of the addressed street. Numbers shall be of a color contrasting to the background to which they are affixed. (PS)

111 The management of this development shall undergo training and certification through the Partners Against Crime (PAC) program and shall remain active in this program during the life of the development. Contact the Public Safety Office at publicsafety@cityofpaldmale.org or (661) 267-5170 for more information. (PS)

112 This site shall be subject to periodic site inspections by the City and Sheriff's Department for the purpose of maintaining compliance with City regulations, project conditions of approval and public health and safety. (PS)

113 All entrances to the parking area shall be posted with appropriate signs per California Vehicle Code Section 22658(a) to assist in removing vehicles at the property. (PS)

Key to Departmental Conditions:

(B&S) Building and Safety Division (661-267-5353)
(E) Engineering Division (661-267-5272)
(F) Los Angeles County Fire Department (661-949-6319)
(Pk) Parks and Recreation Department (661-267-5611)
(P) Planning Division (661-267-5200)
(PA) Public Art (661-267-5686)
(PS) Public Safety Division (661-267-5170)
(SCE) Southern California Edison (661-726-5617)
(TE) Traffic Engineering (661-267-5300)

EXHIBIT E

OFFICIAL BUSINESS
Document entitled to free
Recording per California
Government Code Section 27383

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

City of Palmdale
38300 Sierra Highway, Suite C
Palmdale, CA 93550
Attn: City Clerk

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

APNs: 3022-012-036 & 3022-012-037

DENSITY BONUS HOUSING AGREEMENT
Zenith at 25th- Palmdale Family Apartments
Agreement No. A-9355

THIS DENSITY BONUS HOUSING AGREEMENT (this "Agreement"), dated as of _____, 2025, is entered into by and between the City of Palmdale, a municipal corporation of the State of California (the "City"), and Palmdale Family Apartments LP, a California limited partnership and/or its assigns (the "Owner"), as follows:

RECITALS

A. The Owner is the owner of a fee interest in certain real property located in the City of Palmdale, County of Los Angeles, State of California, identified as APNs 3022-012-036 & 3022-012-037, located at the Northwest Corner of 25th St. East and East Avenue Q and legally described in Exhibit "A" attached hereto and incorporated by reference (the "Property").

B. The Owner will construct a 272-unit affordable housing development, with fourteen (14) residential buildings and included amenities (the "Residential Development"). The project provides for units of varying types, one-, two-, three-, and four-bedroom flats. The project will provide 422 parking stalls onsite.

C. The Owner proposes construction of a rental housing development of 272 units for very low income and low income individuals and families. Ten percent (10%) of the units will be available to and occupied by households whose incomes do not exceed the maximum income of low income households in Los Angeles County as determined by the California Department of Housing and Community Development, pursuant to the terms of this Agreement; provided, the Owner acknowledges that all other units at the Residential Development (excluding three property manager units) will be restricted as affordable to Lower Income Households (as defined below)

for the Term (as defined below) pursuant to a regulatory agreement for the benefit of the California Tax Credit Allocation Committee (the "CTCAC").

D. Under California Government Code Section 65915, *et seq*. and Palmdale Municipal Code Section 17.25.020, the City must, upon the request of an applicant, grant a density bonus and/or certain incentives/concessions and/or waivers/modifications for any development applicant that seeks and agrees to construct a minimum number of housing units that are affordable to low or very low income households (the "Density Bonus Law").

E. The subject site has a General Plan Land Use Designation of Mixed Use 3 and is zoned MU-3 (30 to 50 units per acre). In order to provide for affordable housing cost of the low-income units, the Owner has requested cost-saving waivers in accordance with California Government Code Section 65915, *et seq*. and Palmdale Municipal Code Section 17.25.020, as follows:

a. A waiver of the requirement of Palmdale Municipal Code ("PMC") Section 17.55.010 to provide private enclosed storage.

b. A waiver of the requirement of PMC Section 17.55.010 to provide 15 feet of front setback and 15 or 20 feet (as applicable) of rear setback. Instead, the project shall provide 10 feet of front setback and 9 feet of rear setback.

c. A waiver of the requirement of PMC Sections 17.87.090(B)(6)(d) and 17.87.090(C)(5) that (i) garages and carports serving residential uses shall be constructed to have minimum inside dimensions of 10 feet in width by 40 feet in length, and (ii) tandem parking to meet required parking for multifamily residential development shall be located within an enclosed structure and shall not exceed twenty-five percent (25%) of the total number of spaces. Instead, the project shall provide (i) tandem garages that are 10 feet in width by 35 feet in length, (ii) uncovered tandem spaces that are 9 feet in width by 33 feet in length, and (iii) forty-two percent (42%) tandem parking spaces.

d. A waiver of the requirement of Development Standard 5.2 that all new multi-family residential development projects that include more than one building shall maintain a minimum open-to-the-sky separation of 30 feet between structures to allow for landscape, courtyards, passageways, and paseos. Instead, the project shall provide a break between multifamily structures of no less than 12 feet up to 21 feet.

e. A waiver of the requirement of PMC Section 17.87.090(A)(1)(b)(i) that (i) off-street parking spaces for multifamily dwelling types shall be located no more than 200 feet from the dwelling unit for which the parking space is provided, and (ii) no parking space shall be located in the required front, side, or rear setback area. Instead, the project shall provide 16 spaces in the

rear setback area, 3 spaces in the front setback area, and 8 spaces in the east side setback area.

F. The City and the Owner enter into this Agreement pursuant to and in accordance with California Government Code Section 65915, *et seq*., and Section 17.25.020 of the Palmdale Municipal Code, in order to provide housing for lower income households.

G. The City finds that granting the waivers listed under Recital E, above, (i) is required to ensure City development standards are not applied that will have the effect of physically precluding construction of the Project, (ii) will not have a specific, adverse impact upon health and safety, and for which there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact; or (iii) will not have an adverse impact on any real property that is listed in the California Register of Historical Resources, and is consistent with state and federal law. The City also finds that the Residential Development is consistent with the General Plan.

NOW, THEREFORE, in consideration of the mutual covenants and provisions contained herein, the parties hereto agree as follows:

AGREEMENT

1. Recitals. The Recitals set forth above are true and correct, and incorporated herein.

2. Definitions. For purposes of this Agreement, the terms listed below shall have the meanings thereafter specified:

a. "Adjusted for Household Size Appropriate for the Unit" means a household of two persons in the case of a one-bedroom unit, three persons in the case of a two-bedroom unit, and four persons in the case of a three-bedroom unit.

b. "Affordable Rent" shall have the meaning ascribed to it under California Health and Safety Code Section 50053(b)(2).

c. "Affordable Unit" means a dwelling unit that will be offered for rent exclusively to an Income Eligible Household at an Affordable Rent pursuant to this Agreement (namely, ten percent (10%) of the units in the Residential Development).

d. "Director" means City's Department of Housing Director, or his or her designee.

e. "Income Eligible Household" means a Low Income Household which is eligible to rent a particular Affordable Unit.

f. "Lower Income Household" shall have the meaning ascribed to it under California Health and Safety Code Section 50079.5. The upper income

limit for Lower Income Households shall be the income limits for such households published annually by the California Department of Housing and Community Development with adjustments for household size.

g. "Management Plan" means a plan prepared by the Owner and approved by the Director describing in detail the management of the Affordable Units, including marketing of the Affordable Units, tenant selection criteria and process, waiting list management, application of Utility Allowances in setting Affordable Rents, and similar details of the operation, annual monitoring inspections and file review, and a schedule of initial rents.

h. "Occupancy Date" means the earlier to occur of (i) issuance of a Certificate of Occupancy by the City or (ii) issuance of a Temporary Certificate of Occupancy by the City.

i. "Owner" means the person or entity defined as such in the introductory paragraph of this Agreement, and includes all successors and assigns of that person or entity.

j. "Property" shall have the meaning defined in Recital A, as more particularly described in Exhibit "A" attached hereto and incorporated herein.

k. "Residential Development" shall have the meaning given in Recital B.

l. "Utility Allowance" means an amount designated annually by the CTCAC as a reasonable estimate of the cost of utilities for the Affordable Unit, for purposes of calculating the applicable Affordable Rent or as determined using the California Utility Allowance Calculator.

3. Approvals. The Residential Development shall be developed in accordance with all applicable provisions of the Palmdale Municipal Code.

4. Affordable Units. The Owner hereby covenants and agrees that ten percent (10%) of the units in the Residential Development shall be rented exclusively to Lower Income Households at an Affordable Rent; provided, the Owner acknowledges that all other units at the Residential Development (excluding three property manager units) will be restricted as affordable to Lower Income Households for the Term pursuant to a regulatory agreement for the benefit of the CTCAC.

5. Affordable Rents. Affordable Rents for Affordable Units, including Utility Allowances, shall be based on the Los Angeles County Area Median Income published by the CTCAC, as may be amended from time to time. Affordable Rents may not be increased more frequently than annually to reflect increases in Area Median Income.

6. Term of Affordability Covenants. The covenants to restrict the rental of the Affordable Units in accordance with this Agreement shall remain in effect for a term commencing on the Occupancy Date and continuing for fifty-five (55) years (the "Term"). Prior to recording of this Agreement, the Owner must deliver to the City a Lenders Consent and Subordination Agreement ("Lender Consent"), in the form appended to this Agreement, from each lender that will hold a security interest in the Property that is in a senior position to this Agreement. Such Lender Consents shall be recorded as a substantive part of this Agreement.

7. Management Plan. The Owner shall submit the Management Plan for the Director's consideration and approval at least one hundred eighty (180) days prior to the date that the Owner applies for a Certificate of Occupancy for the Residential Development. Such approval shall not be unreasonably withheld. In addition to other components, the Management Plan shall contain the following:

i. Whenever an Affordable Unit becomes available, the Director shall be notified promptly in writing.

ii. The Owner shall conduct affirmative marketing of the Affordable Units, as they become available from time to time, including wide circulation of information and public notice of the availability of Affordable Units for rent during the marketing period required by the Management Plan.

iii. The Owner shall determine eligibility of Low Income Households that may lease the Affordable Units in accordance with the Management Plan.

8. Changes in Tenant Income. A tenant who initially qualified as a Low Income Household, but who, due to an increase in income, no longer qualifies as a Low Income Household shall pay as rent an amount that is the least of the amount that would be payable by the tenant under (i) low income housing tax credit regulations, (ii) State or local law, or (iii) thirty percent (30%) of the household's adjusted gross income.

9. Utilization of Affordable Rental Units. All Affordable Units required by this Agreement shall be leased or rented and fully utilized in accordance with this Agreement; notwithstanding any other provision of law to the contrary, no Affordable Unit shall be withdrawn from the market or otherwise held vacant.

10. No Sublease. A tenant occupying an Affordable Unit may not sublet the unit without the written permission of both the Owner and the City. The City shall not grant permission to lease, rent, or sublet the unit if it finds that the prospective tenant or occupant is not an Income Eligible Household. Any individual who subleases an Affordable Unit in violation of the provisions of this Agreement shall be required to forfeit to the City all monetary amounts so obtained.

11. Lease Agreement. A fully executed copy of the lease agreement for each Affordable Unit, which shall comply with the provisions of this Agreement, shall be delivered to

the City's Department of Housing within ten (10) days of written request of the City, not more than once per annum.

12. Maintenance of Units. The Owner shall: (a) maintain and operate all units on the Property so as to provide decent, safe and sanitary housing consistent with federal housing quality standards and the Palmdale Municipal Code; (b) make any required repairs or provide any required cleanup; and (c) provide the Affordable Units with the same levels of services and maintenance as are provided to any of the other dwelling units on the Property.

13. Annual Report. The Owner shall maintain complete and accurate records pertaining to the Affordable Units and shall prepare and provide the Director with a written annual report commencing one year after the Occupancy Date and continuing every year for fifty-five (55) years, regarding the rental status of the units. The report shall include information regarding the name, address, and income of each resident of the Affordable Units, identify the number of bedrooms of the unit and the monthly rent paid by the tenant. The City acknowledges that the Owner's CTCAC annual compliance report, containing all requisite information as specified above, shall be deemed sufficient to meet the Owner's reporting requirement pursuant to this Agreement. So long as permitted by law, concurrently with the submittal of each annual report to the City, the Owner shall pay a monitoring fee to the City in the amount of Three Thousand Dollars ($3,000) with a maximum increase of 2% per year to defray the City's cost of monitoring the Owner's compliance with this Agreement. The Owner's failure to make such required payment shall be a default under this Agreement. Pursuant to California Government Code Section 65915.3(b), the foregoing monitoring fee requirement shall not apply during any period when the Property is subject to a CTCAC regulatory agreement and all other requirements of Section 65915.3(b) are met.

14. Federal and State Laws. Notwithstanding the above provisions, nothing contained herein shall require the Owner or the City to do anything contrary to or refrain from doing anything required by Federal and State laws and regulations promulgated thereunder applicable to the construction, management, maintenance, and rental of Affordable Units in the City of Palmdale.

15. Prohibition Against Discrimination. The Owner shall not discriminate against any tenant or potential tenant on the basis of sex, color, race, ethnicity, religion, ancestry, national origin, age, pregnancy, marital status, family composition, sexual orientation, or the potential or actual occupancy of minor children. The Owner further agrees to take affirmative action to ensure that no such person is discriminated against for any of the above-mentioned reasons.

16. Indemnification. The Owner shall defend, indemnify, and hold harmless the City of Palmdale and its officers, agents, employees, representatives, and volunteers from and against any loss, liability, claim, or judgment relating solely to this Agreement, including those claims that arise out of: (a) a breach of this Agreement by the Owner; (b) related in any manner to the Owner's administration of this Agreement; or (c) arising out of the City's interest in this Agreement or Affordable Units. This indemnification shall not apply to claims arising out of the negligence or willful misconduct of the City, its officers, agents, employees, representatives, or volunteers.

17. City's Right to Inspect Units and Documents. The City may inspect the Affordable Units (subject to the tenant's privacy rights and lease provisions) and any documents or records relating thereto, at any reasonable time in order to determine the Owner's compliance with this Agreement.

18. Successors and Assigns. This Agreement and its covenants and conditions shall run with the land and be binding upon and inure to the benefit of the City and the Owner, and their respective successors, owners by deed, deed in-lieu of foreclosure, foreclosure or otherwise, and assigns. The City reserves the right to designate another public agency within the City of Palmdale to perform the City's obligations or to exercise the City's rights under this Agreement.

19. Notices. All notices required herein shall be sent by certified mail, return receipt requested, or express delivery service with a delivery receipt and shall be deemed to be effective on the date received or the date delivery was refused as indicated on the return receipt, as follows:

To Owner:
Palmdale Family Apartments Ltd.
401 Wilshire Blvd
11th Floor
Santa Monica CA 90401
Attention: President

with a copy to:
Cohen Liuzzo PLLC
88 Pine Street, 14th Floor
New York, New York 10005.

To City:
City of Palmdale
38250 Sierra Highway
Palmdale, California 93550-4798
Attn: Director of Housing

with a copy to:
City of Palmdale
38300 Sierra Highway
Palmdale, California 93550-4798
Attn: City Attorney

The parties hereto may subsequently change addresses or add parties who require copies of any notices by providing written notice of the change in address to the other party hereto in accordance with this Section.

20. Governing Law. The laws of the State of California shall govern this Agreement. Any legal action brought under this Agreement must be instituted in the Superior Court of the County of Los Angeles, State of California, in an appropriate municipal court in that County, or in Federal District Court in the Central District of California.

21. Default. Failure or delay by either party hereto to perform any term or provision of this Agreement, which is not cured within thirty (30) days after receipt of notice from the other party, constitutes a default under this Agreement. The party who so fails or delays must immediately commence to cure, correct, or remedy such failure or delay, and shall complete such cure, correction, or remedy with due diligence. The injured party shall give written notice of default to the party in default specifying the default complained of by the injured party. Except as required to protect against further damages, the injured party may not initiate proceedings against the party in default until thirty (30) days after giving such notice. Failure or delay in giving such notice shall not constitute a waiver of any default, nor shall it change the time of default. If applicable, the City agrees to accept cures tendered by the Investor Limited Partner of the Owner within the cure periods provided in this Agreement.

22. Remedies.

a. Any individual who rents (including subleasing) an Affordable Unit in violation of the provisions of this Agreement shall be required to forfeit to the City all monetary amounts so obtained.

b. The City may institute any appropriate legal actions or proceedings necessary to ensure compliance with this Agreement, including, but not limited to, actions for injunctive relief or damages.

c. It is agreed and understood that the covenants to maintain the Affordable Units as set forth herein are a requirement of the Palmdale Municipal Code and as a condition to receiving zoning and parking concessions/incentives/waivers under the Palmdale Municipal Code, the Owner agrees that a breach of the covenants to maintain the Affordable Units as affordable housing for the Term specified herein constitutes a violation of the Palmdale Municipal Code, subject to enforcement by all legally available means.

23. Attorneys' Fees. In any action brought to declare the rights granted herein or to enforce or to interpret any of the terms of this Agreement, the prevailing party shall be entitled to an award of reasonable attorneys' fees and costs in an amount determined by the court.

24. Non-Waiver. Failure to exercise any right either party hereto may have or be entitled to in the event of default hereunder shall not constitute a waiver of such right or any other right in the event of a subsequent default.

25. Further Assurances and Recordation. The parties hereto shall cause this Agreement to be recorded in the Official Records of the County of Los Angeles. The Owner shall execute any further documents consistent with the terms of this Agreement, including documents in recordable form and do such further acts as may be necessary, desirable, or proper as the City shall from time to time find necessary or appropriate in order to effectuate its purpose in entering into this Agreement.

26. Entire Agreement. This Agreement, including any Lender's Consent and Subordination Agreements, and all attached Exhibits, constitutes the entire agreement between the parties hereto. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Each party to this Agreement acknowledges that no representations, inducements, promises, or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein, and that any other agreement, statement, or promise not contained in this Agreement shall not be valid or binding. This Agreement may be amended only by written instrument signed by both the City and the Owner.

27. Third Party Beneficiaries. There are no third party beneficiaries of or to this Agreement.

28. Amendment of Agreement.

a. Generally. This Agreement may be amended from time to time in whole or in part by mutual consent of the original parties hereto or their successors in interest, in accordance with this Agreement, the Palmdale Municipal Code, and the Density Bonus Law.

b. Administrative Amendments. Notwithstanding subdivision (a) of this Section, any amendment to this Agreement, whether requested by the Owner or by the City, which does not relate to the Term; the number, percentage, or type of Affordable Units; or the number or type of any incentives or concessions given by the City, may be determined by the Director to be an administrative amendment and, if so, the Director shall approve the administrative amendment without notice or hearing, and this Agreement and its pertinent exhibits shall be automatically amended without further action by the parties hereto. A memorandum of the amendment shall be executed and recorded in order to reflect such administrative amendment.

29. Counterparts. This Agreement may be executed by each party hereto on a separate signature page, and when the executed signature pages are combined, shall constitute one single instrument.

[*signatures follow*]

IN WITNESS WHEREOF, the City and the Owner have executed this Agreement as of the date set forth above.

CITY
CITY OF PALMDALE,
a municipal corporation

By: _____
Salvador Mendez
City Manager Pro Tem

Dated: _____

ATTEST:

By: _____
Roxanne Faber
City Clerk

APPROVED AS TO FORM:

By: _____
Alexandra Halfman
City Attorney

KANE, BALLMER & BERKMAN
City Special Counsel

By: _____
Todd C. Mooney

OWNER
PALMDALE FAMILY APARTMENTS LP,
a California limited partnership

By: Palmdale Family GP LLC,
a Delaware limited liability company,
its general partner

By: _____
Name: _____
Title: _____

Dated: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

FORM OF
LENDER'S CONSENT AND SUBORDINATION AGREEMENT

NOTICE: THIS LENDER'S CONSENT AND SUBORDINATION RESULTS IN YOUR SECURITY INTERESTS IN THE PROPERTY BECOMING SUBJECT TO AND OF A LOWER PRIORITY THAN THIS DENSITY BONUS HOUSING AGREEMENT

The undersigned (the "Lender"), as owner and holder of security interests ("Security Interests") evidenced by that certain [Deed of Trust With Absolute Assignment of Leases and Rents, Security Agreement and Fixture Filing] made by the Owner as trustor in favor of _____ as beneficiary, dated as of _____ and recorded on _____ as Instrument No._____ in the Official Records of the County of Los Angeles, State of California, hereby acknowledges its consent to the terms and provisions of this Density Bonus Housing Agreement. The undersigned further agrees that its Security Interests are and shall unconditionally be and remain at all times junior, subordinate, and subject to the terms, covenants, conditions, and restrictions of this Density Bonus Housing Agreement, provided that in consideration of the Lender's covenants and agreements contained in this Agreement, the City and its designated agencies hereby agree for the benefit of the Lender that concurrently with any notice from the City to the Owner that a default or breach exists under the terms of this Density Bonus Housing Agreement, the City shall send a copy of such notice to the Lender, and the Lender shall have the right, but not the obligation, to cure any defaults within thirty (30) days after the expiration of any cure period set forth in the notice from the City to the Owner regarding such Owner default. The provisions of this consent are intended to supplement, and not to limit, waive, modify, or replace those provisions of law pertaining to notice and cure rights of junior lenders including, without limitation, those set forth in California Civil Code Sections 2924b and 2924c. The Lender intentionally and unconditionally waives, relinquishes, and subordinates the lien or charge of the Security Interests in favor of this Density Bonus Housing Agreement.

AGREED AND ACKNOWLEDGED:

Dated as of: _____ "LENDER"

By. _____
Name: _____
Title: _____

[*notarized signature required*]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

EXHIBIT A

Legal Description of Property

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THE NORTH HALF OF THE SOUTH HALF OF THE EAST HALF OF LOT 14 IN SECTION 19, TOWNSHIP 6 NORTH, RANGE 11 WEST, SBBM, IN PALMDALE COLONY LANDS, AS PER MAP RECORDED IN BOOK 11, PAGE 11 OFMISCELLANEOUS RECORDS IN THE OFFICE OF THE COUNTY RECORDER OF SAID LOS ANGELES COUNTY.

PARCEL TWO:

THE SOUTH HALF OF THE SOUTH HALF OF THE EAST HALF OF LOT 14 IN SECTION I9, TOWNSHIP 6 NORTH, RANGE 11 WEST, SBBM, IN PALMDALE COLONY LANDS, AS PER MAP RECORDED IN BOOK 11, PAGE 11 OF MISCELLANEOUS RECORDS IN THE OFFICE OF THE COUNTY RECORDER OF SAID LOS ANGELES COUNTY

APNs: 3022-012-036 & 3022-012-037