

CITY OF HIGHLAND REGULAR MEETING OF THE PLANNING COMMISSION AGENDA

MEMBERS

Randall Hamerly, Chair
Chandra Thomas, Vice Chair
Edward Amaya, Commissioner
Jarrod Miller, Commissioner
Jessica Sutorus, Commissioner

REGULAR MEETING

March 15, 2022
6:00 p.m.
City Hall
Donahue Council Chambers
27215 Base Line
Highland, California

STAFF

Lawrence A. Mainez, Community Development Director
Kim Stater, Assistant Community Development Director
Ash Syed, Associate Planner
Angela Tafolla, Assistant Planner
Angelica Martinez, Planning Technician II
Camille Goritz, Administrative Assistant III

MISSION STATEMENT

Highland is dedicated to the betterment of the individual, the family, the neighborhood and the community. The City Council and the staff of Highland are dedicated to providing the quality of public facilities and services that its citizens are willing to fund and will do so as efficiently as possible.

Visit the City's Website at: www.cityofhighland.org

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The City of Highland complies with the Americans with Disabilities Act of 1990. If you require special assistance to attend or participate in this meeting, please call the City Clerk's Office at (909) 864-6861 Ext. 226, at least 48 hours prior to the meeting.

Pursuant to Government Code Section 54957.5, any disclosable public records related to an open session item on a regular meeting agenda and distributed by the City of Highland to all or a majority of the Planning Commission, less than 72 hours prior to that meeting, are available for public inspection at Highland City Hall, 27215 Base Line, Highland, CA 92346, during normal business hours.

Submission of Public Comments: To limit the number of persons in the Council Chambers, the public is encouraged to make public comments by email rather than in person. For those wishing to make public comments by email to be read aloud at the meeting by the Community Development Administrative Assistant. Email comments must be submitted by 5:00 p.m. on March 15, 2022 to publiccomment@cityofhighland.org.

Members of the public will be permitted to make public comments in person.

**PLANNING COMMISSION
REGULAR MEETING AGENDA
March 15, 2022 - 6:00 P.M.**

CALL TO ORDER

PLEDGE OF ALLEGIANCE

COMMUNITY INPUT (ITEMS NOT ON THE AGENDA)

To address the Planning Commission, please complete a speaker form located at the entrance and give it to the Administrative Assistant prior to the beginning of the meeting. Your name will be called when it is your turn to speak. Individual speakers are limited to three minutes each. Comments received via email by March 15, 2022, 5:00 p.m., will be read into the record, provided that the reading shall not exceed three (3) minutes.

CONSENT CALENDAR

1. Minutes from the March 1, 2022 Regular Meeting.

RECOMMENDATION: That the Planning Commission approve the minutes, as submitted.

PUBLIC HEARING

2. Adoption of a Mitigated Negative Declaration for Public Works Project 'Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction'; Environmental Review No. ENV 22-001. (6892 Cloverhill Drive)

RECOMMENDATION: Staff recommends the Planning Commission adopt Resolution 2022-____, adopting the Mitigated Negative Declaration and Mitigation Monitoring Reporting Program for ENV 22-001.

3. Design Review Application No. DRA 22-002: Review of the Site Plan, Building Elevations, Rough Grading Plan, and Conceptual Landscape Plan for 'Highland Park' Planned Development, a 46-unit single family home development within Tentative Tract No. 19915 (APN: 288-562-03)

RECOMMENDATION: Staff recommends the Planning Commission adopt Resolution No. 2022-____, approving DRA 22-002 subject to the Conditions of Approval and Findings of Fact.

ANNOUNCEMENTS

ADJOURN

I, Camille Goritz, Administrative Assistant III of the City of Highland, California, certify that I caused to be posted this agenda on or before the 10th of March by 5:30 p.m. on our website at www.cityofhighland.org and in the following designated areas:

Highland Branch Library
7863 Central Avenue

Fire Station No. 1
26974 Base Line

City Hall
27215 Base Line

Date: March 10, 2022



Camille Goritz Administrative Assistant III



STAFF REPORT

TO THE PLANNING COMMISSION

DATE: March 15, 2022

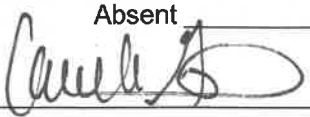
FROM: Lawrence Mainez, Community Development Director

PREPARED BY: Camille Goritz, Administrative Assistant III 

SUBJECT: Minutes from the March 1, 2022 Planning Commission Regular Meeting.

RECOMMENDATION: Staff recommends the Planning Commission approve the Minutes as submitted.

PUBLIC NOTICE: The agenda for this item was posted at the three locations per Resolution No. 2011-047 and on the City's website.

Approved _____	Motion _____	Second _____	Agenda Item No. <u>1</u>
Denied _____	Ayes _____		
Continued _____	Noes _____		File No. _____
Tabled _____	Abstain _____		
	Absent _____		
 Recording Secretary		 Community Development Director	

**MINUTES
PLANNING COMMISSION REGULAR MEETING
March 1, 2022 – 6:00 P.M.**

CALL TO ORDER

The regular meeting of the Planning Commission of the City of Highland was called to order at 6:00 p.m. by Chair Hamerly at the Donahue Council Chambers, 27215 Base Line, Highland, California.

Present:	Chair	Randall Hamerly
	Vice Chair	Chandra Thomas
	Commissioner	Edward Amaya
	Commissioner	Jarrold Miller
	Commissioner	Jessica Sutorus

Staff Present: Lawrence Mainez, Community Development Director
Kim Stater, Assistant Community Development Director
Ash Syed, Associate Planner
Matt Bennett, Assistant Public Works Director
Scott Rice, City Landscape Architect
Camille Goritz, Administrative Assistant III

The Pledge of Allegiance was led by Chair Hamerly.

COMMUNITY INPUT (ITEMS NOT ON THE AGENDA)

None

CONSENT CALENDAR

1. Minutes from the February 15, 2022 Regular Meeting.

A MOTION was made by Commissioner Sutorus, seconded by Vice Chair Thomas, to approve the minutes, as amended. Motion carried, 5-0.

PUBLIC HEARING

2. Proposal to subdivide two (2) existing parcels into four (4) new parcels (TPM 21-004) on an existing 1.4-acre site and amend Conditional Use Permit (CUP 16-006) and Design Review Application (DRA 16-015) to incorporate three (3) additional lots to the approved 15 lots for a total of 18 lots. (APN: 1191-351-021 & 1191-351-03)

Commissioner Miller excused himself from the item due to a conflict of interest and left the room.

Chair Hamerly opened the public hearing.

Associate Planner Syed presented the staff report.

Chair Hamerly stated referencing the shopping center that's going on that vacant parcel to the west, there was approximately a four-to-five-foot elevation differential on the southern and partially the eastern border of that property. Some of the development standards would read there would be a 6-foot-tall fence that would be measured from the lowest adjacent grade, but in this case, it seems like it be more fitting to have it on the highest adjacent grade if they're doing a block wall there because of privacy.

Associate Planner Syed stated when the properties are at differing elevations, we measure from the higher elevation.

Chair Hamerly asked the highest adjacent grade?

Associate Planner Syed stated correct.

Chair Hamerly stated there is discussion in the Conditions of Approval that the landscaping is being dictated in some fashion for the front yard. On those two parcels, would it be a good idea to have some screening mechanism for privacy to that adjacent property? We may want to think about screening to that blank wall.

Associate Planner stated the project is conditioned for a block wall along that backside. Since there's going to be a wall on the backside of the shopping center, which would be the east side that would take care of that concern.

Chair Hamerly stated it wasn't so much privacy as it was masking what could be a 30-foot-tall edifice right in your backyard and it's only 25 feet from the back of the house. I'm just thinking about softening the impact of that structure.

Commissioner Sutorus asked is the existing home that is on the property remain? Are they remodeling it?

RJ Hernandez Applicant stated as far as the that existing home, I know we're remodeling it.

Chair Hamerly closed the public hearing.

A MOTION was made by Commissioner Amaya, seconded by Vice Chair Thomas, to:

- 1) Adopt Resolution 2022- 005, approving Tentative Parcel Map No. 20455 (TPM 21-004) to subdivide two (2) existing parcels into four (4) new parcels and amending Conditional Use Permit (CUP 16-006) and Design Review Application (DRA 16-015) to incorporate 3 additional lots to the approved 15 lots for a total of 18 lots; and
- 2) Direct Staff to file a CEQA Notice of Exemption with the County Clerk of the Board of Supervisors. Motion carried, 4-0-1, Commissioner Miller abstaining.

RESOLUTION NO. 2022 - 005

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF HIGHLAND, CALIFORNIA, APPROVING TENTATIVE PARCEL MAP NO. 20455 (TPM 21-004) TO SUBDIVIDE TWO (2) EXISTING PARCELS INTO FOUR (4) NEW PARCELS AND AMENDING CONDITIONAL USE PERMIT (CUP 16-006) AND DESIGN REVIEW APPLICATION (DRA 16-015) TO INCORPORATE 3 ADDITIONAL LOTS TO THE APPROVED 15 LOTS FOR A TOTAL OF 18 LOTS LOCATED ON AN APPROXIMATELY 1.4 ACRE SITE APPROXIMATELY TWO-HUNDRED (200) FEET EAST OF THE INTERSECTION OF PACIFIC STREET AND VICTORIA.

Commissioner Miller returned to the dais at 6:16 p.m.

ANNOUNCEMENTS

The next Planning Commission meeting is scheduled March 15, 2022.

ADJOURN

There being no further business, Chair Hamerly declared the meeting adjourned at 6:18 p.m.

Submitted by:

Approved by:

Camille Goritz, Administrative Assistant III
Community Development Department

Randall Hamerly, Chair
Planning Commission



STAFF REPORT

TO THE PLANNING COMMISSION

DATE: March 15, 2022

FROM: Lawrence A. Mainez, Community Development Director

REVIEWED BY: Carlos Zamano, Public Works Director / City Engineer *CZ*

PREPARED BY: Kim Stater, Assistant Community Development Director *KS*

SUBJECT: Adoption of a Mitigated Negative Declaration for Public Works Project 'Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction'; Environmental Review No. ENV 22-001.

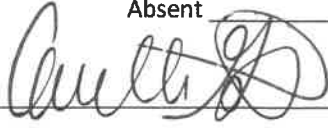
LOCATION: Behind the East Highlands Ranch Community Center at 6892 Cloverhill Drive, Highland.

RECOMMENDATION: Staff recommends the Planning Commission adopt Resolution No. 2022-_____, adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for ENV 22-001.

FISCAL IMPACT: This is a City-initiated project. Administrative processing of the Mitigated Negative Declaration (MND) has minimal costs related to advertising the Notice of Availability, Public Hearing Notice, preparation of the Staff Report and filing of a Notice of Determination.

PUBLIC NOTICE: A Public Hearing Notice regarding this application was published in the Highland Community News and mailed to interested parties on March 4, 2022. It was mailed to property owners within 300' of the site, posted on the City's website and at the three (3) designated public posting locations per City Council Resolution.

PROJECT DESCRIPTION: The project proposes to replace an existing reinforced concrete pipe (RCP) along 'Line A' and add approximately 100' of new storm drain pipe within Bledsoe Gulch. Portions of the Gulch will be regraded to mitigate an overly steep

Approved _____	Motion _____	Second _____	Agenda Item No. <u>2</u>
Denied _____	Ayes _____		
Continued _____	Noes _____		File No. _____
Tabled _____	Abstain _____		
	Absent _____		
 Recording Secretary		 Community Development Director	

invert. The existing conditions and project details are described in the Initial Study as follows:

"2.3 EXISTING CONDITION

The existing Line A is a 290-foot-long, 48-inch underground reinforced concrete pipe (RCP) that was installed in 2002 between the community center and Bledsoe Gulch to convey the tributary drainage within the EHR subdivision, as part of the subdivision development from just north of Highland Avenue. The existing pipe outlets approximately 50 feet downstream of the Bledsoe Gulch head, near the top of the slope embankment. The depth of the RCP ranges from 4 feet below ground surface (bgs) to 5 feet bgs between the existing community center and the Bledsoe Gulch outlet. A 75-foot long by 20-foot wide grouted riprap pad (0.03-acre) was also constructed along the existing slope embankment down to the bottom of the slope on a very steep slope of approximately 2:1.

Over time, the slope embankment area surrounding the RCP outlet has been severely eroded by high flow velocity flows coming from the RCP outfall, resulting in significant erosion along the creek sideslopes and invert, to currently an approximately 1.5:1 slope, and which is threatening the backyards of the adjacent homes that are situated along the west embankment, which is along Rockspring Lane. The existing grouted riprap pad below the RCP has also sustained damaged from the high flow velocity and is no longer providing erosion protection for the slope embankment and the RCP.

In 2012, a remedial repair was performed by lining an approximate 0.02-acre area of the creek head near the RCP outlet with concrete and extending the existing RCP downstream using a 20-foot long 48- inch plastic pipe. However, this limited repair did not stop the erosion of the creek head or adjacent embankment slope, and continual lateral erosion of the slope embankment caused structural cracking at the pipe joint of the RCP near the existing inlet riser. Currently, the creek head invert is approximately 58 feet below the top of the slope over a distance of approximately 120 feet, yielding an approximate slope of approximately 1.5:1.

2.4 PROJECT DESCRIPTION

The Project will replace the existing 48-inch RCP with a new 48-inch RCP within the same alignment but at depths up to approximately 15 feet bgs which will promote positive flow given the severely eroded creek head, base, and sideslopes to and reduce creek erosion. The Project will add approximately 100 feet of new storm drain RCP along the existing invert of Bledsoe Gulch, and the head, toe and sideslopes will be regraded to mitigate the overly steep invert. Project plans are located in Appendix A.

The new 48-inch RCP is sized to convey the tributary 100-year storm flow of 257.7 cubic feet per second (cfs), which is the same flow of the original pipe.

In general work includes: replacing the existing underground storm drain lines between the EHR clubhouse and the upstream terminus of Bledsoe Gulch; relocating the Line A storm drain pipeline section between the Bledsoe Gulch head and base to approximately 10 feet below the invert so the newly relocated line will outlet at the same elevation as the current creek base elevation; replacing the concrete apron at the base of Bledsoe Gulch; re-grading Bledsoe Gulch from the head to the base and slopes which is severely eroded and threatening adjacent homes; and constructing a paved access road on top of the newly re-graded slope between the Bledsoe Gulch head and base.

The Project will occur within both land owned by the EHR and within Bledsoe Gulch as follows:

2.4.1 Work to Occur between EHR Community Center and Bledsoe Gulch head

This portion of the Project will occur within the existing concrete access road and adjacent orange grove. In this area, the Project will first remove approximately 94 feet of the existing 48-inch RCP that is installed approximately at depths ranging from 2 feet to 5 feet bgs, then excavating a trench approximately 60 feet wide to depths of 10 to 15 feet bgs. Approximately 94 feet of new RCP will be installed. All soils will either be re-used and recompacted or hauled for proper disposal.

A new 60-inch diameter drainage inlet or riser will be installed at the tie-in point between the proposed and creek head, installed at a depth of 5 feet bgs. Additionally, an 18-inch lateral and 36-inch inlet will be constructed approximately 10 feet bgs to tie into the new 48-inch RCP and will serve as an outlet for surface flows emanating from the citrus grove area of the community center. This lateral will also provide an outlet for a future underground subdrain to be constructed by EHR-MHOA.

A new 6-foot high chain link fence and a double gate with a lock are proposed near the creek head to prevent unwanted access or intrusion into the proposed storm drain system.

Work will impact approximately 21,116 square feet (or 0.48 acre) behind the community center in the vicinity of the existing concrete road. It is anticipated that between 1 and 10 orange trees may be removed during construction to facilitate equipment staging.

2.4.2 Work to Occur at Bledsoe Gulch head and within Bledsoe Gulch

The existing approximately 75-foot long by 20-foot wide grouted riprap pad (0.03-acre) headwall and rip rap will be removed.

To install the new 48-inch RCP in Bledsoe Gulch, the sideslopes and invert of Bledsoe Gulch will be first be re-graded to facilitate positive drainage at a 2:1 slope and reduce the west slope erosion. The area to be regraded is approximately 0.23-acre in size directly around the Bledsoe Gulch head, west bank, and toe, or approximately 55 feet wide by 180 feet long by 5 feet deep.

An approximately 178 linear feet of new 48-inch RCP will be placed from the tie in at the top of the slope, to the base of the slope where the RCP will outlet onto a new grouted rip rap apron. The new apron is approximately 870 sf or approximately 0.02 acre. A headwall will be constructed around the new RCP outlet.

Once the RCP is laid, approximately 4 feet of clean fill (approximately 386 cy) will be compacted on top of the new pipe from the creek tie-in at the top of the slope, and along the slopes near the head and toe, especially the west slope, to reduce the steep grade. A new 12-foot-wide approximately 178 foot long, asphalt paved access road will then be constructed on top of the new fill, from the tie in at the head to the apron, to allow proper access for maintenance. A 6-inch asphalt dike will also be constructed along the west side of the access road to collect and control surface flows and convey them onto the apron.

To mitigate the west slope failure near the head, an approximate 106-foot-long concrete swale, approximately 1 foot deep will be constructed along the newly graded slope, approximately 36 feet upslope of the finished access road grade, designed to drain flows back into the creek at the new rip rap pad at the creek base. This swale will act as the first line of defense for the sheet flow from the top of the slope that is currently causing the slope erosion. The new swale will outlet at the new rip rap pad at the creek base.

The 386 cy of clean raw fill will be imported from a local soil supplier. Approximately 690 cy of raw cut from the site is anticipated to be exported."

ENVIRONMENTAL REVIEW & ANALYSIS: An Initial Study was prepared for the Project in February 2022.

The Initial Study evaluated all CEQA issues. The evaluation determined that either **no impact or less than significant impacts** would be associated with the issues of Aesthetics, Agriculture and Forest Resources, Air Quality, Energy, Greenhouse Gas Emissions, Land Use, Mineral Resources, Noise, Population and Housing, Public

Services, Recreation, Transportation/Traffic, Tribal Cultural Resources, and Utilities and Service Systems.

The issues of Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Wildfire **require the implementation of mitigation measures** to reduce impacts to a less than significant level. The Summary of Mitigation Measures is included in Section 5 of the Report.

The Notice of Intent to Adopt an MND was transmitted to local affected Agencies, property owners within 300', and the State Clearinghouse on February 4, 2022. The notice was posted with the County Clerk of the Board of Supervisors and at the City's three designated posting locations. The comment period concluded on March 7, 2022. No comments were received.

STAFF RECOMMENDATION: Staff recommends adoption of the Resolution approving the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program.

Attachment: 1. PC Resolution No. 2022 - _____
2. Initial Study and Mitigated Negative Declaration
3. Mitigation Monitoring and Reporting Program

ATTACHMENT 1
PC Resolution 2022 - _____

PC RESOLUTION NO. 2022 – ____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF HIGHLAND, CALIFORNIA, ADOPTING A MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM FOR A PROJECT TITLED 'LINE A STORM DRAIN AND BLEDSOE GULCH OUTFALL RECONSTRUCTION' LOCATED BEHIND THE EAST HIGHLANDS RANCH COMMUNITY CENTER AT 6892 CLOVERHILL DRIVE, HIGHLAND (ENVIRONMENTAL REVIEW NO. ENV-22-001)

APPLICANT: CITY OF HIGHLAND & EAST HIGHLANDS RANCH MASTER HOMEOWNERS ASSOCIATION

A. RECITALS

1. The proposed Project proposes to replace an existing reinforced concrete pipe along 'Line A' and add approximately 100' of new storm drain pipe within Bledsoe Gulch located behind the East Highlands Ranch Community Center at 6892 Cloverhill Drive, Highland, CA.
2. Pursuant to the provision of the California Environmental Quality Act (CEQA) and State and Local CEQA Guidelines, the City of Highland is the Lead Agency, and is charged with the responsibility of deciding whether or not to approve the proposed Project.
3. The Initial Study prepared for the Project was made available for public review from February 4, 2022 to March 7, 2022.
4. The Initial Study The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agriculture and Forest Resources, Air Quality, Energy, Greenhouse Gas Emissions, Land Use, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, Tribal Cultural Resources, and Utilities and Service Systems.
5. The Initial Study The issues of Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level. The Summary of Mitigation Measures is included in Section 5 of the Report.
6. On March 15, 2022, the Planning Commission of the City of Highland, conducted a Public Hearing on the subject Project and concluded the Hearing on that date.
7. All legal prerequisites to the adoption of this Resolution have occurred.

B. RESOLUTION

NOW THEREFORE, it is hereby found, determined and resolved by the Planning Commission of the City of Highland as follows:

- Section 1. The Planning Commission finds that all of the facts set forth in the Recitals, Part "A" of this Resolution, are true and correct.
- Section 2. Based upon substantial evidence presented to the Planning Commission during the March 15, 2022, Public Hearing, including public testimony and written and oral Staff Reports, the Planning Commission finds as follows:
- a. All necessary Public Meetings and opportunities for public testimony and comment have been conducted in compliance with State Law and the Municipal Code of the City of Highland.
- Section 3 The Planning Commission hereby adopts the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, incorporated herein by reference.
- Section 4. The Planning Commission hereby instructs City staff to file a Notice of Determination with the Clerk of the Board of the Supervisors of the County of San Bernardino, pursuant to the Public Resources Code and State CEQA Guidelines.

C. ADOPTION OF RESOLUTION.

The City Clerk shall certify to the adoption of this Resolution and shall cause the same to be published or posted in the manner prescribed by law.

PASSED, APPROVED AND ADOPTED this 15th day of March, 2022.

ATTEST:

Randall Hamerly, Chairman
Planning Commission

Lawrence A. Mainez,
Community Development Director

ATTACHMENT 2
Initial Study / Mitigated Negative Declaration

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION
Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction



Prepared for:

City of Highland
27215 Base Line
Highland, CA 92346

Prepared by:

Compass Consulting Enterprises, Inc.
114 Marilla Ave, No. 3
Avalon, CA 90704

January 2022

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1 INTRODUCTION

The California Environmental Quality Act ("CEQA"), codified in the Public Resources Code (PRC), Section 21000 et seq., and the CEQA Guidelines, Title 14, Section 15000 et seq. of the California Code of Regulations (CCR), was established to require public agencies to consider and disclose the environmental implications of their actions (projects). CEQA was enacted in 1970 by the California Legislature to disclose to decision makers and the public the significant environmental effects of a proposed project and identify possible ways to avoid or minimize significant environmental effects of a project by requiring implementation of mitigation measures or recommending feasible alternatives. CEQA applies to all California governmental agencies at all levels, including local, regional, and State, as well as boards, commissions, and special districts.

As provided by PRC Section 21067, the public agency with the principal responsibility for approving a project that may have a significant effect upon the environment is considered the Lead Agency. The City of Highland ("City"), as Lead Agency for the approval of the Applicant's proposed project ("Project"), is responsible for preparing environmental documentation in accordance with CEQA as amended to determine if approval of the discretionary actions requested and subsequent implementation of the Proposed Project could have a significant impact on the environment. As defined by Section 10563 of the CEQA Guidelines, an Initial Study ("IS") is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report ("EIR"), Negative Declaration ("ND"), or Mitigated Negative Declaration ("MND") would be appropriate for providing the necessary environmental documentation and clearance for the Proposed Project.

City of Highland
Initial Study and Environmental Evaluation

- 1. Project Title:** Line A Stormdrain and Bledsoe Gulch Outfall Reconstruction
- 2. Lead Agency Name:** City of Highland - Public Works Department
Address 27215 Base Line St, Highland, CA 92346
- 3. Contact Person:** Kim Stater, Assistant Community Development Director
(909) 864-8732, Ext. 204
kstater@cityofhighland.org
- 5. Project Location:** East Highlands Ranch Community Center and
Bledsoe Gulch
6892 Cloverhill Drive, Highland, CA 92346
Assessor Parcel No 0288-251-83
Harrison Mtn USGS Quad; T1N, R3W, Sect. SW ¼ 35
- 4. Project Sponsor's Name:** City of Highland Public Works Dept.
Address Attn: Carlos Zamano, Public Works Director/City Engineer
City of Highland - Public Works Department
27215 Base Line St, Highland, CA 92346
- 6. General Plan Designation:** Planned Development (PD)
- 7. Zoning Designation:** Planned Development (PD)
- 8. Description of Project:** The City of Highland (City), in coordination with East Highlands Ranch - Master Homeowners Association (EHR-MHOA), is proposing to: replace the underground Line A storm drain facilities situated between the EHR clubhouse and the nearby Bledsoe Gulch, to which Line A outlets; replace the storm drain outfall facilities in Bledsoe Gulch; regrade Bledsoe Gulch sideslopes in the vicinity of the Line A new outfall which is severely eroded and threatening homes; construct new maintenance access road over the reconstructed stormdrain. The approximately 300 feet of the existing 48-inch RCP will be replaced with new 48-inch RCP within the same alignment but at approximately 10 feet deeper than the existing line to promote positive flow given the severely eroded creek head, base, and sideslopes and to reduce creek erosion. The total work area is approximately 0.48 acre.

9. Surrounding Land Uses:

Surrounding land uses are identified in *Table 1-1: Surrounding Land Use*.

Table 2.1-1: Surrounding Land Use

Direction	Land Use Description
North	East Highlands Ranch Community Center
East	Cloverhill Drive and East Highlands Ranch Reservoir
South	Bledsoe Creek (downstream area not a part of the Project); Baseline Road is approximately 0.5 mile downstream of Project site
West	Rockspring Lane

10. Other Public Agencies Whose Approval is Required:

The following discretionary approvals are required for the Project:

Federal Agencies

- US Army Corps of Engineers – Section 404 Clean Water Act Permit.

State Agencies:

- Regional Water Quality Control Board (RWQCB) – Section 401 Clean Water Act Permit
- Regional Water Quality Control Board (RWQCB) – Construction dewatering permit

11. California Native American Consultation:

In March 2020, CRM Tech requested that the Native American Heritage Commission (NAHC) conduct a search of its Sacred Lands File to determine if cultural resources significant to Native Americans have been recorded in the Project footprint and/or buffer area. The response from NAHC indicated that the results were negative and provided their list of Native American tribal governments to contact, which included representatives from 10 tribes.

On July 27, 2021, the City of Highland notified the following tribal entity representatives of the Project and that the 30-day timeframe in which to request consultation would end on August 27, 2021, in accordance with AB52:

- Mr. Joseph Ontiveros, Director of Cultural Resources, Soboba Band of Luiseño Indians
- Mr. Ryan Nordess, Cultural Resource Analyst, San Manuel Band of Mission Indians
- Mr. Andrew Salas, Gabrieleno Band of Mission Indians

Of the tribes contacted, the following responses were received:

- Soboba Band of Luiseño Indians. No comments were received. Consultation concluded.

- San Manuel Band of Mission Indians. 8/4/2021 – no concerns with Project implementation but suggested that mitigation measures be made a part of the plan/permit conditions to address unanticipated finds. Consultation concluded.
- Gabrieleno Band of Mission Indians. No comments were received. Consultation concluded.

Mitigation measures that were submitted as part of the consultation request letters and have been reviewed incorporated as appropriate into the Initial Study.

2 PROJECT DESCRIPTION

2.1 INTRODUCTION

The City of Highland (City), in coordination with East Highlands Ranch - Master Homeowners Association (EHR-MHOA), is proposing to replace the Line A storm drain facilities situated between the EHR clubhouse and the nearby Bledsoe Gulch, to which Line A outlets (Project). The Project will replace approximately 300 feet of the existing 48-inch RCP with a new 48-inch RCP within the same alignment but at depths up to approximately 15 feet below ground surface (bgs) to promote positive flow and reduce creek erosion due to the severely eroded creek head, base and sideslopes. The Project also includes constructing a new storm drain segment within Bledsoe Gulch and regrading the head, base, and slopes of Bledsoe Gulch to mitigate the ongoing severe erosion that is threatening adjacent homes along the west creek bank.

2.2 PROJECT LOCATION AND SETTING

The Project is located behind the East Highlands Ranch Community Center, 6892 Cloverhill Drive, Highland, CA 92346. Specifically, the Project will occur approximately 200 feet south of the EHR community center building within the orange grove and within and around the upstream terminus of Bledsoe Gulch, at latitude 34° 7'41.53"N, longitude 117°10'13.99"W. All work will occur within the 8.25 acre parcel, APN 0288-251-83, owned by the East Highlands Ranch Master HOA, Inc. (Figure 1 and Figure 2). The site can be found on the U.S. Geological Survey (USGS) *Harrison Mtn. 7.5'* Topographic Map, within the southwest one-quarter of Section 35, Township 1 North, Range 3 West (Figures 1-3).

2.3 EXISTING CONDITION

The existing Line A is a 290-foot-long, 48-inch underground reinforced concrete pipe (RCP) that was installed 2002 between the community center and Bledsoe Gulch to convey the tributary drainage within the EHR subdivision, as part of the subdivision development from just north of Highland Avenue. The existing pipe outlets approximately 50 feet downstream of the Bledsoe Gulch head, near the top of the slope embankment. The depth of the RCP ranges from 4 feet below ground surface (bgs) to 5 feet bgs between the existing community center and the Bledsoe Gulch outlet. A 75-foot long by 20-foot wide grouted riprap pad (0.03-acre) was also constructed along the existing slope embankment down to the bottom of the slope on a very steep slope of approximately 2:1.

Over time, the slope embankment area surrounding the RCP outlet has been severely eroded by high flow velocity flows coming from the RCP outfall, resulting in significant erosion along the creek sideslopes and invert, to currently an approximately 1.5:1 slope, and which is threatening the backyards of the adjacent homes that are situated along the west embankment, which is along Rockspring Lane. The existing grouted riprap pad below the RCP has also sustained damaged from the high flow velocity and is no longer providing erosion protection for the slope embankment and the RCP.

In 2012, a remedial repair was performed by lining an approximate 0.02-acre area of the creek head near the RCP outlet with concrete and extending the existing RCP downstream using a 20-foot long 48-inch plastic pipe. However, this limited repair did not stop the erosion of the creek head or adjacent embankment slope, and continual lateral erosion of the slope embankment caused structural cracking at the pipe joint of the RCP near the existing inlet riser. Currently, the creek head invert is approximately 58

feet below the top of the slope over a distance of approximately 120 feet, yielding an approximate slope of approximately 1.5:1.

2.4 PROJECT DESCRIPTION

The Project will replace the existing 48-inch RCP with a new 48-inch RCP within the same alignment but at depths up to approximately 15 feet bgs which will promote positive flow given the severely eroded creek head, base, and sideslopes to and reduce creek erosion. The Project will add approximately 100 feet of new storm drain RCP along the existing invert of Bledsoe Gulch, and the head, toe and sideslopes will be regraded to mitigate the overly steep invert. Project plans are located in Appendix A.

The new 48-inch RCP is sized to convey the tributary 100-year storm flow of 257.7 cubic feet per second (cfs), which is the same flow of the original pipe.

In general work includes: replacing the existing underground storm drain lines between the EHR clubhouse and the upstream terminus of Bledsoe Gulch; relocating the Line A storm drain pipeline section between the Bledsoe Gulch head and base to approximately 10 feet below the invert so the newly relocated line will outlet at the same elevation as the current creek base elevation; replacing the concrete apron at the base of Bledsoe Gulch; re-grading Bledsoe Gulch from the head to the base and slopes which is severely eroded and threatening adjacent homes; and constructing a paved access road on top of the newly re-graded slope between the Bledsoe Gulch head and base.

The Project will occur within both land owned by the EHR and within Bledsoe Gulch as follows:

2.4.1 Work to Occur between EHR Community Center and Bledsoe Gulch head

This portion of the Project will occur within the existing concrete access road and adjacent orange grove. In this area, the Project will first remove approximately 94 feet of the existing 48-inch RCP that is installed approximately at depths ranging from 2 feet to 5 feet bgs, then excavating a trench approximately 60 feet wide to depths of 10 to 15 feet bgs. Approximately 94 feet of new RCP will be installed. All soils will either be re-used and recompacted or hauled for proper disposal.

A new 60-inch diameter drainage inlet or riser will be installed at the tie-in point between the proposed and creek head, installed at a depth of 5 feet bgs. Additionally, an 18-inch lateral and 36-inch inlet will be constructed approximately 10 feet bgs to tie into the new 48-inch RCP and will serve as an outlet for surface flows emanating from the citrus grove area of the community center. This lateral will also provide an outlet for a future underground subdrain to be constructed by EHR-MHOA.

A new 6-foot high chain link fence and a double gate with a lock are proposed near the creek head to prevent unwanted access or intrusion into the proposed storm drain system.

Work will impact approximately 21,116 square feet (or 0.48 acre) behind the community center in the vicinity of the existing concrete road. It is anticipated that between 1 and 10 orange trees may be removed during construction to facilitate equipment staging.

2.4.2 Work to Occur at Bledsoe Gulch head and within Bledsoe Gulch

The existing approximately 75-foot long by 20-foot wide grouted riprap pad (0.03-acre) headwall and rip rap will be removed.

To install the new 48-inch RCP in Bledsoe Gulch, the sideslopes and invert of Bledsoe Gulch will be first be re-graded to facilitate positive drainage at a 2:1 slope and reduce the west slope erosion. The area to be regraded is approximately 0.23-acre in size directly around the Bledsoe Gulch head, west bank, and toe, or approximately 55 feet wide by 180 feet long by 5 feet deep.

An approximately 178 linear feet of new 48-inch RCP will be placed from the tie in at the top of the slope, to the base of the slope where the RCP will outlet onto a new grouted rip rap apron. The new apron is approximately 870 sf or approximately 0.02 acre. A headwall will be constructed around the new RCP outlet.

Once the RCP is laid, approximately 4 feet of clean fill (approximately 386 cy) will be compacted on top of the new pipe from the creek tie-in at the top of the slope, and along the slopes near the head and toe, especially the west slope, to reduce the steep grade. A new 12-foot-wide approximately 178 foot long, asphalt paved access road will then be constructed on top of the new fill, from the tie in at the head to the apron, to allow proper access for maintenance. A 6-inch asphalt dike will also be constructed along the west side of the access road to collect and control surface flows and convey them onto the apron.

To mitigate the west slope failure near the head, an approximate 106-foot-long concrete swale, approximately 1 foot deep will be constructed along the newly graded slope, approximately 36 feet upslope of the finished access road grade, designed to drain flows back into the creek at the new rip rap pad at the creek base. This swale will act as the first line of defense for the sheet flow from the top of the slope that is currently causing the slope erosion. The new swale will outlet at the new rip rap pad at the creek base.

The 386 cy of clean raw fill will be imported from a local soil supplier. Approximately 690 cy of raw cut from the site is anticipated to be exported.

2.4.3 Construction Scenario

The total area of construction is approximately 0.45 acre – of which approximately 0.22 acre occurs within the area between the area of the community center and the Bledsoe Gulch head, and approximately 0.23 acre occurs within Bledsoe Gulch. The anticipated stages of construction will consist of the following:

1. Mobilization.
2. Removal and disposal of 94 feet of the existing 48-inch storm RCP and plastic pipe, drainage inlet, slope lining, grouted riprap, un-grouted riprap, trees, litters, and shrubs.
3. Grading of the existing slope consisting of excavation and compacted fill including pipe excavation. The total area of grading is approximately 0.23 acre.
4. Installation of the new 48-inch RCP, 18-inch RCP, drainage inlets, and appurtenances by trenching various areas between 2 and up to 15 feet deep.
5. Pipe backfill.
6. Construction of the concrete headwall and riprap apron, approximately 0.02 acre

7. Grading of a 12-foot wide by 178-foot long new access road and construction of AC pavement and AC dike along the access road.
8. Construction of the concrete swale, 106 feet long by 3 feet wide along the access road
9. Installation of the 6-foot chain link fence and double gate.
10. Installation of temporary erosion controls (gravel bags and fiber rolls).

2.4.4 Potential Construction Equipment

Project construction will require the use of heavy equipment. While the final types and numbers of construction equipment will be determined by the construction contractor, the types of equipment that will be utilized for this work may include the following:

Table 2.4-1: Equipment Assumptions

Equipment Type	Numbers of Equipment	Duration
Caterpillar 950 Wheel Front-End Loader	1	3 months
Caterpillar 349L Track Excavator – Long Reach	2	3 months
Caterpillar D-8 or D-9 sized bulldozer	2	3 months
Truck Crane	1	1 month
Dump Trucks	2	3 months
Water Truck	1	3 months
Dirt Haul Trucks (386 cy in 5 yard trucks)		2 weeks

2.4.5 Right-of-Way Acquisition

The area to be potentially affected by the Project includes approximately 0.45 acre of the EHR-MHOA property. The Project would require the acquisition of a permanent easement along APN 288-251-083 as well as a temporary construction easement from EHR-MHOA. Since the proposed construction is not located within an existing roadway, it would not require relocation of existing utilities (water, sewer, cable, telephone, gas, electric utilities, etc.).

The Project site has adequate clearances and access points for construction of the proposed storm drain. A temporary construction easement (TCE) would be required from EHR-MHOA for the duration of construction. In order to allow access to the outlet in Bledsoe Gulch for periodic maintenance by the City, a permanent easement will be required from EHR-MHOA.

2.4.6 Utility Relocation

Some utility coordination may be required. All relocation will be coordinated with the respective utilities.

2.4.7 Construction Staging and Access

The City will coordinate and identify the staging area within the EHR-MHOA Community Center, therefore, equipment staging will occur on previously disturbed areas. Between 1 and 10 orange trees in the area

between the community center and Bledsoe Gulch may be removed to facilitate staging of equipment and materials and/or construction of Project components.

2.4.8 Construction Timing

The Project is anticipated to be constructed as soon as permits are received and take approximately three months to complete. Tentatively, it is anticipated that work would begin in March 2022 and end in June 2022. No water is anticipated to be within the work area. The contractor and the EHR MOA will work with residents to curb unnecessary water usage that may result in urban stormwater runoff during construction. The contractor will make provisions to accept and dispose of the occasional urban stormwater runoff so that there will be no water in the facilities or the creek during construction.

2.4.9 Best Management Practices/Avoidance and Minimization Measures

The City and its contractor will follow conditions and guidelines for best management practices with respect to construction:

- Permits from the California Dept. of Fish and Wildlife (CDFW), the Santa Ana Regional Water Quality Control Board (SARWQCB) and the US Army Corps of Engineers (USACE) must be obtained prior to start of work within the Bledsoe Gulch head and slopes. The City will abide by the conditions of all the permits to protect biological and natural resources and water quality.
- Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to Project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.
- Because the Project is less than 1 acre, a formal Stormwater Pollution Prevention Plan is not required, but may be required at the discretion of the City. However, the contractor at minimum will prepare an Erosion Control Plan (ECP) that will identify the Best Management Practices (BMPs) for managing excavation and stockpile of materials and measures to prevent hazardous materials and soils from unnecessarily entering the creek during construction. The BMPs may include but not be limited to the following:
 - Prevent mud and debris from entering roadways, including the main entry road by providing trackout measures.
 - Installation of perimeter silt fences and perimeter sandbags and/or gravel bags

- Locate stockpiles away from drainage courses, drain inlets or concentrated flows of storm water.
- For wind erosion control, apply water or other dust palliative to stockpiles. Smaller stockpiles may be covered as an alternative.
- Place bagged materials on pallets under cover.
- During the rainy season, non-active soil stockpiles will be covered with heavy plastic and the stockpile contained within a temporary perimeter sediment barrier, such as berms, dikes, silt fences, or sandbag barriers. A soil stabilization measure may be used in lieu of cover.
- During the non-rainy season prior to the onset of rain, the stockpile should either be covered or protect them with temporary perimeter sediment barriers.
- Year-round, active soil stockpiles will be protected with temporary linear sediment barriers prior to the onset of rain.
- The main haul road will be graded and watered at least once per day, or as often as necessary to control dust as required by the South Coast Air Quality Management District (SCAQMD).
- Any equipment that enters Bledsoe Gulch temporarily will be monitored for spills using standard Best Management Practices in accordance with State Water Resources Control Board requirements. Standard measures including placement of mats under the equipment and using wheeled, not track, equipment. No equipment will remain in the creekbed overnight or for an extended period.
- The tracks and under carriage of any equipment that enters Bledsoe Gulch will be checked for invasive weed species; if found, the weed species will be removed and properly disposed of off-site.

2.4.10 Operations Scenario

Once constructed, it is anticipated that the Bledsoe Gulch/Line A storm drain will be included in the City's routine maintenance of its storm drain facilities. This includes inspections after major rain events, or annually at a minimum.

Maintenance activities may include but not be limited to the following for the replaced facility:

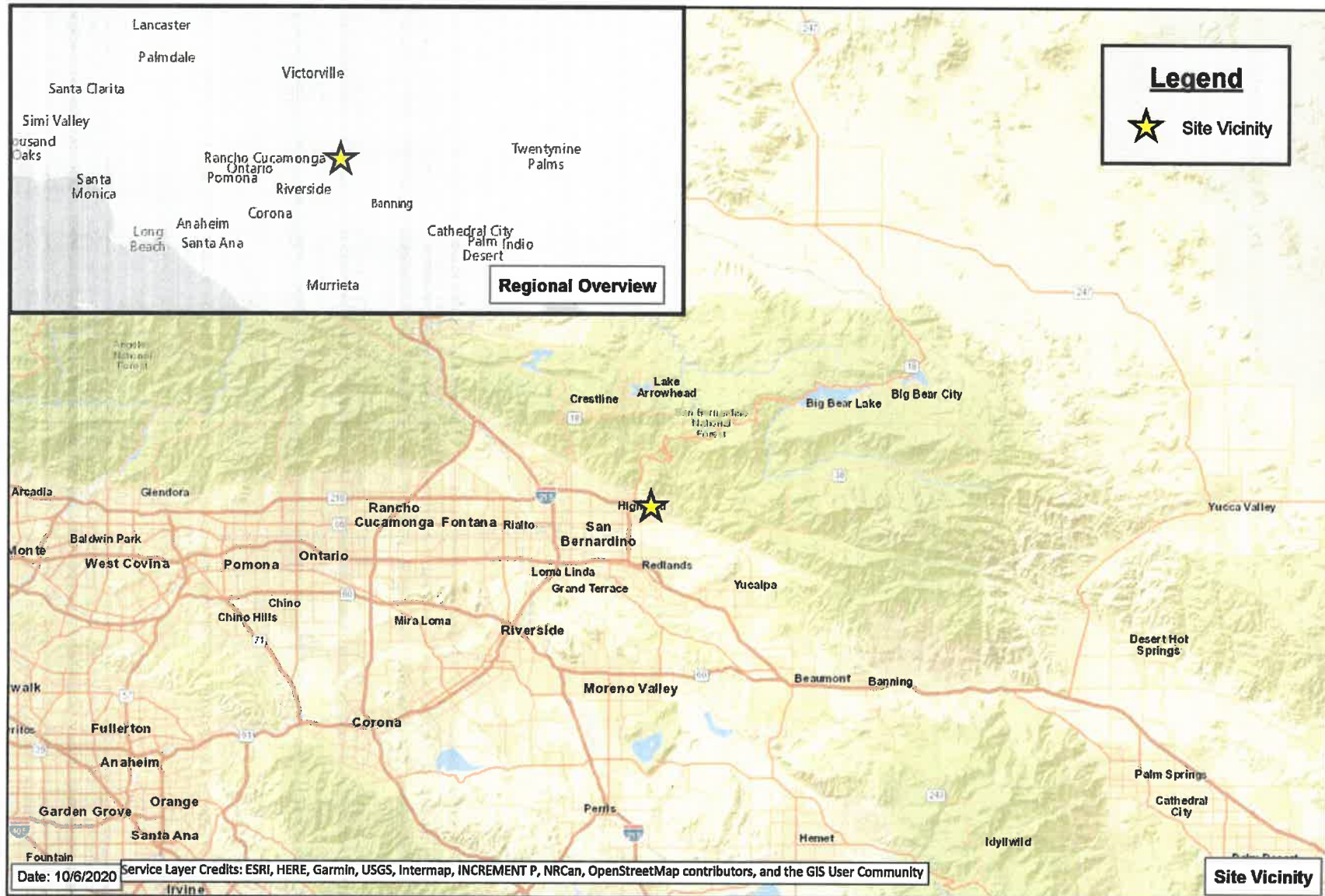
Access Road: Maintenance activities include clearing encroaching vegetation, filling ruts and potholes, grading, resurfacing (with similar materials), and repairing washouts. Vegetation control usually occurs annually and other activities usually occur every 2 to 3 years. Total approximate acreage of City maintenance: 0.07 acre.

Drain Outlet and Apron: General maintenance includes cleaning at the drain outfall. This would generally occur with hand tools such as shovels and/or chain saws if required. If the outfall is blocked with vegetation and debris, and/or, the apron contains significant sediment and debris, one to two maintenance personnel would drive down to the outfall and apron and shovel/place the material into the back of a pickup truck, and remove the material off site. Total approximate acreage of City maintenance: 0.25 acre.

Fuel Modification Maintenance. Fuel modification can be in the form of manual, mechanical, or chemical vegetation control of dry or invasive vegetation that is within 50 feet of the boundaries of the apron, and along the new sideslopes. Total approximate acreage of City maintenance: 0.03 acre.

Vector Control. Vector Control primarily involves mosquito control to reduce the spread of disease, including West Nile Virus. Vector control is conducted by the County Environmental Health Department-Mosquito/Vector Control office and includes driving down the new access road to the apron and applying biopesticides by spraying and/or introduction of mosquito-larvae eating fish into the waters of Bledsoe Gulch.

Initial Study and Draft Mitigated Negative Declaration
Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction





**Initial Study and Draft Mitigated Negative Declaration
Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction**

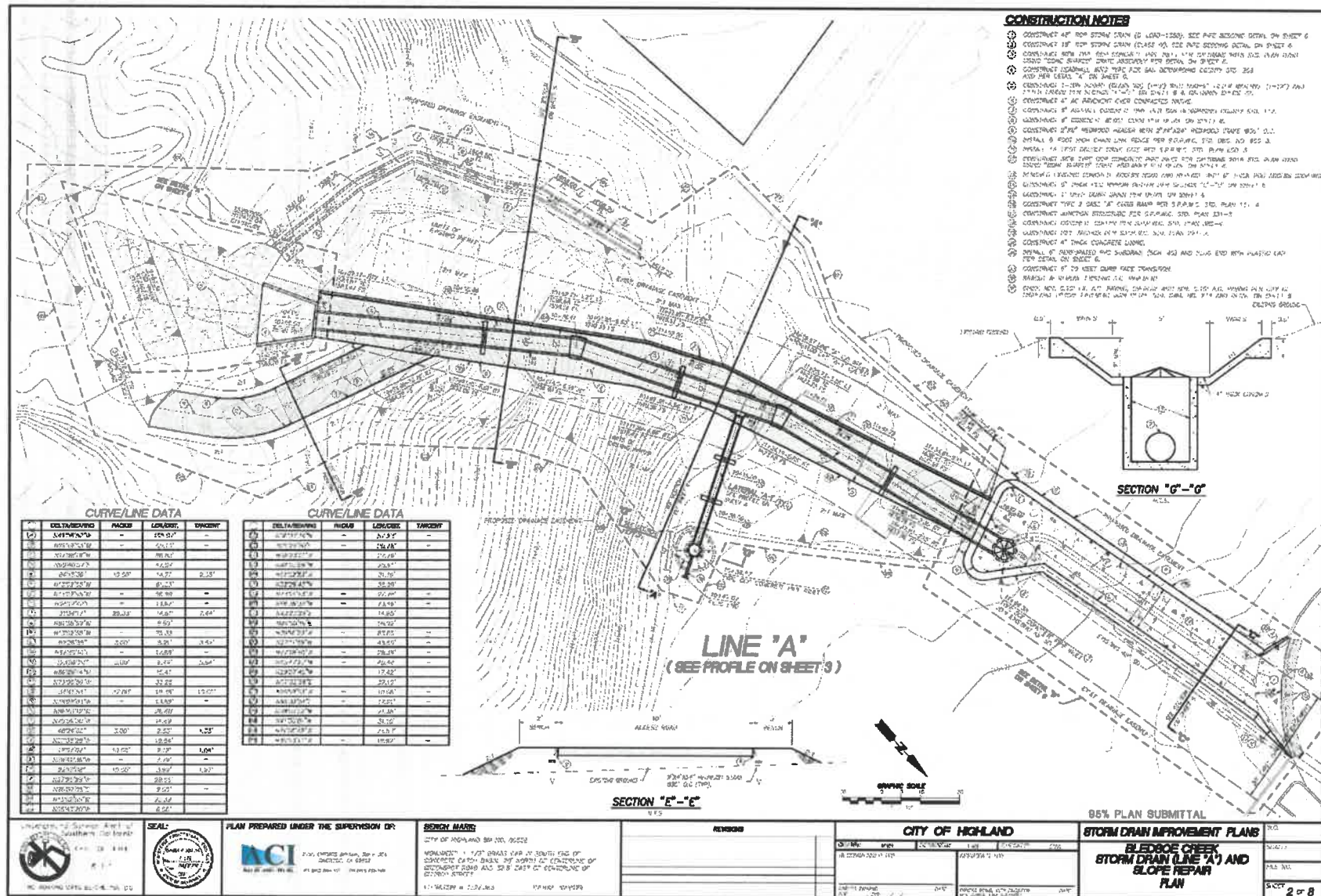


Exhibit 2.3-3 – Site Plan
Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction
Initial Study

3 ENVIRONMENTAL ANALYSIS AND DETERMINATION

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000-21178.1), this Initial Study has been prepared to analyze the proposed Project to determine any potential significant impacts upon the environment that would result from construction and implementation of the Project. In accordance with California Code of Regulations, Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency in consultation with other jurisdictional agencies, to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed Project. The purpose of this Initial Study is to inform the decision-makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed Project.

3.1 ORGANIZATION OF ENVIRONMENTAL ANALYSIS

Section 4 provides a discussion of the potential environmental impacts of the Project. The evaluation of environmental impacts follows the questions provided in the Checklist provided in the CEQA Guidelines.

3.2 TERMINOLOGY USED IN THIS ANALYSIS

For each question listed in the IS checklist, a determination of the level of significance of the impact is provided. Impacts are categorized in the following categories:

- **No Impact.** A designation of no impact is given when no adverse changes in the environment are expected.
- **Less Than Significant.** A less than significant impact would cause no substantial adverse change in the environment.
- **Less Than Significant with Mitigation.** A potentially significant (but mitigatable) impact would have a substantial adverse impact on the environment but could be reduced to a less-than-significant level with incorporation of mitigation measure(s).
- **Potentially Significant.** A significant and unavoidable impact would cause a substantial adverse effect on the environment and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level.

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

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 the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project (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).

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.

Once the Lead Agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, 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.

“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.” Mitigation measures are identified and explain how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).

Earlier analyses may be used where, pursuant to the 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 analyses used where they are available for review.
- b) Which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and whether such effects were addressed by mitigation measures based on the earlier analysis.
- c) The mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project for effects that are “Less than Significant with Mitigation Measures Incorporated.

References and citations have been incorporated into the checklist references to identify information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document, where appropriate, include a reference to the page or pages where the statement is substantiated.

Source listings and other sources used, or individuals contacted are cited in the discussion.

The explanation of each issue should identify:

- a) The significance criteria or threshold, if any, used to evaluate each question
- b) The mitigation measure identified, if any, to reduce the impact to less than significant.

3.4 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Based on the analysis in Section 4, the proposed Project could potentially affect (“Potentially Significant” or “Less than Significant with Mitigation Incorporated”) the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor and identifies where mitigation measures would be necessary to reduce all impacts to less than significant.

- | | | |
|--|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forestry Resources | ☐ Air Quality |
| ☒ Biological Resources | ☒ Cultural Resources | ☐ Energy |
| ☒ Geology / Soils | ☐ Greenhouse Gas Emissions | ☒ Hazards & Hazardous Materials |
| ☐ Hydrology / Water Quality | ☐ Land Use / Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population / Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☒ Tribal Cultural Resources |
| ☐ Utilities / Service Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |

3.5 DETERMINATION

On the basis of this initial evaluation, the following finding is made:

	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	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.
	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	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.
	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.

Signature

Date

Name

Title

4 ENVIRONMENTAL IMPACTS

4.1 AESTHETICS

4.1.1 Environmental Setting

The Project site is situated at the south end of the East Highlands Ranch Community Center, located in the northeastern end of the City of Highland. Views in the Project area are of the surrounding mountains to the north and east, and suburban developments to the south and south west.

4.1.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, 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) In nonurbanized 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 a 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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The CEQA Guidelines do not provide a definition of what constitutes a “scenic vista” or “scenic resource” or a reference as to from what vantage point(s) the scenic vista and/or resource, if any, should be observed. However, a scenic vista can generally be defined as a viewpoint from a public vantage that provides expansive views of a highly valued landscape for the benefit of the general public. Common examples include undeveloped hillsides, ridgelines, and open space areas that provide a unifying visual backdrop to a developed area. Scenic resources are those landscape patterns and features that are visually or aesthetically pleasing and

that contribute affirmatively to the definition of a distinct community or region such as trees, rock outcroppings, and historic buildings.

The Project consists of reconstructing the underground Line A facility and the Bledsoe Gulch head. While Bledsoe Gulch affords a view of plants and a water feature, it can only be seen from the backyards of private residences along Rockspring Lane. Portions of the Project also occur behind the East Highland Community Center, which is fronted by Highland Avenue. In this area, Highland Avenue users are slightly higher than the work area, and the viewshed is of the Project area and south, over an urban landscape of Redlands and areas south of Redlands. These views, as viewed by the adjacent residents, may be temporarily impacted by the Project during construction. No post-construction impacts will occur. The Project will not change the landforms in a manner that would alter the existing visual character of the area. Impacts would be less than significant, and no mitigation is required.

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. The Project does not occur within a scenic highway. Therefore, there are no impacts, and no mitigation is required.

- c) In nonurbanized 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?*

Less than Significant Impact. The Project is in an urbanized area. As noted above, the Project proposes improvements to an existing underground storm drain. The Project would not conflict with any local zoning or other regulations regarding scenic quality. Impacts would be less than significant, and no mitigation is required.

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

No Impact. No lighting is proposed, and all work will be conducted during daytime hours. Therefore, there are no impacts, and no mitigation is required.

4.1.3 Mitigation Measures:

No mitigation measures are required.

4.2 AGRICULTURE & FORESTRY RESOURCES

4.2.1 Environmental Setting

The proposed Project is located in an urbanized area of the City of Highland. The Project improvements will occur on an existing developed site.

4.2.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. AGRICULTURE AND FORESTRY 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 or conversion of forest land to non-forest use?			X	

Discussion

- 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 nonagricultural use?*

No Impact. According to the California Department of Conservation Farmland Mapping and Program, the Project site does not contain prime agricultural soils. There are no agricultural uses on the site, and none are proposed. There are no impacts, and no mitigation is required.

- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. The Project site is not zoned for agricultural use by the City of Highland General Plan and is not the site of any Williamson Act contracts. There are no impacts, and no mitigation is required.

- 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))?*

No Impact. No part of the Project site or its surroundings are designated as timberland. There are no impacts, and no mitigation is required.

- d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. There is no designated forestland on the Project site, and the proposed Project would therefore not affect forests during construction or operations. There are no impacts, and no mitigation is required.

- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or the conversion of forest land to non-forest use?*

Less Than Significant. The Project site is not zoned for or under use as Farmland or forest land. The EHR-MHOA operates a non-commercial orange orchard within the Project boundaries for recreational use of homeowners. Between 1 and 10 trees may be removed or relocated to accommodate the Project trenching and staging and storage. The orchard is non-commercial, therefore, therefore, the impact would be less than significant, and no mitigation is required.

4.2.3 Mitigation Measures:

No mitigation measures are required.

4.3 AIR QUALITY

4.3.1 Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level under the Clean Air Act of 1970. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

The City of Highland lies within the South Coast Air Basin (SCAB), located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the SCAB is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas.

Air Quality in the SCAB which is managed by the South Coast Air Quality Management District (SCAQMD), the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino Counties. The SCAQMD prepares an Air Quality Management Plan (AQMP) every three years, following its mandate from the Federal Clean Air Act.

There are six common air pollutants, called criteria pollutants, which were identified from the provisions of the Clean Air Act of 1970.

- Ozone
- Nitrogen Dioxide
- Lead
- Particulate Matter (PM10 and PM2.5)
- Carbon Monoxide
- Particulate Matter
- Sulfur Dioxide

The US environmental Protection Agency (EPA) and the California Air Resources Board (CARB) designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The SCAQMD’s 2016 AQMP assesses the attainment status of the SCAB. The NAAQS and CAAQS attainment statuses for the SCAB are listed in Table 4.3-1. The SCAQMD updates the AQMP every three

years. Each iteration of the AQMP is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017.

Table 4.3-1: South Coast Air Basin Attainment Status

CRITERIA POLLUTANT	STANDARD	AVERAGING TIME	DESIGNATION ^{a)}	ATTAINMENT DATE ^{b)}
1-Hour Ozone	NAAQS	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 Originally 11/15/2010 (not attained) ^{c)}
	CAAQS	1-Hour (0.09 ppm)	Nonattainment	N/A
8-Hour Ozone^d	NAAQS	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	NAAQS	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	7/20/2032
	NAAQS	2015 8-Hour (0.070 ppm)	Nonattainment (Extreme)	8/3/2038
	CAAQS	8-Hour (0.070 ppm)	Nonattainment	Beyond 2032
CO	NAAQS	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	CAAQS	1-Hour (20 ppm) 8-Hour (9 ppm)	Attainment	6/11/2007 (attained)
NO₂^e	NAAQS	1-Hour (0.10 ppm)	Unclassifiable/Attainment	N/A (attained)
	NAAQS	Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
	CAAQS	1-Hour (0.18 ppm) Annual (0.030 ppm)	Attainment	---
SO₂ ^f	NAAQS	1-Hour (75 ppb)	Designations Pending (expect Uncl./Attainment)	N/A (attained)
	NAAQS	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/Attainment	3/19/1979 (attained)
PM₁₀	NAAQS	1987 24-hour (150 µg/m ³)	Attainment (Maintenance) ^{g)}	7/26/2013 (attained)
	CAAQS	24-hour (50 µg/m ³) Annual (20 µg/m ³)	Nonattainment	N/A
PM_{2.5}^h	NAAQS	2006 24-Hour (35 µg/m ³)	Nonattainment (Serious)	12/31/2019
	NAAQS	1997 Annual (15.0 µg/m ³)	Attainment	8/24/2016
	NAAQS	2012 Annual (12.0 µg/m ³)	Nonattainment (Serious)	12/31/2025
	CAAQS	Annual (12.0 µg/m ³)	Nonattainment	N/A
Lead	NAAQS	3-Months Rolling (0.15 µg/m ³)	Nonattainment (Partial) ^{l)}	12/31/2015
Hydrogen Sulfide (H₂S)	CAAQS	1-Hour (0.03 ppm/42 µg/m ³)	Attainment	---
Sulfates	CAAQS	24-Hour (25 µg/m ³)	Attainment	---
Vinyl Chloride	CAAQS	24-Hour (0.01 ppm/26 µg/m ³)	Attainment	---

Notes:

- a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable
b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration

- c) 1-hour O₃ standard (0.12 ppm) was revoked, effective June 15, 2005 ; however, the Basin has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements
- d) 1997 8-hour O₃ standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the revoked 1997 O₃ standard is still subject to anti-backsliding requirements
- e) New NO₂ 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO₂ standard retained
- f) The 1971 annual and 24-hour SO₂ standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO₂ 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.
- g) Annual PM₁₀ standard was revoked, effective December 18, 2006; 24-hour PM₁₀ NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM₁₀ maintenance plan was approved by U.S. EPA on June 26, 2013, effective July 26, 2013.
- h) Attainment deadline for the 2006 24-Hour PM_{2.5} NAAQS (designation effective December 14, 2009) is December 31, 2019 (end of the 10th calendar year after effective date of designations for Serious nonattainment areas). Annual PM_{2.5} standard was revised on January 15, 2013, effective March 18, 2013, from 15 to 12 µg/m³. Designations effective April 15, 2015, so Serious area attainment deadline is December 31, 2025.
- i) Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expected redesignation to attainment based on current monitoring data.

Thresholds of Significance

The SCAQMD provides numerical thresholds to analyze the significance of a project's construction and operational emissions impacts on regional air quality. These thresholds are designed so a project that is consistent with the thresholds would not have an individually or cumulatively significant impact to the SCAB's air quality.

Thresholds of Significance for Construction:

- 75 pounds per day of ROG
- 100 pounds per day of NO_x
- 550 pounds per day of CO
- 150 pounds per day of SO_x
- 150 pounds per day of PM₁₀
- 55 pounds per day of PM_{2.5}

Thresholds of Significance for Operations:

- 55 pounds per day of ROG
- 55 pounds per day of NO_x
- 550 pounds per day of CO
- 150 pounds per day of SO_x
- 150 pounds per day of PM₁₀
- 55 pounds per day of PM_{2.5}

Localized Significance Thresholds

In addition to the listed thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the CEQA Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for nitrogen oxides (NO_x), carbon monoxide (CO), PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each SRA, distance to the sensitive receptor, and project size. LSTs only apply to emissions within a fixed stationary location and are not applicable to mobile sources, such as cars on a

roadway (SCAQMD 2008a). According to the SCAQMD (2008) Final Localized Significant Thresholds Methodology, the use of LSTs is voluntary, to be implemented at the discretion of local agencies.

The SCAQMD has divided the SCAB into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The Project site is located in SRA 35, East San Bernardino Valley and would include up to 1.0 acre of disturbance. LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure up to 1, 2, or 5 acres.

Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc.).

The closest existing sensitive receptors (to the site area) are residential land uses located adjacent to the west, approximately 40 feet from the western bank of Bledsoe Gulch.

4.3.2 Environmental Setting

Meteorology and Climate

The climate of the City of Highland is similar to that of most cities in the eastern San Bernardino Valley, and most cities in Southern California. The climate is governed largely by the strength and location of the semi-permanent high pressure center over the Pacific Ocean and the moderating effects of the nearby vast oceanic heat reservoir. Local climatic conditions are characterized by very warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and comfortable humidity levels. Unfortunately, the same climatic conditions that create such a desirable living climate combine to severely restrict the ability of the local atmosphere to disperse the large volumes of air pollution generated by the population and industry attracted in part by the climate.

The Project is situated in an area where the pollutants generated in coastal portions of the Los Angeles basin undergo photochemical reactions and then move inland across the Project site during the daily sea breeze cycle. The resulting smog at times gives western San Bernardino County some of the worst air quality in all of California. Fortunately, significant air quality improvement in the last decade suggests that healthful air quality may someday be attained despite the limited regional meteorological dispersion potential.

Winds across the Project area are an important meteorological parameter because they control both the initial rate of dilution of locally generated air pollutant emissions as well as controlling their regional trajectory. Winds across the Project site display a very unidirectional onshore flow from the southwest-west that is strongest in summer with a weaker offshore return flow from the northeast that is strongest on winter nights when the land is colder than the ocean. The onshore winds during the afternoon average 6-8 mph while the offshore flow is often calm or drifts slowly westward at 1-3 mph.

During the daytime, any locally generated air emissions are thus rapidly transported eastward toward Banning Pass without generating any localized air quality impacts. The nocturnal drainage winds which move slowly across the area have some potential for localized stagnation, but fortunately, these winds have their origin in the adjacent mountains where background pollution levels are low such that any localized contributions do not create any unhealthful impacts.

In conjunction with the two characteristic wind regimes that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. The summer on-shore flow is capped by a massive dome of warm, sinking air which caps a shallow layer of cooler ocean air. These marine/subsidence inversions act like a giant lid over the basin. They allow for local mixing of emissions, but they confine the entire polluted air mass within the basin until it escapes into the desert or along the thermal chimneys formed along heated mountain slopes.

In winter, when the air near the ground cools while the air aloft remains warm, radiation inversions are formed that trap low-level emissions such as automobile exhaust near their source. As background levels of primary vehicular exhaust rise during the seaward return flow, the combination of rising non-local baseline levels plus emissions trapped locally by these radiation inversions can create micro-scale air pollution "hot spots" near freeways, shopping centers and other traffic concentrations in coastal areas of the Los Angeles Basin. Because the nocturnal airflow down the slopes of Mt. San Geronio has its origin in very lightly developed areas of the San Bernardino Mountains, background pollution levels at night in winter are very low in the Project vicinity. Localized air pollution contributions are insufficient to create a "hot spot" potential when superimposed upon the clean nocturnal baseline. The combination of winds and inversions are thus critical determinants in leading to the degraded air quality in summer, and the generally good air quality in winter in the Project area.

4.3.3 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. 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	

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
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	

Discussion

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

No Impact. A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The proposed Project is to replace and reconstruct underground storm drain facilities, replacement of a concrete apron, and the re-grading and stabilization on an existing embankment. The Project does not include new housing or businesses, nor would operation and maintenance of the proposed Project require new employees; therefore, the Project would not generate population, housing, or employment growth. As a result, the Project would not exceed the Southern California Association of Governments' projected growth forecasts, which underlie the emissions forecasts in the 2016 AQMP. Therefore, the Project would not conflict with or obstruct implementation of the AQMP. No impact would occur, and no mitigation measures are required.

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?*

Less Than Significant. The Project would generate short-term emissions associated with Project construction and no operational emissions. The proposed improvement Project would require earthmoving, material removal, and other activities such as removal of plants and/or other organics during construction. The Project's construction activities were screened for emission generation using SCAQMD "Air Quality Handbook" guidelines, Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks (2022), and SCAQMD Emission Factors for On-Road Heavy Heavy Duty Diesel Trucks (2022). These tables are used to generate emissions estimates for development projects. The criteria pollutants screened for included: reactive organic gases (ROG), nitrous oxides (NO_x), carbon monoxide (CO), and particulates (PM₁₀ and PM_{2.5}). Two of these, ROG and NO_x, are ozone precursors.

Project construction emissions are considered short-term, temporary emissions and were calculated based on the estimated construction parameters listed below. The resulting emission levels as compared to SCAQMD thresholds are shown in Table 2.5-1: Equipment Assumptions and in Table 4.3-2.

Table 4.3-2: Equipment Assumptions

Equipment Type	Numbers of Equipment	Duration
Caterpillar 950 Wheel Front-End Loader	1	3 months
Caterpillar 349L Track Excavator – Long Reach	2	3 months
Caterpillar D-8 or D-9 sized bulldozer	2	3 months
Truck Crane	1	1 month
Other Construction/Material Handling Equipment such as dump truck, water truck, employee truck	3	3 months
Material Export/Import 10 trips per day, 25 miles haul distance		2 weeks

The resulting emissions from the equipment is identified in Table 4.3-3.

**Table 4.3-3: Construction Emissions
(Pounds per Day)**

Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Excavator	1.0	5.1	8.2	0.2	0.2
Dozer	3.1	21.8	11.8	0.9	0.9
Crane	0.6	4.4	3.1	0.2	0.2
Loader	0.5	3.1	3.5	0.1	0.1
Other Construction Equip.	0.8	4.5	5.6	0.2	0.2
Other Material Handling Equip.	0.7	4.2	3.6	0.2	0.2
Material Export/Import	0.2	2.7	1.2	0.2	0.2
Totals (lbs/day)	7.0	45.7	36.8	1.9	1.9
SCAQMD Threshold	75	100	550	150	55
Significant	No	No	No	No	No

Source: SCAQMD Off-Road Mobile Source Emissions Factors (2022); SCAQMD ON-Road Heavy Heavy Duty Diesel Trucks, 2022.

As shown in Table 4-3.3, Project emissions would not exceed SCAQMD thresholds. Therefore, less than significant impact is anticipated.

Compliance with SCAQMD Rules 402 and 403

Although the proposed Project does not exceed SCAQMD thresholds during construction activities, the SBCFCD is required to comply with all applicable SCAQMD rules and regulations as the SCAB is in non-attainment status for ozone and suspended particulates (PM₁₀). The Project shall comply with, Rules 402 nuisance, and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACM) for each fugitive dust source; and the AQMP, which identifies Best Available Control Technologies (BACT) for area sources and point sources, respectively. This would include, but not be limited to the following BACMs and BACTs:

Exhaust emissions from construction vehicles and equipment and fugitive dust generated by equipment traveling over exposed surfaces would increase NO_x and PM₁₀ levels in the area.

Although the proposed Project does not exceed SCAQMD thresholds during construction, the District will be required to implement the following conditions as required by SCAQMD:

1. To reduce emissions, all equipment used in earthwork must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.
2. The project proponent shall ensure that construction personnel are informed of ride sharing and transit opportunities.
3. The operator shall maintain and effectively utilize and schedule on-site equipment in order to minimize exhaust emissions from truck idling.
4. The operator shall comply with all existing and future CARB and SCAQMD regulations related to diesel-fueled trucks, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

Implementation of the Project does not exceed the SCAQMD significance thresholds for construction activities. Although there would be emissions from vehicles and equipment during construction, the emissions would be temporary, of short duration, and below the established thresholds. In addition, Project emissions of particulate matter would be reduced by implementing BACMs as outlined in SCAQMD dust control Rules 402 - Nuisance and 403 - Fugitive Dust. As no operational emissions will be generated, the Project would not generate long-term emissions of criteria pollutants that would exceed thresholds and would therefore not cause a cumulatively considerable increase in criteria pollutants. A less than significant impact is identified, and no mitigation measures are required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant. Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. The Project site is located adjacent to a residential neighborhood.

LSTs are provided for receptors at a distance of 25 to 500 meters (82 to 1,640 feet) from the Project site boundary. According to the SCAQMD's LST methodology, projects with boundaries closer than 25 meters (82 feet) to the nearest receptor should use the LSTs for receptors located at 25 meters (SCAQMD 2008).

As discussed under item (b), the Project's construction emissions would not exceed the SCAQMD regional thresholds. The Proposed Project's construction emissions with the appropriate LST are presented in Table 4.3-4.

**Table 4.3-4: Localized Significance Thresholds
(Pounds Per Day)**

Source	NO _x	CO	PM ₁₀	PM _{2.5}
Construction Emissions (Table 3)	45.7	36.8	1.9	1.9
LST Value (lbs/day)	45.7	36.8	1.9	1.9
LST Threshold	118	775	4	4
Greater Than Threshold	No	No	No	No

Sources: SCAQMD Final Localized Significance Threshold Methodology; SCAQMD Mass Rate Look-up Tables for 1-acre site in SRA No. 35, distance of 25 meters.

Note: PM10 and PM2.5 emissions are separated into construction and operational thresholds in accordance with the SCAQMD Mass Rate LST Look-up Tables.

¹ Per LST Methodology, mobile source emissions do not need to be included except for land use emissions and on-site vehicle emissions. It is estimated that approximately 10 percent of mobile emissions will occur on a Project Site.

Traffic-congested roadways and intersections have the potential for the generation of localized CO levels (i.e., CO hotspots). In general, CO hotspots occur in areas with poor circulation or areas with heavy traffic. The temporary increase in traffic volumes during construction would not significantly impact congestion on local roadways. Therefore, the Project would not result in CO hotspots on adjacent roadways. The Project would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant, and no mitigation measures are required.

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

Less Than Significant. During construction, the Project would generate oil and diesel fuel odors from use of heavy equipment. Construction-related odors would be limited to the two-month construction period. In addition, the improvements would be constructed in segments and construction activity would continue to move along the alignment; odors would not be associated with one location for the entire two-month schedule. The adjacent receptors would only be exposed to construction-generated odors for a short period of time. Construction-related odor impacts would be less than significant, and no mitigation measures are required.

4.3.4 Mitigation Measures:

No mitigation measures are required.

4.4 BIOLOGICAL RESOURCES

A Biological Resources Assessment was conducted in September 2020 for the proposed Project (Appendix B).

4.4.1 Environmental Setting

The Project site will occur on a single parcel. Approximately 0.48 acre occurs in the upland area within the grounds behind the East Highlands Ranch Community Center, and approximately 0.23 acre occurs within Bledsoe Gulch. The grounds behind the community center contains an orange grove and bare ground. Bledsoe Gulch is bounded by Cloverhill Drive on the east, and an existing chain link fencing lines the bank top of slope on the west bank. Bledsoe Gulch continues approximately 0.5 mile downstream as a heavily vegetated, natural channel to Baseline Road, where it is directed under the road and continues to meander through the City of Highland and areas south.

Topography and Soils

Elevation on Around the community center is generally flat with no areas of significant topographic relief, lying at an elevation of approximately 1,634 mean sea level (msl), and slopes gently toward Bledsoe Gulch. Bledsoe Gulch is a natural topographic dry canyon feature. Bledsoe creek, which originates in the mountains to the north, enters the site south of the Bledsoe Gulch head.

The head of Bledsoe Gulch abuts the south property boundary of the community center and is approximately 375 feet wide. The eastern bank in this area, which abuts Cloverhill Drive, is a steep 2:1 slope, with a drop of approximately 58 feet to the creek bottom, at an elevation of approximately 1,576. The west bank of the head has become severely eroded over the years, and now exists at an approximately 1.5:1 slope, with the chain link fence of residential backyards now lining the top of the western bank. This section of Bledsoe Gulch between its head and approximately 0.5 mile downstream (Baseline Road) is very incised and heavily wooded with native riparian trees and shrub species.

Based on the NRCS USDA Web Soil Survey, the Project site consists of Greenfield fine sandy loam, 9 to 15 percent slopes (GtD) for most of the Project site, and Saugus sandy loam, 30 to 50 percent slopes (ShF) in the southern end.

Vegetation

The Biological Resources Assessment in Appendix B identified the habitat in the Bledsoe Gulch portion of the Project site to be riparian dominate with western sycamore (*Planatus racemosa*), poison oak (*Toxicodendron diversilobum*), Mexican fan palm (*Washingtonia robusta*), castor bean (*Ricinus communis*), tree tobacco (*Nicotiana glauca*), and Pacific willow (*Salix lasiandra* var. *lasiandra*), with an understory of stinging nettle (*Urtica dioica*), California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), and California buckwheat (*Eriogonum fasciculatum*).

Sensitive Plants

Sensitive plants to potentially occur locally included smooth tarplant (*Centromadia pungens* ssp. *laevis*), California satintail (*Imperata brevifolia*), California muhly (*Muhlenbergia californica*), Sonoran maiden fern

(*Thelypteris pubercula* var. *sorensis*) (refer to Appendix B). However, these sensitive plant species were identified in Appendix B to have low potential to occur within and/or adjacent to the Project site because the required associated habitat types/communities within the Project footprint are absent due to existing anthropogenic disturbances associated with the existing outfall structure, riprap and surrounding development, which has eliminated that natural plant communities that these plant species are typically associated with.

None of the sensitive species known to occur within the *Harrison Mountain* quadrangle were observed during the general floristic survey (Appendix B). No suitable environment for these species occurs within the survey area.

Sensitive Plant Communities

According to Appendix B, the only sensitive habitat documented within 1 mile of the Project site is Southern Sycamore Alder Riparian Woodland:

The sawyer-Keeler Wolfe alliance is California sycamore woodlands (*Platanus racemose*) Woodland Alliance with the Holland ID of Southern Sycamore Alder Riparian Woodland. Southern Sycamore Alder Riparian Woodlands are found in gullies, intermittent streams, springs, seeps, stream banks, and terraces adjacent to floodplains that are subject to high-intensity flooding. Soils are rocky or cobbly alluvium with permanent moisture at depth. This habitat type is a tall deciduous riparian woodland that is dominated by western sycamore by at least 30 percent with occasional white alders. The USFWS Wetland Inventory (1996) recognizes *P. racemosa* as a FACW plant. These woodland stands seldom form closed canopies and may even appear as trees scattered in a shrubby thicket. The intermittent nature these high intensity flow drainages favor western sycamore as the dominant species, but white alder increases in abundance on more perennial streams.

The habitat within the southern portion of the Project site would best be classified as a mixed riparian scrub habitat that has been subject to anthropogenic disturbances from erosion associated with the failing outfall structure and riprap. Outside of the Project footprint, beyond the proposed apron, Bledsoe Gulch supports a California sycamore woodland plant community due to its vegetative cover and lack of anthropogenic disturbances.

Special Status Wildlife

According to the analysis in Appendix B, no State- and/or federally-listed threatened or endangered wildlife species are documented within 1 mile of the Project site. There are several sensitive wildlife species that are particularly important in this region, which are either documented to occur in the *Harrison Mountain* USGS quadrangle or have a moderate likelihood of occurring on the site. These special status wildlife species are described below.

Least Bell's Vireo

Least Bell's vireo is a federally and state endangered subspecies of the Bell's vireo. It is a summer migrant to California and is the only regularly-occurring subspecies of Bell's vireo in San Bernardino County. Its nesting habitat typically consists of a well-developed over-story and understory, along with low densities of aquatic and herbaceous plant cover. The understory frequently contains dense sub-shrub or shrub

thickets that are often dominated by plants such as willow, mulefat, and one or more herbaceous species. Least Bell's vireos begin to arrive at their breeding grounds in southern California riparian areas from mid-March to early April. Upon arrival, males establish breeding territories that range in size from 0.5 to 7.4 acres, with an average size of approximately two acres. In California, females begin laying eggs in April, fledging birds until the end of July (Kus et al. 2010). The fledglings will remain in the parental territory for up to a month. Bell's vireos leave the breeding grounds and migrate south mid- to late September. Although not common, a few have been found wintering in southern California (Hamilton and Willick 1996).

The plant communities within the southern portion of the Project, were determined to have a high potential to provide suitable habitat for least Bell's vireo. However, no least Bell's vireo were observed/heard onsite during the field investigation performed as part of the study in Appendix B.

Western Yellow Bat

The western yellow bat is a tree bat found in California in riparian, wash, and palm oasis habitats. The species is found year-round in California and roosts within the fronds of palm trees. They forage for flying insects over water and among trees using steady and maneuverable flight.

Per the analysis provided in Appendix B, the nearest yellow bat was documented in 1984 and 1988 with captured specimens. Location data for these specimens were limited to the general Highland area. Suitable habitat for the species occurs near/downstream of the project site. Because of the palm trees that are within the Project footprint, the potential for yellow bat to occur is moderate.

Critical Habitat

According to the analysis in Appendix B, the Project site is not located within designated Critical Habitat.

Jurisdictional Waters

One (1) unnamed ephemeral drainage feature (Drainage 1) was observed within the boundaries of the Project site during the field delineation. The onsite drainage feature generally flows north to south from the outlet of the Line A pipeline along the northern slope of Bledsoe Gulch on the southern portion of the Project site. Drainage 1 was created from stormwater runoff from the surrounding development that begins at the top of slope, where Line A outlets, and ends at the base of the slope, which is the area mapped as the head of Bledsoe Gulch. Drainage 1 conveys flows into Bledsoe Gulch which flows through a series of earthen channels and concrete lined flood control channels before conveying flows into City Creek. City Creek conveys flows into the Santa Ana River (Relatively Permanent Water), and ultimately the Pacific Ocean (Traditional Navigable Water).

Drainage 1, on the slope of Bledsoe Gulch within the project footprint, was created from the installation of the storm drain outlet (Line A) that was installed to convey storm flows from the surrounding development. It should be noted that Bledsoe Gulch can be observed on historic aerials dating back to 1938 and is seen as a topographic low spot with native vegetation amongst citrus groves. However, residential development in the late 1980s began to eliminate the surrounding citrus groves, further altering the flow regime of the Bledsoe Gulch. The OHWM within Drainage 1 was approximately 3 feet

wide and extending for approximately 155 feet, totaling 0.01 acre. This feature only conveys surface flow in direct response to precipitation and urban runoff from the surrounding developments.

As previously noted, the habitat found in the southern portion of the Project site, adjacent to Drainage 1, is composed of a mix of non-native/invasive and native plant species, that would be classified as mixed riparian scrub. Non-native/invasive plant species found within this portion of the project site include tree tobacco, Mexican fan palm, castor bean, tocalote, short-podded mustard, and non-native grasses. Native plant species observed within this plant community include western sycamore, poison oak, with an understory of stinging nettle, wild grape, California sagebrush, brittlebush, coyote bush, and California buckwheat.

Federal Jurisdictional Waters

Prior to leaving the site, and after transmission losses, surface flows from Drainage 1 flow approximately 0.5 mile to the south within the earthen bottom of Bledsoe Gulch before flowing into a culvert under Baseline Road and into an open concrete flood control channel. Flows are then conveyed within the concrete channel from Baseline Road to Church Street for 0.12 mile before entering a culvert under Church Street. From Church Street, flows are then conveyed via an earthen channel for approximately 0.13 mile before entering another culvert west of the terminus of Sycamore Drive. From the culvert west of the terminus of Sycamore Drive, water is conveyed via a series of open concrete flood control channels and underground culverts for approximately 1 mile before converging into City Creek.

Based on the detailed analysis of onsite hydrologic conditions, it was preliminarily determined that Drainage 1 has an insubstantial or speculative effect on the chemical, physical or biological significant nexus to the downstream RPW (Santa Ana River); and, therefore to the TNW (Pacific Ocean). The onsite drainage feature is an ephemeral feature that flow only in direct response to precipitation, is not considered a perennial or intermittent tributary, and does not possess a significant nexus (surface hydrologic connection) to downstream waters of the United States. Therefore, it is non jurisdictional in terms of the federal CWA.

Federal Wetlands

Areas with standing or flowing water or with seasonally or permanently saturated soils commonly support wetland communities. Freshwater wetlands are complex and variable, and their species composition and overall structure are dependent on a number of factors. Water depth, seasonal fluctuations in water levels, rate of water movement, water and sediment chemistry (including salinity, pH, and quantity of organic matter), depth and texture of bottom sediments, amount of sunlight, and water and air temperatures are among the most important variables affecting overall wetland dynamics. Along rivers and streams, fine-grained alluvial soils settle in the bottom of the drainages, and annual inundation after rains provide a significant load of nutrients, soil, and new germination sites. Wetland communities support an abundant variety of wildlife and often form the most productive habitats among the world's ecosystems. Numerous animal species depend on wetlands for critical parts of their life cycles.

On site soils are sandy and boulder strewn. No wetland soils occur in the Project area. There appears to be no seep areas or areas where water pools within the Project area. The slope is very steep at 46 percent or 1.5:1. Therefore, flows are conveyed downslope and do not collect on site or percolate into the soil. As such, there is no wetland hydrology that would allow for water to pond for long enough to create

anaerobic conditions in the soil to form hydric soils. In terms of vegetation on site, facultative wetland species, such as western sycamore, Pacific willow, and stinging nettle grow on site. In terms of the federal CWA, the site does not meet the criteria of being a wetland area since the site lacks hydric soils.

State Jurisdictional Waters

Regional Water Quality Control Board

The onsite drainage feature exhibits characteristics consistent with the Regional Board's methodology and would be considered jurisdictional waters of the State. Approximately 0.01 acre (155 linear feet) of non-wetland waters of the State occur onsite. Based on the proposed site plan, approximately 0.01 acre (155 linear feet) of Regional Board jurisdictional areas will be impacted.

State Wetlands

Under the State Water Resources Control Board State Wetland Definition, an area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation. Based on the results of the field delineation, it was determined that no areas within the project site meet the State Wetland Definition. Therefore, no state wetland features exist within the Project site.

California Department of Fish and Wildlife

The onsite drainage feature exhibits characteristics consistent with CDFW's methodology and would be considered CDFW streambed. Approximately 0.20 acre of CDFW jurisdiction was mapped within boundaries of the project site, consisting of 0.01 acre (155 linear feet) of streambed, and 0.19 acre of associated riparian habitat. Based on the proposed site plan, approximately 0.20 acre (155 linear feet) of CDFW jurisdictional areas will be impacted.

4.4.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. 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 U.S. 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

Discussion

- a) *Have a substantial adverse effect, either directly or through habitat modification, 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 Game or U.S. Fish and Wildlife Service?*

Less than Significant Impact with Mitigation Incorporated. Based on the literature review and field survey in Appendix B, implementation of the Project will have no significant impacts on

federally, or State, listed species because none are known to occur in the general vicinity of the Project. Additionally, the Project will have no effect on designated Critical Habitat because none exists within the area.

The habitat within the vegetated portions of Bledsoe Gulch, beyond the proposed apron, have the potential to support least Bell's vireo, although none were found during the surveys conducted in Appendix B.

The Project site has the potential to support suitable habitat for foraging and nesting birds, which are protected by the Migratory Bird Treaty Act and the Fish and Game Code. The loss of individuals would result in a potentially significant impact. **Mitigation Measures BIO-1 and BIO-2** for worker education and avian monitoring will reduce impacts to less than significant. Mitigation measures are located at the end of this section.

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

Less than Significant Impact With Mitigation Incorporated. The Biological Resources records search and site visit in Appendix B found mixed riparian scrub habitat that has been subject to anthropogenic disturbances from erosion associated with the failing outfall structure and riprap. Outside of the Project footprint, beyond the proposed apron, Bledsoe Gulch supports a California sycamore woodland plant community due to its vegetative cover and lack of anthropogenic disturbances. The analysis in Appendix B identified the potential to impact 0.19 acre of associated riparian habitat, primarily around the Bledsoe Gulch head and apron. Implementation of **Mitigation Measure BIO-3**, located at the end of this section, requires the City to obtain jurisdictional waters permits for modification of the riparian habitat and associated drainage impacts to reduce potential impacts to less than significant. With implementation of this mitigation, impacts would be less than significant.

- 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?*

No Impact. The analysis in Appendix B identified that the Project site does not contain state or federally protected wetlands. No impacts would occur, and no mitigation is required.

- 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?*

Less than Significant With Mitigation Incorporated. A wildlife corridor is defined as a linear landscape element which serves as a linkage between historically connected habitats/natural areas and is meant to facilitate movement between these natural areas. During the field survey,

the Project site was assessed for its ability to facilitate wildlife movement and for the presence of wildlife corridors.

The Project site is not considered an established wildlife movement corridor because the area does not connect two or more significant habitat areas and the area is not a major feature influencing the local plant and small mammal communities, due to surrounding development. Therefore, this project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species through the Project site.

The Project site has the potential to support suitable habitat for foraging and nesting birds, which are protected by the Migratory Bird Treaty Act and the Fish and Game Code. The loss of individuals would result in a potentially significant impact. **Mitigation Measures BIO-1** and **BIO-2** for worker education and avian monitoring will reduce impacts to less than significant. Mitigation measures are located at the end of this section.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less Than Significant Impact. The Project does not propose the removal of any trees that would be protected by any City of Highland Heritage Tree protection ordinance (Highland Municipal Code Chapter 8.32 Heritage Trees). The Project is exempt from the ordinance per Section 8.32.030. (Exemptions) "E. Trees which require maintenance or removal action for the protection of existing electrical power or communication lines or other property of a public utility as determined by the city engineer or designee." No impacts would occur, and no mitigation is required.

- 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?*

No Impact. There are no adopted Habitat Conservation Plans, Natural Community Plans or other approved local, regional or state habitat conservation plans for the Project area. No impacts would occur, and no mitigation is required.

4.4.3 Mitigation Measures:

The following mitigation measures are required to reduce potential impacts to less than significant:

BIO-1 Worker Environmental Awareness Program (WEAP) – Biological Resources A Worker Environmental Awareness Program (WEAP) training shall be developed and provided by a biologist familiar with least Bell's vireo and southwestern willow flycatcher, and their habitats. The WEAP training shall be presented by the biologist to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.

- BIO-2: Avian Monitoring.** If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.
- BIO-3 Obtain Jurisdictional Waters Permits.** Prior to construction, obtain permits from agencies having jurisdiction over Drainage 1 and the associated habitat.

4.5 CULTURAL RESOURCES

A Cultural Resources Assessment for the proposed Project was performed by CRM Tech in June 2020 (Appendix C).

Cultural resources include archaeological sites, buildings and other kinds of structures, historic districts, cultural landscapes, and resources important to specific ethnic groups. Archaeological sites represent the material remains of human occupation and activity either prior to European settlement (prehistoric sites) or after the arrival of Europeans (historical sites). The historic "built environment" includes structures used for habitation, work, recreation, education and religious worship, and may be represented by houses, factories, office buildings, schools, churches, museums, hospitals, bridges and other kinds of structures. An historic district is any "geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history" (36 CFR 60.3). The National Park Service defines a cultural landscape as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values".

4.5.1 Environmental Setting

History

The City of Highland area is adjacent to the historic Ranchos of San Bernardino and Muscupiabe, which dominated the region's early history. During the 1860s, large tracts owned by the U.S. Government became locally available for homesteading but various pressures forced Mormon pioneers to recede to Salt Lake City during this period. In the wake of the Mormon exodus, other settlers began to take advantage of new homestead opportunities. Since the City of Highland is located near the headwaters of the abundant Santa Ana River, City Creek, and other tributaries, these precious resources soon became thoroughly exploited during this era.

Historic maps consulted for the Cultural Resources Assessment (Appendix C) demonstrate ample evidence of settlement and development activities in the Project vicinity at least by the mid-19th century. In 1853-1877, when the U.S. government conducted the earliest systematic land surveys in the San Bernardino Valley, the surveyors noted settler Bledsoe's house and a small grain field a short distance to the southeast and the east of the Project location, respectively, as well as a trail traversing east-west near the northern end of the Project area the east of the Project location, respectively, as well as a trail traversing east-west near the northern end of the Project area.

The Project area became a part of James S. Edwards' East Highlands Ranch in the late 1880s (Appendix C). Maps from the late 1890s show the Project area to be surrounded by the road on the north, the North Fork Canal on the south, and the forerunner of the East Highland Reservoir on the southeast, but no man-made features are depicted in the immediate vicinity except the winding road (Appendix C).

During the 1930s-1960s, most of the land around the Project location was planted in orchards, presumably citrus groves, but the Project area was part of a strip of land along the Bledsoe Gulch that remained uncultivated (Appendix C). By that time the road that ran across the northern tip of the Project area in the

1890s, still a dirt road as late as 1995, was joined by another dirt road that traversed roughly north-south across the Project location (Appendix C).

Starting in the 1980s, the East Highlands Ranch underwent a rapid transformation from agriculture to suburbia, and by 2007 the redevelopment had been largely completed. In the immediate vicinity of the Project area, Highland Avenue was extended and paved along the northern edge of the Project area between 1995 and 2002, and the community center and its parking lot were built in 2004-2005, replacing the last patch of the original orchards of the ranch. The citrus trees that are now found on the grounds of the community center were evidently planted in 2007-2009 (Appendix C). Since then, the character of the Project area has remained unchanged.

The City of Highland incorporated in 1987.

Results of Cultural Resources Study

CRM Tech conducted a literature search and field review of the Project area as part of its Cultural Resources Assessment (Appendix C). According to the records search results provided by South Central Coastal Information Center (SCCIC), the Project area was involved in a series of six cultural resources studies completed between 1974 and 1995 on the East Highlands Ranch, a 1,635-acre agricultural enterprise that has since given way to the suburban residential development bearing that name today. Some of these studies entailed systematic archaeological field surveys on various portions of the ranch, while others were focused on historical background research on the ranch and the buildings and other built-environment features on the property.

As a result of these studies, the entire East Highlands Ranch complex and its various features and components were recorded collectively between 1990 and 2003 as a historical site and subsequently designated 36-007051 (CA-SBR-7051H) in the California Historical Resources Inventory. The Project area was included in the overall boundaries of the site, but no features or artifacts of the site are known to have been found within the Project location.

4.5.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. 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 formal cemeteries?			X	

Discussion

- a) *Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Less Than Significant Impact. The entire East Highlands Ranch complex and its various features and components were recorded collectively between 1990 and 2003 as a historical site and subsequently designated 36-007051 (CA-SBR-7051H) in the California Historical Resources Inventory. The Project area was included in the overall boundaries of the site, but no features or artifacts of the site are known to have been found within the Project location.

The Project will replace and relocate underground stormdrain utilities both behind the community center and within Bledsoe Gulch. The underground utilities will not change the character of the East Highlands Ranch or impact its significance as a historical resource. The impact will be less than significant, and no mitigation is required.

- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less Than Significant with Mitigation Incorporated. Construction and excavation associated with ground disturbing activities upon Project implementation has the potential to unearth unknown archaeological resources in the Project area, especially due to the depths of excavation being approximately 20 feet below ground surface. Although no specific resources in the Project area have been identified through records searches, compliance with **Mitigation Measures CUL-1** and **CUL-2** to educate workers and spot-check during deep excavation will ensure that impacts are less than significant. Mitigation measures are located at the end of this section.

- c) *Disturb any human remains, including those interred outside of formal cemeteries?*

Less than Significant Impact. Based on an analysis of records and archaeological survey of the property, it has been determined that the Project site does not include a formal cemetery or any archaeological resources that might contain interred human remains. Nonetheless, the Project will be required to adhere to State Health and Safety Code Section 7050.5 if in the event that human remains are encountered and by ensuring that no further disturbance occur until the County Coroner has made the necessary findings as to origin of the remains. Furthermore, pursuant to Public Resources Code Section 5097.98 (b), remains shall be left in place and free from disturbance until a final decision as to the treatment and their disposition has been made. Compliance with State Law is not considered mitigation. Therefore, impacts in this regard are considered less than significant.

4.5.3 Mitigation Measures:

The following mitigation measures are required to reduce potential impacts to less than significant:

- CUL-1 Worker Environmental Awareness Program (WEAP) – Cultural/ Archaeological Resources.** A WEAP training shall be developed and presented by a cultural resource specialist to educate construction workers about various potentially significant buried resources. The training will be presented to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.
- CUL-2: Cultural Resource Monitoring:** A Secretary of the Interior qualified archaeologist will spot check, on a schedule to be developed with the construction contractor, the construction excavations, within undisturbed soil to determine the presence or absence of cultural resources. The qualified archaeologist will then be able to recommend increasing or decreasing monitoring activities based on sub-surface findings.

4.6 ENERGY

4.6.1 Environmental Setting

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration [EIA] 2018). California consumed 292,039 gigawatt-hours (GWh) of electricity and 2,110,829 million cubic feet of natural gas in 2017 (California Energy Commission [CEC] 2019; EIA 2018). In addition, Californians consume approximately 18.9 billion gallons of motor vehicle fuels per year (Federal Highway Administration 2019). The single largest end-use sector for energy consumption in California is transportation (39.8 percent), followed by industry (23.7 percent), commercial (18.9 percent), and residential (17.7 percent) (EIA 2018).

Most of California's electricity is generated in-state with approximately 30 percent imported from the Northwest (Alberta, British Columbia, Idaho, Montana, Oregon, South Dakota, Washington, and Wyoming) and Southwest (Arizona, Baja California, Colorado, Mexico, Nevada, New Mexico, Texas, and Utah) in 2017. In addition, approximately 30 percent of California's electricity supply comes from renewable energy sources such as wind, solar photovoltaic, geothermal, and biomass (CEC 2018). Adopted on September 10, 2018, SB 100 accelerates the State's Renewables Portfolio Standards Program by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from refineries located in California. Gasoline is the most used transportation fuel in California with 15.5 billion gallons sold in 2017 and is used by light-duty cars, pickup trucks, and sport utility vehicles (California Department of Tax and Fee Administration 2018). Diesel is the second most used fuel in California with 4.2 billion gallons sold in 2015 and is used primarily by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles (CEC 2016). Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including CO₂ and NO_x. The transportation sector is the single largest source of GHG emissions in California, accounting for 41 percent of all inventoried emissions in 2016 (California Air Resources Board [CARB] 2018).

Building Energy Efficiency Standards

The California Energy Conservation and Development Commission (California Energy Commission) adopted Title 24, Part 6, of the California Code of Regulations; energy Conservation Standards for new residential and nonresidential buildings in June 1977 and standards are updated every three years. Title 24 ensures building designs conserve energy by requiring the use of new energy efficiency technologies and methods into new developments. Currently, the California Energy Commission (CEC) Title 24 2016 Building Energy Efficiency Standards are in effect; however, the updated 2019 Building Energy Efficiency Standards will take effect on January 1, 2020. The 2019 Building Energy Efficiency Standards states that nonresidential buildings will use about 30 percent less energy compared to the 2016 standards due mainly to lighting upgrades.

Senate Bill 350

Senate Bill (SB) 350 (de Leon) was signed into law in October 2015 and established new clean energy, clean air, and greenhouse gas reduction goals for 2030. SB 350 establishes periodic increases to the California Renewables Portfolio Standard (RPS) Program with the target to increase the amount of electricity generated per year from eligible renewable energy resources to an amount that equals at least 33% of the total electricity sold annually to retail customers, by December 31, 2020. The SB 350 specifically calls for the quantities of eligible renewable energy resources to be procured for all other compliance periods reflecting reasonable progress in each of the intervening years to ensure that the procurement of electricity products from eligible renewable energy resources achieves 40 percent by December 31, 2024, 45 percent by December 31, 2027, and 50 percent by December 31, 2030.

Senate Bill 100

Senate Bill 100 (SB 100) was signed into law September 2018 and increased the goal of the California RPS Program to achieve at least 50 percent renewable resources by 2026, 60 percent renewable resources by 2030, and 100 percent renewable resources by 2045. SB 100 also includes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

4.6.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. ENERGY: Would the project:				
a) Result in a 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 efficiency?				X

Discussion

- a) *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. Energy use during Project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery and

employee trips. The anticipated energy consumption from construction equipment and vehicles is estimated at a total of 1,815 gallons of gasoline fuel and 7,808 gallons of diesel fuel.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In the interest of cost efficiency, construction contractors are not anticipated to utilize fuel in a manner that is wasteful or unnecessary. Therefore, Project construction would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and no construction-related energy impact would occur. As the proposed Project is a repair/improvement of an existing storm drain, no operational emissions are anticipated. Therefore, impacts would be less than significant, and no mitigation measures are required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. SB 100 mandates 100 percent clean electricity for California by 2045. SCE has achieved over 46% Carbon-Free energy sources as of the 2018 Suitability Report. The proposed Project is a repair/improvement of an existing storm drain and no operational emissions are anticipated. Therefore, approval of the improvements would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. No impact would occur, and no mitigation measures are required.

Mitigation Measures:

No mitigation measures are required.

4.7 GEOLOGY AND SOILS

LOR Geotechnical Group performed a Preliminary Geotechnical Investigation for the Project in November 2013 and March 2020 (Appendix D-1 and D-2, respectively). A Paleontological Resources Assessment was completed for the Project in June 2020 (Appendix D-3).

4.7.1 Environmental Setting

Regional Geologic Setting

According to the City of Highland's General Plan (COH, 2006), Highland and the surrounding areas are part of a gently sloping alluvial plain bordered on the north by the San Bernardino Mountains, a traverse range that runs from east to west. The plain is predominantly composed of alluvium deposited by rivers and creeks that drain from the nearby mountains.

The Project area is situated on the northeastern edge of the San Bernardino Valley, in the northernmost portion of the Peninsular Ranges Province, near where it adjoins the Transverse Ranges Province. The Peninsular Ranges Province is bounded on the north by the Transverse Ranges Province, on the northeast by the Colorado Desert Province, and on the west by the Pacific Ocean. It extends southward to the southern tip of Baja California (Appendix D-3).

The Project area lies a short distance south of the main branch of the San Andreas Fault and near the base of the San Bernardino Mountains. The San Andreas Fault, a right-lateral strike-slip fault, runs roughly east-west in this region and generally divides the metamorphic and igneous rocks of the San Bernardino Mountains to the north from the alluvial soils of the valley to the south (Appendix D-3). It is also regarded as the boundary between the Peninsular Ranges and Transverse Ranges Geomorphic Provinces.

Bledsoe Gulch was created through movement along the San Andreas fault which is thought to cross the northern portion of the Project site from southeast to northwest, in the vicinity of the orange orchard (Appendix D-2).

Paleontological Environment

The City of Highland's General Plan (COH, 2006) identifies that older alluvial deposits extend down from the foothills and cover approximately half of the City. The older alluvium consists of terrace deposits in major stream canyons, older conglomerates of alluvial fans downstream from canyon mouths, and deposits under mesas. Younger alluvium including river channel deposits consisting of unconsolidated gravel, sand, and silt underlies much of the City. These materials appear near the surface of the Santa Ana River course in the eastern portion of Highland. The younger alluvium is highly permeable and conducive to groundwater recharge, particularly in streambeds. Pleistocene alluvial units are generally considered to be of high paleontological potential.

A Paleontological Resources Assessment for the Project was performed by CRM Tech (Appendix D-3). In order to identify any paleontological resource localities that may exist in or near the Project area and to assess the probability for such resources to be encountered during the Project, CRM TECH initiated a records search at the San Bernardino County Museum, conducted a literature review, and carried out a systematic field survey of the Project area.

The results indicate of the Paleontological Assessment identified that pertinent literature suggest that the Project area is situated upon exposures of Pleistocene- to Holocene-age alluvium. Sources vary in their characterization of the surface soils but generally agree on the presence, at varying depths throughout the Project area, of Pleistocene (including early Pleistocene) sediments, which have a high potential to contain significant, nonrenewable fossil remains, especially in the older deposits. These soils are known to have produced paleontological remains elsewhere in the surrounding area.

The records search by SBCM indicates that the Regional Paleontological Locality Inventory at the museum contains no known localities within the Project area (Appendix D-3). However, the records search reveals the presence of two known fossil localities approximately 3 miles northwest of the Project location, each consisting of a single leaf mold found in older alluvium.

Soils

The surface geology in the Project area is identified as $Qvof_2$ in the northern portion and $Qvof_3$ in the southern portion (Appendix D-3, Figure 5). These sediments are described as very old alluvial fan channel deposits, with the $Qvof_3$ dating to the early and middle Pleistocene and the $Qvof_2$ dating to the early Pleistocene. The older of the two units, $Qvof_2$, represents sequences of sand and gravel up to 30 meters in thickness, composed of well consolidated and stratified sands of medium to very coarse grains of angular potassium feldspars granules and pebbles. The younger unit, $Qvof_3$, is crudely stratified and well consolidated, and it consists of poorly sorted fine- to very coarse-grained sand. It is limited to localized deposits that overlie $Qvof_2$ at the depth of "a few meters." The upper surfaces of $Qvof_3$ are strewn with angular and subrounded boulders (Appendix D-3).

The geotechnical investigation (Appendix D-2) determined that fills on the order of 35 feet or more were placed at various times across the top end of Bledsoe Gulch which has resulted in the existing sloping topography observed at the site.

Liquefaction

The potential for liquefaction generally occurs during strong ground shaking within loose, granular sediments where the groundwater is usually less than 50 feet. The Project site is not mapped within the City of Highland's General Plan (COH, 2006) as being in an area of high or moderate liquefaction.

Faulting

The seismic setting of Highland and surrounding areas is dominated by the San Andreas Fault. Several "active" and "potentially active" faults of the San Andreas Fault are present within and nearby Highland.

The Project site is identified by the City of Highland General Plan, the geotechnical analysis and the California Department of Conservation as being within an Alquist-Priolo Earthquake Zone as a trace of the South Branch of the San Andreas Fault is mapped traversing Project site.

4.7.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
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.		X		
Strong seismic ground shaking?		X		
Seismic-related ground failure, including liquefaction?			X	
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- site 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		

Discussion

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- *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?*

Less than Significant Impact With Mitigation Incorporated.

Alquist Priolo Fault/Seismic Ground Shaking. The Project is located in Southern California, a seismically active area and susceptible to the effects of seismic activity include rupture of earthquake faults. The geotechnical report in Appendix D-2 indicates that although the precise location of the San Andreas fault is unknown, the San Andreas fault has been mapped as traversing the northern portion of the Project site according to State mapping. Whether it crosses the existing or proposed storm drain alignment, the pipe is subject to rupture (off-setting and displacement) if and when the San Andreas fault in this area should rupture. The geotechnical report provided no provisions for protection against fault rupture hazard and/or strong seismic shaking.

While this Project is located in an Alquist-Priolo zone, there is no alternative location for this Project outside of this zone to still achieve the desired results of reducing the headcutting and damage to the western slope adjacent to residences. The existing reinforced concrete pipe will be placed with a new reinforced concrete pipe within the same alignment, but at depths up to approximately 15 feet below ground surface to promote positive flow. The pipeline is located underground, therefore, any substantial adverse effects would occur underground, which would significantly reduce the risk of loss, injury, or death as a result of rupture of the pipeline and related Project components. However, because the pipeline is in an Alquist-Priolo zone, **Mitigation Measures GEO-1 and GEO-2**, located at the end of this section, are required to ensure the integrity of the pipeline during construction and operations.

Liquefaction. The Project area is not within an area of liquefaction, therefore, there will be no impact as a result of the location of the Project within a possible liquefaction area.

Landslides. The Project site is mapped by San Bernardino County to be an area of low to moderate susceptibility to natural landslide hazards. The Project site is situated within the foothills of the San Bernardino mountains, less than one-half mile west of several low ridges. The Project is situated underground, therefore, the risk injury from landslides from the adjacent foothills is less than significant.

The geotechnical report in Appendix D-2 indicated that the Project site, including a portion of the head and bank adjacent to the community center, is underlain by various units of non-structural fill materials that ranges from 8 to 35 or more feet in thickness. The fill soils were identified to contain large rocks and pieces of concrete but, in the locations explored, did not appear to contain a large amount of deleterious man-made debris. The Project will excavate the fill soils directly within the work area and replace them with clean, compacted soils. Given that this replaced stormwater pipeline

would be subject to potential cracks and rupture during strong seismic events, there is the potential for water to be released out of the pipeline and into the fill material that exists throughout the head of Bledsoe Gulch. This could cause the fill material to become unstable and cause a landslide into Bledsoe Gulch. Because the undocumented fill material is limited to a specific area approximately 170 feet behind the community center, it is unlikely that the slide could reach the community center and cause significant damage. The fill is not believed to exist within the western bank of Bledsoe Gulch, behind the homes. Therefore, the impact is anticipated to be less than significant. However, because the Project is to replace a stormwater pipeline in an Alquist-Priolo zone, **Mitigation Measures GEO-1** and **GEO-2**, located at the end of this section, are required to ensure the integrity of the pipeline during construction and operations and to ensure impacts will be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Construction activities associated with the Project would involve earth movement and the exposure of soil, which would temporarily increase erosion susceptibility. However, the Project would also be required to adhere to standard regulatory requirements, including, but not limited to, requirements imposed by the City's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (State Water Resources Control Board Order No. 2012-0011- DWQ) and a Project-specific Erosion Control Plan (ECP) that includes Best Management Practices (BMPs) to minimize water pollutants including sedimentation in stormwater runoff. Therefore, impacts would be less than significant. No mitigation is required.

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?

Less than Significant Impact With Mitigation Incorporated. Refer to the discussion of Thresholds above for a discussion of hazards associated with liquefaction and landslide hazards. As noted, there is a low to moderate potential for a natural landslide, and the area is not subject to liquefaction. Because the Project is to replace a stormwater pipeline in an Alquist-Priolo zone and in an area known to contain undocumented fill, **Mitigation Measures GEO-1** and **GEO-2**, located at the end of this section, are required to ensure the integrity of the pipeline during construction and operations.

d) 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?

Less than Significant Impact. The Project will not construct habitable structures. The geotechnical analysis indicated that the Project will likely occur within an area of undocumented fill. The area of the new pipeline will be excavated and recompacted to engineering standards. Therefore, there is a less than significant impact.

- 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?*

No Impact. The Project does not propose to install any septic tanks or alternative wastewater disposal systems. No impacts would occur.

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

Less than Significant Impact with Mitigation Incorporated. Site excavation activities are anticipated to be greater than 5 feet in the area of the new pipelines. The Project area is situated upon exposures of Pleistocene- to Holocene-age alluvium, which have a high potential to contain significant, nonrenewable fossil remains, especially in the older deposits. These soils are known to have produced paleontological remains elsewhere in the surrounding area.

The records search conducted for the paleontological study (Appendix D-3) identified that there were no localities identified within the Project area or within a 1-mile radius; however, there were records within 3 miles that presented paleontological finds within similar alluvial mapped units. The geotechnical report (Appendix D-3) identified that the Project area may have significant areas of undocumented fill.

Since the young alluvial fan deposits of the Late Pleistocene to Holocene are considered paleontologically sensitive and the location of the undocumented fill cannot be confirmed to the depth of all excavation, **Mitigation Measure GEO-3** to include spot-checking by a will be implemented to reduce potential impacts to less than significant. The mitigation measure is located at the end of this section.

4.7.3 Mitigation Measure:

The following mitigation measure is required to reduce potential impacts to less than significant:

GEO-1 Pipeline Inspection – Construction. During construction, geotechnical observation and testing should be conducted at a schedule to be identified between the City and the Contractor and the Geotechnical specialist. Additional expansion testing will be performed at the direction of the Geotechnical specialist. The geotechnical specialist shall have the authority to halt work if subsurface conditions warrant additional exploration.

GEO-2 Pipeline Inspection – Operations. The City shall inspect the pipeline on an annual schedule at a minimum. Inspection should also occur immediately following earthquakes of a magnitude 3.0 or above that occur near the Project site or where strong seismic shaking has been felt in the Highland area, and/or earthquakes which occur within the San Andreas fault zone. Inspection methods shall include both camera and/or physical inspections in sufficient detail to identify cracking and/or breeches in the concrete pipe and/or roadway and drainage ditch on the west bank such that water may leak from the

pipeline to the adjacent fill. Pipeline, roadway and drainage ditch repairs should occur immediately upon discovery of any cracks or breaches.

GEO-3 Provision for Unanticipated Buried Paleontological Resources: A qualified cultural resource specialist or paleontologist will spot check construction excavations that would impact Late Pleistocene to Holocene units, which are generally below 10 feet in the Project area. The frequency will be determined with the cultural resource specialist and the construction contractor based on the work schedule.

- The paleontologist will be able to recommend increasing or decreasing monitoring activities based on the sub-surface findings.
- The monitor shall have the ability to salvage fossils if they are unearthed to avoid construction delays and to remove samples of the soils that may contain the remains of small fossil invertebrates and vertebrates.
- The monitor shall be empowered to temporarily halt or divert equipment to allow the removal of larger fossils in a timely manner.
- The extent of the monitoring may be reduced if, in the opinion of the paleontologist, potentially fossiliferous units are not found in the subsurface, or if present that they are determined to be a low potential to contain or yield fossil resources.

4.8 GREENHOUSE GAS EMISSIONS

4.8.1 Environmental Setting

Climate change is the observed increase in the average temperature of the earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2007).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), fluorinated gases such as hydrofluorocarbons (HFC) and perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs as it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (United States Environmental Protection Agency 2018). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). As GHGs absorb different amounts of heat, a common reference gas, CO₂ is used to relate the amount of heat absorbed to the amount of gas emitted, referred to as "carbon dioxide equivalent" (CO₂e), and is the amount of a GHG emitted during a 100-year period multiplied by its GWP. CO₂ has a 100-year GWP of 1 (one). By contrast, CH₄ has a GWP of 25, meaning its global warming effect is 25 times greater than CO₂ on a molecule per molecule basis (IPCC 2007).

Project implementation would generate GHG emissions through the burning of fossil fuels and other construction-related emission sources, thus potentially contributing to cumulative impacts related to climate change. In response to an increase in man-made GHG concentrations over the past 150 years, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 codified the statewide goal of reducing emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels) and adopted regulations to require reporting and verification of statewide GHG emissions.

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing CARB to reduce GHGs to 40 percent below 1990 levels by 2030. In response, on December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) CO₂e by 2030 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects as they include all emissions sectors in the state.

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

Significance Thresholds

The CEQA Guidelines provide regulatory direction for the analysis and mitigation of GHG emissions appearing in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

In guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD considered a tiered approach to determine the significance of residential, commercial, and mixed-use projects. The draft tiered approach is outlined in meeting minutes dated September 29, 2010 (SCAQMD 2010).

- Tier 1. If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- Tier 2. Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.
- Tier 3. Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 MT of CO₂e per year for residential, commercial, and mixed-use projects. 10,000 MT of CO₂e per year for Industrial Projects.
- Tier 4. Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT of CO₂e per year for land use projects.

Under Tier 2, project impacts would be less than significant if a project is consistent with an approved local or regional plan. The City of Highland has not adopted a plan for the reduction of GHG emissions; therefore, Tier 2 does not apply, and the GHG analysis of the Project cannot be streamlined via CEQA Guidelines Section 15183.5. As the City of Highland does not have a “qualified” GHG reduction plan, this analysis relies on SCAQMD’s Tier 3 screening significance threshold of 3,000 MT of CO₂e per year to evaluate the Project’s GHG emissions.

4.8.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. 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	

Discussion

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant Impact. Project emissions were estimated using SCAQMD “Air Quality Handbook”, On-Road Heavy-Duty Diesel Trucks (2022) and SCAQMD Off-Road Mobile Source Emissions Factors (2022). Emission estimates are based on the assumptions outlined in the Air Quality Section. Calculations of CO₂, CH₄, and N₂O emissions are provided to identify the magnitude of potential Project effects. The analysis focuses on CO₂, CH₄, and N₂O as these make up 98.9 percent of all GHG emissions by volume and are the GHG emissions that the Project would emit in the largest quantities (IPCC 2007). Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (2008) CEQA and Climate Change white paper and included the use of the California Climate Action Registry (2009) General Reporting Protocol. CO₂, CH₄, and N₂O emissions were quantified using the Emissions Factors.

Project construction would generate GHG emissions from the operation of heavy equipment. As the proposed Project is a repair/improvement of an existing storm drain, no operational emissions are anticipated. As shown in Table 4.8-1, emissions from Project construction would be approximately 392.2 MTCO₂e total over the entire construction period, or approximately 13.1

MTCO₂e per year when amortized over a 30-year period in accordance with SCAQMD recommendations (SCAQMD 2008b).

**Table 4.8-1: Greenhouse Gas Construction Emissions
(MT Per Year)**

Source/Phase	CO ₂	CH ₄	N ₂ O
Excavator	1,920.0	0.1	0.0
Dozer	3,824.0	0.3	0.0
Crane	1,032.0	0.1	0.0
Loader	872.0	0.0	0.0
Other Construction Equip.	1,968.0	0.1	0.0
Other Material Handling Equip.	1,216.0	0.1	0.0
Material Export/Import	34.8	0.0	0.0
Total MTCO₂e	392.2		
Amortized over 30 years	13.1		
SCAQMD Threshold	3,000		
Significant	No		

Source: SCAQMD Off-Road Mobile Source Emissions Factors (2022); SCAQMD:
Emission Factors for On-Road Heavy Heavy Duty Diesel Trucks (2022);
N₂O: California Climate Action Registry General Reporting Protocol, 2009I;
Table A9-8-C SCAQMD Handbook; Climate Leaders EPA, Section 3, Table 2
Duration: 3 Month (66 days) Construction Period

As discussed, the proposed Project would have a significant impact related to GHG emissions if Project-related emissions would exceed 3,000 MTCO₂e per year. The Project's GHG emissions would be approximately 13.1 MTCO₂e per year; therefore, the proposed Project would not exceed the threshold. Impacts would be less than significant, and no mitigation measures are required.

- b) *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less than Significant Impact. The City of Highland has not adopted a plan for the reduction of GHG emissions; therefore, and the GHG analysis of the Project cannot be streamlined via CEQA Guidelines Section 15183.5. As the City of Highland does not have a "qualified" GHG reduction plan, this analysis relies on SCAQMD's Tier 3 screening significance threshold of 3,000 MT of CO₂e per year to evaluate the Project's GHG emissions. As shown in Table 4.8-1, emissions from Project construction would be approximately 392.2 MTCO₂e total over the entire construction period, or approximately 13.1 MTCO₂e per year when amortized over a 30-year period in accordance with SCAQMD recommendations (SCAQMD 2008b). Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation Measures:

No mitigation measures are required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

4.9.1 Environmental Setting

A hazardous material is a substance that is toxic, flammable/ignitable, reactive, or corrosive. Extremely hazardous materials are substances that show high or chronic toxicity, carcinogenic, bioaccumulative properties, persistence in the environment, or that are water reactive. Improper use, storage, transport, and disposal of hazardous materials and waste may result in harm to humans, surface and groundwater degradation, air pollution, fire, and explosion.

Both the EPA and the California Department of Health Services (DHS) regulate the concentration of various chemicals in drinking water. variety of pesticides, fungicides and herbicides are used in the cultivation of row crops. Some pesticides and herbicides are injected into the soil as fumigants, while fungicides are generally sprayed by crop dusters. The CalEPA's Department of Pesticide Regulations establishes regulations regarding agricultural chemical use. These regulations are designed to prevent pesticides from being used in such a way as to jeopardize or cause injury to others. Among these regulations is Section 6614 from Title 3 of the California Code of Regulations.

4.9.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. 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

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
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		

Discussion

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less than Significant Impact. Construction of the proposed Project would involve the use of construction-related chemicals. These include but are not limited to hydraulic fluids, motor oil, grease, runoff, and other related fluids and lubricants. The construction activities would involve the disposal and recycling of materials, trash, and debris. The City's General Plan Safety Element addresses potential hazards in the City and identifies goals and policies to reduce risks and damages associated with hazards, including disposal of hazardous materials due to human activities.

The proposed Project would comply with local, state, and federal requirements for proper storage and handling of hazardous materials, including development of a hazardous materials business plan. In addition, the Project would implement Best Management Practices to minimize impacts in the event of a spill or release of hazardous materials used on site. These include, but are not limited to routine cleaning, inspection, and maintenance, development of procedures to mitigate spills, provide signage in construction areas, proper storage and handling procedures, and providing secondary containment of liquid materials.

With mandatory regulatory compliance with federal, State, and local laws (as described above), potential hazardous materials impacts associated with long-term operation of the Project would be less than significant and mitigation is not required.

- 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?*

Less than Significant Impact With Mitigation Incorporated. Construction and operation of the Project would involve the routine transport, use, or disposal of hazardous materials on- and off-site.

Construction activities would require the temporary use of hazardous substances, such as fuel, lubricants, and other petroleum-based products for operation of construction equipment as well as oil, solvents, or paints. As a result, the proposed Project could result in the exposure of persons and/or the environment to an adverse environmental impact due to the accidental release of a hazardous material. However, the transportation, use, and handling of hazardous materials would be temporary and would coincide with the short-term Project construction activities. Further, these materials would be handled and stored in compliance with all with applicable federal, state, and local requirements, any handling of hazardous materials would be limited to the quantities and concentrations set forth by the manufacturer and/or applicable regulations, and all hazardous materials would be securely stored in a construction staging area or similar designated location within the Project site. In addition, the handling, transport, use, and disposal of hazardous materials must comply with all applicable federal, state, and local agencies and regulations, including the Department of Toxic Substances Control; Occupational Health and Safety Administration (OSHA); Caltrans; and the County Health Department - Hazardous Materials Management Services.

With the compliance with local, state, and federal regulations short-term construction impacts associated with the handling, transport, use, and disposal of hazardous materials would be less than significant.

Because the Project will occur within Bledsoe Creek, but is less than 1 acre, the City will prepare an Erosion Control Plan that will also address BMPs and procedures to implement should a spill occur within the creek.

The 2013 geotechnical report (Appendix D-1) identified that there is approximately 30 feet of unknown fill in the Project area. The report notes that in the mid to late 1980's, grading for development of the East Highlands Ranch started and, during this time, the groves around the site were removed, and a dirt road was graded in just west of the site. Soil piles were stockpiled in areas adjacent to this dirt road and some fill soils were placed just to the northeast of the site. Between 1986 and 1991, significant quantities of fill soils were placed in areas including the site and areas to the west and north. These fills were apparently placed in connection with grading for the adjacent residential housing tract located to the southwest.

The geotechnical report indicated that the Project area consists of the eroded upper portion of an existing slope, west of the East Highlands Ranch Community Center, where the existing 48-inch diameter storm drain empties into adjacent Bledsoe Gulch. The Project site condition during the 2013 geotechnical report noted that erosion had created a void, into which the last two storm drain segments fell, that measured approximately 30 feet wide, 40 feet long and up to about 15 feet deep. Along with the pipe segments, loose soils and concrete panels from formerly existing flatwork, were present in the bottom of the erosion gully. Additional areas of weakened soil, up to about 10 feet wide, were present locally along the side of the existing erosion gully and these are indicated by tension cracks in the soil. The 2013 geotechnical report identified that up to about 20 additional feet of fill material may be present beneath the area of failure.

Given that the contents of the fill are unknown, it is unknown if potentially hazardous materials, such as old use oil drums or other items, may be uncovered during excavation. As such, implementation of **Mitigation Measure HAZ-1**, located at the end of this section, that educates construction crews as to how to identify potential hazardous waste and protocols for its discovery, is required to reduce potential impacts to less than significant. Mitigation measures are located at the end of this section.

- 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 proposed Project is not within one-quarter mile of any school. No impacts would occur.

- 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. According to the Department of Toxic Substances Control GeoTracker database, there are no hazardous materials sites on or adjacent to the Project site. Therefore, the proposed Project would not create a significant hazard to the public because the Project is not located on a hazardous waste site.

- e) *For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. No airports exist within 2 miles of the Project site. No impacts would occur.

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

No Impact. The construction occurs off major roadways. As a result, construction of the proposed Project would have no impact on emergency response or evacuation plans. Workers for the Project would also not generate significant traffic, and have ample off-street parking. No impacts to emergency response or evacuation plans would occur.

- g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less Than Significant With Mitigation Incorporated. The Project is identified by the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) as

being within a Very High Fire Hazard Zone, and the area is subject to Santa Ana winds, which can spread fires rapidly. Construction may include the use of gas-powered hand tools such as chain saws and/or welding equipment that may produce sparks. Bledsoe Gulch has a high concentration of vegetation. Therefore, there is a high potential to indirectly cause a wildfire during construction. As such, implementation of **Mitigation Measure HAZ-2** that requires the contractor to implement fire protection protocols during construction will reduce potential impacts to less than significant. Mitigation measures are located at the end of this section.

4.9.3 Mitigation Measures:

The following mitigation measures are required to reduce potential impacts to less than significant:

HAZ-1 Worker Environmental Awareness Program (WEAP) – Hazardous Materials. A WEAP training shall be developed and presented by a specialist to educate construction workers about signs of buried hazardous waste. The training will be presented to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.

The training shall include but not be limited to the following requirements:

- The Department of Toxic Substances Control (DTSC) and San Bernardino County Fire Department Hazardous Materials Division shall be immediately notified in the event malodorous or discolored soils, liquids, containers, or other materials known or suspected to contain hazardous materials and/or contaminants are encountered during activities associated with the proposed Project. Earthmoving activities in the vicinity of said material shall be halted until the extent and nature of the suspect material is determined by qualified personnel (as determined by the DTSC). The removal and/or disposal of any such contaminants shall be in accordance with all applicable local, State, and Federal standards.
- In the event of any identification of or spill of hazardous materials and/or contaminants in the construction area, the party whose activity resulted in the spill or release shall notify the City of the location, extent, and nature of the spill or release. The City shall thereupon work with East Valley Water District to assess the depth to groundwater in the area of the release, and if it appears that groundwater tables are high enough to create a potential for exposure of the groundwater table to the spill or release, will modify its recharge operations as much as feasible to prevent groundwater table intersection with the identified spill or release.

HAZ-2 During construction, all staging areas, welding areas, or areas slated for construction using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Spark arresting equipment shall be in good working order. The City shall require all vehicles and crews working at the Project site to have access to functional fire extinguishers at all times. In addition, construction crews are required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. The contractor also shall provide a safety plan for the implementation

of additional protocols when the National Weather Service issues a Red Flag Warning. Such protocols should address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.

4.10 HYDROLOGY AND WATER QUALITY

A Drainage Technical Report was prepared for the Project in December 2021 (Appendix E).

4.10.1 Regulatory Setting

National Pollutant Discharge Elimination System (NPDES)

The RWQCB also requires that dischargers whose construction projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). The SWPPP would include BMPs to be implemented during and after project construction to minimize erosion and sedimentation of downstream watercourses.

Cal Green Building Code

The California Green Building Standards Code 2019 (CAL Green), Nonresidential Mandatory Measures, Section 5.106.1 requires a SWPPP for projects that disturb less than 1 acre of land. The CAL Green code is designed for planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties. Section 5106.01 identifies a number of Best Management Practices that should be included in a SWPPP prepared under this section of CAL Green.

The Project disturbs less than 1 acre but is not a type of project that is covered under the CAL Green code.

4.10.2 Environmental Setting

Groundwater

The Project within the Santa Ana River Hydrologic Unit, Bunker Hill Groundwater Basin. Based on groundwater level data from the California Dept of Water Resources, groundwater in the Project vicinity ranges from approximately 40 to 200 feet bgs. The geotechnical report prepared for the Project identified that groundwater was encountered at 26 feet in exploratory boring B-3, in the northern portion of the Project site, but did not encounter groundwater in the remainder of the exploratory borings including one conducted by the creek.

Water service is provided to Highland by the East Valley Water District, which derives 76 percent of its water supply from local groundwater wells, 23 percent imported from State Water Project, and 1 percent from the Santa Ana River through the North Fork Water Company.

Surface Water/Stormwater

The Drainage report in Appendix E identifies that the existing Line "A" storm drain is a 290-foot-long, 48-inch underground RCP that was installed in 2002 between the community center and Bledsoe Gulch to convey the tributary drainage within the East Highlands Ranch subdivision, as part of the subdivision development from just north of Highland Avenue. The existing pipe outlets approximately 50 feet downstream of the Bledsoe Gulch head, near the top of the slope embankment. The depth of the RCP ranges from 4 feet to 5 feet below ground surface between the existing community center and the Bledsoe Gulch outlet. A 75-foot long by 20-foot wide grouted riprap pad (0.03- acre) was also constructed along the existing slope embankment down to the bottom of the slope on a very steep slope of approximately 2:1.

Over time, the slope embankment area surrounding the RCP outlet has been severely eroded by high flow velocity flows coming from the RCP outfall, resulting in significant erosion along the creek sideslopes and invert, to currently an approximately 1.5:1 slope, which is threatening the backyards of the adjacent homes that are situated along the west embankment, along Rockspring Lane. The existing grouted riprap pad below the RCP has also sustained damaged from the high flow velocity and is no longer providing erosion protection for the slope embankment and the RCP.

In 2012, a remedial repair was performed by lining an approximate 0.02-acre area of the creek head near the RCP outlet with concrete and extending the existing RCP downstream using a 20-foot long, 48-inch plastic pipe. However, this limited repair did not stop the erosion of the creek head or adjacent embankment slope, and continual lateral erosion of the slope embankment caused structural cracking at the pipe joint of the RCP near the existing inlet riser. Currently, the creek head invert is approximately 58 feet below the top of the slope over a distance of approximately 120 feet, yielding an approximate slope of approximately 1.5:1.

Floodplains

The Flood Insurance Rate Maps issued by the Federal Emergency Management Agency (FEMA) indicate the Project site is located within Zone D, defined as an Area of Undetermined Flood Hazard.

4.10.3 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge			X	

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
such that the project may impede sustainable groundwater management of the basin?				
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:			X	
result in substantial erosion or siltation onsite or offsite;		X		
substantially increase the rate or amount of surface water runoff in a manner which would result in flooding on or offsite;			X	
create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				X
impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation??				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Discussion

- a) *Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact.

Construction

Construction-related runoff pollutants are typically generated from waste and hazardous materials handling or storage areas, outdoor work areas, material storage areas, and general maintenance areas (e.g., vehicle or equipment fueling and maintenance, including washing). Construction projects that disturb 1 acre or more of soil, including the proposed Project, are regulated under the construction general permit (CGP, Order No. 2009-009-DWQ) and its subsequent revisions (Order No. 2012-0006-DWQ) issued by the SWRCB. Projects obtain coverage under the CGP by developing and implementing a SWPPP, estimating sediment risk from construction activities to receiving waters, and specifying best management practices that

would be implemented as a part of the Project's construction phase to minimize pollution of stormwater prior to and during grading and construction.

The proposed Project is less than 1 acre, therefore, the Project is not required to prepare an SWPPP. However, given that the Project occurs within a creek, the City or its contractor will prepare an Erosion Control Plan (ECP) that will identify Best Management Practices (BMPs) for managing excavation and stockpile of materials and measures to prevent hazardous materials and soils from unnecessarily entering the creek during construction. The BMPs are similar to those found in a traditional SWPPP that would be prepared under the CGP and may include but not be limited to the following:

- Prevent mud and debris from entering roadways, including the main entry road by providing trackout measures.
- Installation of perimeter silt fences and perimeter sandbags and/or gravel bags
- Locate stockpiles away from drainage courses, drain inlets or concentrated flows of storm water.
- For wind erosion control, apply water or other dust palliative to stockpiles. Smaller stockpiles may be covered as an alternative.
- Place bagged materials on pallets under cover.
- During the rainy season, non-active soil stockpiles will be covered with heavy plastic and the stockpile contained within a temporary perimeter sediment barrier, such as berms, dikes, silt fences, or sandbag barriers. A soil stabilization measure may be used in lieu of cover.
- During the non-rainy season prior to the onset of rain, the stockpile should either be covered or protect them with temporary perimeter sediment barriers.
- Year-round, active soil stockpiles will be protected with temporary linear sediment barriers prior to the onset of rain.
- The main haul road will be graded and watered at least once per day, or as often as necessary to control dust as required by the South Coast Air Quality Management District (SCAQMD).
- Any equipment that enters Bledsoe Gulch temporarily will be monitored for spills using standard Best Management Practices in accordance with State Water Resources Control Board requirements. Standard measures including placement of matts under the equipment and using wheeled, not track, equipment. No equipment will remain in the creekbed overnight or for an extended period.

- The tracks and under carriage of any equipment that enters Bledsoe Gulch will be checked for invasive weed species; if found, the weed species will be removed and properly disposed of off-site.

Adherence to the BMPs in the ECP would reduce, prevent, minimize, and/or treat pollutants and prevent degradation of downstream receiving waters; reduce or avoid contamination of urban runoff with sediment; and reduce or avoid contamination with other pollutants such as trash and debris, oil, grease, fuels, and other toxic chemicals.

Therefore, with implementation of the BMPs in the required SWPPP, water quality or waste-discharge impacts from Project-related grading and construction activities would be less than significant, and no mitigation is required.

Operations

The new Project facilities will operate in the same manner as prior to the Project, but the new facilities will better handle the storm flows and will correct the existing erosion and reduce potential for future erosion. New facilities are included in the Project that include a larger outfall pipeline, a paved access road to the debris apron, and a v-ditch along the western slope to act as the first line of defense from stormwater sheetflow from the residential parcels above.

The Project also allows for more efficient removal of debris that would be deposited at the base of the slope after a storm by allowing better access to the debris apron. It is anticipated that City crews in pickup trucks using hand tools would be sufficient to remove debris from the debris apron. Debris removal on the apron will eliminate or remove the potential for debris to be deposited downstream.

Overall, implementation of the BMPs requirements during construction and the ability for better maintenance would reduce potential impacts to water quality and waste discharge to less than significant, and no mitigation is required.

- 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?*

Less than Significant Impact. The Geotechnical Study prepared for the proposed Project identified that groundwater 26 ft bgs, and excavation is anticipated to be approximately 15 feet deep in the northern end of the property, and was not encountered in the creek portion. The Project is not anticipated to need to dewater the excavations or use more than a standard temporary supply for construction dust control. And though the Project will install an impervious roadway, stormflows will be directed into Bledsoe Gulch. Therefore the proposed Project is not anticipated to interfere with groundwater supplies or deplete groundwater supplies. Therefore, overall, the impact is less than significant.

- 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:*
- *result in substantial erosion or siltation onsite or offsite;*
 - *substantially increase the rate or amount of surface water runoff in a manner which would result in flooding on or offsite;*
 - *create or contribute to 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 With Mitigation Incorporated The Project will replace approximately 300 feet of the existing 48-inch RCP with a new 48-inch RCP within the same alignment but at depths up to approximately 15 feet below ground surface (bgs) to promote positive flow and reduce creek erosion due to the severely eroded creek head, base and sideslopes. The Project also includes constructing a new storm drain segment within Bledsoe Gulch and regrading the head, base, and slopes of Bledsoe Gulch to mitigate the ongoing severe erosion that is threatening adjacent homes along the west creek bank.

To ensure that the Project improvements would satisfy the remedial activities as well as accommodate future flow, the Project was designed used the 100-year design flow rate of 10.1 CFS and 257.7 CFS was obtained from the City of Highland as shown on the As-Built Plans for "Drainage Improvement Plan, East Highlands Ranch, Highland Avenue, Line "A", prepared by Sitetech, Inc. The 100-year flow rate of 0.57 CFS for Lateral "A-1" was calculated using the Rational Method for San Bernardino County.

Erosion. All work in the creek occurs at the headwall and sideslopes to create overall positive flow of the drainage and reduce the ongoing erosion. The work includes replacing a stormwater pipeline, outfall structure and grouted rock apron in Bledsoe Creek to serve as promoting positive flow.

Because the Project construction area is less than 1 acre, a Stormwater Pollution Prevention Plan (SWPPP) is not required as part of the National Pollutant Discharge Elimination System (NPDES) General Construction requirements. However, Project plans include the preparation of an Erosion Control Plan (ECP) that will identify the Best Management Practices (BMPs) for managing excavation and stockpile of materials and measures to prevent hazardous materials and soils from unnecessarily entering the creek during construction. Therefore, the impact from potential construction erosion is less than significant.

Operationally, the Project site, including a portion of the head and bank adjacent to the community center, is underlain by various units of non-structural fill materials that ranges from 8 to 35 or more feet in thickness. The Project will excavate the fill soils directly within the work area and replace them with clean, compacted soils. Given that this replaced stormwater pipeline would be subject to potential cracks and rupture during strong seismic events, there is the potential for water to be released out of the pipeline and into the fill material that exists throughout the head of Bledsoe Gulch. This could cause the fill material to become unstable and cause erosion into

Bledsoe Gulch. **Mitigation Measures GEO-1 and GEO-2**, as identified in Section 4.7, are required to ensure the integrity of the pipeline during construction and operations and to ensure impacts will be less than significant.

Increase Surface Runoff: The site would experience a minor increase in impervious surfaces associated with the new asphalt access road that will be constructed on top of the new pipeline to better access the apron at the outfall at the creek/pipeline base for maintenance. However, the slope of the road and grouted rock apron are designed to manage this additional nominal increase. Therefore, this is less than significant.

Stormdrain System Overflow: The Project does not propose to connect to the City's storm drain, therefore, there will be no impact on the City's storm drain systems.

Redirect Flood Flows: The Project is to replace a stormwater pipeline in the same location but at a depth that will promote positive flow. There will be no impact to flood flows from the Project. In conclusion, the Project would not substantially alter existing drainage patterns, cause alteration of streams or rivers, or result in substantial erosion or siltation on- or off-site because the purpose of the Project is to repair and maintain an area of severe creek erosion that is impacting homes. However, the Project requires implementation of **Mitigation Measures GEO-1 and GEO-2** to manage erosion control during project construction and maintain the new infrastructure during operations..

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

No Impact. The proposed Project is located inland, more than 60 miles northeast of the Pacific Ocean. According to the Federal Emergency Management Agency (FEMA) flood maps, the Project site is located Flood Zone D, an undetermined flood hazard, and would not significantly impede or redirect flood flows. There are no bodies of water in the vicinity of the site that could experience seiche conditions that would impact the site. There are no impacts.

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

Less than Significant Impact. The proposed Project would comply with the City's MS4 permit, as noted above. Implementation of Project BMPs from the SWPPP during proposed construction activities would reduce any impacts associated with water quality to less than significant. In addition, the proposed Project does not include any activities that will interfere with any groundwater management plan as all construction would occur entirely within a portion of the site. Impacts would be less than significant.

4.10.4 Mitigation Measures:

Mitigation Measures GEO-1 and GEO-2, as identified in Section 4.7, will ensure that potential impacts are less than significant.

4.11 LAND USE PLANNING

4.11.1 Environmental Setting

The Project is located within EHR of the Cit of Highland. The Project proposes to replace an existing storm drain.

4.11.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. 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

Discussion

a) *Would the project physically divide an established community?*

No Impact. The Project proposes to replace an existing storm drain. No impacts would occur, and no mitigation is required.

b) *Would the project 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?*

No Impact. The proposed Project would replace an existing storm drain and stabilize the surrounding hillside adjacent to residential development. The work is in conformance with the anticipated land use plan of the East Highland Ranch PUD as it related to the use of the site for storm drain conveyance, and the associated environmental policy adopted in PUD's EIR. As a result, no conflicts would occur with any land use plan, policy, or regulation. No impacts would occur, and no mitigation is required.

Mitigation Measures:

No mitigation measures are required.

4.12 MINERAL RESOURCES

4.12.1 Environmental Setting

In 1975, the California legislature enacted the Surface Mining and Reclamation Act (SMARA). This act provides for the reclamation of mined lands and directs the State Geologist to classify (identify and map) the non-fuel mineral resources of the state to show where economically significant mineral deposits occur and where they are likely to occur based upon the best available scientific data.

The City of Highland overlies areas identified as Mineral Resource Zones (MRZs, Categories 1–3). The Project site lies within Category 3 which represents areas whose significance cannot be evaluated from available data.

4.12.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. 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

Discussion

- a) *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?*

No Impact. The Project site is not located on a known important mineral resource recovery site and is not currently being mined or has plans to be mined. No impacts would occur, and no mitigation is required.

- b) *Would the project 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. As discussed above, the Project site is not located on a known mineral deposit and is not currently being mined or has plans to be mined. No land use plan that applies to the site

designates it as a mineral resource recovery site. No impacts would occur, and no mitigation is required.

4.12.3 Mitigation Measures:

No mitigation measures are required.

4.13 NOISE

Environmental noise is commonly measured in A-weighted decibels (dBA). A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called a “sound level”) measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response that duplicates the sensitivity of human ears. Decibels are measured on a logarithmic scale. Generally, a three dBA increase in ambient noise levels represents the threshold at which most people can detect a change in the noise environment; an increase of 10 dBA is perceived as a doubling of loudness.

Noise Descriptors

These noise descriptors include but are not limited to the following:

- 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 addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.
- 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.

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 government advocates that local jurisdictions 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, or alternatively 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.

State Regulations

The State of California has established noise insulation standards as outlined in Title 24 and the Uniform Building Code (UBC) 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 Department of Health Services has published guidelines that rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable as illustrated in *Table 4.13-1: Land Use Compatibility Guidelines*.

Table 4.13-1: Land Use Compatibility Guidelines

Land Uses Category	Community Noise Exposure Level Ldn or CNEL, dBA					
	55	60	65	70	75	80
Residential-Low Density Single Family Dwellings, Duplexes and Mobile Homes						
Residential Multi-Family Dwellings						
Transient Lodging – Motels, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Commercial and Office Buildings						
Industrial, Manufacturing, Utilities, Agriculture						

Explanatory Notes	
 Normally Acceptable: Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.	 Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.
 Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice. Outdoor environment will seem noisy.	 Clearly Unacceptable: New construction or development should generally not be undertaken. Construction cost to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: California Office of Noise Control

City of Highland

The City of Highland Municipal Code sets forth the City's standards, guidelines and procedures concerning the regulation of noise use. Specifically, the Code includes Title 8, Health and Safety, which includes a chapter on noise control, and Title 16, Land Use and Development.

Chapter 8.50.060 of the City Municipal Code exempts temporary construction activities.

Vibration

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.

Table 4.13-2: Vibration Source Levels for Construction Equipment identifies typical construction sources of vibration as identified by the Federal Transit Administration.

Table 4.13-2: Vibration Source Levels for Construction Equipment

	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	11 2
	0.644 (typical)	10 4
Pile driver (sonic)	0.734 upper range	10 5
	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
Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.		

4.13.1 Environmental Setting

Sensitive receptors that may be affected by Project construction noise are located along the western edge of the Project as their homes back up to Bledsoe Gulch.

4.13.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. 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 site 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

- a) *Would the project result in 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?*

Less than Significant. The proposed Project would generate noise during construction. Construction will generally occur between the hours of 10:00 a.m. and 6:00 p.m. Monday through Saturday and will not be undertaken anytime on Sundays or holidays. Therefore, noise generated by the heavy equipment will not violate City ordinances standards or requirements. Therefore, overall, construction will have a less than significant impact.

- b) *Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?*

Less than Significant Impact. 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. Therefore, excessive groundborne vibrations will not occur, and the impacts will be less than significant.

- 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?*

No Impact. The Project site is not within the vicinity of a private airstrip, not within two miles of a public airport or public use airport and is not within an airport land use plan. No impacts would occur.

4.13.3 Mitigation Measures:

No mitigation measures are required.

4.14 POPULATION AND HOUSING

4.14.1 Environmental Setting

The Project is to repair an existing storm drain and does not involve housing, or the construction of structures for housing.

4.14.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. 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 housing, necessitating the construction of replacement housing elsewhere?				X

Discussion

- a) *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)?*

No Impact. The purpose of the Project is to replace an existing storm drain, which does not induce growth. Therefore, the Project does not indirectly induce an increase in population.

- b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. No existing housing would be displaced as the Project site is vacant and would remain as such upon Project implementation. No impacts would occur, and no mitigation is required.

4.14.3 Mitigation Measures:

No mitigation measures are required.

4.15 PUBLIC SERVICES

4.15.1 Environmental Setting

The Project is to replace an existing storm drain.

4.15.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: 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 public services:				
Fire protection?			X	
Police protection?			X	X
Schools?				X
Recreation/Parks?				X
Other public facilities?				X

- 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 public services: Fire Protection, Police Protection, Schools, Recreation/Parks, or Other Public Facilities.*

Less than Significant Impact. No significant demand for fire protection or other emergency services is anticipated to be necessary. The possibility exists for a work-related injury, but this type of occurrence is considered to be rare, and therefore, not create a substantial need for emergency medical services for the Project. The Project is located in a Very High Fire Hazard Zone, and implementation of Mitigation Measure HAZ-2 will be implemented to reduce the potential for a wildfire which would necessitate an increased need for fire services.

No Impact. The Project will not impact schools, recreational facilities or other public facilities because the Project is to replace an existing storm drain.

4.15.3 Mitigation Measures:

No mitigation measures are required.

4.16 RECREATION

4.16.1 Environmental Setting

The Project is located behind the East Highlands Ranch Community Center, a private community center.

4.16.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. 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	

Discussion

- 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?*

No Impact. The Project does not propose any residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park, thus, impacts there will be no impacts.

- 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?*

Less Than Significant. The work will occur behind the East Highlands Ranch Community Center, within the existing concrete access road and adjacent orange grove which is maintained for recreational purposes. Work will impact less than 1 acre behind the community center in the vicinity of the existing concrete road. It is anticipated that between 1 and 10 orange trees may be removed during construction to facilitate equipment staging. The Community Center facility will remain open during construction, although a portion of the orange grove will be closed to patrons to ensure their safety during construction.

However, the Project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, there is a less than significant impact.

4.16.3 Mitigation Measures:

No mitigation measures are required.

4.17 TRANSPORTATION

4.17.1 Environmental Setting

The Project is to replace existing storm drain facilities that are generally located in areas where public access is restricted, and off the main roadways.

4.17.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. TRANSPORTATION / TRAFFIC: 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 § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

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

Less than Significant. The storm drain is not located on major roadways and are accessed by local roads, then onto improved maintenance access roads. Therefore, the Project will not conflict with any applicable plan, ordinance, or policy that establishes the performance of the system. Since the Project does not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities, there is a less than significant impact, and no mitigation is required.

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

Less than Significant. Per the CEQA Guidelines section 15064.3, subdivision (b)(1), projects that reduce vehicle miles traveled (VMT), such as pedestrian, bicycle and transit projects, should have a less than significant impact. Per the CEQA Guidelines section 15064.3, subdivision (b)(2), transportation projects which reduce vehicle miles traveled should be presumed to cause a less than significant impact.

The Project is not a land use project nor does it require any land use action. The construction crew is estimated at 10 people, working for less than six months. Impacts would be less than significant, and the Project traffic would not rise to a level that could conflict with CEQA Guidelines. Impacts would be less than significant.

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

No Impact. The Project does not involve creating new public roads or maintaining existing roads where there would be public access. The Project will create a maintenance access road on top of the new pipeline and is designed for City vehicles to have safe access to maintain the outfall and apron. Therefore, there is no impact.

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

No Impact. The proposed Project would not result in inadequate emergency access. The proposed construction and operational activities would not include any new design or development that would prevent access to the proposed Project area in the event of an emergency, either during construction or operations. No impacts would occur, and no mitigation is required.

Mitigation Measures:

No mitigation measures are required.

4.18 TRIBAL CULTURAL RESOURCES

A Cultural Resources Assessment for the proposed Project was performed by CRM Tech (Appendix C). The assessment addressed the ethnographic and archaeology of the Native American occupation in the City of Highland, as summarized in this section.

Native American Heritage Commission Sacred Land File Search

In response to CRM TECH's inquiry, the Native American Heritage Commission reported in a letter dated March 20, 2020, that Sacred Lands File identified no Native American cultural resources in the Project vicinity. Noting that the absence of specific information would not necessarily indicate the absence of cultural resources, however, NAHC recommended that local Native American groups be consulted for further information and provided a referral list of potential contacts.

City of Highland AB 52 Tribal Consultation

Additionally, the City of Highland conducted consultation with Native American tribes in compliance with AB 52. The mitigation measures in this section are a result of that consultation.

On July 27, 2021, the City of Highland notified the following tribal entity representatives of the Project and that the 30-day timeframe in which to request consultation would end on August 27, 2021, in accordance with AB52:

- Mr. Joseph Ontiveros, Director of Cultural Resources, Soboba Band of Luiseño Indians
- Mr. Ryan Nordess, Cultural Resource Analyst, San Manuel Band of Mission Indians
- Mr. Andrew Salas, Gabrieleno Band of Mission Indians

Of the tribes contacted, the following responses were received:

- Soboba Band of Luiseño Indians. No comments were received. Consultation concluded.
- San Manuel Band of Mission Indians. 8/4/2021 – no concerns with Project implementation but suggested that mitigation measures be made a part of the plan/permit conditions to address unanticipated finds. Consultation concluded.
- Gabrieleno Band of Mission Indians. No comments were received. Consultation concluded.

Mitigation measures that were submitted as part of the consultation request letters and have been reviewed incorporated as appropriate into the Initial Study.

4.18.1 Environmental Setting

The present-day Highland area is generally recognized as a part of the homeland of the Serrano people, although other Native groups, such as the Gabrielino of the Los Angeles Basin, also claim the area as a part of their cultural influence. Together with that of the Vanyume people, linguistically a subgroup, the traditional territory of the Serrano includes the San Bernardino Mountains, part of the San Gabriel Mountains, and the Mojave River Valley in the southern portion of the Mojave Desert, reaching as far east as the Cady, Bullion, Sheep Hole, and Coxcomb Mountains.

Prior to European contact, Serrano subsistence was defined by the surrounding landscape and primarily based on the gathering of wild and cultivated foods and hunting, exploiting nearly all of the resources available. They settled mostly on elevated terraces, hills, and finger ridges near where flowing water emerged from the mountains.

Although contact with Europeans may have occurred as early as 1771 or 1772, Spanish influence on Serrano lifeways was negligible until the 1810s, when a mission *asistencia* was established on the southern edge of Serrano territory. Between then and the end of the mission era in 1834, most of the Serrano in the western portion of their traditional territory were removed to the nearby missions. In the eastern portion, a series of punitive expeditions in 1866-1870 resulted in the death or displacement of almost all remaining Serrano population in the San Bernardino Mountains. Today, most Serrano descendants are affiliated with the San Manuel Band of Mission Indians, the Morongo Band of Mission Indians, or the Serrano Nation of Indians.

4.18.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. 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), or		X	X	
b) 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) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X	X	

Discussion

- a) *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)?

Less Than Significant with Mitigation Incorporated. According to PRC Chapter 2.5, Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and items with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in Section 5020.1.

There are no resources that have been identified as eligible for listing to the California Register of Historic Places within or near the Project site. However, based on AB 52 tribal consultation, **Mitigation Measure CUL-2**, previously identified in Section 4.5, as well as **Mitigation Measure TCR-1** are included to reduce potential impacts to potential Native American resources. Mitigation measures are located at the end of this section.

- 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 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) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Less Than Significant Impact with Mitigation Incorporated. The Project site is previously disturbed land currently under commercial land use. Although ground-disturbing activities would occur on previously disturbed land, there is the potential to uncover unanticipated tribal cultural resources. There are no resources that have been identified as significant within or near the Project site. However, based on AB 52 tribal consultation, **Mitigation Measures CUL-1**, previously identified in Section 4.5, and **Mitigation Measure TCR-1** are included to reduce potential impacts to potential Native American resources. Mitigation measures are located at the end of this section.

4.18.3 Mitigation Measure:

The following mitigation measure is required to reduce potential impacts to less than significant:

TCR-1 Unanticipated Discovery of Human Remains and Associated Funerary Objects: Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are

those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC and PRC 5097.98 shall be followed.

Upon discovery of human remains, the tribal and/ or archaeological monitor/ consultant/ consultant will immediately divert work at minimum of 100 feet and place an exclusion zone around the discovery location. The monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are human and subsequently Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the NAHC as mandated by state law who will then appoint a Most Likely Descendent (MLD). Should the discovery 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 applicable tribe, and, all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to represent SMBMI for the remainder of the Project, should the applicable tribe elect to place a monitor on-site.

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 San Manuel Band of Mission Indians (SMBMI).

4.19 UTILITIES AND SERVICE SYSTEMS

4.19.1 Environmental Setting

The purpose of the Project is to replace an existing storm water facility that outlets to an existing channel. The City will use existing staff and/or contractors for the construction and/or maintenance of the facility.

4.19.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) 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?			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 impair 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	

Discussion

- a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less than Significant Impact. The proposed Project consists of the reconstruction of an existing storm drain. Grading would occur on the site but would be subject to a Storm Water Pollution Prevention Plan that complies with the California Construction General Permit under the National Pollutant Discharge Elimination System, which would ensure that construction stormwater drainage impacts would be less than significant. The Project does not expand storm water volume or use. Because electric power, natural gas, and telecommunications facilities would not have to be expanded or relocated as a result of Project implementation, impacts would be less than significant. No mitigation is required.

- b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less than Significant Impact. Construction activities may utilize water for dust control and/or other uses during construction. The amount to be used for the approximately 1 acre construction area is minimal and can be served by existing water supplies. Impacts would be less than significant, and no mitigation is required.

- 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?*

Less than Significant Impact. Construction workers may use portable waste facilities serviced by a contractor. Wastewater demands would be accommodated existing facilities. Therefore, impacts would be less than significant as the Project does not propose activities that would necessitate an increase in the capacity of existing wastewater systems.

- d) *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less than Significant Impact. Construction and operations may generate small amounts of construction debris such as wood waste and concrete. The City is served by a contract waste hauler who utilizes the County's landfill system, which has sufficient capacity to serve the Project needs. Impacts would be less than significant, and no mitigation is required.

- e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less than Significant Impact. Federal, State, and local statutes and regulations regarding solid waste generation, transport, and disposal are intended to decrease solid waste generation through mandatory reductions in solid waste quantities (e.g., through recycling and composting of green waste) and the safe and efficient transport of solid waste. The Project needs would be served by a contract waste hauler that complies with State standards. The Project would be

required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.

4.19.3 Mitigation Measures:

No mitigation measures are required.

4.20 WILDFIRE

4.20.1 Environmental Setting

A wildland fire is an uncontrolled fire in combustible vegetation that is typically found in a rural or wilderness area. Wildland fires pose a great danger to urban areas where lives and property can be severely affected. Conditions contributing to the severity of wildland fires are primarily related to weather, including temperature, humidity, and wind. Winds commonly referred to as "Santa Ana" winds typically occur during the fall months and pose a particularly significant hazard.

The Project is identified by the City General Plan and by the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) as being within a Very High Fire Hazard Zone due to its location being in the base of the foothills in the northeastern portion of the City. The City of Highland's General Plan identifies that the northeastern and eastern portions of the City, especially hillside areas, are most susceptible to wildfires due to the location of fire-prone vegetation, limited access for fire fighting equipment, steep topography, and seasonal conditions that exacerbate fire hazard conditions.

The California Department of Forestry and Fire Protection (CDF) provides fire protection and emergency medical services to the City of Highland through a cooperative agreement. The CDF also provides wildland fire protection to the unincorporated state responsibility area immediately adjacent to the eastern edge of the City. Additional wildland fire protection services are provided by the U.S. Forest Service on National Forest Lands adjacent to the City.

4.20.2 Impact Analysis

CEQA THRESHOLDS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, Would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?		X		
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	
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Discussion

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant. The Project will occur behind the East Highlands Ranch community center, and not within any roadway. Depending on the nature of the emergency requiring evacuation, it is anticipated that the majority of the Project construction workers would exit the Project area via the existing roadway circulation system. Project implementation would not impair access to these roadways should an evacuation be required. It is not anticipated that the Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts will be less than significant, and no mitigation is required.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less Than Significant. The Project is identified by FRAP as being within a Very High Fire Hazard Zone, and the area is subject to Santa Ana winds, which can spread fires rapidly. Construction may include the use of gas-powered hand tools such as chain saws and/or welding equipment that may produce sparks. Bledsoe Gulch has a high concentration of vegetation. Therefore, there is a high potential to indirectly cause a wildfire during construction. As such, implementation of **Mitigation Measure HAZ-2** that requires the contractor to implement fire protection protocols during construction will reduce potential impacts to less than significant. This Mitigation Measure is located in Section 4.9.

c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. The proposed construction and operational activities would not require installation of maintenance of associated structures that would exacerbate wildfire risk. No impacts would occur.

d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Less Than Significant. The proposed Project will replace a stormwater pipeline and outfall that is currently the source of severe erosion. The Project will also regrade the slopes of Bledsoe Creek which are currently failing due to the severe erosion. Areas of the new grading will be

recompacted and restored. A drainage swale will be constructed on the west slope, to capture storm flows from the adjacent homes. Construction activities involve temporarily removing materials along the slope, however, this is short-term and all controls and BMPs will be in place to reduce and eliminate risks of hillside failure during construction. Therefore, the Project will improve the drainage's slope conditions at the creek head. Therefore, construction and operational activities would have a less than significant impact on people or structures to risks involving post-fire slope instability or drainage changes, and no mitigation is required.

4.20.3 Mitigation Measures:

No mitigation measures are required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XXI. MANDATORY FINDINGS OF SIGNIFICANCE:				
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?		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		

Discussion

- 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?*

Less than Significant with Mitigation Incorporated. As stated in this Initial Study, although the proposed Project would affect the quality of the environment with respect to the habitat of a plant or animal community, the mitigation identified in the Initial Study would reduce such impacts through the provision of adherence to the MTBA and its protection of nesting birds through implementation of Mitigation Measure BIO-1 and BIO-2 and BIO-3. The Project may adversely affect unknown cultural and paleontological resources. Mitigation Measures CUL-1, CUL-2 and GEO-3 would reduce potential impacts to less than significant. Further, the Project may adversely affect Tribal Cultural Resources as referenced in Section 4.18. Implementation of Mitigation Measures TCR-1 would reduce potential impacts to less than significant. With mitigation, impacts related to this issue are considered to be less than significant.

- 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)?*

Less than Significant Impact. The proposed Project site is currently developed with a recreational citrus orchard and a creek head and drainage for the East Highlands Ranch subdivision. The Project has the potential to result in both short-term and long-term impacts to the environment. Grading and related site preparation activities are expected to generate short-term impacts; however, while short-term impacts are anticipated to occur, the achievement of short-term environmental goals would not be at the expense of long-term environmental goals. As such, impacts related to this issue are considered to be less than significant.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less Than Significant with Mitigation Incorporated. Implementation of the of the proposed Project may result in direct and indirect impacts such as exposure to hazards associated with strong seismic groundshaking and other hazards. However, adherence to standard requirements and identified mitigation measures (Mitigation Measure GEO-1, GEO-2, HAZ-1, and HAZ-2) would reduce these impacts to less than significant.

Conclusion: The Project would have a less-than-significant impact on the CEQA mandatory findings of significance with the incorporation of mitigation measures and standard permit conditions identified in this document.

5 SUMMARY OF MITIGATION MEASURES

The following mitigation measures were identified to reduce impacts to less than significant:

BIOLOGICAL RESOURCES

BIO-1 Worker Environmental Awareness Program (WEAP) – Biological Resources A Worker Environmental Awareness Program (WEAP) training shall be developed and provided by a biologist familiar with least Bell's vireo and southwestern willow flycatcher, and their habitats. The WEAP training shall be presented by the biologist to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.

BIO-2: Avian Monitoring. If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

BIO-3 Obtain Jurisdictional Waters Permits. Prior to construction, obtain permits from agencies having jurisdiction over Drainage 1 and the associated habitat.

CULTURAL RESOURCES

CUL-1 Worker Environmental Awareness Program (WEAP) – Cultural/ Archaeological Resources. A WEAP training shall be developed and presented by a cultural resource specialist to educate construction workers about various potentially significant buried resources. The training will be presented to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.

CUL-2: Cultural Resource Monitoring: A Secretary of the Interior qualified archaeologist will spot check, on a schedule to be developed with the construction contractor, the construction excavations, within undisturbed soil to determine the presence or absence of cultural resources. The qualified archaeologist will then be able to recommend increasing or decreasing monitoring activities based on sub-surface findings.

GEOLOGY AND SOILS

GEO-1 Pipeline Inspection – Construction. During construction, geotechnical observation and testing should be conducted at a schedule to be identified between the City and the Contractor and the Geotechnical specialist. Additional expansion testing will be performed at the direction of the Geotechnical specialist. The geotechnical specialist shall have the authority to halt work if subsurface conditions warrant additional exploration.

GEO-2 Pipeline Inspection – Operations. The City shall inspect the pipeline on an annual schedule at a minimum. Inspection should also occur immediately following earthquakes of a magnitude 3.0 or above that occur near the Project site or where strong seismic shaking has been felt in the Highland area, and/or earthquakes which occur within the San Andreas fault zone. Inspection methods shall include both camera and/or physical inspections in sufficient detail to identify cracking and/or breaches in the concrete pipe and/or roadway and drainage ditch on the west bank such that water may leak from the pipeline to the adjacent fill. Pipeline, roadway and drainage ditch repairs should occur immediately upon discovery of any cracks or breaches.

GEO-3 Provision for Unanticipated Buried Paleontological Resources: A qualified cultural resource specialist or paleontologist will spot check construction excavations that would impact Late Pleistocene to Holocene units, which are generally below 10 feet in the Project area. The frequency will be determined with the cultural resource specialist and the construction contractor based on the work schedule.

- The paleontologist will be able to recommend increasing or decreasing monitoring activities based on the sub-surface findings.
- The monitor shall have the ability to salvage fossils if they are unearthed to avoid construction delays and to remove samples of the soils that may contain the remains of small fossil invertebrates and vertebrates.
- The monitor shall be empowered to temporarily halt or divert equipment to allow the removal of larger fossils in a timely manner.
- The extent of the monitoring may be reduced if, in the opinion of the paleontologist, potentially fossiliferous units are not found in the subsurface, or if present that they are determined to be a low potential to contain or yield fossil resources.

HAZARDS AND HAZARDOUS MATERIALS

HAZ-1 Worker Environmental Awareness Program (WEAP) – Hazardous Materials. A WEAP training shall be developed and presented by a specialist to educate construction workers about signs of

buried hazardous waste. The training will be presented to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.

The training shall include but not be limited to the following requirements:

- The Department of Toxic Substances Control (DTSC) and San Bernardino County Fire Department Hazardous Materials Division shall be immediately notified in the event malodorous or discolored soils, liquids, containers, or other materials known or suspected to contain hazardous materials and/or contaminants are encountered during activities associated with the proposed Project. Earthmoving activities in the vicinity of said material shall be halted until the extent and nature of the suspect material is determined by qualified personnel (as determined by the DTSC). The removal and/or disposal of any such contaminants shall be in accordance with all applicable local, State, and Federal standards.
- In the event of any identification of or spill of hazardous materials and/or contaminants in the construction area, the party whose activity resulted in the spill or release shall notify the City of the location, extent, and nature of the spill or release. The City shall thereupon work with East Valley Water District to assess the depth to groundwater in the area of the release, and if it appears that groundwater tables are high enough to create a potential for exposure of the groundwater table to the spill or release, will modify its recharge operations as much as feasible to prevent groundwater table intersection with the identified spill or release.

HAZ-2 During construction, all staging areas, welding areas, or areas slated for construction using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Spark arresting equipment shall be in good working order. The City shall require all vehicles and crews working at the Project site to have access to functional fire extinguishers at all times. In addition, construction crews are required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. The contractor also shall provide a safety plan for the implementation of additional protocols when the National Weather Service issues a Red Flag Warning. Such protocols should address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.

TRIBAL CULTURAL RESOURCES

TCR-1 Unanticipated Discovery of Human Remains and Associated Funerary Objects: Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC and PRC 5097.98 shall be followed.

Upon discovery of human remains, the tribal and/ or archaeological monitor/ consultant/ consultant will immediately divert work at minimum of 100 feet and place an exclusion zone around the discovery location. The monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are human and subsequently Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the NAHC as mandated by state law who will then appoint a Most Likely Descendent (MLD). Should the discovery 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 applicable tribe, and, all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to represent SMBMI for the remainder of the Project, should the applicable tribe elect to place a monitor on-site.

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 San Manuel Band of Mission Indians (SMBMI).

6 REFERENCES

City of Highland, March 2006 (COH, 2006). *City of Highland General Plan*.

California Dept of Water Resources, Groundwater Level Data,
<https://wdl.water.ca.gov/WaterDataLibrary/GroundWaterLevel.aspx>

County of San Bernardino, *San Bernardino County Land Use Plan GENERAL PLAN, Geologic Hazard
Overlays, Map FH31C*, publication date 3/10/2010.

ATTACHMENT 2b

Initial Study / Mitigated Negative Declaration Appendices

Provided on the Flash Drive attached

ATTACHMENT 3
Mitigation and Monitoring Reporting Program

Mitigation Monitoring and Reporting Program Line A Storm Drain and Bledsoe Gulch Outfall Reconstruction

CEQA, Section 21081.6, requires that a mitigation monitoring and reporting program (MMRP) be adopted upon certification of a Mitigated Negative Declaration to ensure that the mitigation measures are implemented. The mitigation monitoring and reporting program identifies the mitigation and when in the process it should be implemented. The **City of Highland** is the implementing responsible party for all measures. A record of the MMRP will be maintained at the City of Highland Public Works Department, 27215 Base Line, Highland, CA 92346.

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
BIOLOGICAL RESOURCES						
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	BIO-1: Worker Environmental Awareness Program (WEAP) – Biological Resources A Worker Environmental Awareness Program (WEAP) training shall be developed and provided by a biologist familiar with least Bell’s vireo and southwestern willow flycatcher. and their habitats. The WEAP training shall be presented by the biologist to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.	Prior to issuance Notice to Proceed with Construction Contractor	Sign-In sheet of worker attendance by biologist, to be placed in the job file			
	BIO-2: Avian Monitoring. If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey,	Prior to issuance Notice to Proceed with Construction Contractor	Monitoring report submitted to City of Highland Public Works Division			

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
	construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.					
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?	BIO-2	Same as above	Same as above			

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	BIO-3: Obtain Jurisdictional Waters Permits. Prior to construction, obtain permits from agencies having jurisdiction over Drainage 1 and the associated habitat.	Prior to issuance Notice to Proceed with Construction Contractor	Permits obtained from CDFW and Regional Water Quality Control Board			
CULTURAL RESOURCES						
Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5	CUL-1: Worker Environmental Awareness Program (WEAP) – Cultural/ Archaeological Resources. A WEAP training shall be developed and presented by a cultural resource specialist to educate construction workers about various potentially significant buried resources. The training will be presented to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.	Prior to issuance Notice to Proceed with Construction Contractor	Sign-In sheet of worker attendance by cultural resources specialist, to be placed in the job file			
	CUL-2: Cultural Resource Monitoring: A Secretary of the Interior qualified archaeologist will spot check, on a schedule to be developed with the construction contractor, the construction excavations, within undisturbed soil to determine the presence or absence of cultural resources. The qualified archaeologist will then be able to recommend increasing or decreasing monitoring activities based on sub-surface findings.	During Construction	Construction Inspection documentation			

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
GEOLOGIC RESOURCES						
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	GEO-1: Pipeline Inspection – Construction. During construction, geotechnical observation and testing should be conducted at a schedule to be identified between the City and the Contractor and the Geotechnical specialist. Additional expansion testing will be performed at the direction of the Geotechnical specialist. The geotechnical specialist shall have the authority to halt work if subsurface conditions warrant additional exploration.	During Construction	Construction Inspection documentation			
	GEO-2: Pipeline Inspection – Operations. The City shall inspect the pipeline on an annual schedule at a minimum. Inspection should also occur immediately following earthquakes of a magnitude 3.0 or above that occur near the Project site or where strong seismic shaking has been felt in the Highland area, and/or earthquakes which occur within the San Andreas fault zone. Inspection methods shall include both camera and/or physical inspections in sufficient detail to identify cracking and/or breeches in the concrete pipe and/or roadway and drainage ditch on the west bank such that water may leak from the pipeline to the adjacent fill. Pipeline, roadway and drainage ditch repairs should occur immediately upon discovery of any cracks or breeches.	Annually and after earthquakes	Operations Inspection documentation			
Would the project directly or indirectly destroy a unique	GEO-3: Provision for Unanticipated Buried Paleontological Resources. A qualified cultural resource specialist or paleontologist will spot check	During Construction	Construction Inspection documentation			

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
paleontological resource or site or unique geologic feature	construction excavations that would impact Late Pleistocene to Holocene units, which are generally below 10 feet in the Project area. The frequency will be determined with the cultural resource specialist and the construction contractor based on the work schedule. - The paleontologist will be able to recommend increasing or decreasing monitoring activities based on the sub-surface findings. - The monitor shall have the ability to salvage fossils if they are unearthed to avoid construction delays and to remove samples of the soils that may contain the remains of small fossil invertebrates and vertebrates. - The monitor shall be empowered to temporarily halt or divert equipment to allow the removal of larger fossils in a timely manner. The extent of the monitoring may be reduced if, in the opinion of the paleontologist, potentially fossiliferous units are not found in the subsurface, or if present that they are determined to be a low potential to contain or yield fossil resources.					
GEOLOGIC RESOURCES						
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	HAZ-1: Worker Environmental Awareness Program (WEAP) – Hazardous Materials. A WEAP training shall be developed and presented by a specialist to educate construction workers about signs of buried hazardous waste. The training will be presented to all construction personnel. For the life of the Project, each employee (including temporary contractors and subcontractors) will receive WEAP training prior to conducting any work on the site.	Prior to issuance Notice to Proceed with Construction Contractor	Sign-In sheet of worker attendance by knowledgeable professional, to be placed in the job file			

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
environment	The training shall include but not be limited to the following requirements: - The Department of Toxic Substances Control (DTSC) and San Bernardino County Fire Department Hazardous Materials Division shall be immediately notified in the event malodorous or discolored soils, liquids, containers, or other materials known or suspected to contain hazardous materials and/or contaminants are encountered during activities associated with the proposed Project. Earthmoving activities in the vicinity of said material shall be halted until the extent and nature of the suspect material is determined by qualified personnel (as determined by the DTSC). The removal and/or disposal of any such contaminants shall be in accordance with all applicable local, State, and Federal standards. - In the event of any identification of or spill of hazardous materials and/or contaminants in the construction area, the party whose activity resulted in the spill or release shall notify the City of the location, extent, and nature of the spill or release. The City shall thereupon work with East Valley Water District to assess the depth to groundwater in the area of the release, and if it appears that groundwater tables are high enough to create a potential for exposure of the groundwater table to the spill or release, will modify its recharge operations as much as feasible to prevent groundwater table intersection with the identified spill or release.					

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires	HAZ-2: During construction, all staging areas, welding areas, or areas slated for construction using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Spark arresting equipment shall be in good working order. The City shall require all vehicles and crews working at the Project site to have access to functional fire extinguishers at all times. In addition, construction crews are required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. The contractor also shall provide a safety plan for the implementation of additional protocols when the National Weather Service issues a Red Flag Warning. Such protocols should address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.	During Contractor Pre-Construction Submittals	Contractor compliance notification by City of Highland			
TRIBAL CULTURAL RESOURCES						
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,	TCR-1: <i>Unanticipated Discovery of Human Remains and Associated Funerary Objects:</i> Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes	During Construction	Construction Inspection documentation			

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
sacred place, or object with cultural value to a California Native American tribe, and that is 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) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC and PRC 5097.98 shall be followed. Upon discovery of human remains, the tribal and/or archaeological monitor/ consultant/ consultant will immediately divert work at minimum of 100 feet and place an exclusion zone around the discovery location. The monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are human and subsequently Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the NAHC as mandated by state law who will then appoint a Most Likely Descendent (MLD). Should the discovery 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 applicable tribe, and, all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to represent SMBMI for the remainder of the Project, should the applicable tribe elect to place a monitor on-site. Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall					

Impact/Threshold	Applicable PVCCSP Mitigation Measure / Project Mitigation Measures	Monitoring/ Timing Frequency	Action Indicating Compliance	Verification		
				Initials	Date	Remarks
	be supplied to the applicant and Lead Agency for dissemination to San Manuel Band of Mission Indians (SMBMI).					



STAFF REPORT

TO THE PLANNING COMMISSION

DATE: March 15, 2022

FROM: Lawrence A. Mainez, Community Development Director

PREPARED BY: Kim Stater, Assistant Community Development Director 

SUBJECT: Design Review Application No. DRA 22-002; Review of the Site Plan, Building Elevations, Rough Grading Plan, and Conceptual Landscape Plan for 'Highland Park' Planned Development, a 46-unit single family home development within Tentative Tract No. 19915.

LOCATION: 29300 Baseline Street, Highland, CA
Assessor's Parcel Number 288-562-03

PROPERTY OWNERS: 29300 Baseline Partners, LLC

REPRESENTATIVE: Ray Dorame, Master Craft Homes Group

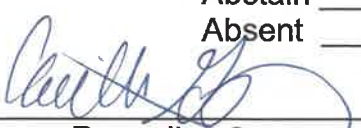
RECOMMENDATION: Staff recommends the Planning Commission adopt Resolution No. 2022-____, approving DRA 22-002 subject to the Conditions of Approval and Findings of Fact.

FISCAL IMPACT: Staff time for the review of the project and preparation of the staff report is covered by the application fee provided by the Applicant.

ENVIRONMENTAL REVIEW: A Mitigated Negative Declaration for the Highland Park Planned Development and associated Tentative Tract Map No. 19915 was adopted by the City Council on June 14, 2016; Resolution Nos. 2016-034 and 2016-035. A Mitigation Monitoring and Reporting Program was approved and included in the Planning Division Conditions of Approval for the Map; Resolution No. 2016-032.

The subject Design Review does not propose alterations to the project as previously approved. This action does not require additional environmental review.

PUBLIC NOTICE: As required by City Council Resolution, notice of the public hearing was posted at the City's three designated posting locations. On March 4, 2022, a legal advertisement was published in the Highland Community News. In addition, the notice was

Approved _____	Motion _____	Second _____	Agenda Item No. <u>3</u>
Denied _____	Ayes _____		File No. _____
	Noes _____		
	Abstain _____		
	Absent _____		
 Recording Secretary		 Community Development Director	

posted on the City's website, and mailed to property owners within 300 feet of the project site as well as those who previously requested notice.

DESCRIPTION OF THE SITE: The Highland Park Planned Development is located on a triangular shaped parcel of approximately 7.6 acres on the north side of Base Line between Club View Drive and Weaver Street (Attachment 1 - Project Location Aerial Map). This site is currently vacant following the demolition of a single-family home, outbuildings and mature landscaping approximately two (2) years ago. It is an infill site located amongst single family tract developments to the north and west and a large-lot single family home to the east. The North Fork Ditch and East Highlands Ranch community trail run along the northern border. The site is located just outside the Alquist-Priolo Special Studies Zone and is not within a floodplain.

PREVIOUS ACTION: On June 14, 2016, the City Council approved the Highland Park Planned Development upon recommendation by the Planning Commission. The Council adopted four resolutions:

- Reso No. 2016-032 adopting a Mitigated Negative Declaration.
- Reso No. 2016-033 amending the General Plan land use designation to Planned Development.
- Reso No. 2016-034 approving a CUP to establish the Highland Park Planned Development Document.
- Reso No. 2016-035 approving Tentative Tract Map No. 19919 to subdivide the property.

The Conditional Use Permit and Tentative Tract Map were initially valid for three (3) years. The City Council subsequently approved two (2) one-year Extensions of Time and the State provided an automatic one-year extension, making the project viable through June 14, 2022. Should the project fail to make substantial progress prior to that date, the Applicant may request one (1) additional Extension of Time through the City.

BACKGROUND:

Tract Map No. 19915 - The tentative tract map approved for this site is comprised of 46 single family residential lots ranging in size from 3,069 to 7,352 square feet. Related improvements include a neighborhood park, water quality basin, 2 large, landscaped slopes, and three (3) internally looped streets with access onto Base Line, west of Club View Drive. This project is not within East Highlands Ranch (Attachment 2 - Tentative Tract Map No. 19915).

The Map was conditioned so that the Highland Park Homeowners Association will be required to enter into a landscape maintenance district (LMD) for the maintenance of the Base Line roadway median and parkway improvements. The HOA will pay the City to maintain the LMD. The project's park, water quality basin, and internal landscaped lettered lots will be maintained directly by the HOA.

Conditional Use Permit to establish Planned Development Document: Concurrent with the map approval, the City Council approved the Highland Park Planned Development (PD) Document. The development density approved is equivalent to the City's Medium Density Residential designation (12.0 dwelling units per 1 acre maximum). The Document includes design guidelines and development standards for the subdivision (see Attachment 3 - PD Document).

PUBLIC COMMENT: At the time of preparing this report, no public comment letters had been received.

PROJECT REVIEW & ANALYSIS: The current proposal is a Design Review Application for the final housing product and tract design. It includes the project's Site Plan, Building Elevations, Conceptual Landscape Plan and Rough Grading Plan.

Site Plan The Site Plan exhibits the plotting of the homes and their respective setbacks (Attachment 4 – Site Plan). It follows the guidelines established by the PD Document Table II-1 *Development Standards*. The minimum building setbacks are 4' side yard, 10' flat usable in the rear yard, and 10-12' front yard setbacks (10' to the porch & 12' to the living area). The ground mounted equipment must be located in the rear setback, not the side. A minimum 3' wide landscape area shall be located on both sides of a driveway and the driveway must be eighteen feet (18') deep as measured from the garage door to the back of sidewalk swerve behind the drive approach.

In most instances, the Site Plan clearly indicates that all lots meet the minimum development standards. However, there are a few setbacks that are a foot or two short or not shown at all. Planning Condition of Approval No. 11 requires that the Site Plan be resubmitted to Staff with the following clarifications; Lot 12 must have a minimum of 10' flat usable setback in the rear yard, Lot 27 a front yard setback of at least 12' to the living area, Lot 29 a 4' flat usable left side yard setback, Lot 34 a 4' flat usable right side yard setback, and Lot 35 a 4' flat usable right side yard.

In addition to setbacks, the Site Plan indicates the unit mix, which building elevations are used on each lot with twelve (12) total options for plotting within the 46-unit tract. There are three (3) Plan types; 'A' - Spanish, 'B' – Farmhouse, and 'C' – Cottage. Each of these Plans has four (4) styles; Plan 1, 1X, 2 and 3. Each of these 12 units is used between one (1) and six (6) times. The most popular plottings are Plan 2A and 2C (Spanish Plan 2 and Cottage Plan 2).

The PD Document provides guidance regarding the unit mix. Section II-C, *Planning Standards* require that the same elevation not be potted next to itself or directly across the street from itself. There are two (2) instances in which this standard is not directly violated but may warrant adjustment. Lot 27 and 40 are across the street from each other at the intersection Streets 'B' and 'C.' They are both 3As. Per the color and materials board, the 3As would have the same color scheme. Staff recommends that one of these be replaced with an alternative plan as selected by the Applicant.

Lots 18 and 19 are both corner lots across each other at the intersection of Streets 'A' and 'C.' They are both Cottage Plan 1 (1C). Staff again recommends that the Applicant substitute an alternative elevation at one of these two locations.

Historically the City has preferred single-story units on corner lots to reduce the massing and visual impact from the public right-of-way. When the Planning Commission reviewed this project in 2016 there was discussion regarding the required use of single-story "elements" as a concession to not requiring single-story units. The PD Document states that single story architectural elements shall be incorporated into the elevations of homes on corners lots and may include architectural projections or porches. All corner lots within the project provide front porches with the exception of Lot 27 which is a Plan 3AR – Reverse Spanish style. Staff

recommends this unit be replaced with a plan that includes a front porch. This will also resolve the conflict between Lots 27 and 40 listed above.

Building Elevations: The PD Architectural Design Guidelines offer three (3) styles for the tract; Spanish, Cottage and Traditional. The Applicant proposes Spanish, Cottage and 'Farmhouse' which is similar in many ways to the features found in a 'Traditional' style (Attachment 5 - Colored Building Elevations).

As a small lot subdivision, all homes within the tract are two-story to accommodate a smaller footprint. They are sized between 1,957 and 2,518 square feet (Attachment 6 – Floor Plans). They are three (3) and four (4) bedroom with the communal spaces downstairs and living spaces upstairs. The one exception is the Plan 3 which has one bedroom downstairs. The details of each style are described below.

Elevation 'A' Spanish – The Spanish elevations are stucco with s-tile roofs. The front elevation of Plan 1 includes a recessed porch with arched entryway, second-story shutters on the largest window and cross pattern multi-light windows on the remaining four (4) windows. Other Spanish features include terra cotta pipes, a 5:12 roof pitch, a wood-colored multi-light garage door and black iron style carriage lamps. The side and rear elevations are rather simple with accents at the top and bottom of windows. The exterior is white stucco. There is a curvilinear taper at the bottom that is visually interesting that provides depth and shadowing. Plan IX of Elevation A modifies the window pattern and adds shutters to a second window on the front elevation as well as one window on the rear. The Plan 2 Spanish elevation has a pop out above the garage which contains an upstairs window with shutters. The Plan 3 Spanish Elevation contains a short entry gate and fence at the right front. The front door is located around the side of the house, halfway to the rear.

The proposed Spanish elevations include character-defining features listed in the PD Document such as minimal overhangs, arched openings, light tones, terra cotta pipes and tiles, gabled roof and shutters. While it is not necessary or even recommended to utilize all treatments listed, there are several that could add some nice variety including balconies, vibrant accent tiles, deep set windows and wrought iron accent grates. If the Board feels that the Spanish elevation too closely resembles the other styles, staff recommends the Commission consider the following modifications: replace the window shutters with a wrought iron grate on the first and wrought iron potshelf on the second floors, deeply inset the windows and require bright colored plant materials in the front yards. The Commission may also consider requiring a very light textured stucco be used to better emulate a plaster finish.

Elevation 'B' Farmhouse – Plan 1B is the most decorative elevation. It contains board and baton siding, ranch-style columns at the front porch, a side light window at the front door and shutters at two of the second story windows. It has concrete flat tile roofline and stucco body. It has three gable end rooflines on the front elevation. The Plan 1 is light grey with medium grey trim, dark grey shutters and white fascia, window trim and eaves. The Farmhouse IXB has earth toned colors with burgundy toned shutters and front door. The roof tiles are a brown tone in contrast to the grey tiles on Plan 1. The Plan 2B Farmhouse is shown in white with black shutters, white board and baton siding inside the three gable ends above the main windows and around the porch. It has a very classic feel. The roof is flat concrete tiles. Shutters adorn three of the upper-level windows and more substantial wood treatments were added below two of the three windows giving it a nice texture and shadowing. This elevation has more substantial wood window trim. It also has a pedestrian scale gate with entry on the elevation. The Plan 3

Farmhouse contains the additional detailing and side entry similar to the Spanish style. The proposed Farmhouse elevations do a good job of utilizing the PD design characteristics established for the 'Traditional' style.

Elevation 'C' Cottage - The Cottage elevation contains a combination of hip and gabled rooflines and has stone cladding on the front elevation wrapping around to the left elevation and the front porch columns. It contains a single shutter on the front window and recessed front porch. The roof material is concrete flat tiles. It has an overall height of 27'7". The main body of the house is stucco. Plan IXC of the Cottage Elevation, like the Spanish, adds a second set of shutters on the 2nd floor front and on one of the rear windows. The side and rear windows of the Cottage elevation have four wood trim surrounds. There are wood siding details within the eve of the porch and upper bedroom gable-end. The Plan 2 Elevation 'C' Cottage contains additional window and porch treatments, overhangs for depth and character. The windows on the side and rear have additional trim. The Plan 3 Cottage contains a stone veneer at the front right that wraps the right and left elevation with lap siding in the two front right gable ends.

The proposed Cottage elevations are very detailed and contain many of the character defining features described in the PD Document. The unused features include the use of chimneys, variety of window sizes and dormers. However, it does not negatively impact the overall appearance of the elevations.

With respect to all building elevations, the PD Document requires that the project "utilize architecture forward designs, outdoor spaces, varied garage treatments, landscaping, and other innovative neighborhood design techniques." The defining features of the selected architectural styles must be consistently implemented across the community to visually identify and differentiate each style. The style should be compatible with the massing of the floor plans. Discourage monotony. Styles should defer as to form, massing, features, windows, front doors, garage doors, materials, and colors. Garage door style, color, and design shall reflect the architectural character of the home and vary between adjacent homes. Accent window shutters are not required, however, when used, it shall be proportional to the window and reflect the architectural style. Staff feels that these guidelines were adequately met.

Neighborhood Park - The PD Document calls for the Neighborhood Park to be 0.44 acres and include a covered tot lot, open turf play area, barbecue area, trellis shade structure, picnic tables, seating, and benches. Large, canopied evergreen and deciduous trees are to provide shade and utilize flowering shrubs and groundcover to create visual appeal. At the time the park area was originally planned in 2016, it was to overlay the project's water quality management facilities. Subsequent studies have modified the facility type and required that it be separated from active park use. This resulted in the park footprint being reduced by more than 50%. However, it retained all of the recommended uses such as tot lot, shade structure, barbeque and seating, but significantly reduced the open turf play area.

The City's Landscape Architect included six (6) Conditions of Approval addressing park landscape and hardscape;

- The number and location of furnishings such as benches and trash receptacles shall be specified.
- Provide tree shade canopy or other means of shade over the play structure and benches.
- Address landscape material used in the water quality basin bottom if it is meant to be a play area.

- On the access road to the basin, replace the decomposed granite with a more stable material slope material.
- Ensure compliance between the WQMP, grading and landscape plans with respect to sidewalks, utilities, and BMP facilities.
- The type and size of shade structure to be used over the picnic area is not detailed in the plans. This will be reviewed and approved by staff during plan check.

Conceptual Landscape Plan - The Conceptual Landscape Plan describes the plant palette to be utilized within the front yards, side and rear yard slopes, HOA slopes, the park and water quality basin.

Section III-B.2 *Plant Palette* of the PD Document provides a “base palette for the community’s landscape design.” Many of the proposed materials are within the previously approved recommendations. Street trees include the Fern Pine, Goldenrain, Chinese Pistache, London Plane Tree and Magnolia. These will be 24” box minimum. There are a variety of evergreen and deciduous trees included in the screen trees, accent and patio trees. There is a large variety of species to be used in shrubs, vines and groundcovers to be used throughout the HOA common areas. Accent trees proposed along Base Line include Japanese Privet, Mondel Pine, Bottle Tree, Brisbane Box, Arbutus Hybrid, African Sumac, Ornamental Pear, Sweetshade and Flowering Plum.

The Plan calculates the Water Efficiency and meets the required local and state standards. The City’s Landscape Architect reviewed the plan and provided two (2) Conditions of Approval. They require that the street tree palette be narrowed to one uniform species per street and that non-lawn areas be supplemented with wood mulch or decorative gravel/cobble.

The PD Document lists specific directives for the landscape theme which are met in full by the plans provided including the use of flowering trees and colorful shrubs and prohibiting the use of pine trees.

Walls & Fences - Walls and fences will be installed compliant with the PD Wall and Fence Plan (Figure III-10, pg III-23). The fencing visible along Base Line will consist of the “Community Theme Wall which is 6’ high split face masonry wall with split face pilasters capped and gapped with precision accents alternating between vertical courses. Perimeter tract fencing within the remainder of the tract will be 6’ split face block wall with split face pilasters. Interior fencing will be 6’ vinyl. The water quality basin and park will be surrounded with 5’-6’ high tube steel fencing with block pilasters.

Rough Grading Plan – The Rough Grading Plan exhibits the existing and proposed topography of the project. There is an overall grade difference on the site of approximately 65 feet. There are significant slopes along the westerly boundary of the project where this tract joins an existing East Highlands Ranch tract along Morena Villa and Bella Villa Drive. Some slopes are nearly 25’ tall. Lettered Lots A and B are located along this boundary. They encompass the park and bioretention basin and will be maintained by the Highland Park Homeowners Association. They will be heavily landscaped with groundcover shrubs and trees to reduce erosion.

The North Fork ditch runs along the northeasterly boundary of the project. Slopes at this corner of the project will be assigned to the adjacent private lots. Slopes within private lots are upslopes to ensure they can be easily viewed, accessed, and maintained. They will be landscaped to reduce erosion.

At the southeast corner, the project entry road takes access from Base Line onto Paul Green Drive. Lots 1 and 46 flank the entry and the main pads sit approximately two (2) feet above street grade. In general, adjacent pads vary in elevation by just a few feet. There is one significant interior slope where there is a 13 foot grade difference between lots 30 and 19. Lot 30 will maintain the large slope between the two (2).

Due to the sloping nature of the property, retaining walls can be found throughout the project. These provide additional usable space for the homeowners. In places where the retaining walls are visible from the public right-of-way, Planning has required them to be split face block.

Edge Conditions - Along the western boundary is an existing variable height concrete block retaining wall. The project will construct a 3' concrete 'U' Channel then an adjacent retaining wall which will hold the large slope of Lot 'B'. At the toe of the project's slope will be a 6' block wall. Homeowners will be discouraged from entering the slope of Lot 'B'. Along the easterly side the project will construct a 1' concrete V-Ditch and 6' perimeter split face block wall.

Staff recommends approval of the Rough Grading Plan without revision.

Street Naming – On February 11, 2015, the Street Naming Committee assigned street names to Tract No. 19915 based on the City's Recommended Street Name List. The Applicant wishes to amend the names as follows:

Street 'A' - ~~Paul Green Drive~~ **Sky View Drive**
Street 'B' - ~~Call Road~~ **Veranda Lane**
Street 'C' - ~~Ray Avenue~~ **Crescent Way**

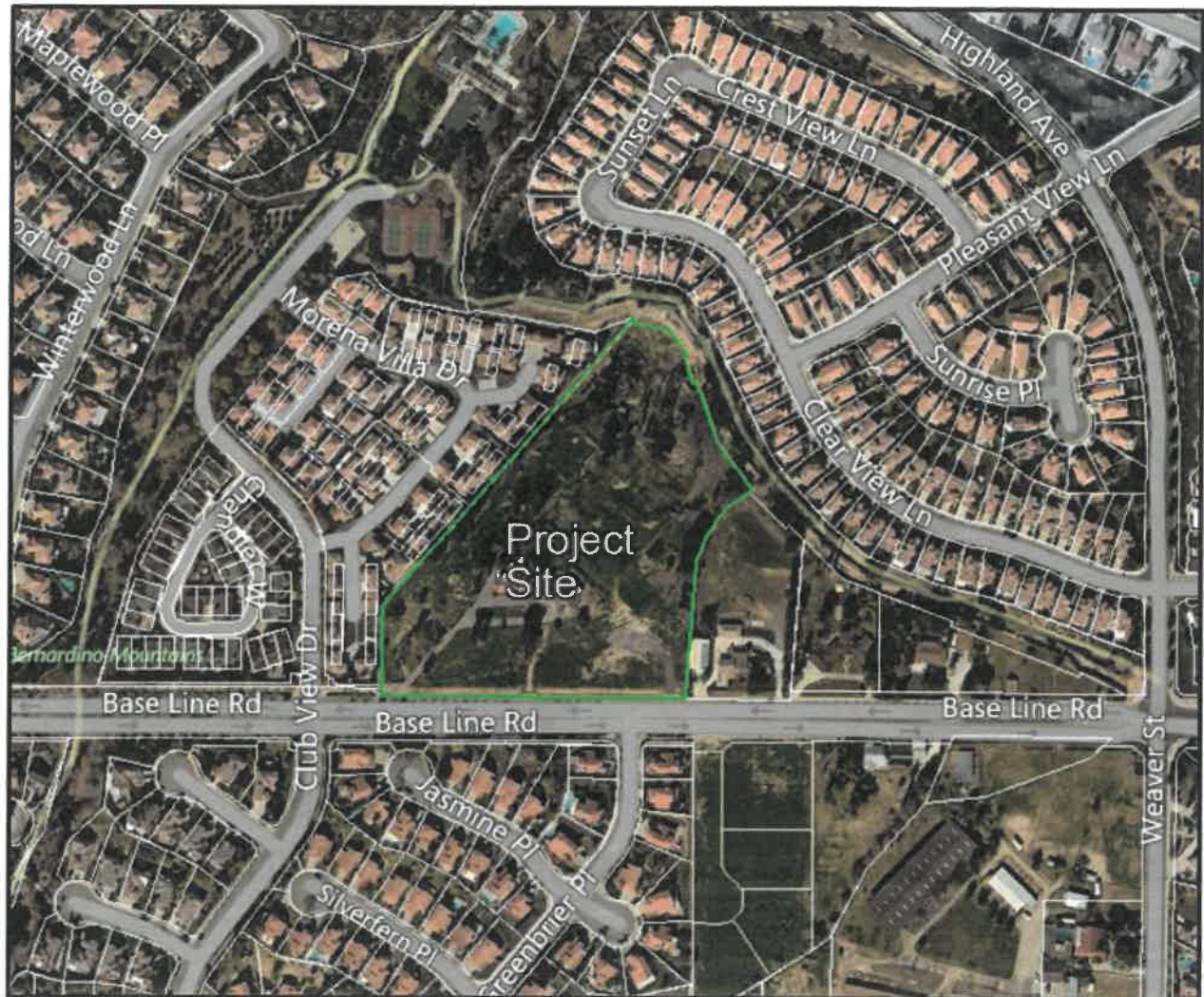
Staff recommends Paul Green Drive not be changed. The name was recommended by the City Council in honor of Colonel Green, a Highland Resident and Tuskegee Airman who fought in World War II.

Attachments:

1. Project Location Aerial Map
2. Tentative Tract Map 19915 Approved in 2016
3. Planned Development Approved in 2016
4. Site Plan
5. Colored Building Elevations
6. Floor Plans
7. Conceptual Landscape Plan
8. Rough Grading Plan
9. PC Resolution 2022 - _____

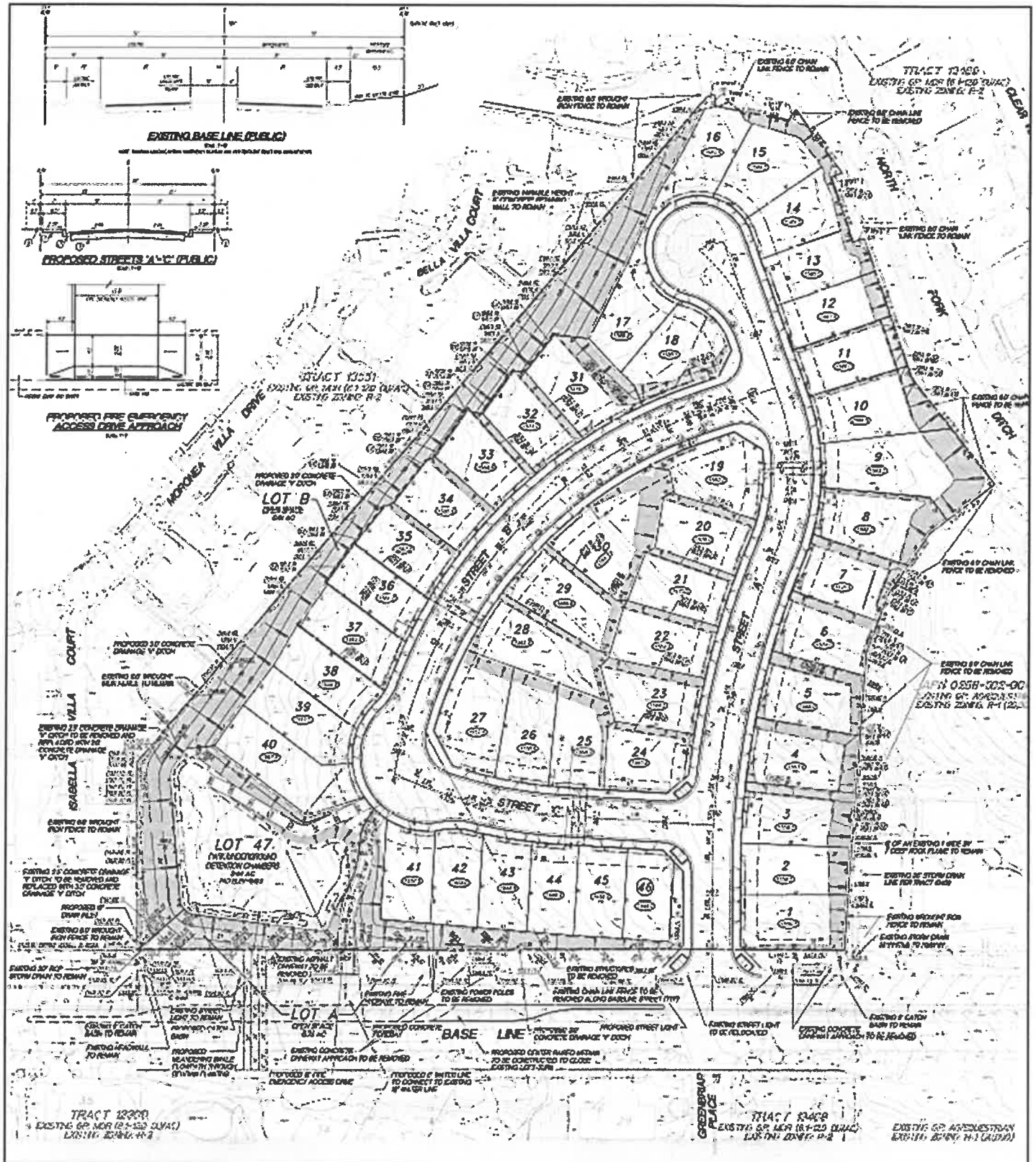
Attachment 1

Project Location Aerial Map



Attachment 2

Tentative Tract Map 19915



ATTACHMENT 3

Planned Development Document for reference

Approved in 2016

HIGHLAND PARK PLANNED DEVELOPMENT

TTM 19915 PLANNED DEVELOPMENT

Lead Agency:

CITY OF HIGHLAND
27215 Base Line
Highland, CA 92346

Developed by:

29300 BASELINE PARTNERS, LLC
20201 SW Birch St., Suite 100
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Prepared by:

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In Consultation With:

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Civil Engineering

Mark Gross & Associates
Architecture

Clark & Green Associates
Landscape Architecture

May 2016

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I. INTRODUCTION

A. DOCUMENT PURPOSE

This Development Plan for Tentative Tract Map 19915 (TTM 19915, also known as “HIGHLAND PARK”), has been prepared pursuant to the requirements of the City of Highland Municipal Code (Chapter 16.12.010, *Planned Development (PD) District*) and shall be enforced by the City of Highland via Conditions of Approval placed on TTM 19915. Development of the HIGHLAND PARK community is required to substantially conform to the physical characteristics and design concepts set forth in this document. The City’s Planning Director has the discretion to determine if implementing actions substantially conform to this Development Plan.

B. PROJECT LOCATION

The HIGHLAND PARK community is located on approximately 7.66 acres in the City of Highland, San Bernardino County, California. Specifically, HIGHLAND PARK is located on the north side of Base Line, west of Weaver Street, east of Club View Drive. The location of the HIGHLAND PARK community is graphically depicted on Figure I-1, *Vicinity Map*.

C. SUMMARY OF PROJECT ENTITLEMENTS

Entitlements approved by the City of Highland to implement the HIGHLAND PARK development include, but are not limited to, Change of Zone (ZC No. 015-001) and Tentative Tract Map (TTM No. 19915). Change of Zone 015-001 changes the property’s zoning designation from R-2 to Planned Development (PD), and this Development Plan is required as a condition of the PD zone designation. As shown in Figure I-2, *Tentative Tract Map No. 19915*, TTM 19915 subdivides the property into 46 single-family residential lots, one Neighborhood Park and water quality basin, landscaped slopes, along with roadways and utilities.

D. PROJECT OBJECTIVES

- Provide a high quality, planned residential community that compliments surrounding land uses.
- Create an attractive, cohesive mix of architectural styles and landscaping materials which result in a community which will appeal to residents.
- Provide amenities which meet the diverse needs of residents within the HIGHLAND PARK community, including a community park and thoughtfully landscaped open space areas.

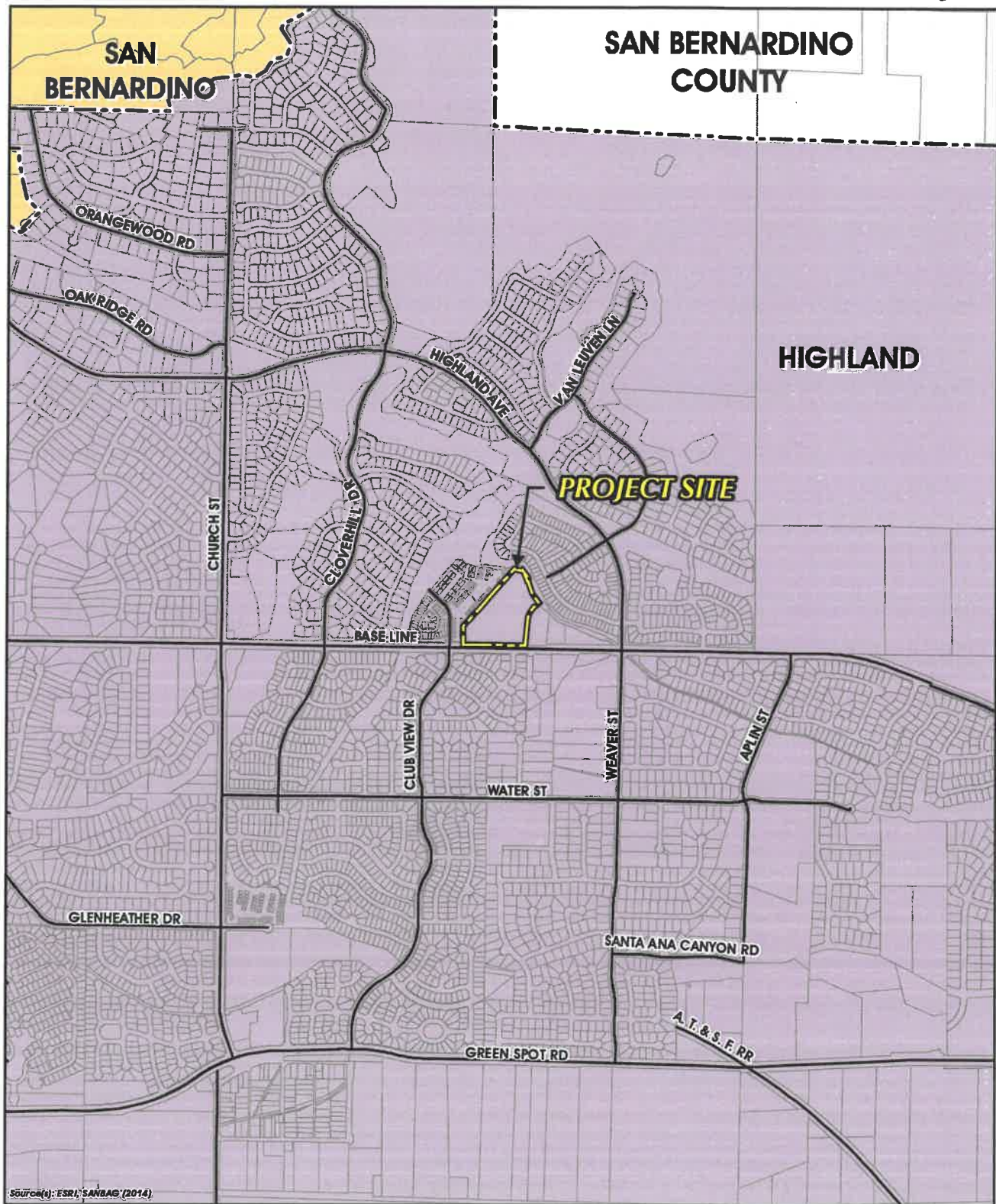


Figure I-1

VICINITY MAP

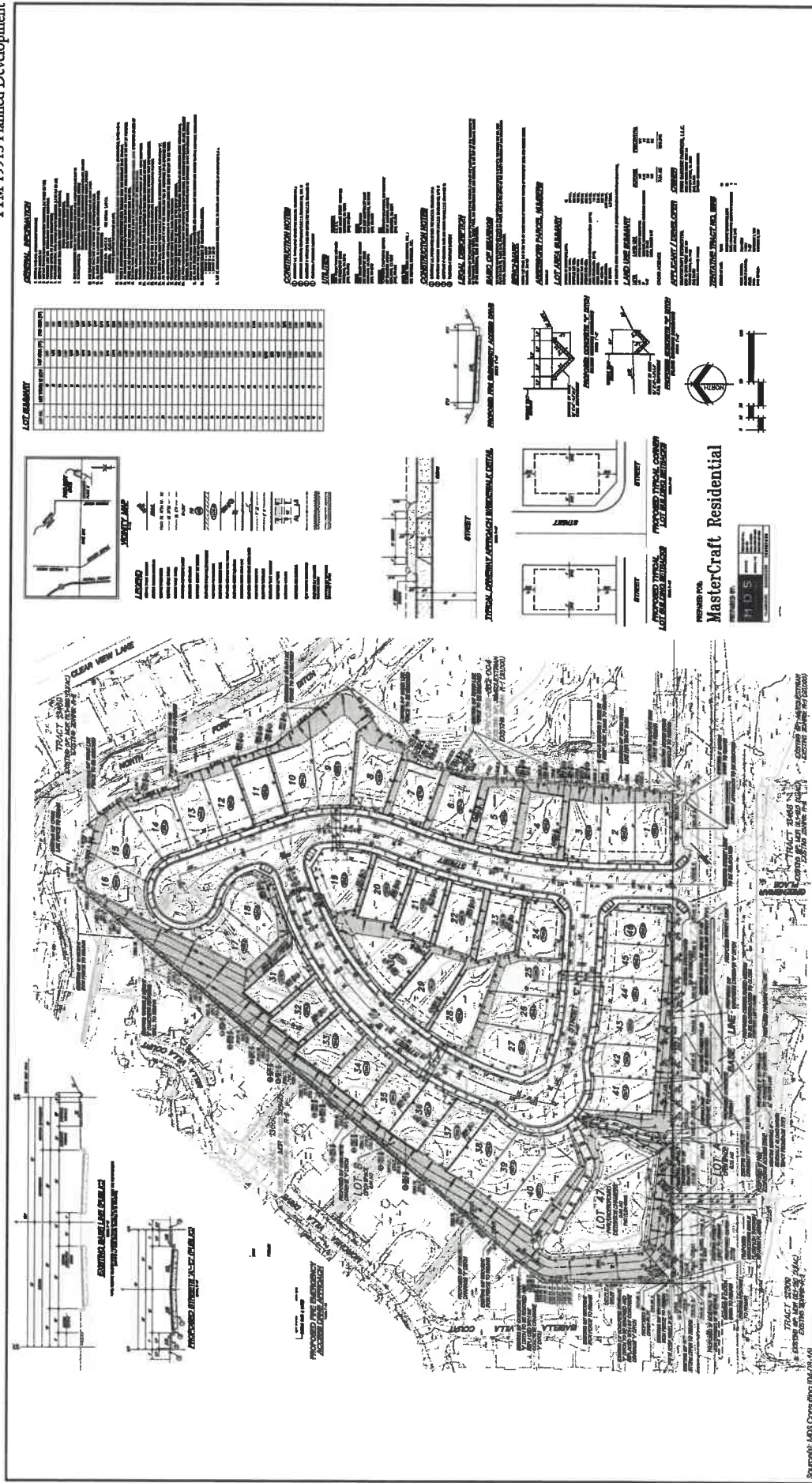


Figure I-2

II. LAND USE AND DEVELOPMENT STANDARDS

This section contains the land use and development standards which establish compliance with the City's Municipal Code and ensure compatibility with surrounding land uses, existing infrastructure, and public services.

A. LAND USE

The HIGHLAND PARK community is a high quality, planned residential community that consists of 46 detached single family homes and a Homeowner Association (HOA) maintained neighborhood park. Other community features include a HOA maintained water quality basin and landscaped slopes, as well as three new interior public neighborhood streets and other supporting infrastructure.

The HIGHLAND PARK community is located within an area of the City that is predominately developed with residential land uses. Three sides of Highland Park are surrounded by the East Highlands Ranch Planned Development, to the north, east, and west. These portions of East Highlands Ranch are residential, with multi-family residential to the west, and single-family residential to the north and east. Single-family residential, not a part of the East Highlands Ranch Planned Development, is located to the south. Development of the HIGHLAND PARK community is compatible with surrounding land uses, land development standards, existing infrastructure, and public services.

B. DEVELOPMENT STANDARDS

The City's Municipal Code provides for the flexibility of design and development standards within the Planned Development zone to achieve the objectives of the City's General Plan more effectively, including the City's design goals and principles for residential neighborhoods. A description of the Highland Park Development Plan's consistency with the City's General Plan is provided in Section IV, *General Plan Consistency*. Table II-1, *Development Standards*, summarizes the PD development standards set forth in this Development Plan.

Table II-1 Development Standards

Lot Requirements	
Minimum Lot Area:	3,000 square feet
Minimum Lot Width at front setback:	34 feet
Minimum Lot Depth:	75 feet
Maximum Lot Coverage:	60%
Yard Requirements	
Minimum Front Yard:	10 feet to patio or porch 12 feet to living area 18 feet to garage from back of sidewalk
Minimum Side Yard: (Interior & Through Lots)	4 feet
Minimum Side Yard: (Corner & Reversed Corner Lots)	4 feet
Rear Yard:	10 feet (flat usable area)
Other	
Maximum Building Height:	30 feet
Parking	2 garage spaces per unit 2 driveway parking spaces per unit 0.5 on-street parking spaces per unit
Garage Standards	Front-facing garage widths shall be limited to 65% of the house width. A minimum 3-foot wide landscape area shall be located on both sides of a driveway. The Covenants, Codes and Restrictions (CC&Rs) for the HIGHLAND PARK community shall include a provision prohibiting the conversion of garages to habitable living spaces.
Ground Mounted Mechanical Equipment	Located in rear setback

C. PLOTTING STANDARDS

HIGHLAND PARK shall feature a range of home sizes, styles, and floor plans. Figure II-1, *Minimum Setbacks*, provides an illustration of proposed minimum setbacks for each floor plan within the HIGHLAND PARK community.

Detached single-family homes within HIGHLAND PARK creatively utilize “architecture forward” designs, outdoor spaces, varied garage treatments, landscaping, and other innovative neighborhood design techniques to create a visually interesting streetscene and identifiable neighborhood character. Short, curvilinear streets prevent long stretches of linear massing, and when combined with private outdoor spaces such as covered front porches and front yards, result in a welcoming, interactive street scene conducive to pedestrian activity. To ensure a visually interesting street scene, HIGHLAND PARK community shall comply with the following plotting requirements:

- i. The same elevation style shall not be plotted next to itself or directly across the street from itself. “Directly across the street” shall be defined as more than half of the narrower lot overlapping with the wider lot across the street.
- ii. Single-story architectural elements shall be incorporated into the elevations of homes on corner lots. Examples of single-story architectural elements include architectural projections, bay windows, porches, one-story living spaces, and/or a one-story garage element.

D. NEIGHBORHOOD PARK

HIGHLAND PARK provides a Neighborhood Park for the enjoyment of its residents. As depicted on Figure II-2, *Neighborhood Park*, the 0.44 acre Neighborhood Park includes a covered tot lot, open turf play area, barbecue area, trellis shade structure, picnic tables, seating, and benches. Large canopied evergreen and deciduous trees provide shade; flowering shrubs and groundcover create visual appeal.

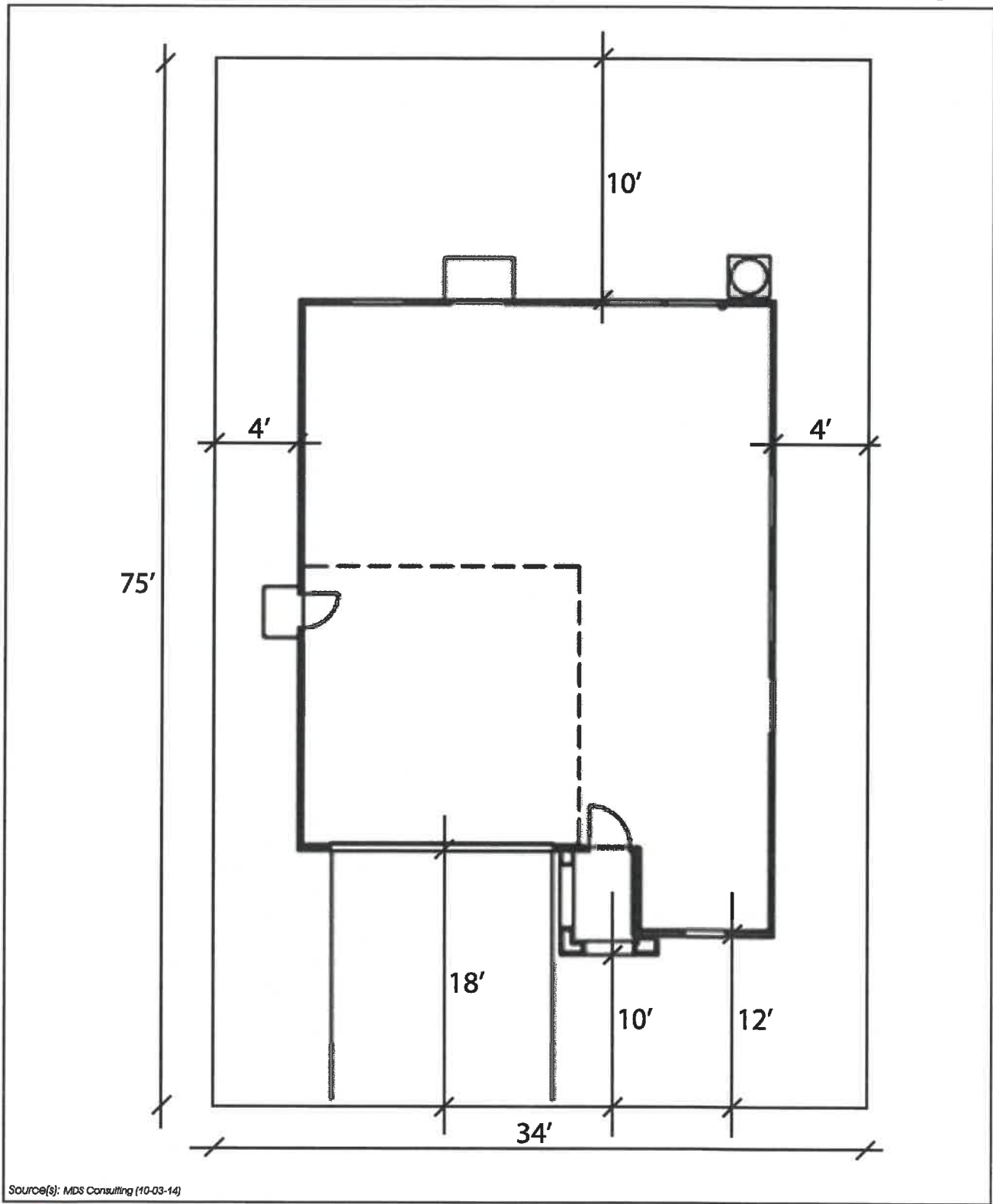


Figure II-1



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MINIMUM SETBACKS

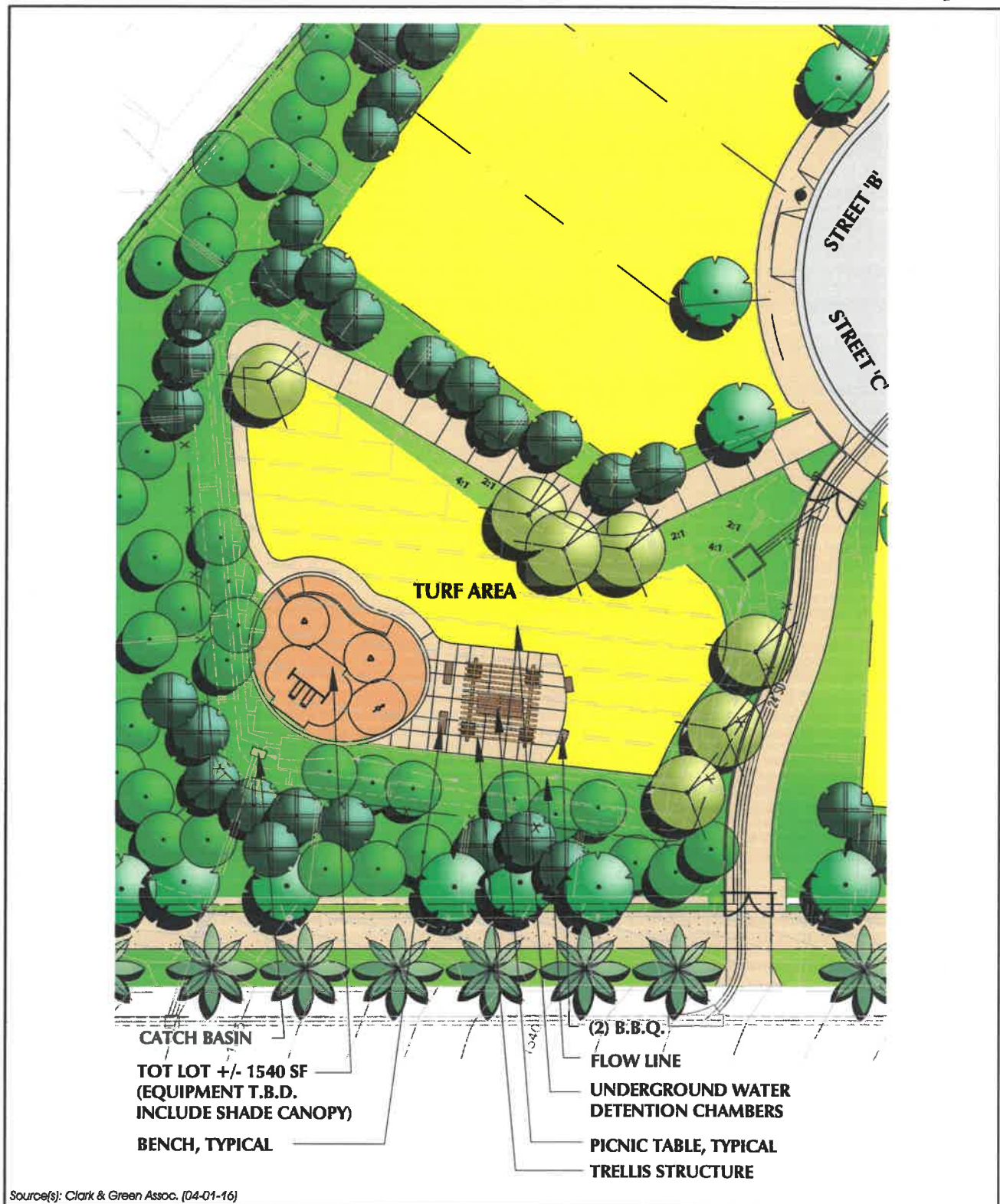


Figure II-2



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NEIGHBORHOOD PARK

III. DESIGN GUIDELINES

A. ARCHITECTURAL DESIGN GUIDELINES

1. Architectural Design

These Architectural Guidelines establish the architectural design theme for the HIGHLAND PARK community. The Neighborhood Design Principles identified in the Community Design Element of the City's General Plan are addressed by these Design Guidelines.

a. Design Principles

The architectural designs in HIGHLAND PARK are representative of the three architectural styles described in this document: Traditional; Cottage; and Spanish (refer to Subsection 2, *Architectural Styles*). The defining features of the selected architectural styles must be consistently implemented across the community to visually identify and differentiate each style.

The selection of an architectural style should be compatible with the massing of their floor plans; as such, a certain style should not be forced onto every floor plan if it is not compatible. By emphasizing the use of distinct and identifiable styles, these guidelines discourage monotony. Street scenes shall incorporate multiple architectural styles and should be diverse as to form, massing, features, windows, front doors, garage doors, materials, and colors.

b. Form and Massing

Building mass and scale are two primary design components that affect how a building is perceived. The creative use of articulation of the building's visible facades, variation of rooflines, balance of roof forms, and changes in vertical and horizontal planes reduces the perceived mass of a building. Even if the front elevation setback for adjacent homes is the same, variations in massing can provide considerable visual interest.

It is important to provide variation in front elevation massing along every street in HIGHLAND PARK to provide diversity and avoid a monotonous pattern along the streetscape. Examples of design features that can reduce a home's perceived visual mass include covered front porches, window and door articulation, balconies, extended overhangs, and decorative building edge treatments (cornice, eave, quoins, etc.).

c. Roofs

The roofline is a dominant visual element of a home. A roof's composition should allow for a clean interface with the building and the building facade. A roof's form and composition should reflect the appropriate roof pitch, characteristics, and materials that are consistent and true to the selected architectural style, and shall also not be overbearing nor give the appearance of being disjointed.

- i. Rooflines of adjacent homes should vary to create a variety of silhouettes and ridge heights.

- ii. Roof pitches should vary among floor plans and complement the building's architectural style. Primary roof pitches may be 5:12, 6:12, or 7:12. Secondary roof pitches can vary from primary roof pitches but only if such variation is consistent with the architectural style.
- iii. Roof pitches and colors should vary from one house to the next, when appropriate for the architectural style.
- iv. Roof materials and colors selected for an architectural style must reflect the elements that are typically used in that style.
- v. Roofing materials shall be non-combustible.
- vi. Solar panels, if used, should be a low profile mounted system.
- vii. Eave overhangs should vary among floor plans and complement the building's architectural style.

d. Garage Location and Design

To achieve attractive streetscenes throughout the HIGHLAND PARK community, particular attention must be given to the design and placement of garages.

- i. Garage door style, color and design shall reflect the architectural character of the home and shall vary between adjacent homes, when appropriate. Acceptable garage door styles include, but are not limited to raised panel, recessed panel, flush panel in both roll-up and carriage swing door designs.
- ii. Windows shall be incorporated into the garage door design for at least 50% of all garages. Where provided, garage door window styles shall correspond to the architectural style of the house.
- iii. Architectural features, such as varied rooflines (including height and pitch) and second story setbacks, shall be incorporated into the garage design to reduce building mass and scale and create a visually interesting streetscene, when appropriate for the selected architectural style.

e. Windows and Doors

Window and door details are architectural components that carry a strong visual impact through their placement and design.

- i. Front door details shall be consistent with the architectural style.
- ii. Feature window shapes shall be consistent with the architectural style.
- iii. Accent shutters are not required; however, when used, shutter size shall be proportional to the window and shall reflect the architectural style.
- iv. Windows and/or doors with silver or gold frames or reflective glass are prohibited.

f. Building Materials and Colors

A complementary mixture of colors, textures, and building materials is encouraged throughout the HIGHLAND PARK community. Building material and color selection are integral components in the definition of a specific architectural style and also contribute to a varied streetscape design. A variety of exterior accent materials (e.g., brick, stone, siding, pre-cast concrete, ceramic tile, timber) should be used as an integral feature in home construction to convey the selected architectural styles.

- i. The exterior treatments of houses shall reflect a complementary mix of colors, tones, and textures.
- ii. Color schemes shall be simple, tasteful, and consistent with architectural styles.
- iii. A scheme of color values on all exterior elements shall be distinct from one house to the next, with deeper tones encouraged to promote variations. This avoids a monotonous appearance of multiple buildings of the same colors and tones.
- iv. Material breaks, transitions, and termination shall produce complementary and clear definitions of separation, while maintaining a prescribed color and materials theme. This is especially important in changing from stucco and/or siding to masonry veneers.
- v. Stucco finishes on exterior walls shall include one of two styles: light lace finish or sand finish
- vi. Stucco finishes on exterior walls shall be accompanied by at least one other accent material appropriate to the architectural style (e.g., wood trim, stone, brick), unless an architectural style, such as Spanish, traditionally uses stucco without an accent material.

g. Outdoor Lighting

Lighting standards throughout HIGHLAND PARK shall be similar in style, color and materials, embracing a natural and minimal lighting approach.

- i. All outdoor lighting shall incorporate, to the extent feasible and permissible under City standards, measures to aid in reducing light pollution. Such measures include: wattage reduction, directing lighting downward, shielding lights (or using "cut-off lights" that only illuminate the side or underside of a fixture, rather than shining skyward) and lowering the height of light poles to reduce the illumination radius.
- ii. All outdoor lighting fixtures shall be focused, directed, and arranged to minimize glare and illumination on public streets and adjoining property.

h. Mechanical Equipment

Mechanical equipment such as air conditioners, heaters, evaporative coolers, and other such devices shall not be mounted on any roof or located within the side yards and must be located behind privacy walls or landscaping. Solar panels are not required but are permitted on roofs.

2. Architectural Styles

The residential architecture of HIGHLAND PARK includes a complementary palette of architectural styles that are authentic to the southern California landscape. The architectural styles expected in the HIGHLAND PARK community, and their character-defining elements, are described below.

The following Tables and associated Figures identify each of the three architectural styles and their defining characteristics included in HIGHLAND PARK.

Table III-1 Traditional Style Defining Characteristics

Traditional	
Simple gable-ended architecture and, on occasion, hipped roofs. Narrow and tall window openings and shutters.	
Design Features ☐ Plaster ☐ 18" overhangs ☐ Symmetrical fenestration ☐ Vertical and horizontal forms Colors ☐ White and light tones ☐ Vibrant accents Accent Materials ☐ Stucco – light lace finish ☐ Siding ☐ Brick Accents	Roofs ☐ 5:12 to 6:12 pitched roofs ☐ Simple gabled and hipped roofs ☐ Flat tile Windows ☐ Narrow and tall ☐ Shutters ☐ Pot shelves ☐ Distinctive window trim details

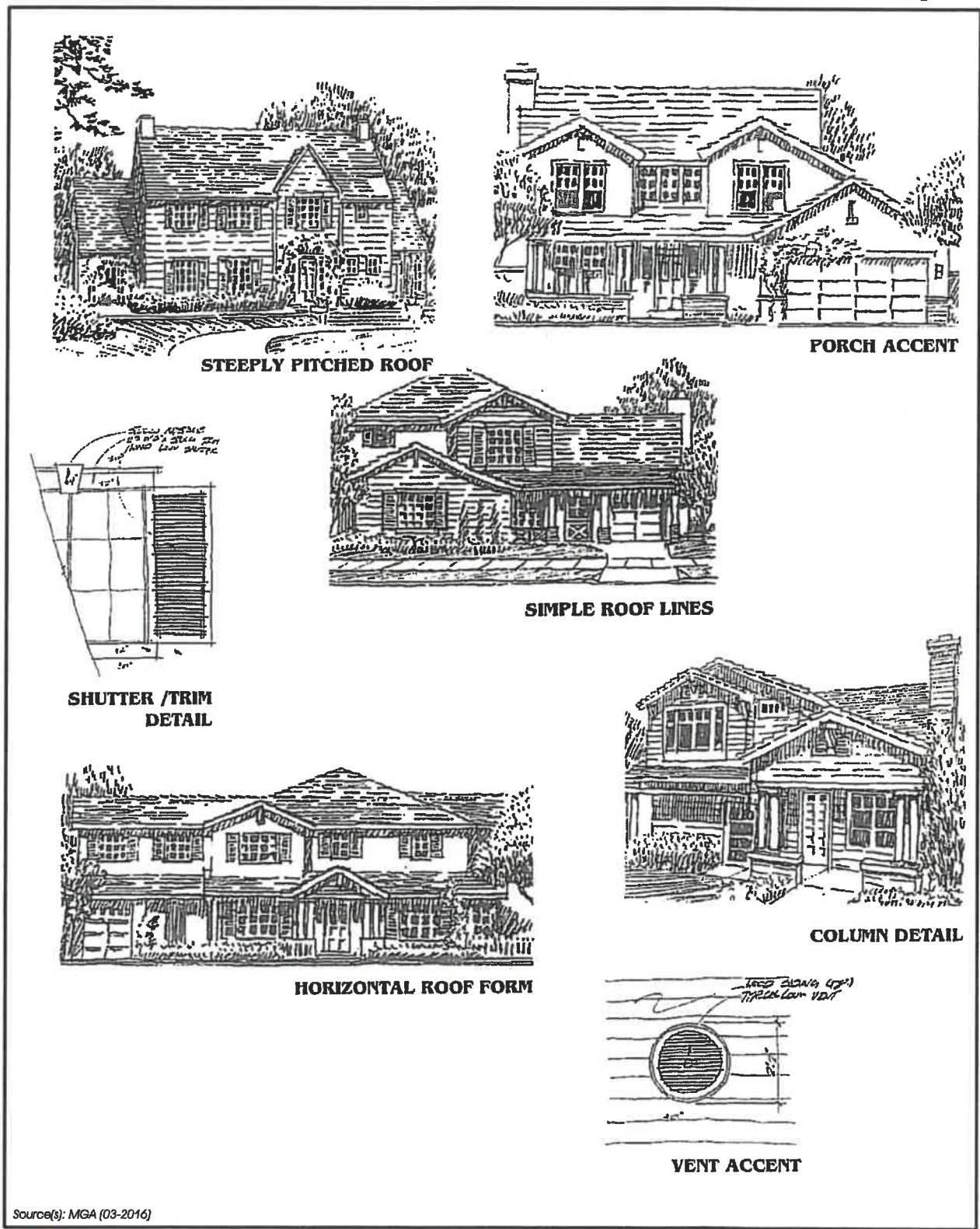


Figure III-1



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ARCHITECTURAL DETAILS - TRADITIONAL

Table III-2 Cottage Style Defining Characteristics

Cottage	
Stone and siding accents, simple gable-ended architecture and hipped roofs. Narrow and tall window openings and shutters with periodical use of arches.	
Design Features ☐ Plaster ☐ 18" overhangs ☐ Symmetrical fenestration ☐ Vertical forms ☐ Soft arched openings Colors ☐ Earth tones ☐ Vibrant accents Accent Materials ☐ Stucco – light lace finish ☐ Stone ☐ Siding ☐ Accents at gables	Roofs ☐ Steep-pitched roof (5:12 to 6:12) ☐ Hip roofs with occasional gable forms ☐ Flat tile Windows ☐ Narrow and tall ☐ Shutters ☐ Pot shelves ☐ Distinctive window trim details

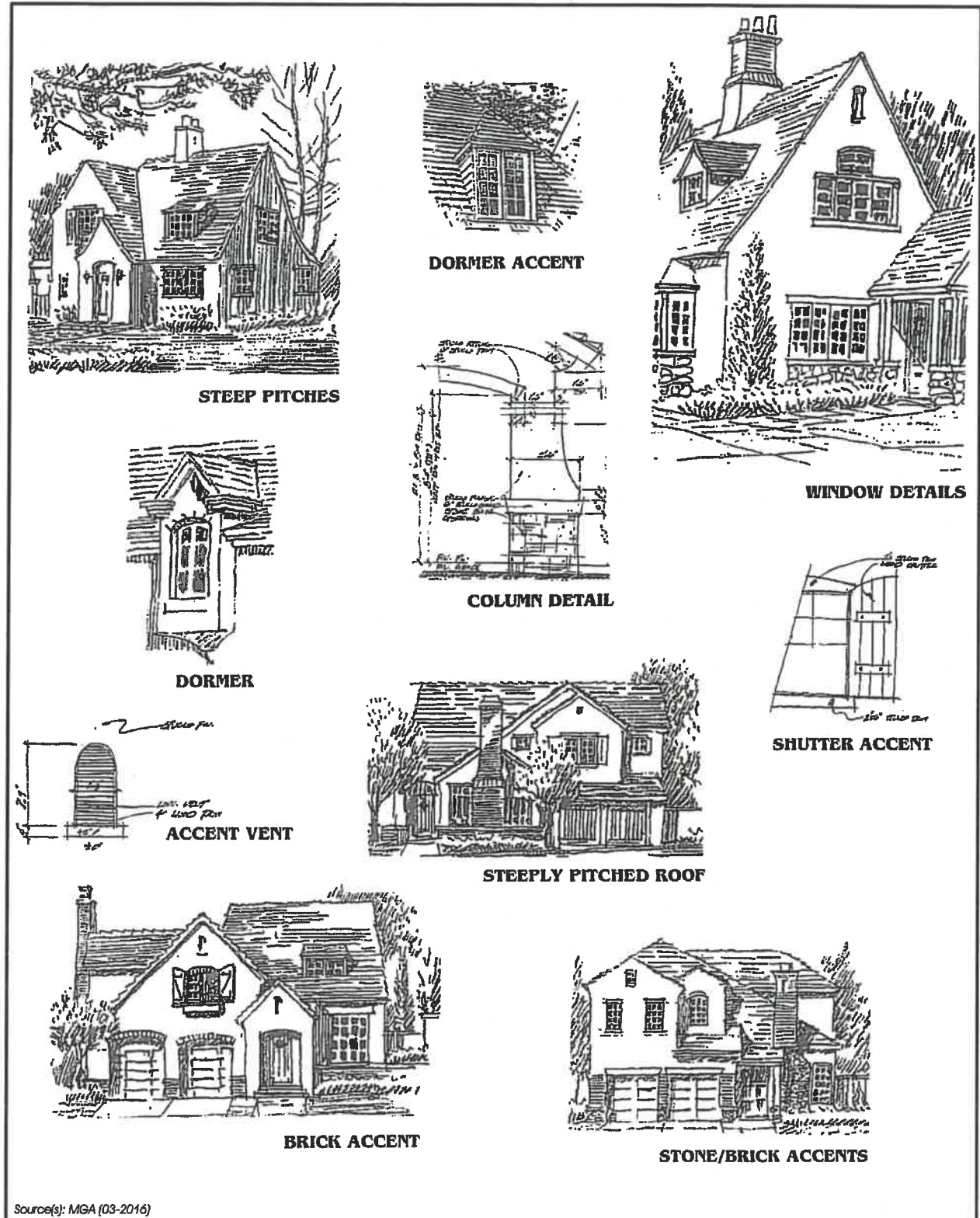


Figure III-2



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ARCHITECTURAL DETAILS - COTTAGE

Table III-3 Spanish Style Defining Characteristics

Spanish	
Simple gable-ended architecture. Narrow and tall window openings and shutters with periodical use of arches.	
Design Features ☐ Plaster ☐ Minimal overhangs ☐ Symmetrical fenestration ☐ Vertical forms ☐ Arched Openings Colors ☐ Light tones ☐ Vibrant Accents ☐ Park Facias Accent Materials ☐ Stucco – light lace finish ☐ Terra cotta pipes and gables ☐ Wrought Iron Accent Grates	Roofs ☐ Shallow pitched roof (5:12 to 6:12) ☐ Simple gabled roofs ☐ Terra cotta tiles (Barrel & 'S') Windows ☐ Deep set (2" minimum) on front elevations ☐ Narrow and tall ☐ Occasional use of arched windows ☐ Shutters ☐ Distinctive window trim details

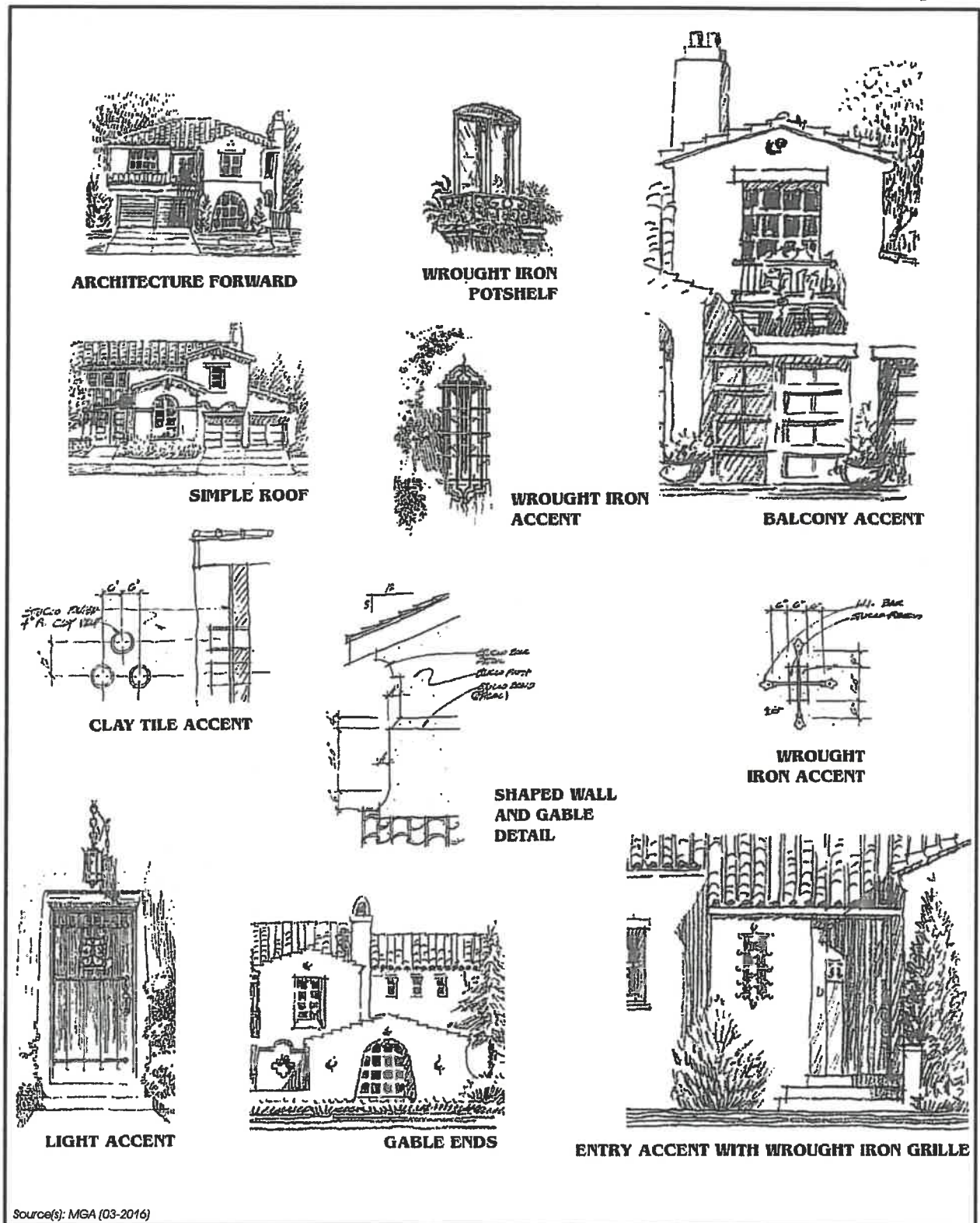


Figure III-3

B. LANDSCAPE DESIGN GUIDELINES

These *Landscape Design Guidelines*, along with the community's companion *Architectural Design Guidelines*, establish a clear and coherent community identity that is contemporary, visually appealing, and sensitive to the environment.

Although a great deal of specific design information is provided in Figure III-4, *Conceptual Landscape Plan*, there will at times be a need for interpretation of the guidelines in keeping with the spirit of the community's landscape theme. When interpreting these guidelines to meet certain parcel-specific or user-identity requirements, opportunities for diversity and visual interest are encouraged. However, it is critical that such opportunities be implemented in manners consistent with the core elements of the overall theme described in this Specific Plan in order to ensure a cohesive and unified community-wide landscape concept.

1. Landscape Theme

The landscape vernacular for HIGHLAND PARK draws from the adjacent foothills. The landscape framework is informal and incorporates informal massing of evergreen and deciduous shade trees along with small flowering accent trees. The backbone trees within Highland Park are comprised primarily of Pines and Oaks. Baseline Street is defined by small flowering accent trees and a combination of Pines and deciduous trees exhibiting fall color. Filibusta Fan Palms line Baseline in the parkway, matching existing trees to the west of the project. The ground plane palette is a mix of Southern California native and compatible drought tolerant, non-native plant materials.

2. Plant Palette

The plant palette for HIGHLAND PARK complements and enhances the setting of the community, while ensuring the conservation of water resources. The plant palette includes colorful shrubs and ground covers along with evergreen and deciduous trees to complement the community's setting and accentuate the community's architectural styles and design elements (hardscape, monumentation, walls and fences, etc.). The landscape theme follows a more natural, informal approach complimentary of the architectural theme and surrounding neighborhood. To ensure the conservation of water resources and to alleviate long-term maintenance concerns, the plant palette for HIGHLAND PARK is comprised of water-efficient species native to southern California or naturalized to the arid southern California climate.

Table III-4, *Plant Palette*, provides a list of the specific plant materials proposed for the various component landscape areas of the community. The plant palette is provided as a base palette for the community's landscape design. Other similar plant materials may be substituted provided the selected plant materials are water-efficient, are non-invasive to the region and complement the HIGHLAND PARK community theme. Plant selection for specific areas of the community shall have similar watering requirements so that irrigation systems can be designed to minimize water use and plant materials can thrive under optimal conditions.



Figure III-4

Table III-4 Plant Palette

Botanical Name	Common Name	So. California Native Y/N	WUCOLS Class- Region 4'	Base Line	Streets A, B, C, Landscape Setback Trees	Park Site	Slopes	Front Yard
Trees								
Chilopsis linearis 'Arts Seedless'	Desert Willow	Y	L				✓	✓
x Chitalpa tashkentensis 'Morning Cloud'	Chitalpa	N	L	✓	✓		✓	
Fraxinus oxycarpa 'Raywood'	Raywood Ash	N	M	✓		✓	✓	✓
Lagerstroemia faurei x indica cultivars	Crape Myrtle	N	M		✓		✓	✓
Pinus eldarica	Afghan Pine	N	L	✓			✓	
Pinus halepensis	Allepo Pine	N	L	✓			✓	
Pistacia chinensis	Chinese Pistache	N	M		✓		✓	
Platanus racemosa	California Sycamore	Y	M			✓		
Podocarpus gracilior	Fern Pine	N	M	✓			✓	✓
Prunus caroliniana	Carolina Laurel Cherry	N	M	✓	✓		✓	
Quercus agrifolia	Coast Live Oak	Y	L			✓	✓	
Quercus ilex	Holly Oak	Y	L	✓	✓	✓	✓	
Rhus lancea	African Sumac	N	L				✓	✓
Sambucus mexicana	Mexican Elderberry	Y	L					
Washingtonia x filibusta	Filibusta Fan Palm	Y	L	✓				
Shrubs/Groundcover								
Abelia x grandiflora	Glossy Abelia	N	M					✓
Acacia 'Desert Carpet'	Desert Carpet Acacia	N	L	✓			✓	
Anigozanthos flavidus/hybrids	Kangaroo Paw	N	L					✓
Arctostaphylos 'Pacific Mist'	Pacific Mist Manzanita	Y	L					✓
Arctostaphylos 'Sunset'	Sunset Manzanita	Y	L			✓	✓	✓
Baccharis pilularis 'Pigeon Point'	Coyote Brush	Y	L	✓	✓	✓	✓	
Bulbine frutescens 'Tiny Tangerine'	Bulbine	N	L	✓				✓
Callistemon 'Little John'	Little John Bottlebrush	N	L		✓		✓	✓
Carpenteria californica	Bush Anemone	Y	L					✓
Chrysactinia mexicana	Damianita	N	L	✓			✓	✓
Cistus hybridus	White Rockrose	N	L					✓

Table III-4 Plant Palette

Botanical Name	Common Name	So. California Native Y/N	WUCOLS Class- Region 4'	Base Line	Streets A, B, C, Landscape Setback Trees	Park Site Slopes	Front Yard
Shrubs/Groundcover (Cont.)							
<i>Dietes iridioides</i>	Fortnight Lily	N	M				✓
<i>Encelia farinosa</i>	Incienso	Y	L			✓	✓
<i>Gaillardia x grandiflora</i>	Blanket Flower	N	M	✓	✓	✓	✓
<i>Hemerocallis hybrids</i>	Daylily	N	M				✓
<i>Hesperaloe parviflora</i> 'Perpa' Brakelights	Crimson Yucca	N	L	✓		✓	✓
<i>Justicia californica</i>	Chuparosa	Y	L			✓	
<i>Lantana</i> 'New Gold'	Lantana	N	V L	✓	✓	✓	✓
<i>Leonotis leonurus</i>	Lion's Tail	N	L	✓	✓	✓	✓
<i>Leucophyllum</i> 'Lynn's Legacy'	Lynn's Legacy Texas Ranger	N	L	✓	✓	✓	✓
<i>Ligustrum japonicum</i> 'Texanum'	Privet	N	M	✓	✓		✓
<i>Macfadyena unguis-cati</i>	Cat's Claw Vine	N	L	✓	✓		
<i>Muhlenbergia capillaris</i> 'Regal Mist'	Regal Mist Muhly	N	M		✓	✓	✓
<i>Muhlenbergia rigens</i>	Deer Grass	Y	M			✓	✓
<i>Myrtus communis</i>	Common Myrtle	N	M				✓
<i>Myrtus communis</i> 'Compacta'	Dwarf Myrtle	N	M				✓
<i>Olea europaea</i> 'Little Ollie'	Little Ollie	N	L	✓	✓	✓	✓
<i>Plumbago auriculata</i>	Cape Plumbao	N	M	✓		✓	
<i>Prunus caroliniana</i> 'Bright 'n Tight'	Carolina Laurel Cherry	N	M	✓	✓	✓	✓
<i>Rhus integrifolia</i>	Lemonade Berry	Y	L			✓	
<i>Rosmarinus officinalis</i> 'Prostrata'	Prostrate Rosemary	N	L	✓	✓	✓	✓
<i>Rosmarinus officinalis</i> 'Tuscan Blue'	Tuscan Blue Rosemary	N	L	✓	✓		✓
<i>Salvia</i> 'Furman's Red'	Furman's Red Sage	N	L	✓	✓	✓	✓
<i>Salvia meliera</i> 'Tera Seca'	Tera Seca Sage	Y	V L	✓		✓	
<i>Simmondsia chinensis</i>	Jojoba	Y	V L			✓	

Table III-4 Plant Palette

Botanical Name	Common Name	So. California Native Y/N	WUCOLS Class- Region 4 ¹	Base Line	Streets A, B, C, Landscape Setback Trees	Park Site	Slopes	Front Yard
Shrubs/Groundcover (Cont.)								
Sphaeralcea ambigua	Apricot Mallow	Y	L		✓	✓	✓	

¹WUCOLS (Water Use Classification of Landscape Needs) Categories of Water Needs: VL= Very Low; L=Low; M=Medium; H-High

3. Monumentation

HIGHLAND PARK features an entry point off of Baseline, illustrated in Figure III-5, *Entry Plan*, and Figure III-6, *Entry Elevation*. As shown in Figure III-7, *Entry Monument*, the entry into the community includes a monument pilaster/column with decorative precast concrete detailing and community name. Flowering trees and colorful shrubs provide an inviting shaded entry experience.

Monument signage should be compatible with the character of the community but flexible enough to respond to the individual contexts. Logos, type styles, and color schemes should be consistent throughout the Specific Plan area. General project signs shall vary in size and detail in a manner that reflects their relative importance within the signage hierarchy.

4. Streetscapes

Roadway streetscapes within HIGHLAND PARK are critical to creating a sense of place, and maintaining a high-quality community theme. The scale and proportion of the street scene provides separation of vehicular and pedestrian travel while tying the individual residences together visually, creating a high quality and visually pleasing experience at the pedestrian and vehicular level. Streetscapes throughout the community are planted with a combination of street trees, low shrubs, and masses of groundcovers. Turf grass shall be primarily limited to active use areas such as the neighborhood park. The landscaping plant palette for streetscapes provides continuity throughout the entire community. Streetscapes within the HIGHLAND PARK community are provided as follows:

a. Base Line Landscape Treatment

HIGHLAND PARK is fronted along existing Baseline which includes a ten-foot wide, curb adjacent landscaped parkway and a 10-foot wide sidewalk within the street right of way, as well as a generous landscape setback and community wall. As shown in Figure III-8, *Base Line Streetscape*, the landscape theme along Baseline will feature palm trees located within the parkway to match the existing streetscape west of the project site and a backdrop of screening trees and pines within the HOA maintained slope outside of the right-of-way. Ground plane planting is comprised of a hierarchy of informal massing of evergreen and flowering Southern California native and non-native drought tolerant plantings.

b. Local Street Landscape Treatment

As shown in Figure III-9, *Local Street Streetscape*, Local Streets within the HIGHLAND PARK community feature a 50-foot right-of-way, including an 18-foot travel lane in each direction, 6-and-a-half foot wide, curb adjacent sidewalks with a 6-inch mow strip adjacent to residential frontages that are landscaped with street trees and groundcover. A single street tree is provided in the front yard of each unit. The developer shall be responsible for the front yard landscaping of the residential units to ensure an attractive street scene; however, maintenance of the front yard landscaping shall be the responsibility of the individual home owner.

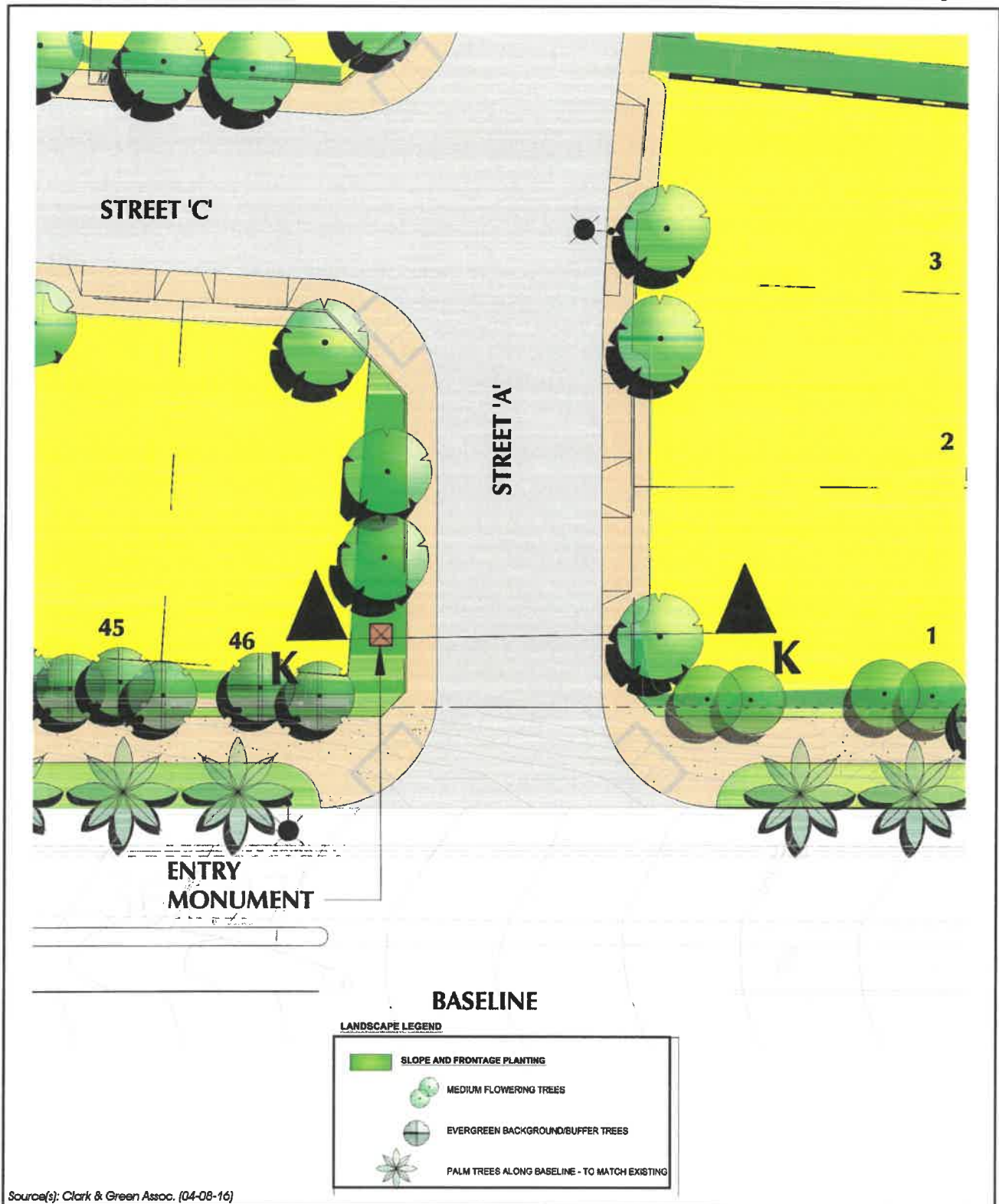
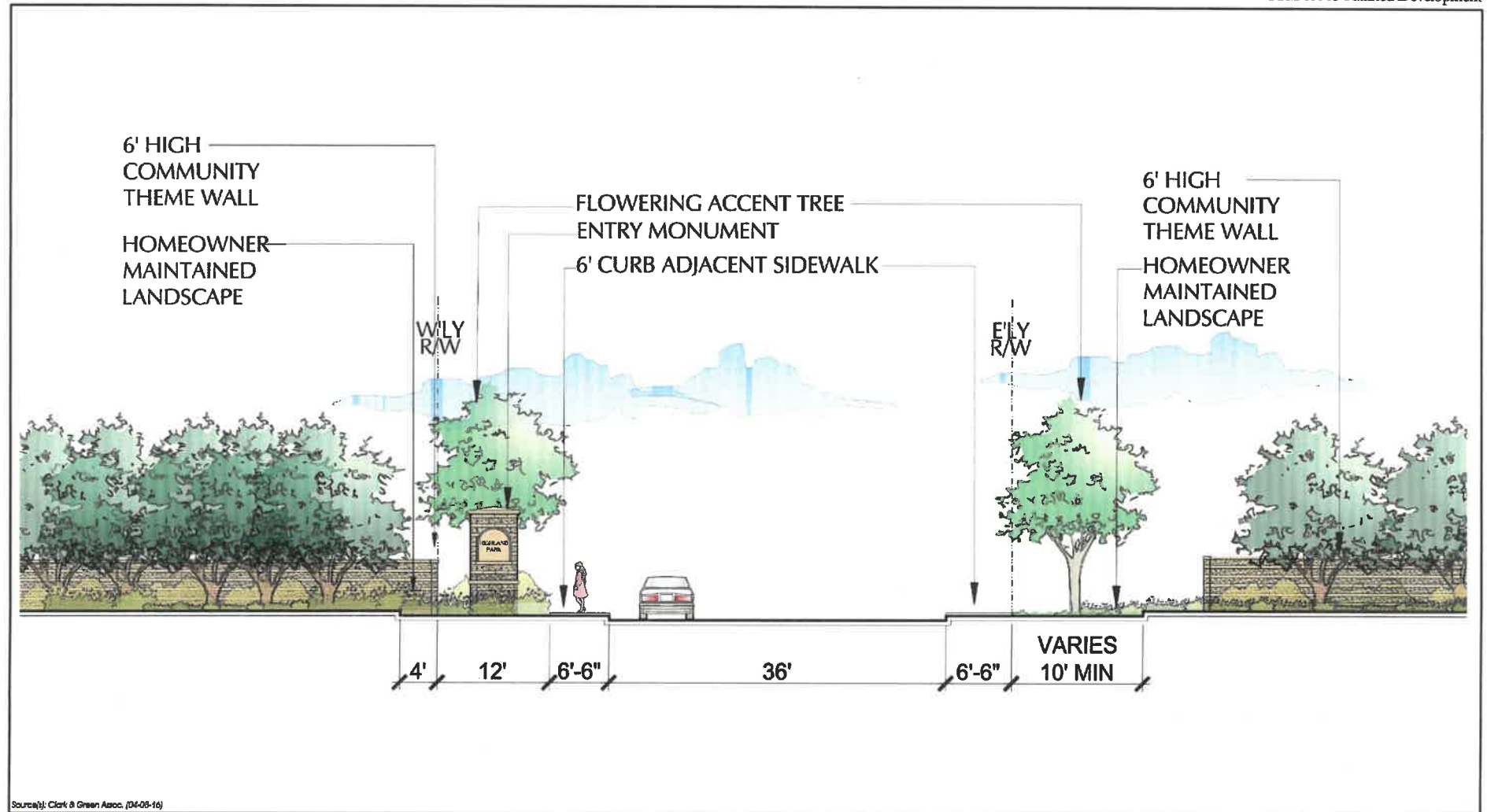


Figure III-5

ENTRY PLAN



Source(s): Clark & Green Assoc. (04-05-16)

Figure III-6

ENTRY ELEVATION

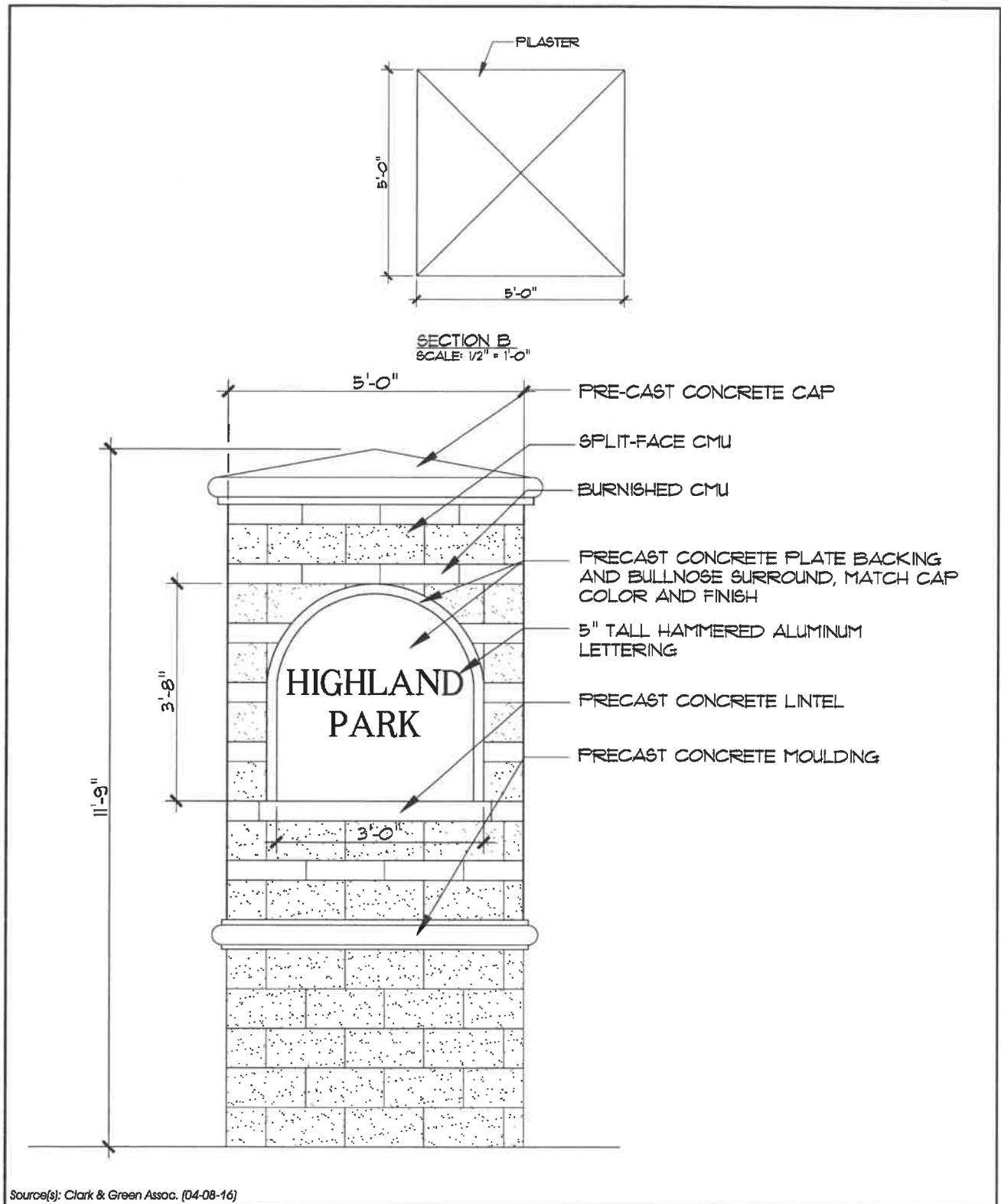


Figure III-7

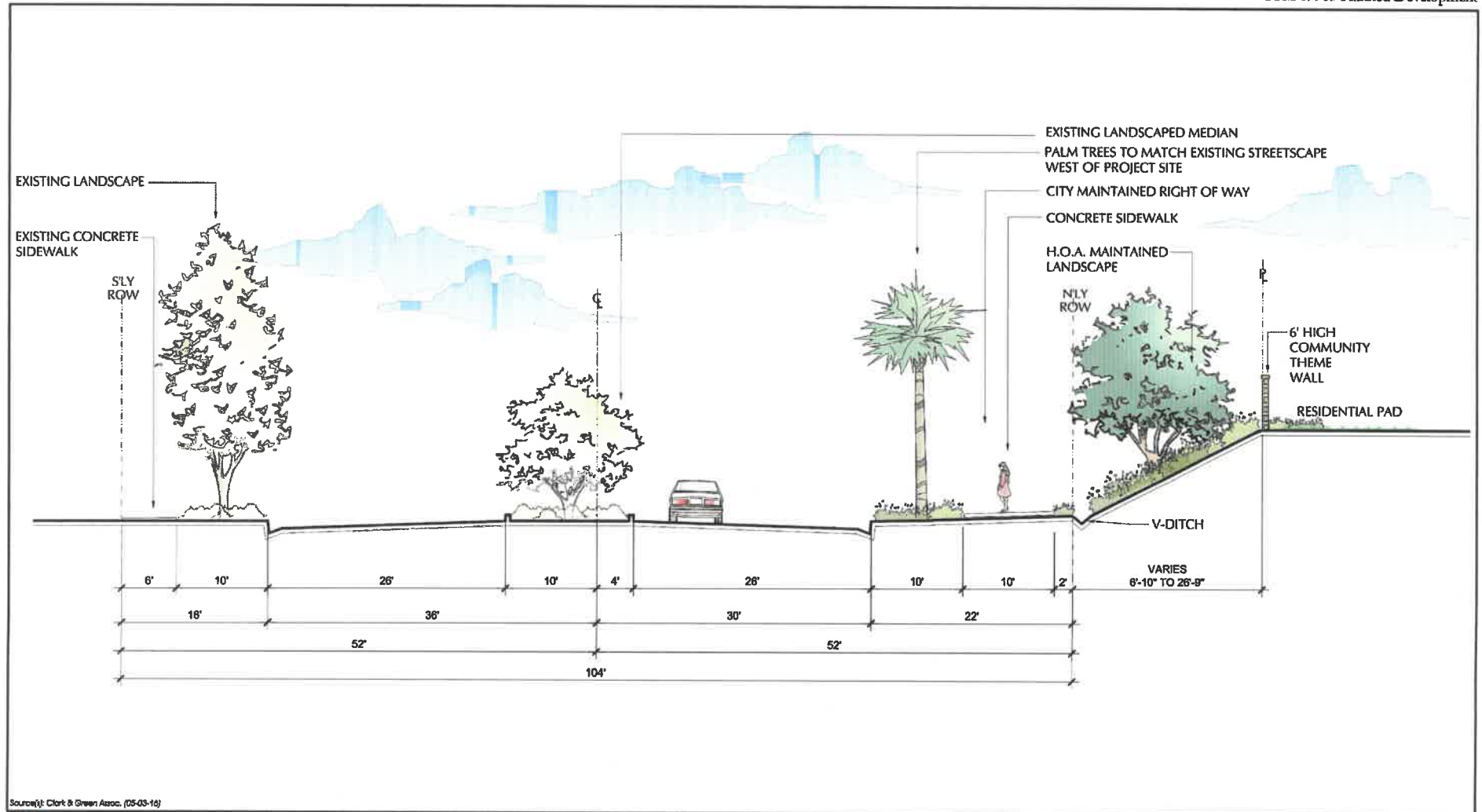
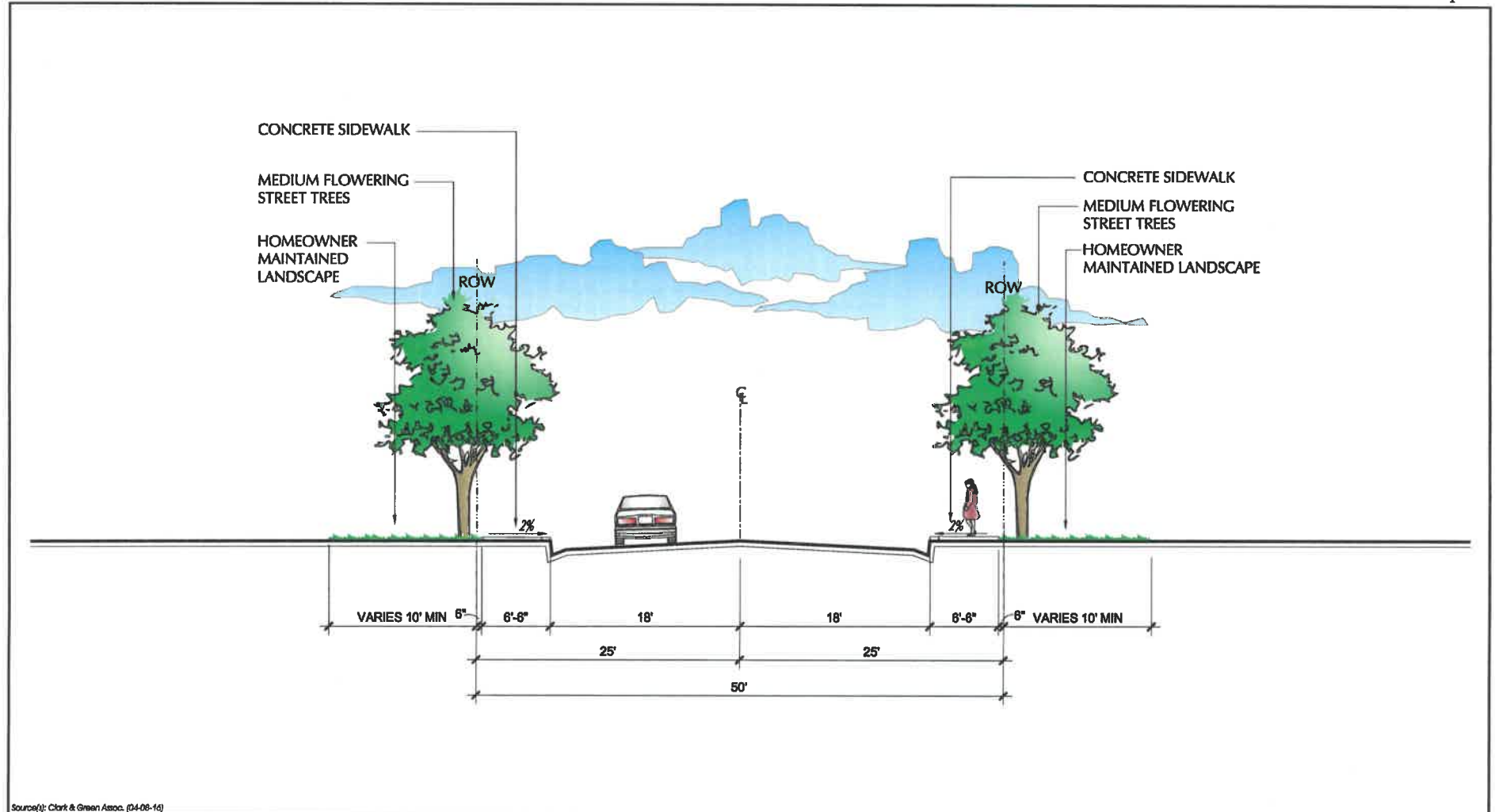


Figure III-8

BASE LINE STREETSCAPE



Source(s): Clark & Green Assoc. (04-06-14)

Figure III-9



LOCAL STREET STREETScape

5. Walls and Fences

Walls and fences within the HIGHLAND PARK community are provided for functional purposes. They increase privacy and security and provide a visual element that unifies the community's theme and appearance. As illustrated on Figure III-10, *Wall and Fence Plan*, walls and fences within HIGHLAND PARK are predominantly located around the perimeter boundaries of the homes where these areas interface with roads, the neighborhood park, open space, or off-site land uses.

The walls and fencing within the HIGHLAND PARK community are major visual elements and have been carefully designed to complement the overall theme. The walls and fencing will be easy to maintain and provide a durable, long-term edge. Where provided, gates should be complementary in style and color to its fence or wall. Similarly, walls and fences shall be constructed of materials, colors, and textures that are similar and harmonious with the architecture. Particular importance shall be given to cap details. Walls and fences may be offset occasionally to avoid visual monotony.

The four (4) general types of walls and fencing used within HIGHLAND PARK are described below and conceptually depicted on Figure III-11, *Wall and Fence Details*.

- **Community Theme Wall:** The HIGHLAND PARK Community Theme Wall along Baseline is a decorative tan, six (6)-foot tall solid masonry wall with masonry block cap. Masonry block pilasters are provided at key wall terminus points, corners, and other key locations. Theme walls create sense of community space, increase privacy and security, and screen neighborhoods from off-site land uses.
- **Perimeter Wall:** The perimeter wall along the north, east and west perimeter of the project is a tan, six (6)-foot tall solid masonry wall with masonry block cap. Masonry block pilasters are provided at key wall terminus points and corners. The perimeter wall increases privacy and security, and screens neighborhoods from off-site land uses.
- **View Fences:** View fences are generally located adjacent to natural open space areas. These fences preserve scenic views while maintaining security. View fences have a maximum height of five (5) feet, are constructed of tubular steel, and feature masonry block pilasters with masonry block caps. The color finish of the tubular steel fence should complement the community's design theme.
- **Vinyl Fence.** Vinyl Fences are provided in the side yards of residential lots and the rear yards of residential lots where there are no opportunities for scenic vistas to maximize privacy and security. These privacy fences are 6' tall and constructed of 6" wide vinyl fencing panels.

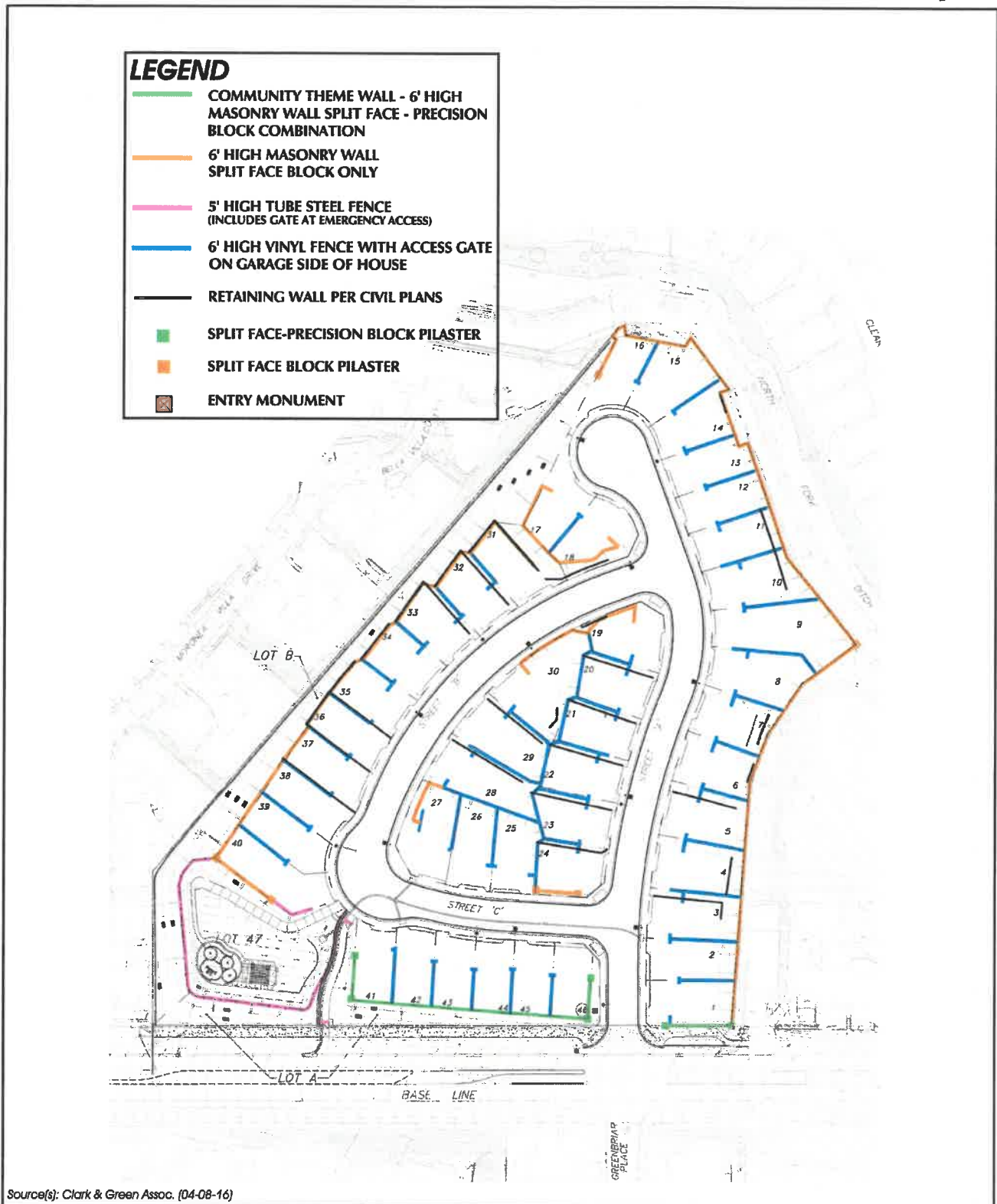


Figure III-10



NOT TO SCALE



WALL AND FENCE PLAN

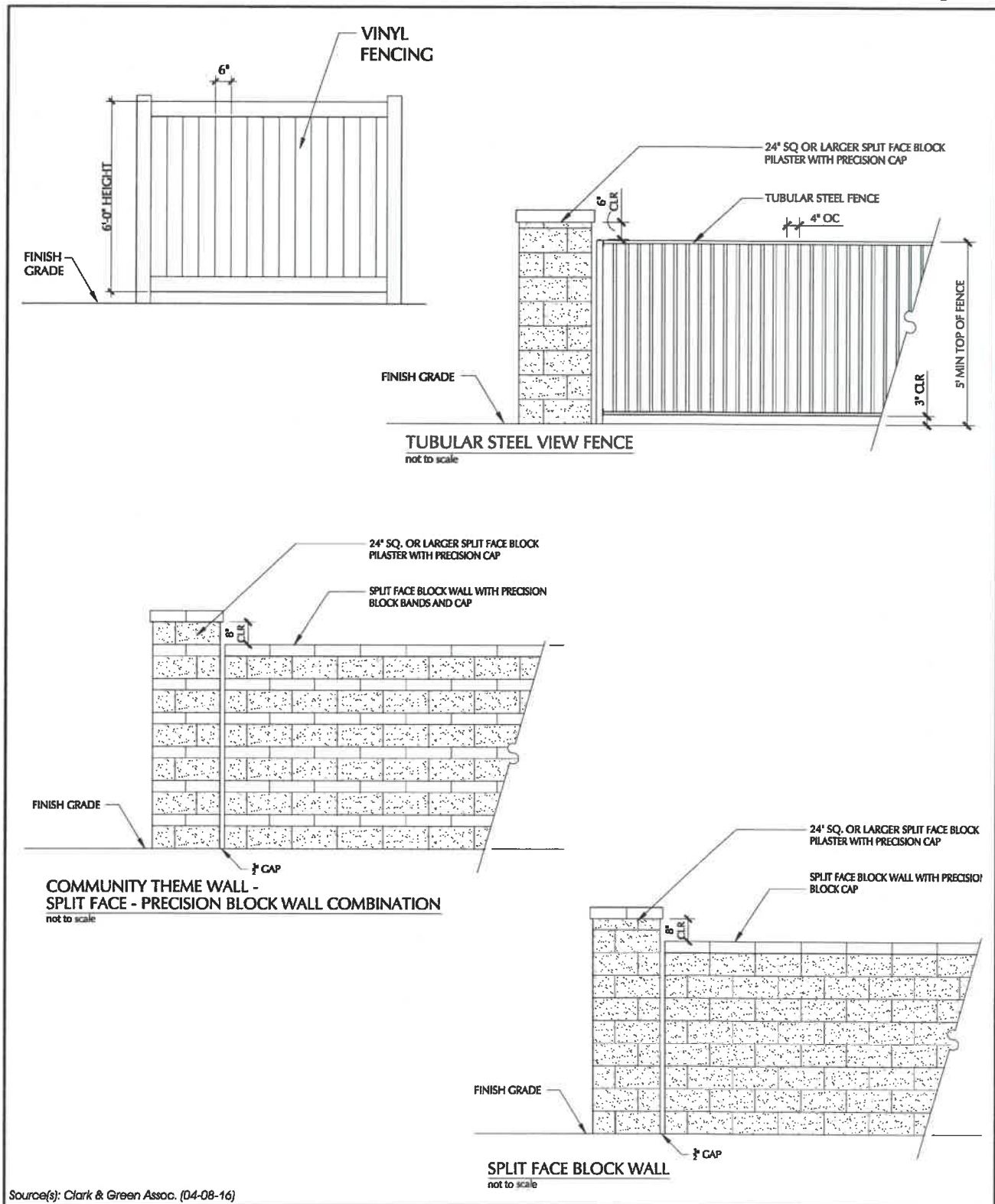


Figure III-11

WALL AND FENCE DETAILS

6. Land Use Transitions and Edge Conditions

The relationships between land uses within the Highland Park community, where one land use transitions into another, are of critical importance because these transitions ensure that neighboring uses are compatible with one another. Figure III-4, *Conceptual Landscape Plan*, identifies the areas in which these key transitions occur within the HIGHLAND PARK community and establishes the design components utilized to ensure and maintain compatibility. The most critical locations are those where residential neighborhoods abut other types of land uses, such as parks or internal slopes, and at the boundary of the HIGHLAND PARK community. The following information provides the design of each edge condition within the HIGHLAND PARK community.

a. Residential/Base Line

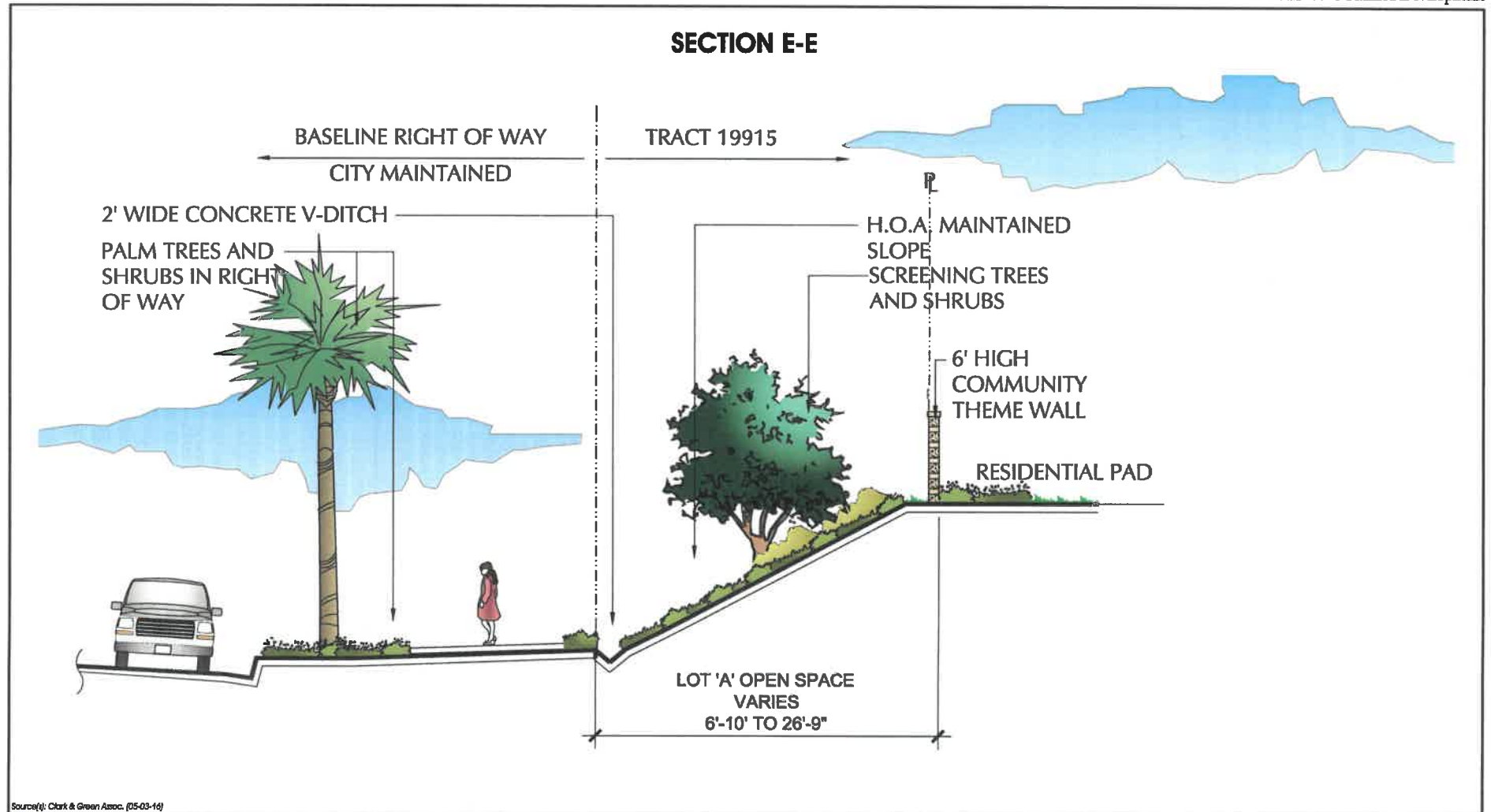
Figure III-12, *Residential Interface at Base Line*, illustrates the interface between residential lots that abut Base Line. Between these residential lots and Base Line is a HOA maintained open space (Lot 'A') with manufactured slope and planted with screening trees and shrubs in accordance with Table III-4, *Plant Palette*. A 6' tall Community Theme Wall is located at the top of the slope to maximize privacy and provide noise attenuation, as discussed in Subsection 5, *Walls and Fences*. A 2' wide concrete v-ditch is located at the Base Line right of way and is designed to carry drainage from the sloped areas to the storm drain located within Base Line.

b. Residential/North Fork Ditch

Figure III-13, *Residential Interface at North Fork Ditch*, illustrates the two types of interfaces between residential lots that bound the northeastern portion of the HIGHLAND PARK community and the north fork ditch. With the exception of Lots 13 and 14 of TTM 19915, there is a homeowner maintained, manufactured slope located between these residential lots and the north fork ditch (refer to Section B-B of Figure III-13, *Residential Interface at North Fork Ditch*). A 6' tall Perimeter Wall is located at the top of the slope to maximize privacy and a maximum 4'6" tall retaining wall is located at the toe of the slope to separate the residential lot from the north fork ditch. Residential Lots 13 and 14 do not abut a sloped area, therefore the 6' tall Perimeter Wall sits on top of the maximum 9'6" tall retaining wall (refer to Section A-A of Figure III-13, *Residential Interface at North Fork Ditch*).

c. Residential/Adjacent Vacant Property

Figure III-14, *Residential Interface at Adjacent Vacant Property*, illustrates the two interface conditions between residential lots and the vacant property adjacent to the eastern portion of the HIGHLAND PARK community. Section C-C of Figure III-14, *Residential Interface at Adjacent Vacant Property*, depicts residential lots in this area that have a homeowner maintained, manufactured slope between the residential lot and a 6' tall Perimeter Wall that separates the residential lot from the adjacent vacant property. Section D-D of Figure III-14, *Residential Interface at Adjacent Vacant Property*, depicts residential lots in this area that have a homeowner maintained, manufactured slope between a maximum 2'8" tall retaining wall located at the toe of slope and the 6' tall Perimeter Wall located at the top of the slope.

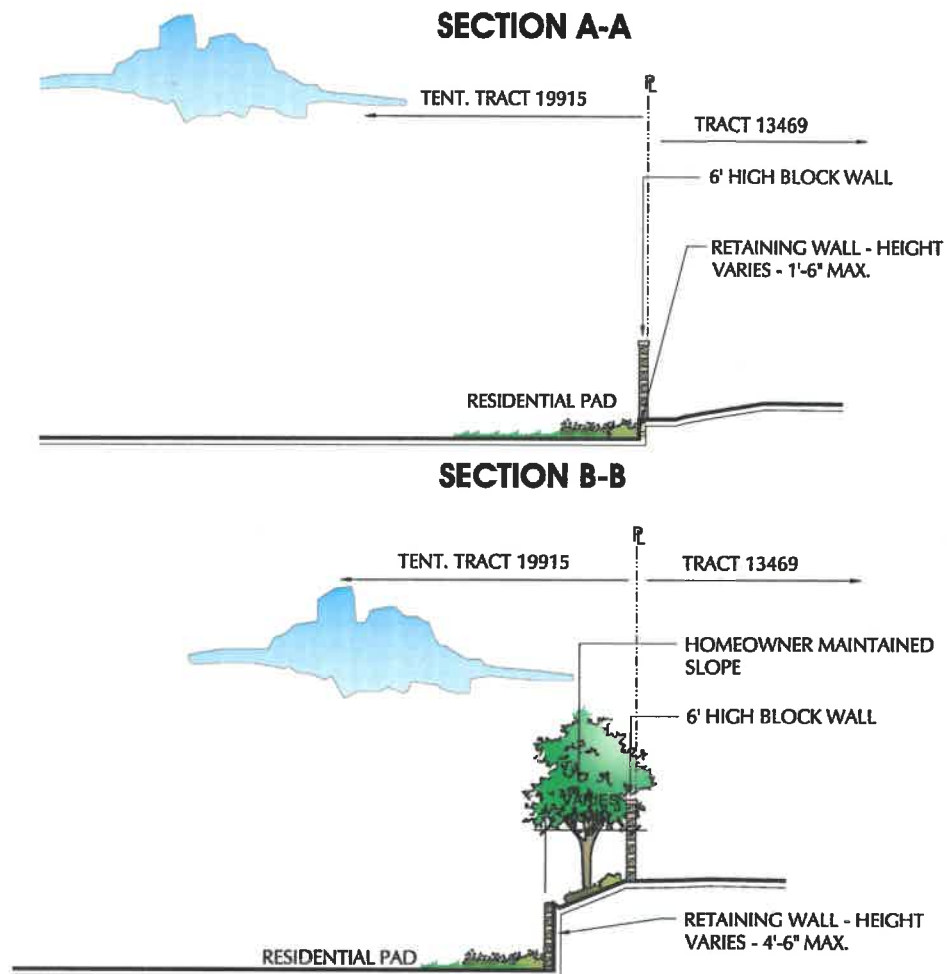


Source(s): Clark & Green Assoc. (05-03-16)



Figure III-12

RESIDENTIAL INTERFACE AT BASE LINE

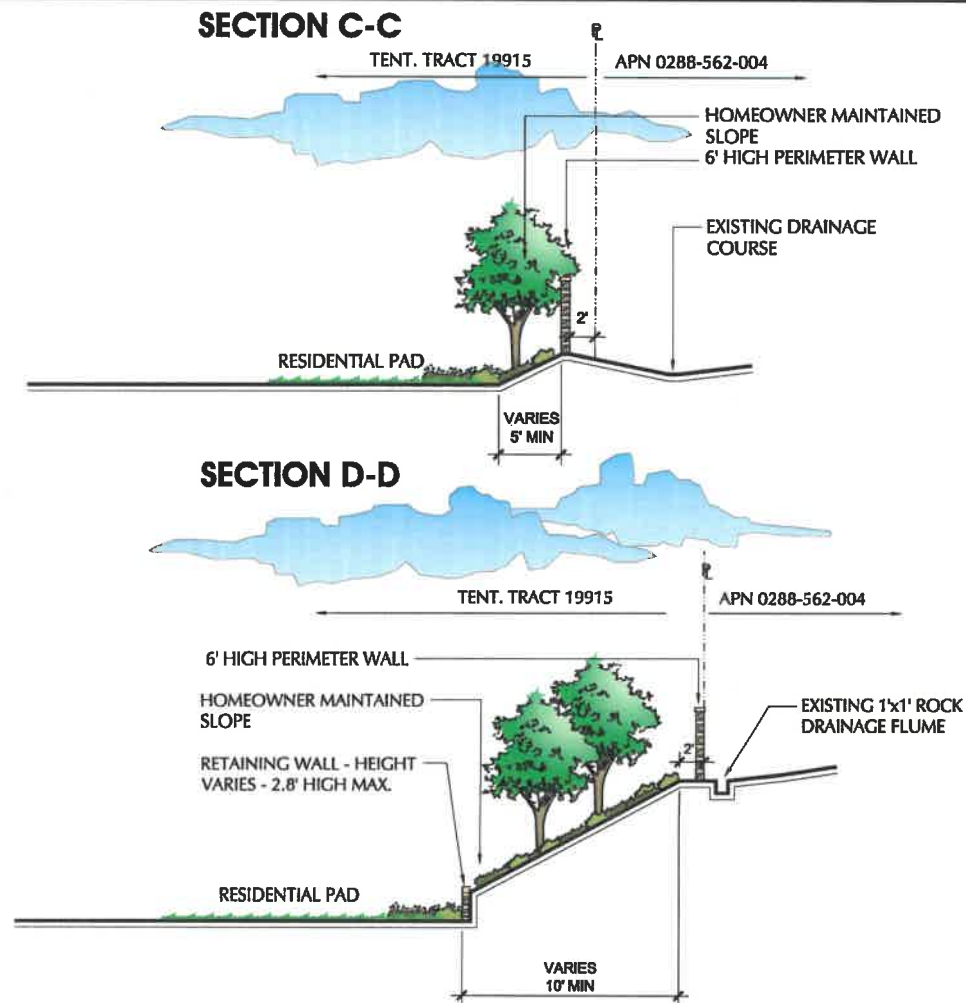


Source(s): Clark & Green Assoc. (D4-08-10)



Figure III-13

RESIDENTIAL INTERFACE AT NORTH FORK DITCH



Source(s): Clark & Green Assoc. (04-08-16)

Figure III-14

RESIDENTIAL INTERFACE AT ADJACENT VACANT PROPERTY

d. Residential/Existing Residential

Figure III-15, *Residential Interface at Existing Residential*, illustrates the interface between residential lots and existing residences located west of the HIGHLAND PARK community. An HOA maintained open space (Lot 'B') with a manufactured slope landscape is located between these residential lots and existing residential lots. A 6' tall Perimeter Wall is located at the top of the slope and a concrete drainage ditch is located at the toe of slope. The drainage ditch abuts an existing retaining wall that borders the rear and side yards of the existing residential lots.

e. Residential/Neighborhood Park

Figure III-16, *Residential Interface at Neighborhood Park*, illustrates the interface between residential lots and the Neighborhood Park. A 6' tall Community Theme Wall to protect the privacy of community residents. The park is planted with large canopy evergreen and deciduous trees and low shrubs and ground cover to visually buffer residential areas from the neighborhood park. The landscape treatments also serve to soften the appearance of residential areas from the neighborhood park. The basin slopes are planted with native and naturalized plant materials, including trees and groundcovers

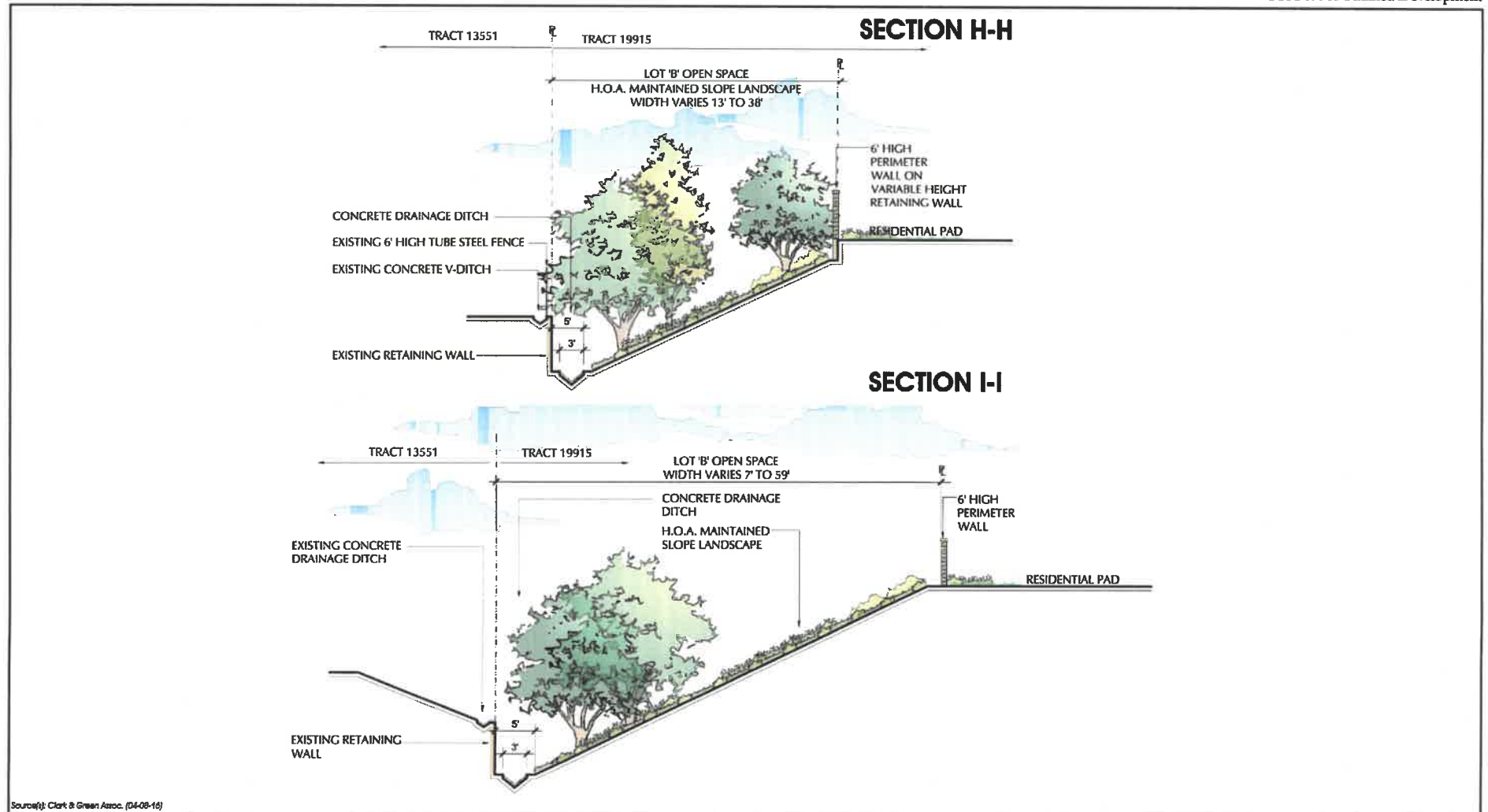
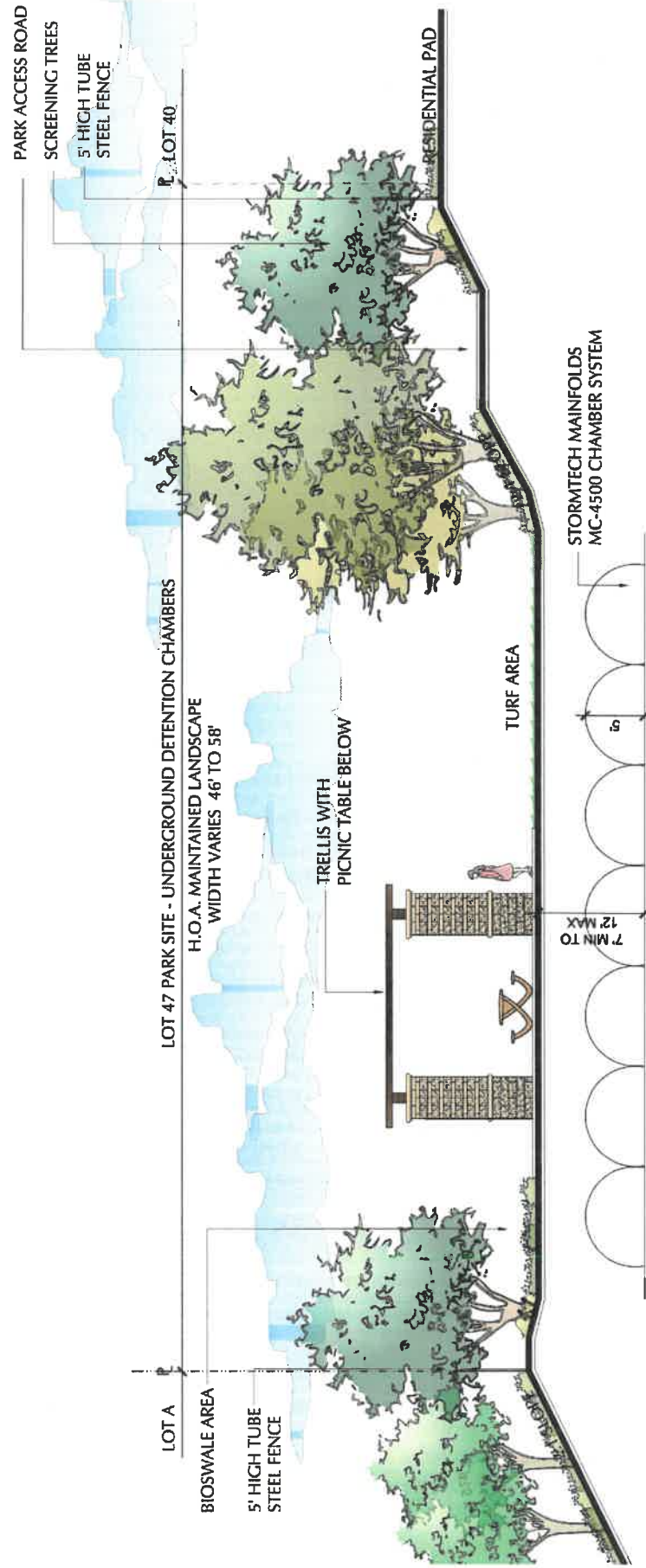


Figure III-15

RESIDENTIAL INTERFACE AT EXISTING RESIDENTIAL

SECTION L-L



Sourced: Civil & Green Assoc. (04-08-16)



Figure III-16

RESIDENTIAL INTERFACE AT NEIGHBORHOOD PARK

7. Recreational Amenities

HIGHLAND PARK includes a 0.44-acre Neighborhood Park to provide a recreational amenity for community residents. HIGHLAND PARK also features pedestrian walkways, landscaped buffers, and passive open space areas. A detailed description of the Neighborhood Park site is provided below.

a. Neighborhood Park

The Neighborhood Park is centrally located within the neighborhood. As illustrated on Figure II-2, *Neighborhood Park*, the park features a shade trellis, picnic area, walking paths and turf open space. The planting palette is predominately Southern California native, featuring Sycamore and Oak trees.

8. Maintenance of Common Areas and Recreational Amenities

Maintenance responsibilities for common areas and recreational amenities within the HIGHLAND PARK community are described below and depicted on Figure III-17, *Maintenance Plan*. Individual homeowners shall be responsible for the maintenance of the public street landscape along their property frontage unless otherwise identified within their legal ownership documents. Private homeowners shall also be responsible for all maintenance within their private lot area as well as fences and wall faces on their internal boundaries. For all other areas of the community maintenance responsibilities shall be as follows:

- ☐ City of Highland: Public streets (including street sweeping), street lighting, and landscape and sidewalks within public rights-of-way.
- ☐ Homeowner Association: Community Park, common open space areas (including slopes), landscape buffers, the water quality basin and streetscape behind sidewalk.



Figure III-17



MAINTENANCE PLAN

IV. GENERAL PLAN CONSISTENCY

The HIGHLAND PARK community consists of 46 single-family homes, a 0.44 acre Neighborhood Park, open space, a Water Quality Basin, and supporting infrastructure. The HIGHLAND PARK community is located within a residential area and is surrounded by existing residential development. As such, the HIGHLAND PARK community is consistent with surrounding land uses and development. Additionally, the high quality design of the HIGHLAND PARK community and accessibility to adequate public services achieves the goals and policies of the City's General Plan. Overall, the HIGHLAND PARK community is a residential community that offers attractive amenities to accommodate the diverse needs of Highland's residents.

A. FEATURES AND AMENITIES

The City of Highland General Plan Land Use Map designates the HIGHLAND PARK community as Medium Density Residential, a designation intended for single family residential development at a density between 6.1 and 12.0 dwelling units per acre (du/ac). The Highland Park Planned Development is consistent with the General Plan Land Use Element because this single family residential development has a net density of 6.37 du/ac, which is within the allowed Medium Density Residential land use.

Goal 10.6 of the City's General Plan identifies the primary goal for single-family neighborhood design is to "Maintain and enhance single-family neighborhoods with attractive streetscapes, compatible architecture and a high quality of life (p. 10-17)." The architectural and landscape design guidelines of the HIGHLAND PARK community set forth in this Planned Development document work together to achieve Goal 10.6, as well as Goal 10.10, and implement other associated policies contained in the City's Community Design Element (p. 10-17 through p. 10-18). Specifically, the features and amenities included in the HIGHLAND PARK community are consistent with the achievement of Goals 10.6 and 10.10 along with the implementation of the associated policies include:

- In accordance with Policy #1 of Goal 10.6, HIGHLAND PARK provides continuous sidewalks with consistently spaced medium, flowering trees provide for a pleasant pedestrian streetscape.
- In accordance with Policy #3 of Goal 10.6, three different floor plans, each featuring three different architectural styles provide for a varied and aesthetically pleasing street scene.
- In accordance with Policy #8 of Goal 10.6, the architectural design standards create a high quality, aesthetically pleasing residential design that unifies the community and is compatible with existing residential development.
- In accordance with Policy #9 of Goal 10.6, front yard setbacks provide for maximum landscape coverage of the front yard area.
- In accordance with Policy #6 of Goal 10.10, the Neighborhood Park provides for a common open space that encourages recreational uses and enhances the community environment.

B. PUBLIC SERVICES

The HIGHLAND PARK community provides adequate infrastructure for all public services and facilities needed to serve the community. A summary of services and agencies responsible for providing these services are provided below.

1. Water Service

Water service to the HIGHLAND PARK community is provided by the East Valley Water District. There is an existing 12" water main located along Base Line. The HIGHLAND PARK community will be served by the construction of an 8" water line within the community's local roadways 'A', 'B', and 'C', which will connect to the water main along Base Line.

2. Sewer Service

Sewer service to the HIGHLAND PARK community will be provided by the East Valley Water District. There is an existing 8" sewer line located along Base Line. The HIGHLAND PARK community will be served by the construction of an 8" private sewer line within the community's local roadways 'A', 'B', and 'C', which will connect to the existing sewer line along Base Line.

3. Police and Fire Services

Police protection services are provided to the HIGHLAND PARK community by the San Bernardino County Sheriff's Department through a contract with the City of Highland. The closest police station is located at 26985 Base Line, approximately 3.0 miles west of the community, which will allow the City to maintain a four-minute response time for police services as mandated by the General Plan.

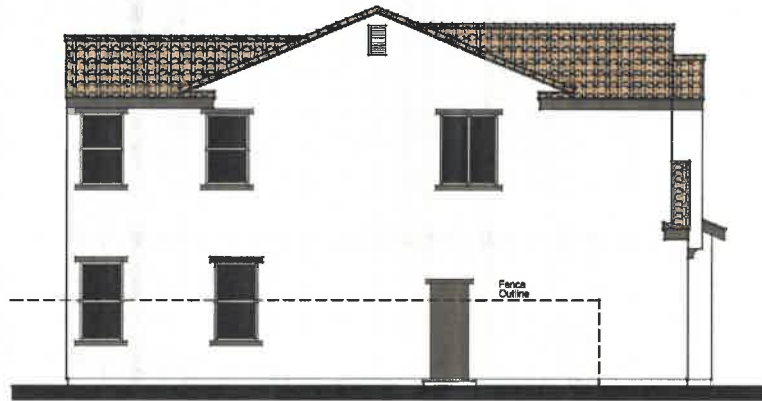
Fire protection services are provided to the HIGHLAND PARK community by the California Department of Forestry and Fire Protection (CDF) through a cooperative agreement with the City of Highland. The closest fire station is located at 29507 Base Line, approximately 0.25 mile east of the community, which will allow the City to maintain a four-minute response time for fire services as mandated by the General Plan.

4. Trash and Recycling

Trash and recycling services are provided to the HIGHLAND PARK community by Burrtec Waste Industries, Inc. and Cal Disposal Co., Inc. through contract with the City of Highland's residential and commercial trash collection program. Under this program, trash collection is provided once a week, and each home is provided three 95-gallon carts, one for trash, one for recyclables, and one for green waste. As such, each home within the HIGHLAND PARK community will be provided with these trash collection services, which are considered to be adequate for single-family homes.

ATTACHMENT 4
Site Plan

ATTACHMENT 5
Colored Building Elevations



Left Elevation



Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior

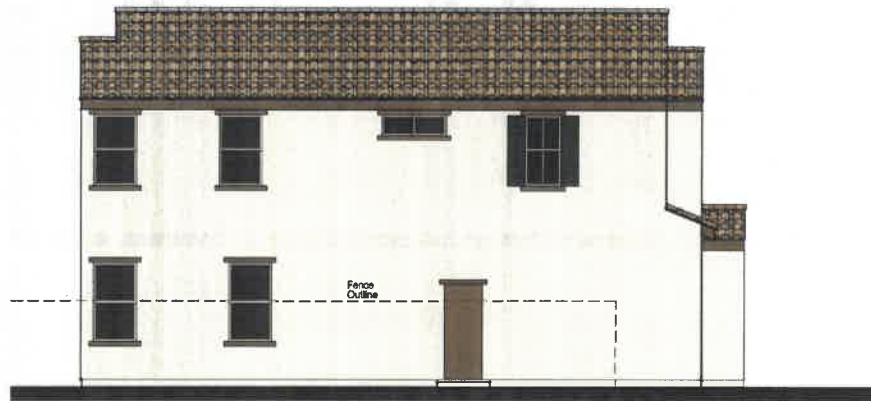


Right Elevation



Rear Elevation





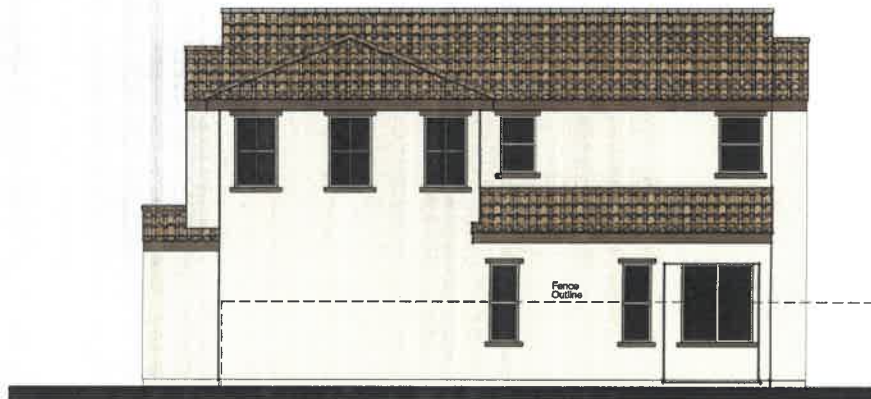
Left Elevation



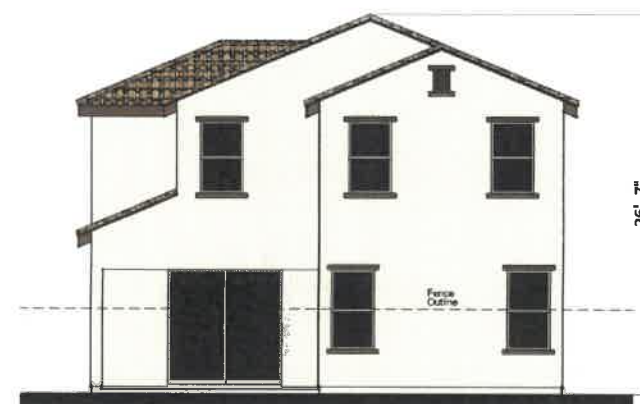
Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior



Right Elevation



Rear Elevation



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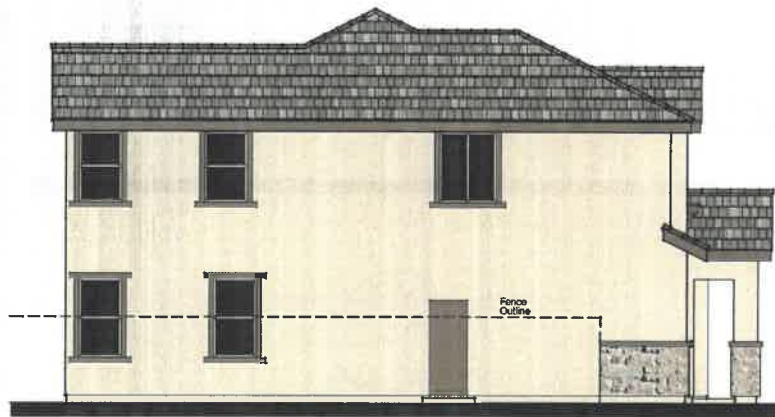


MASTERCRAFT RESIDENTIAL

Highland Park, Highland, CA

Title
 Plan 1X
 Elevation 'A'
 Spanish
 Date
 10-31-2018
 Project Number
 4413
 Scale
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 Revision
 6-28-2020
 6-28-2021
 Sheet No.

7

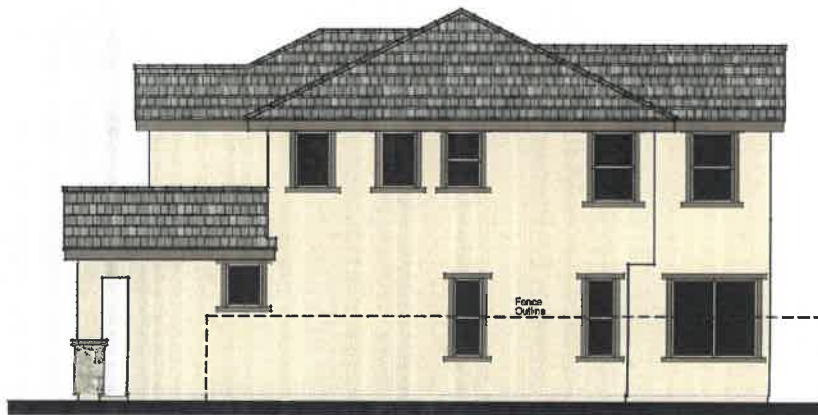


Left Elevation

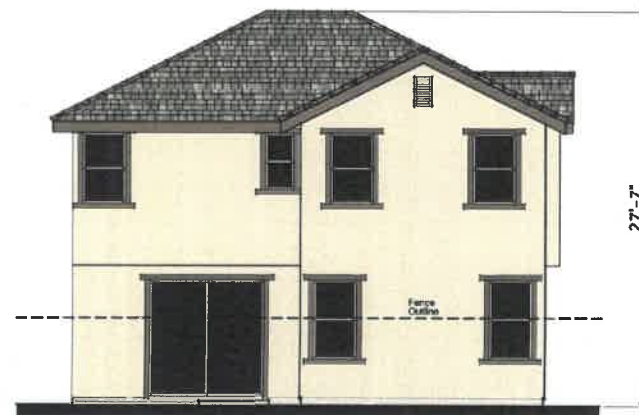


Front Elevation - Cottage

MATERIAL NOTES
 Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior



Right Elevation



Rear Elevation

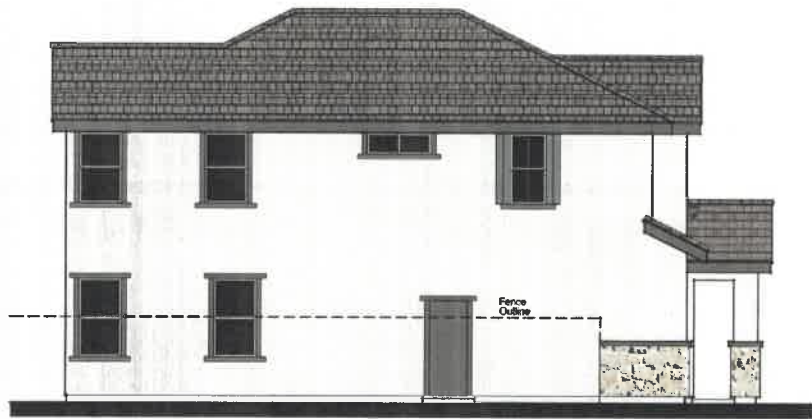


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MASTERCRAFT RESIDENTIAL
Highland Park Highland C.A.

Title
Plan 1
Elevation & Cottage
 Date
 10-10-14
 Project Number
 4413
 Scale
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 Revision
 6-28-2021

Sheet No.
3

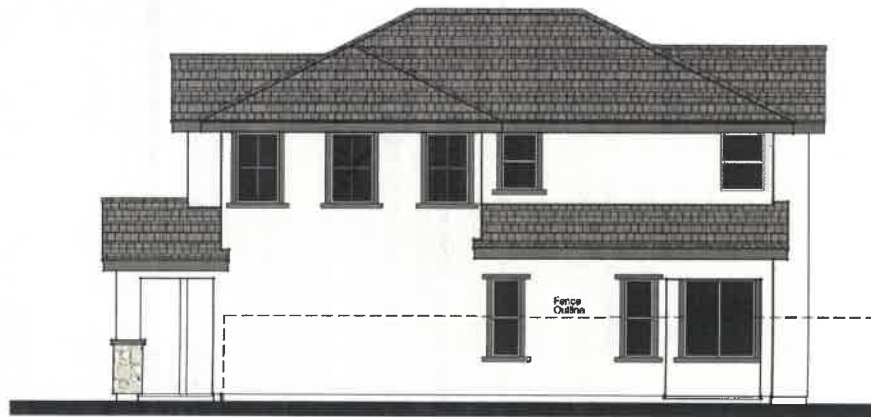


Left Elevation



Front Elevation - Cottage

MATERIAL NOTES
 Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior



Right Elevation



Rear Elevation

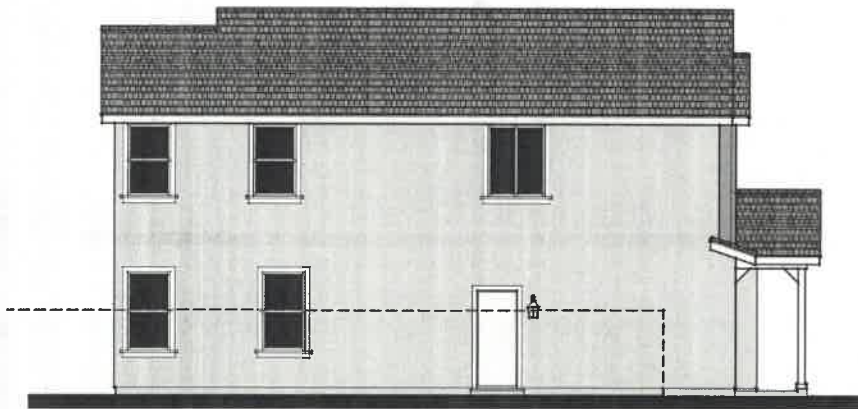


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MASTERCRAFT RESIDENTIAL
 Highland Park, Highland, CA

Title
**Plan 1X
 Elevation
 Cottage**
 Date
 10-31-2018
 Project Number
 4413
 Scale
 1/4" = 1'-0"
 Revision

Sheet No. **8**

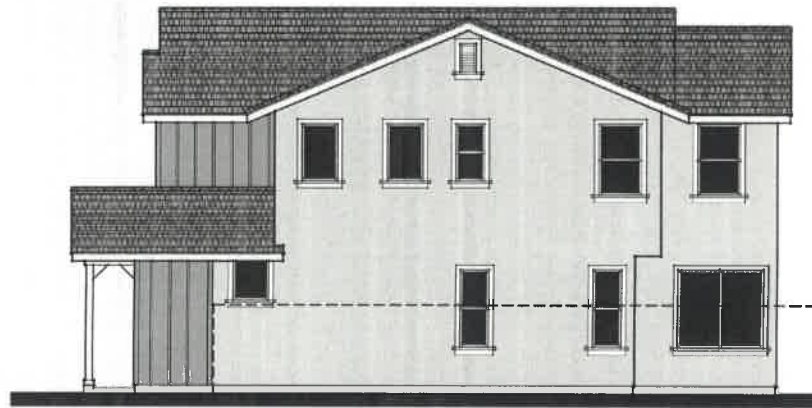


LEFT ELEVATION

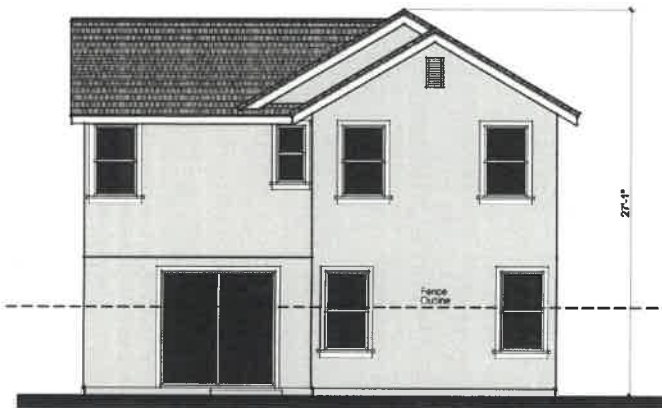


FRONT ELEVATION - Farmhouse

MATERIAL NOTES
 Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12/7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding Exterior

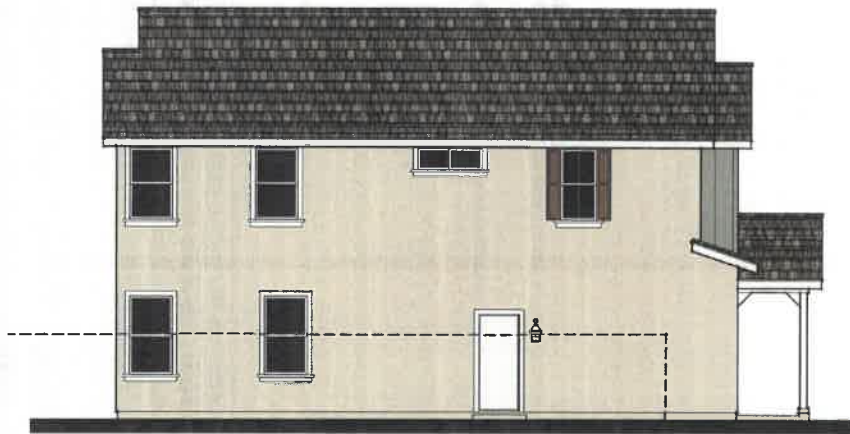


RIGHT ELEVATION



REAR ELEVATION





LEFT ELEVATION



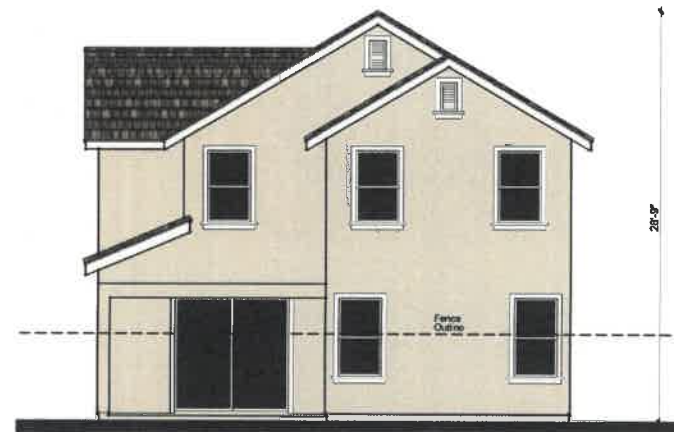
FRONT ELEVATION - Farmhouse

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12/7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding Exterior



RIGHT ELEVATION



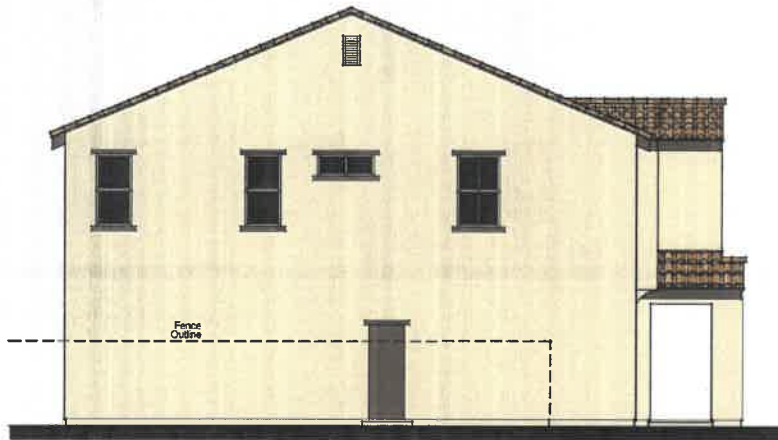
REAR ELEVATION



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MASTERCRAFT RESIDENTIAL
 Highland Park, Highland, CA

Title
 Plan 1X
 Elevation
 Farmhouse
 Date
 10-31-2016
 Project Number
 Scale
 1/4" = 1'-0"
 Revision
 Sheet No.
 9



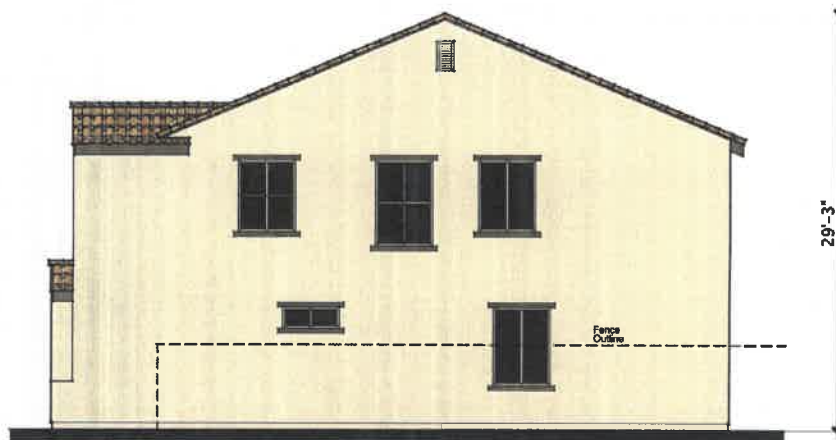
Left Elevation



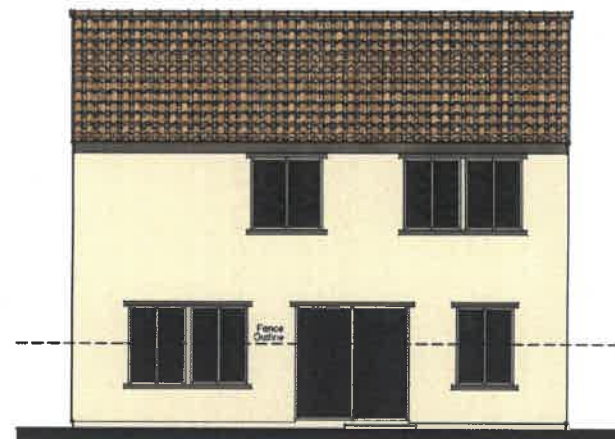
Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Sakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior



Right Elevation



Rear Elevation



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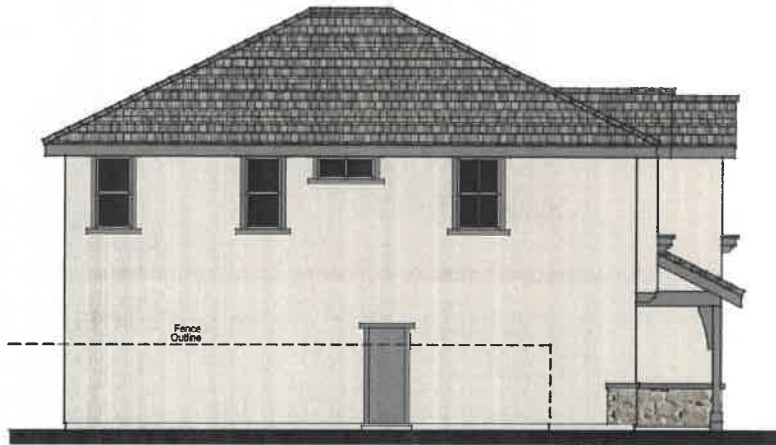
MASTERCRAFT RESIDENTIAL

Highland Park, Highland, CA

Title
 Plan 2
 Elevation 'A'
 Spanish
 Date
 10-10-2014
 Project Number
 4271
 Scale
 1/4" = 1'-0"
 Revision
 6-17-21

Sheet No.

12

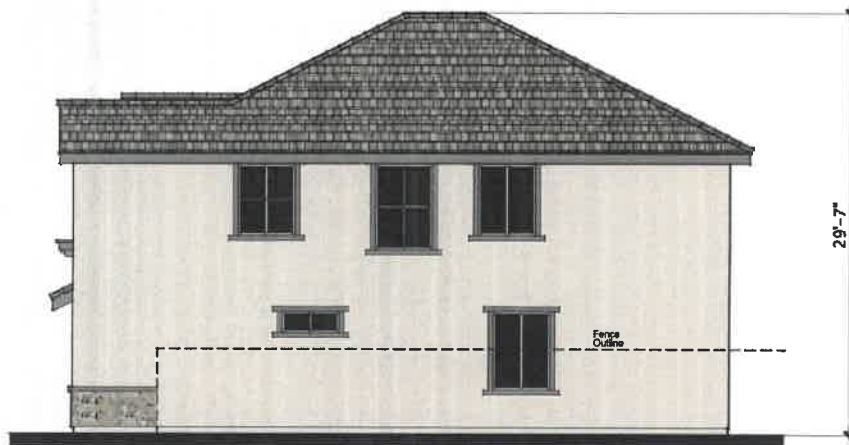


Left Elevation

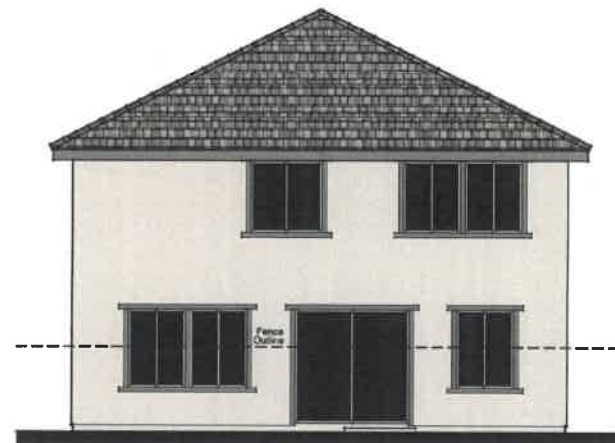


Front Elevation - Cottage

MATERIAL NOTES
 Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior

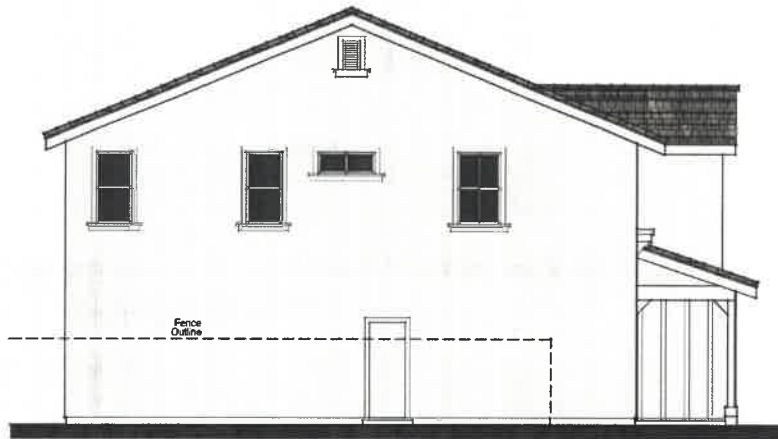


Right Elevation



Rear Elevation





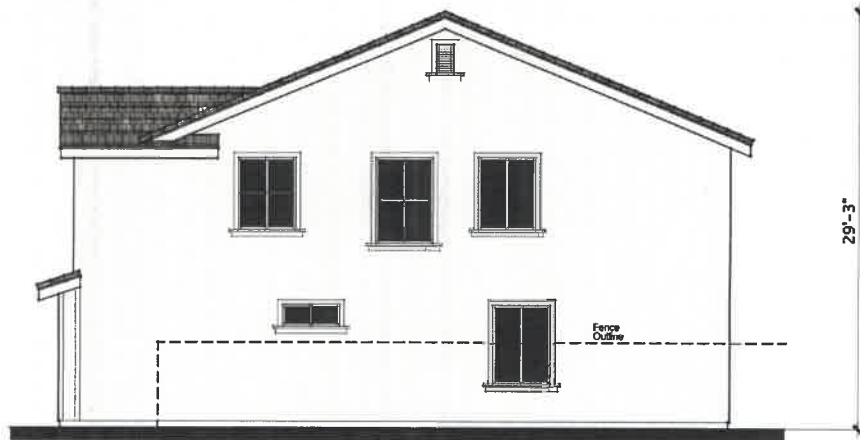
Left Elevation



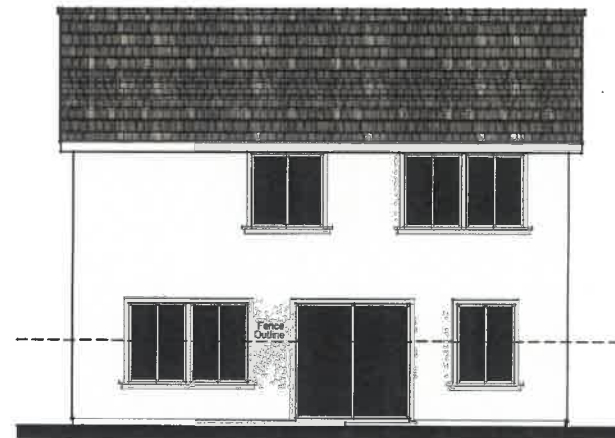
Front Elevation - Farmhouse

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12/7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding Exterior



Right Elevation



Rear Elevation



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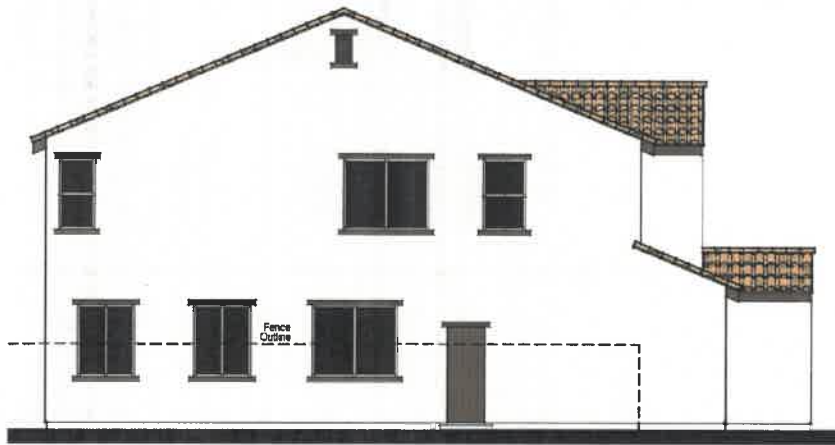
MASTERCRAFT RESIDENTIAL
Highland Park, Highland, CA

Title
Plan 2
Elevation -
Farmhouse

Date
 10-10-2014
 Project Number
 4271
 Scale
 1/4" = 1'-0"
 Revision
 6-17-2021

Sheet No.

14



Left Elevation



Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior

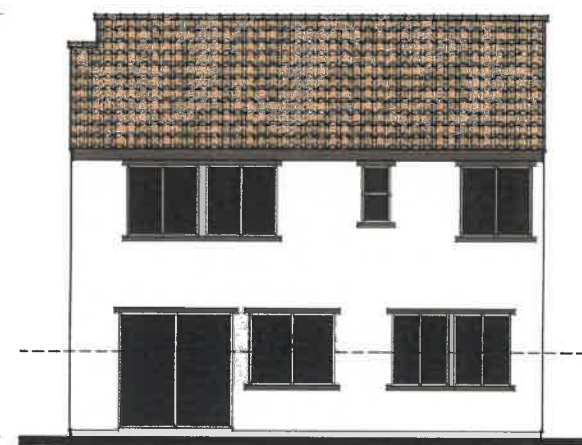
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Right Elevation



Rear Elevation

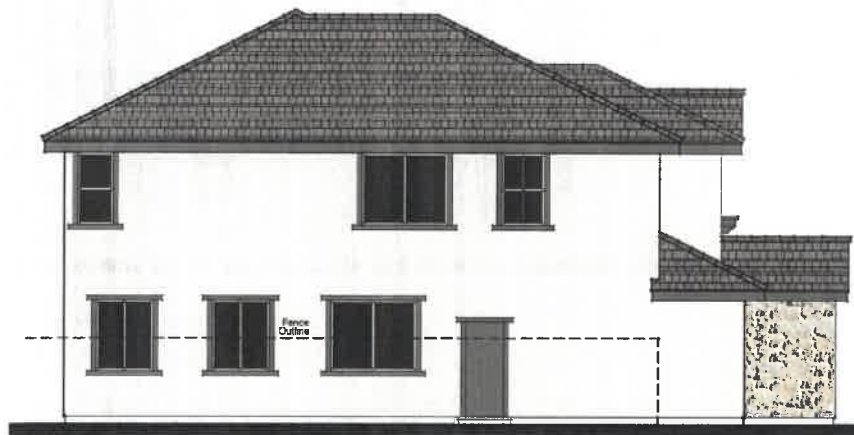


MASTERCRAFT RESIDENTIAL

Highland Park, Highland, CA

Title
 Plan 3
 Elevation 'A'
 Spanish
 Date
 10-10-2014
 Project Number
 4271
 Scale
 1/4" = 1'-0"
 Revision
 6-17-2021

Sheet No.



Left Elevation



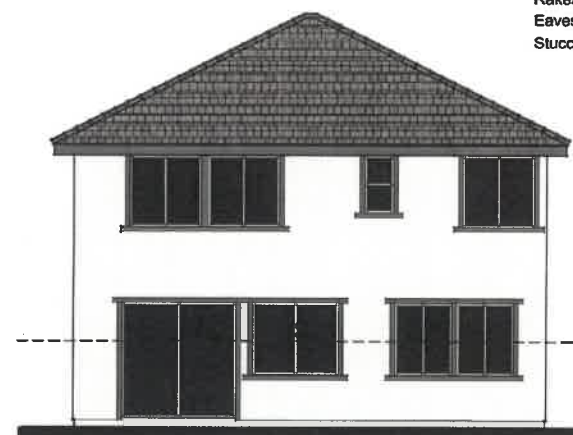
Front Elevation - Cottage

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior

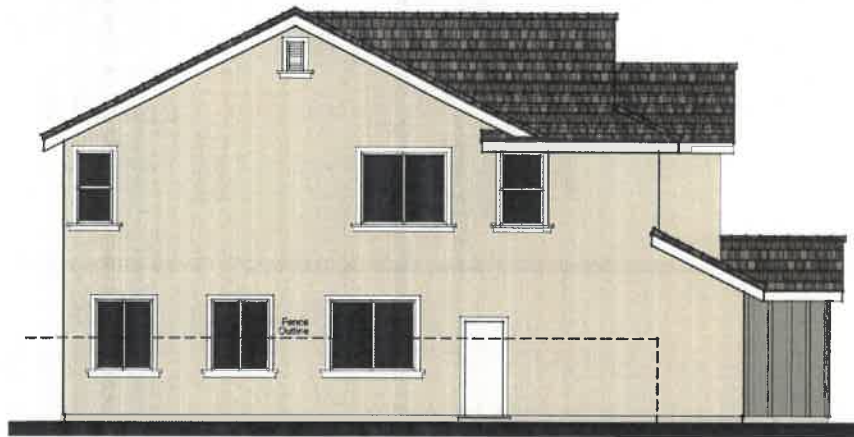


Right Elevation



Rear Elevation





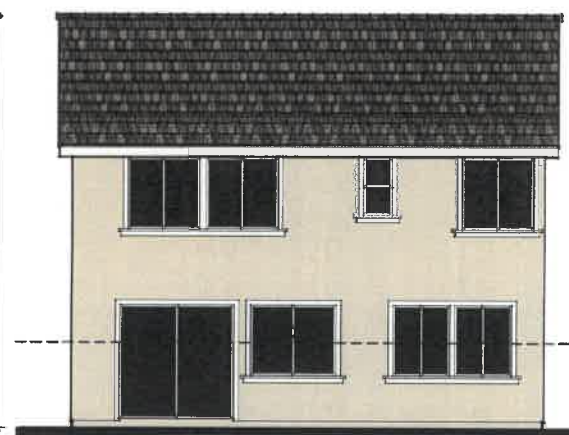
Left Elevation



Front Elevation - Farmhouse



Right Elevation



Rear Elevation

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior



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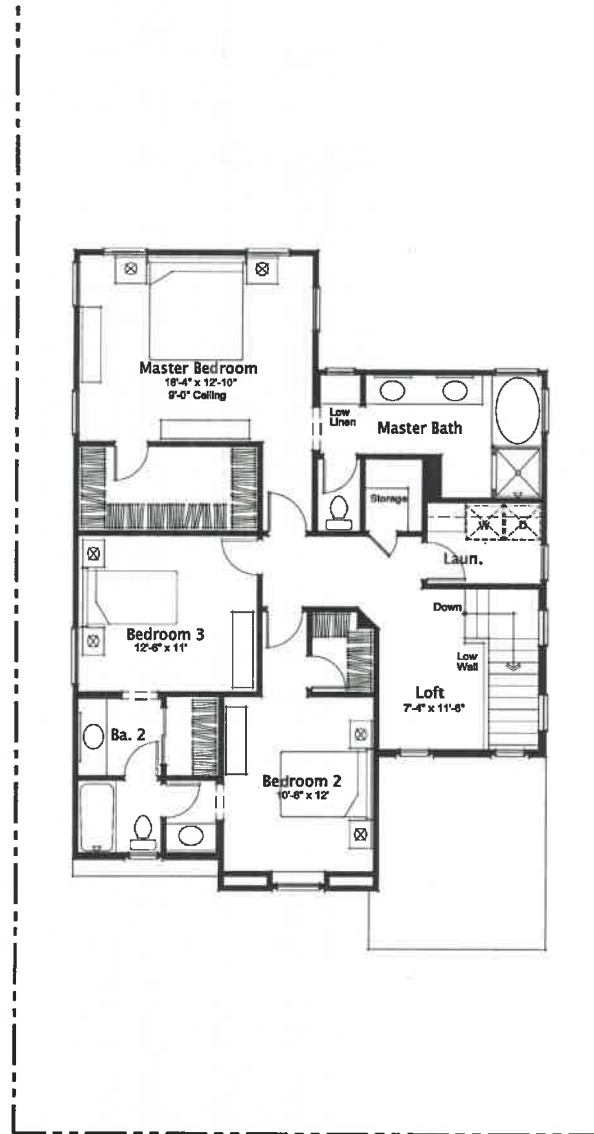
MASTERCRAFT RESIDENTIAL
 Highland Park, Highland, CA

Title
 Plan 3
 Elevation of
 Farmhouse
 Date
 10-10-2014
 Project Number
 4271
 Scale
 1/4" = 1'-0"
 Revision
 6-17-2021

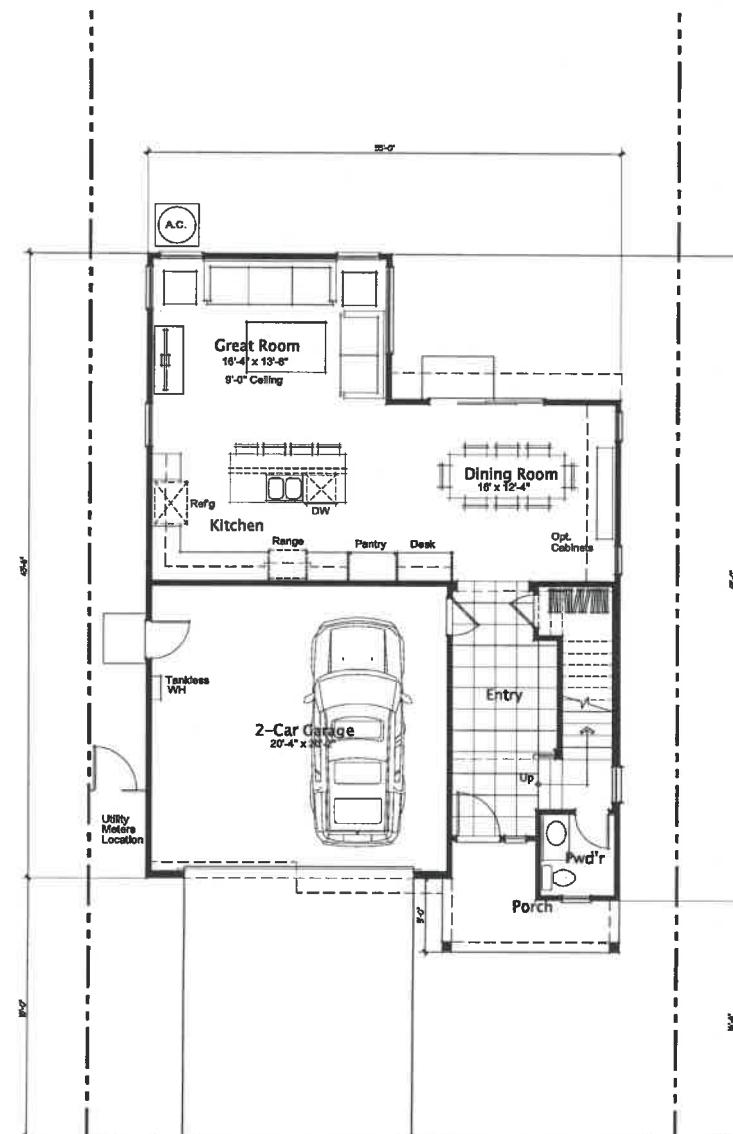
Sheet No.

19

ATTACHMENT 6
Floor Plans



Second Floor Plan



Living Area:
 First Floor 838
 Second Floor 1,142
 Total Living Area = 1,980 sq. ft.
 Garage 431

First Floor Plan



Title
 Plan 1
 Floor Plan

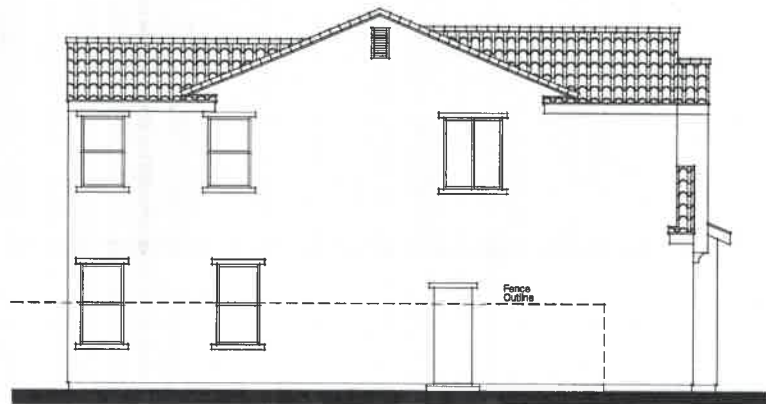
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 Project Number
 4413
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 Revision
 6-28-2021
 6-13-2021

Sheet No.

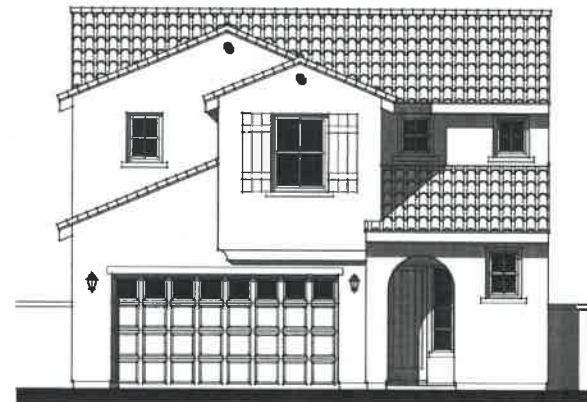
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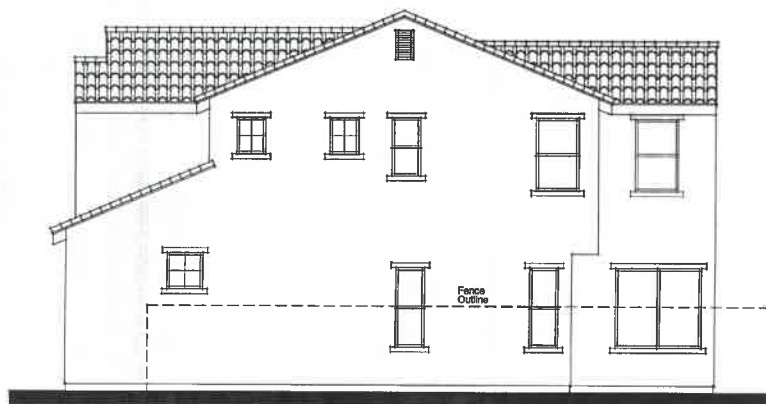
Left Elevation



Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior

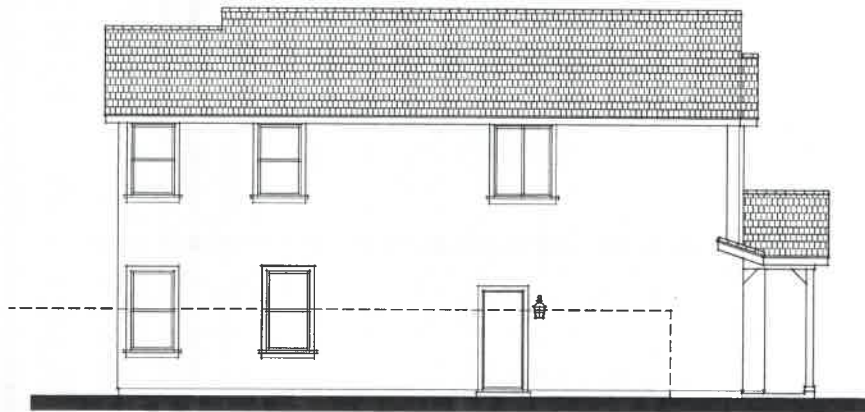


Right Elevation



Rear Elevation





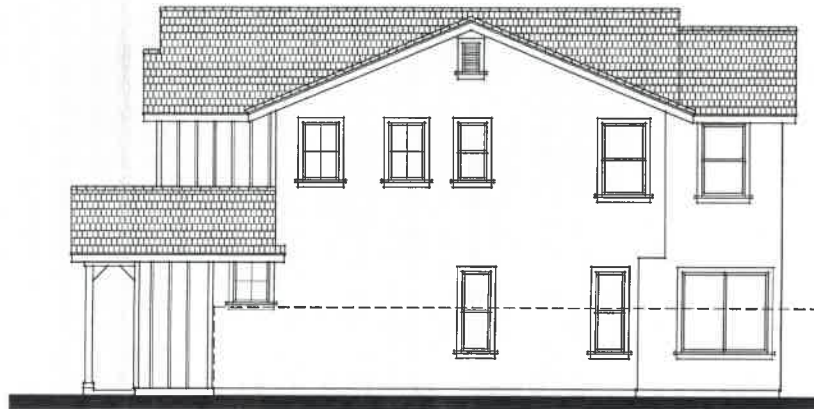
LEFT ELEVATION



FRONT ELEVATION - Farmhouse

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12/7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding Exterior

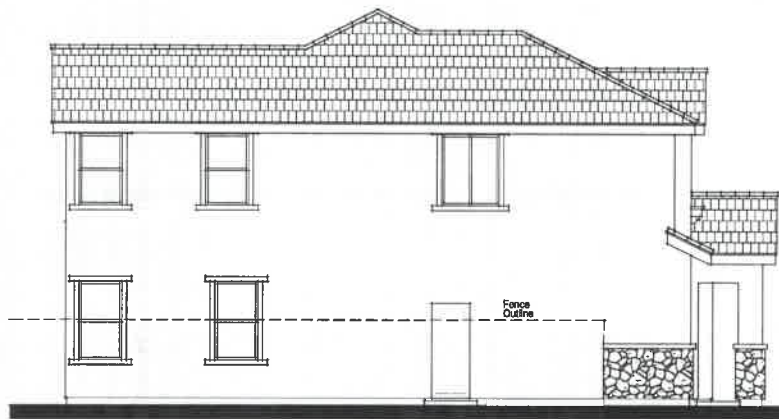


RIGHT ELEVATION



REAR ELEVATION





Left Elevation



Front Elevation - Cottage

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior

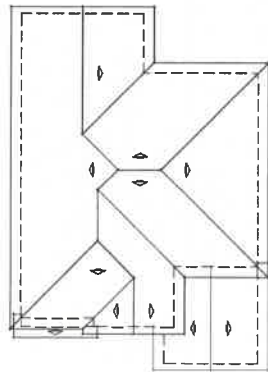


Right Elevation



Rear Elevation



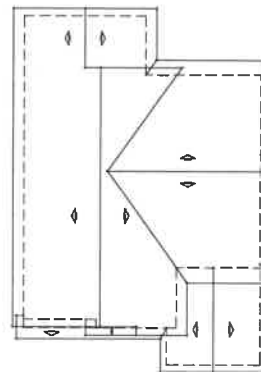


'C' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12 / 7 : 12 / 4 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia

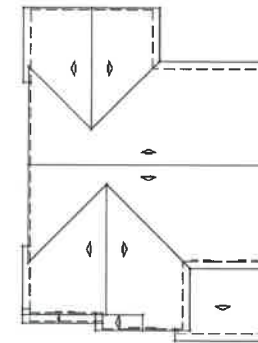


'B' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia



'A' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia



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Title
**Plan 1
 Roof Plans**

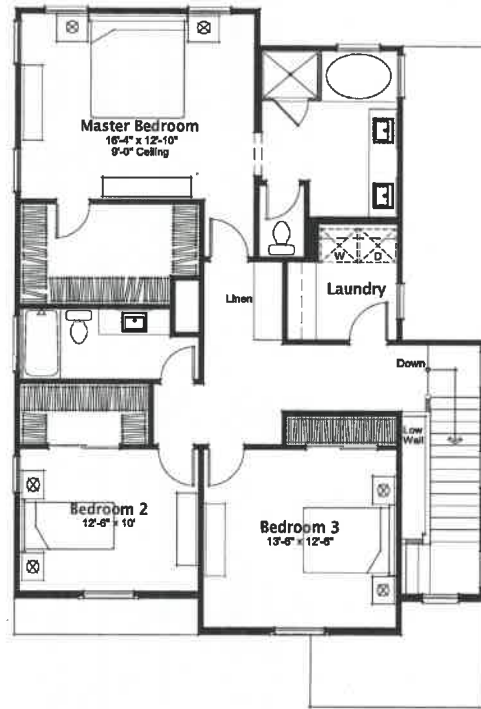
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 Drawing Number
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 Revision
 6-28-2021
 8-13-2021

Sheet No.

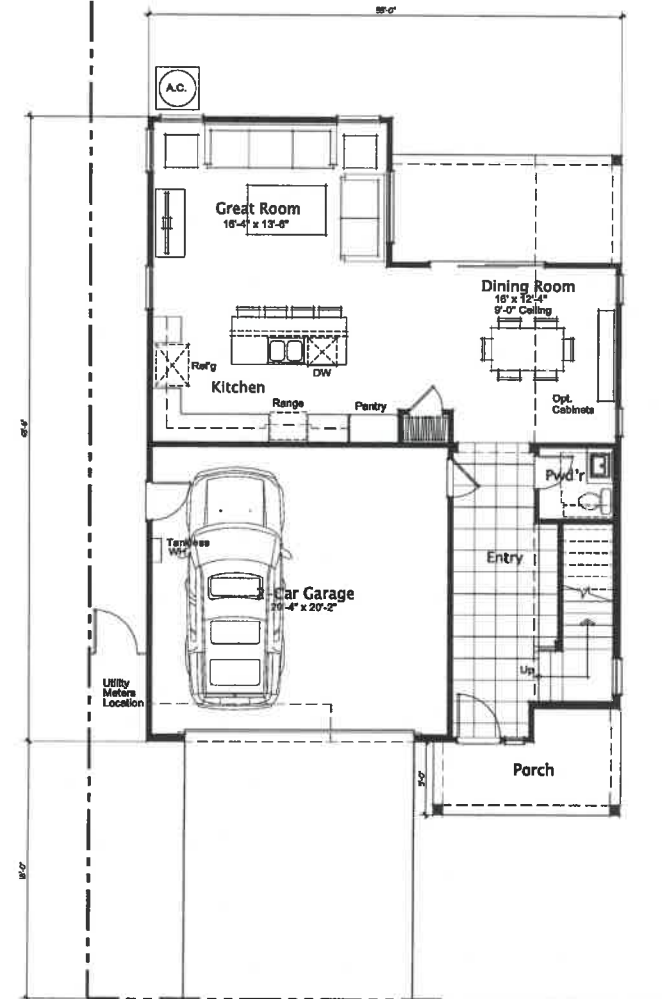
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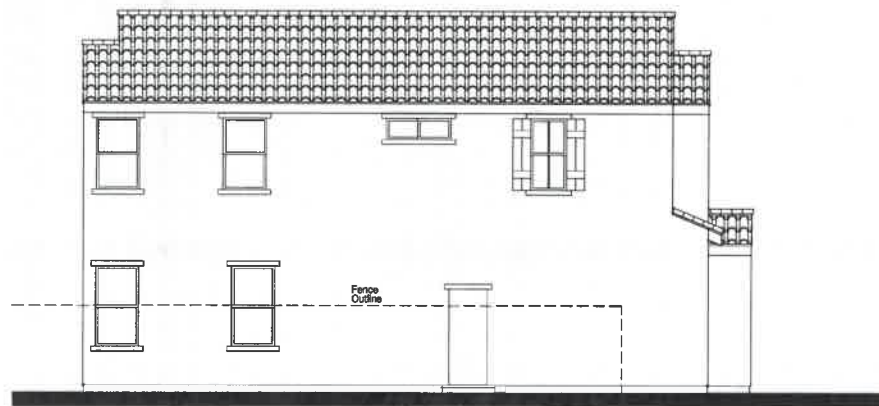
Second Floor Plan



First Floor Plan

Living Area:
First Floor 830
Second Floor 1,127
Total Living Area = 1,957 sq. ft.
Garage 431
Covered Patio 120





Left Elevation



Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior

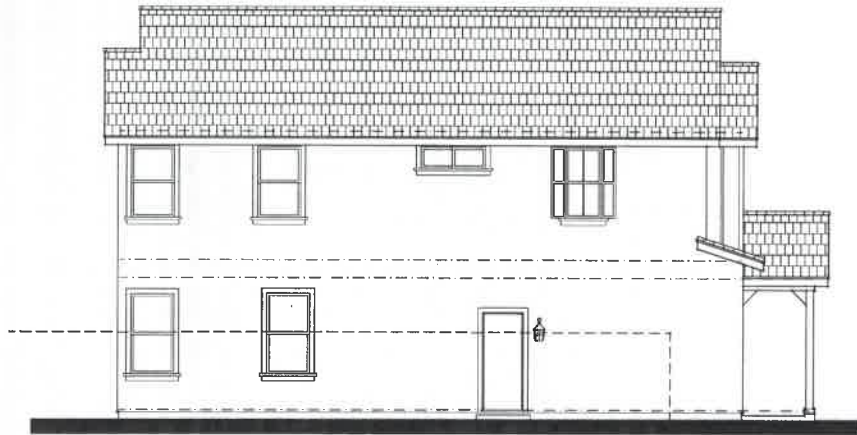


Right Elevation

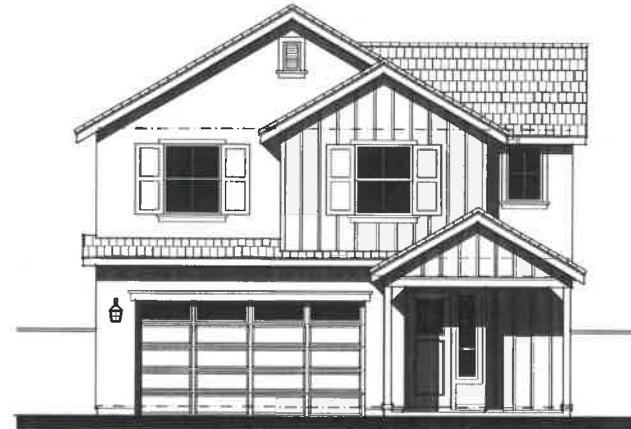


Rear Elevation





LEFT ELEVATION



FRONT ELEVATION - Farmhouse

MATERIAL NOTES

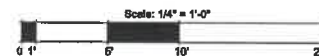
Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12/7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding Exterior

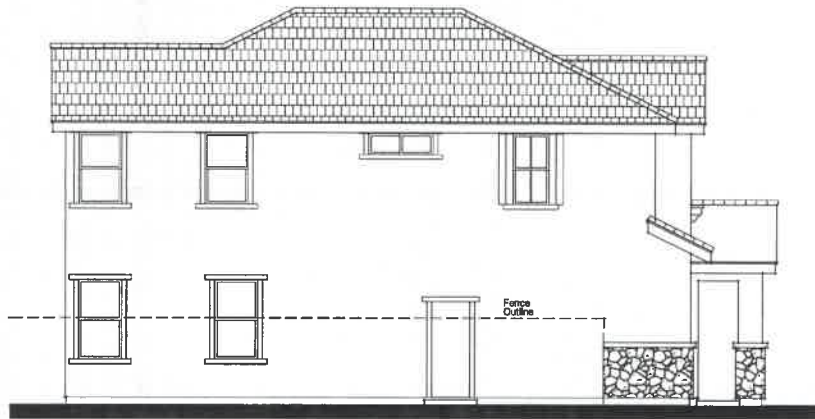


RIGHT ELEVATION



REAR ELEVATION





Left Elevation



Front Elevation - Cottage

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior

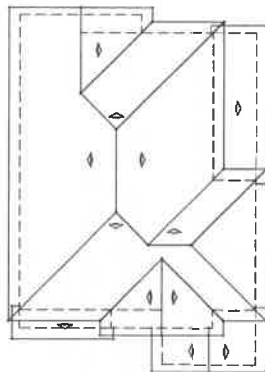


Right Elevation



Rear Elevation



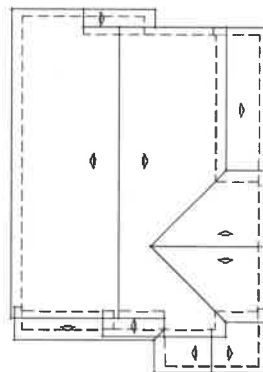


'C' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia

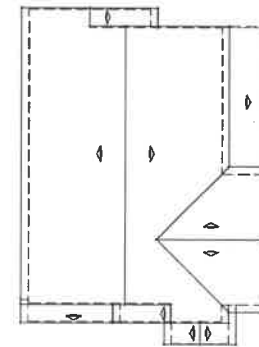


'B' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia



'A' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia



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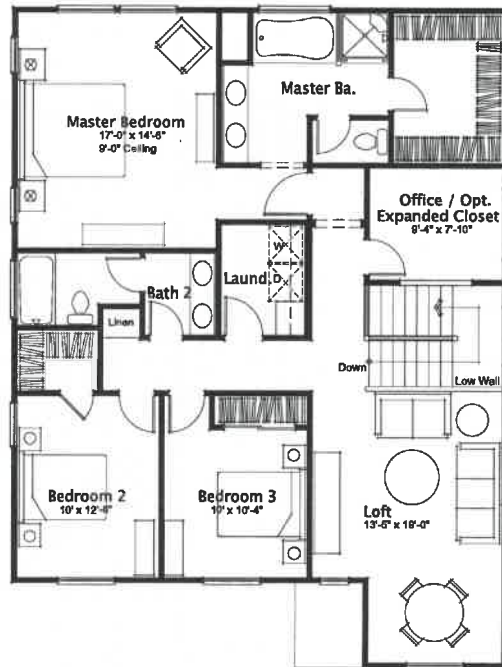
Highland Park, Highland, CA

**Plan 1X
 Roof Plans**

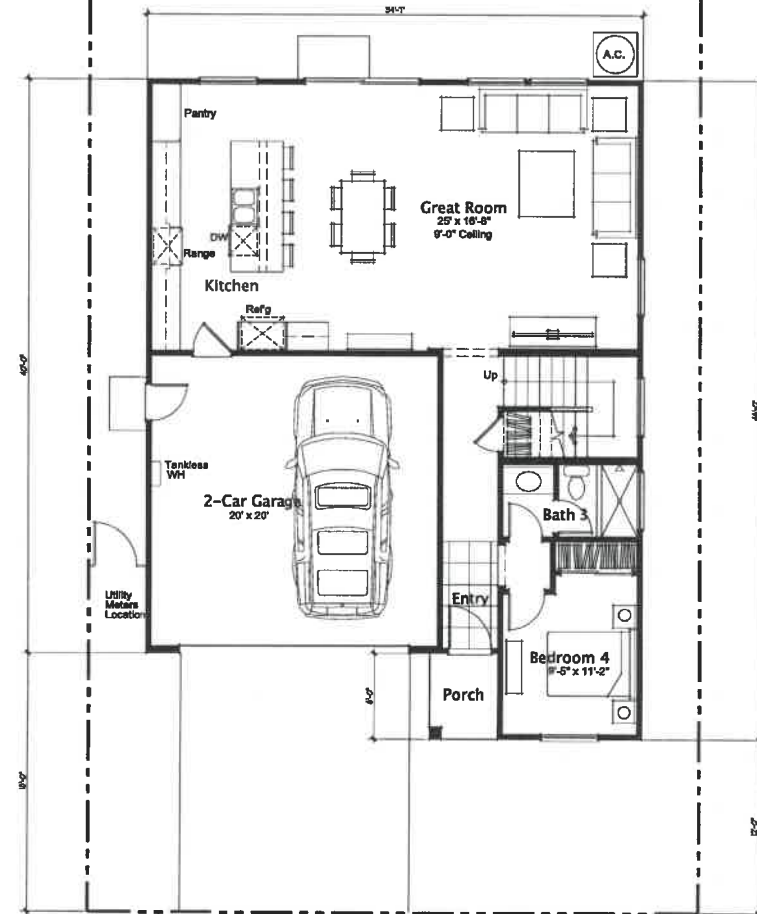
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Project Number	
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Revision	
8-28-2020	
8-28-2021	
8-13-2021	
Sheet No.	

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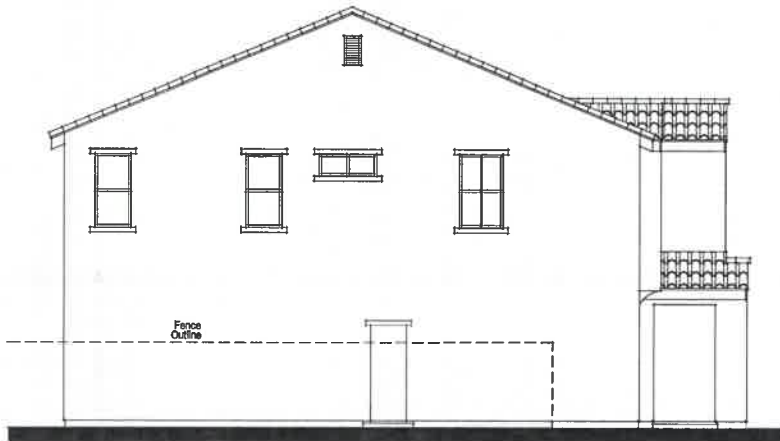
Second Floor Plan



Living Area:
 First Floor 1,023
 Second Floor 1,376
 Total Living Area = 2,399 sq. ft.
 Garage 420

First Floor Plan





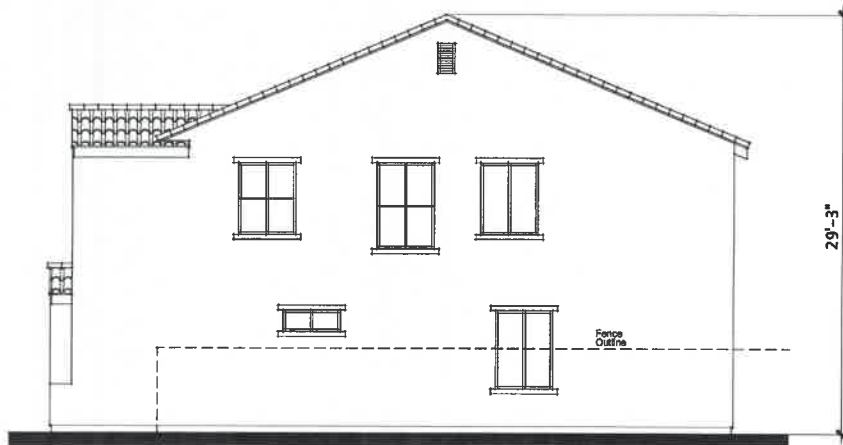
Left Elevation



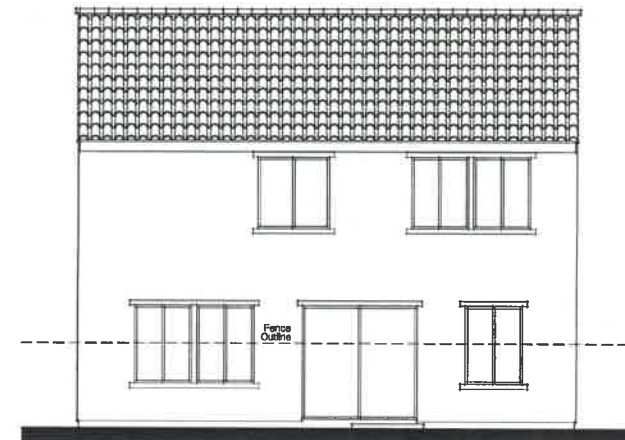
Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior

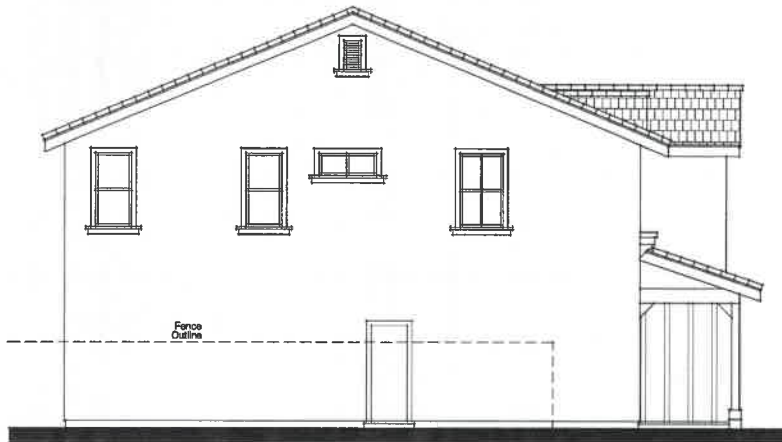


Right Elevation

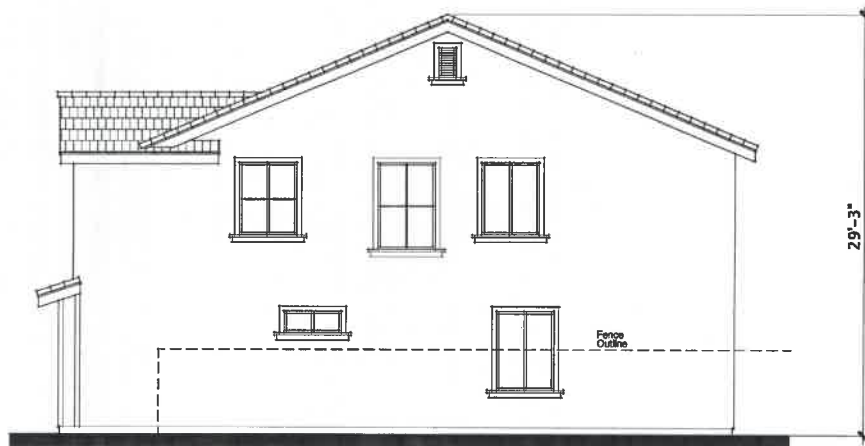


Rear Elevation





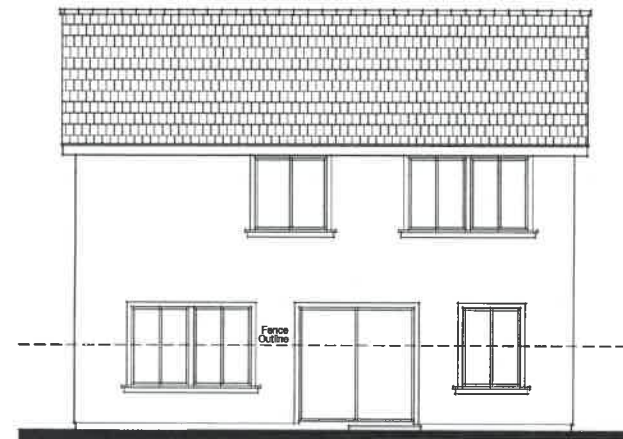
Left Elevation



Right Elevation



Front Elevation - Farmhouse

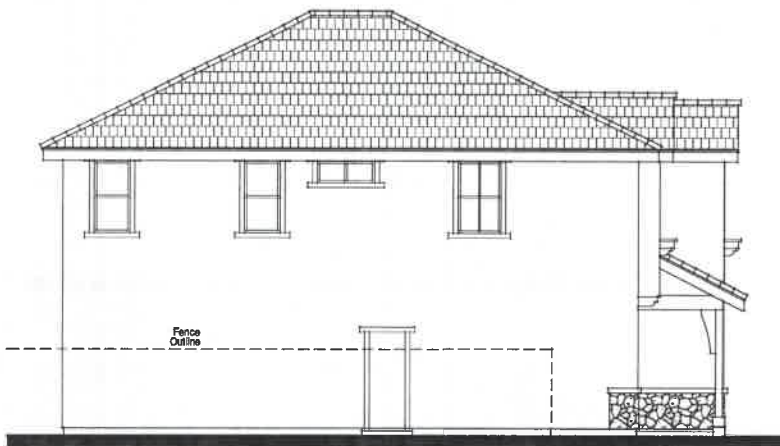


Rear Elevation



MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 5 : 12/7 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding Exterior



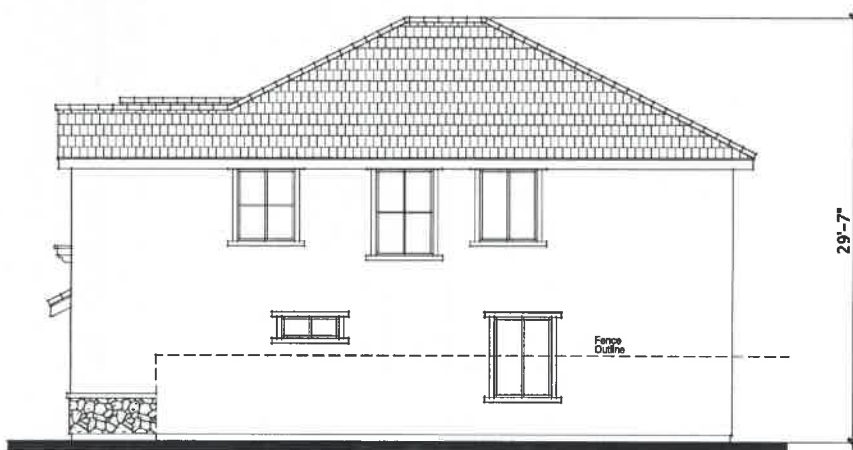
Left Elevation



Front Elevation - Cottage

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior

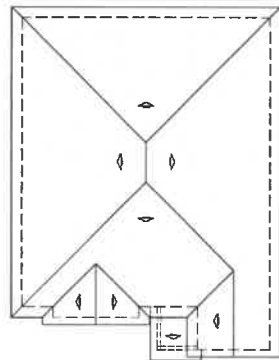


Right Elevation



Rear Elevation



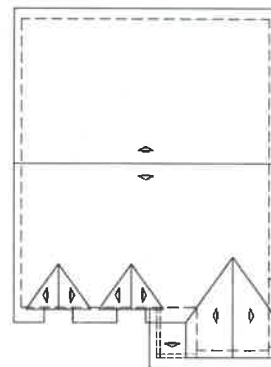


'C' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12 / 7 : 12 / 4 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia

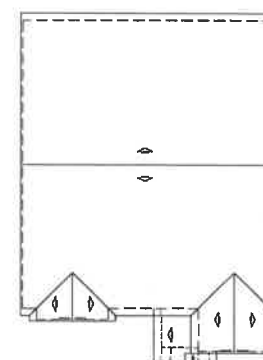


'B' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia



'A' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia



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Highland Park, Highland, CA

Title
 Plan 2
 Roof Plans

Date
 10-10-2014
 Project Number
 4271
 Scale
 1/4" = 1'-0"
 Revision
 6-17-2021
 8-13-2021

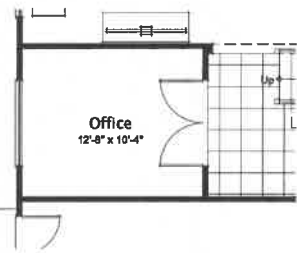
Sheet No.

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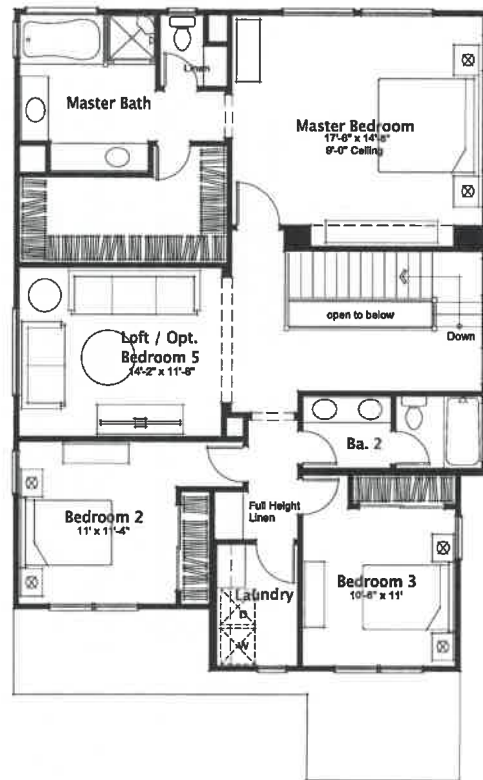




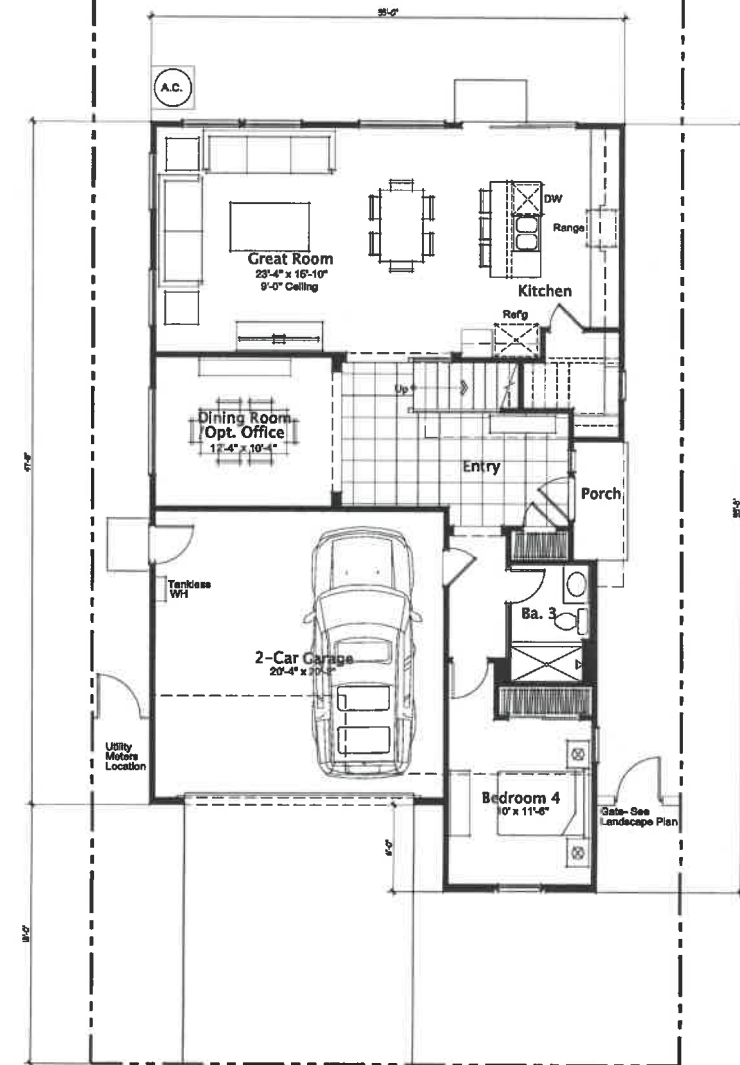
Bedroom 5 Option



Office Option



Second Floor Plan

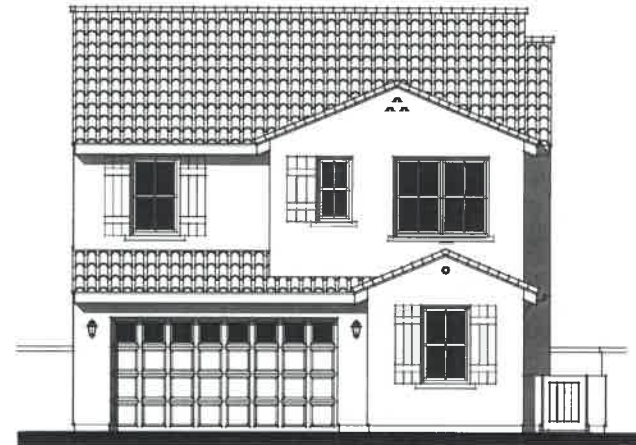


Living Area:
 First Floor 1,156
 Second Floor 1,362
 Total Living Area = 2,518 sq. ft.
 Garage 420

First Floor Plan



Left Elevation



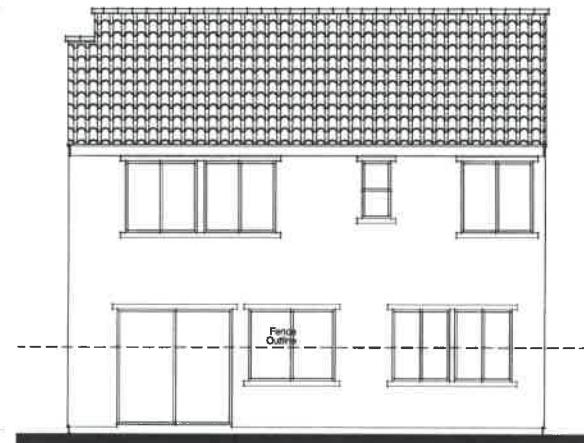
Front Elevation - Spanish

MATERIAL NOTES

Roof: Concrete 'S' Tile
 Roof Pitch: 5 : 12
 Rakes: Flush
 Eaves: 12" Wood Fascia
 Stucco Exterior

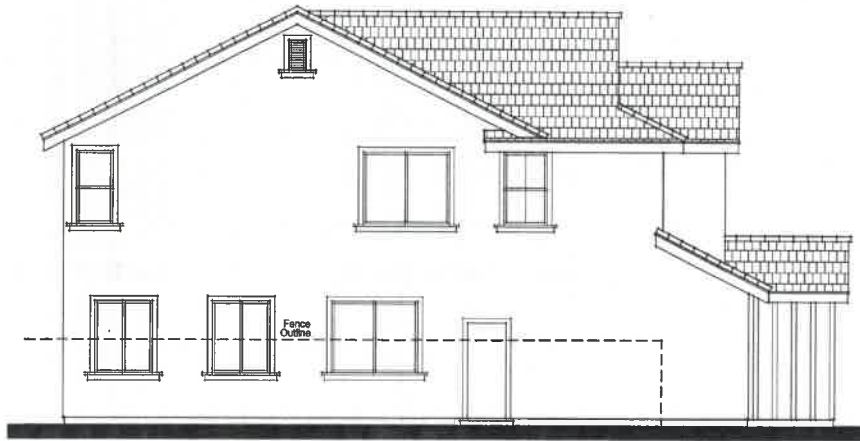


Right Elevation



Rear Elevation





Left Elevation



Front Elevation - Farmhouse

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior



Right Elevation



Rear Elevation





Left Elevation



Front Elevation - Cottage

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
 Roof Pitch: 6 : 12
 Rakes: 12" Wood Barge
 Eaves: 18" Wood Fascia
 Stucco, Siding, Stone Exterior

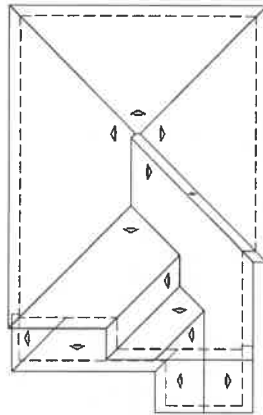


Right Elevation



Rear Elevation



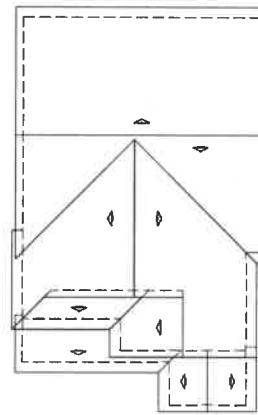


'C' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
Roof Pitch: 6 : 12
Rakes: 12" Wood Barge
Eaves: 18" Wood Fascia

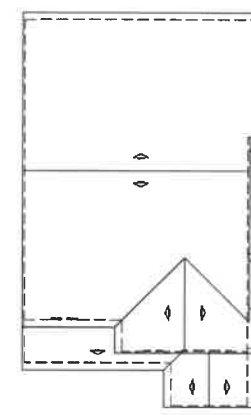


'B' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'Flat' Tile
Roof Pitch: 6 : 12
Rakes: 12" Wood Barge
Eaves: 18" Wood Fascia



'A' ROOF PLAN

Scale: 1/8"=1'-0"

MATERIAL NOTES

Roof: Concrete 'S' Tile
Roof Pitch: 5 : 12
Rakes: Flush
Eaves: 12" Wood Fascia



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Highland Park, Highland, CA

Title
Plan 3
Roof Plans

Date
10-10-2014
Printed Number
4271
Scale
1/4" = 1'-0"
Revision
6-17-2021
8-13-2021

Sheet No.

20

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(949) 397-3800
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ATTACHMENT 7
Conceptual Landscape Plan

Project Reference: Erapot, Sri Lanka (E10)						85.1
Hydroponic / Planting Description	Plant Factor (PF)	Irrigation Method	WPA/Total Efficiency (IE)	STAF (PF*IE)	Land/Acre Area (Sq. Ft.)	Estimated Total Water Use (ETWU)
Regular Land-use Areas						
Broccoli	0.5	Drop	0.8	0.4	18,375.00	2,218.52
Tomato	0.6	Butter	0.81	0.49	5,488.25	2,153.59
					62,418.96	84,588.59
						ETWU Total
						870,091.58
						808,543.58

WAP Calculations

Regular Landscape Areas	
Total ETAP = Area	54,299.58
Total Area	42,418.00
Average ETAP	0.59

All Landscape Areas	
Total ETAP = Area	54,299.58
Total Area	42,418.00
Average ETAP	0.59

COMPLIANCE STATEMENTS:

MWELO STATEMENTS:

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS.

VINYL FENCE & SIDE YARD GATE - TYP.

LOT 'B'
OPEN SPACE
0.81 AC

SPLIT FACE BLOCK PILASTERS - TYP.

ACCESSIBLE RAMP WITH HANDRAILS AND STAIRS

TOT-LOT PLAY STRUCTURE W/
RUBBERIZED SURFACING AND
CONCRETE EDGE

LARGE PICNIC AREA W/ SHADE
STRUCTURE, BBQ, SEATING
AND DRINKING FOUNTAIN

D.G. ACCESS ROAD TO BASIN

WATER QUALITY BASIN

LOT 'C' —
PARK (UNDERGROUND
DETENTION BASIN)
0.48 AC

LOT 'A'
OPEN SPACE
0.25 AC

BASE LINE

ENTRY MONUMENT - 5' SQ. PLASTER
PER FIG. III-7

— ENHANCED ENTRY PAVEMENT -
STREET-PRINT OR EQUAL

SYMBOL	BOTANICAL NAME	COMMON NAME
	STREET & THEME TREES (24" BOX MIN.)	
	PODOCARPUS GRACILIS KOEHLEREUTERA PANOLATA PISTACIA CHINENSIS PLATANUS X 'SUCCOGOOD' MAGNOLIA SPP.	FERNI PRUNE GOLDENRAINF TREE CHINESE PISTACHE LONESIDE PLANE TREE MAGNOLIA
	MULTI TRUNK TREES (36" - 48" BOX)	
	JACARANDA SPP. OLEA WILSONI MAGNOLIA G. 'RUSSET'	JACARANDA SPP. OLIVE SPR. RUSSET MAGNOLIA
	THEME / SCREEN TREES (15 GAL - 24" BOX)	
	DOUGL. SPRUCE PINUS ELADICA BRADYCHITON POPULINEA TOSTANA CONFERTA	DOUGL. SPRUCE MONDEL PRUNE BOTTLE TREE BRISBANE BOX
	ACCENT TREES (24" - 36" BOX)	
	ARISTUA 'MARINA' RUSUS LARICIA PYRUS G. 'CHANTICLEER' HYMENOCARPUS FLAVUM PRUNUS G. 'KRAUTER VESUVIUS'	ARISTUUS HYBRID AFRICAN SUMAC ORNAMENTAL PEAR BETHSHADE FLOWERING PLUM
	PALM TREES (24" - 36" BOX)	
	SYAGRUS ROMANZOFFIIANUM PHOENIX DACTYLIFERA	QUEEN PALM DATE PALM
	VERTICAL ACCENT TREES (16 GAL - 36" BOX)	
	JUNIPERUS SPP. CURIPROBUS SPP. PODOCARPUS 'HENKEL' (COLUMNAR)	JUNIPER SPP. CURIPROBUS SPP. LONG LEAFED YELLOWWOOD
	PATIO ACCENT TREES (100% - 15 GAL)	
	RHAPHIOLEPS 1 'MAESTRO BEAUTY' LEUCOSTRUM APOCYNUM PHOTINIA FRASERI PRUNUS C. 'BRIGHT N' TIGHT'	INDIAN HAWTHORN JAPANESE PRIVET N.C.N. FLOWERING PLUM VAR.
	SLOPE PLANTING ON HOMEOWNER LOTS	
	HOMEOWNER FRONT YARDS	
	TURF AT PARK SITE / WATER QUALITY BASIN	
	CITY MAINTAINED	
	COMMON H2O AREA SHRUBS / VINES / GROUNDCOVER	
	40% S.G. 60% F.G. min. with varied groundcover(s) such as:	
	ARISTUA UNEDO 'COMPACTA' BUXUS SPP. BREYERIA NUDIFLORA DIETES SPP. DIOSMA PULCHRUM BOGUSWILLERA SPP. CALLISTEMON 'LITTLE JOHN' MEMECOCALLIS SPP. ESCALONIA SPP. DOODONEA V. 'PURPUREA' ELAEAGNUS P. VARIEGATA GREVIA OCCIDENTALIS. GREVILLE LAUREA GAZANIA SPP. GELESTRUM SEMPERVIRENS JUNIPERUS SPP. PITTOSPORUM SPP. RAPHIOLEPS SPP. DOUSTRIUM J. 'TIDANUM' NANDINA SPP. PHORUM SPP. TRACHELOSTERNUM JASMINOIDES ROSMARINUS SPP.	DWARF STRAWBERRY BOXWOOD SPP. SNOW BUSH PORTULACA LILLY BREATH OF HEAVEN BOGUSWILLERA - N.C.N. JAPANESE BRUSH DAYLILY SPP. ESCALONIA - N.C.N. JUNIPERUS BUSH ELAEAGNUS LAVENDER STRATFLOWER GREVILLE - N.C.N. GAZANIA - N.C.N. CARCINA JESSAMINE JUNIPERUS SPP. PITTOSPORUM SPP. RAPHIOLEPS - N.C.N. JAPANESE PRIVET HEAVENLY BAMBOO NEW ZEALAND FLAX SPP. STAR JASMINE ROSEMARY SPP.

PRECAST CONCRETE CAP
 EPS THICK EPS
 BURNISHED CPU
 PRECAST CONCRETE 4" LITE INS
 AND GULFORS SURROUND 1/2" LIGOR AND FISH
 5" LITE HOLLOWED GULFORS LATHING
 PRECAST CONCRETE LITE
 PRECAST CONCRETE FOLLOWS



SCALE - 1" = 40'-0"



0 20' 40' 80' 120'

ENTRY MONUMENT

MASTERCRAFT RESIDENTIAL

CITY OF HIGHLAND, CA
HIGHLAND PARK
LANDSCAPE CONCEPT PLAN

CONCEPTUAL SITE PLAN

REVISIONS	DATE



DATE: 02/18/22

SCALE: SEE SHEET

JOB #21-009D

DRAWN: JO/NL

SHEET: LC-01

1 OF 5

CONCEPTUAL LANDSCAPE DEVELOPMENT NOTES

PLANTING CONCEPTS:

1. ALL PLANTING AND IRRIGATION DESIGN SHALL BE IN CONFORMANCE WITH THE CITY OF HIGHLAND LANDSCAPE MANUAL.
 2. ALL LANDSCAPING SHALL BE DEVELOPED IN CONFORMANCE WITH ALL ORDINANCES SET FORTH BY THE CITY OF HIGHLAND DEVELOPMENT CODE, CITY OF HIGHLAND LANDSCAPE REGULATIONS AND ALL OTHER STANDARDS FOR LANDSCAPE INSTALLATION.
 3. LANDSCAPE QUALITY TREES AND PALMS SHALL BE PLANTED WITHIN THE PLANNED PLANTING AREAS.
 4. ALL STREET TREES SHALL BE LOCATED OUTSIDE ALL UTILITY, CURB, AND WATER EASEMENTS, UNDER OTHERWISSE APPROVED BY A CITY OF HIGHLAND STREET DESIGN.
 5. NEW TREES WITHIN 5' FROM PAVEMENT SHALL BE SET WITHIN 10' OF THE CURB OR OTHERWISSE APPROVED BY A CITY OF HIGHLAND STREET DESIGN.
 6. PLANTING MATERIALS INCLUDING TREES, PALMS, AND SHRUBS SHALL BE SPECIFIED WITHIN THE CITY OF HIGHLAND PLANTING STANDARDS.
- A. STANDARD #1 - COVER CROWN/PROTECTED STRAP MAT
 - COVER CROWN SHALL BE USED FOR ALL PLANTING MATERIALS AND SHALL BE USED TO PROTECT THE COVER CROWN. COVER CROWN SHALL BE USED TO PROTECT THE COVER CROWN. COVER CROWN SHALL BE USED TO PROTECT THE COVER CROWN.
 - B. STANDARD #2 - BRUSHWOOD COVER
 - BRUSHWOOD COVER SHALL BE USED TO PROTECT THE COVER CROWN. BRUSHWOOD COVER SHALL BE USED TO PROTECT THE COVER CROWN. BRUSHWOOD COVER SHALL BE USED TO PROTECT THE COVER CROWN.
 - C. STANDARD #3 - LOW SHRUBS
 - LOW SHRUBS SHALL BE USED TO PROTECT THE COVER CROWN. LOW SHRUBS SHALL BE USED TO PROTECT THE COVER CROWN. LOW SHRUBS SHALL BE USED TO PROTECT THE COVER CROWN.
 - D. STANDARD #4 - TREES AND PALMS
 - TREES AND PALMS SHALL BE USED TO PROTECT THE COVER CROWN. TREES AND PALMS SHALL BE USED TO PROTECT THE COVER CROWN. TREES AND PALMS SHALL BE USED TO PROTECT THE COVER CROWN.
 - E. AREA OF APPLICATION (PLANTING)
 - AREA OF APPLICATION SHALL BE USED TO PROTECT THE COVER CROWN. AREA OF APPLICATION SHALL BE USED TO PROTECT THE COVER CROWN. AREA OF APPLICATION SHALL BE USED TO PROTECT THE COVER CROWN.
 - F. SPECIAL CONDITIONS
 - SPECIAL CONDITIONS SHALL BE USED TO PROTECT THE COVER CROWN. SPECIAL CONDITIONS SHALL BE USED TO PROTECT THE COVER CROWN. SPECIAL CONDITIONS SHALL BE USED TO PROTECT THE COVER CROWN.
 - G. PLANTING MATERIALS
 - PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN.
 - H. PLANTING MATERIALS
 - PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN.
 - I. PLANTING MATERIALS
 - PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN.
 - J. PLANTING MATERIALS
 - PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN. PLANTING MATERIALS SHALL BE USED TO PROTECT THE COVER CROWN.



CANOPY TREE



VERTICAL PALM



VERTICAL TREES



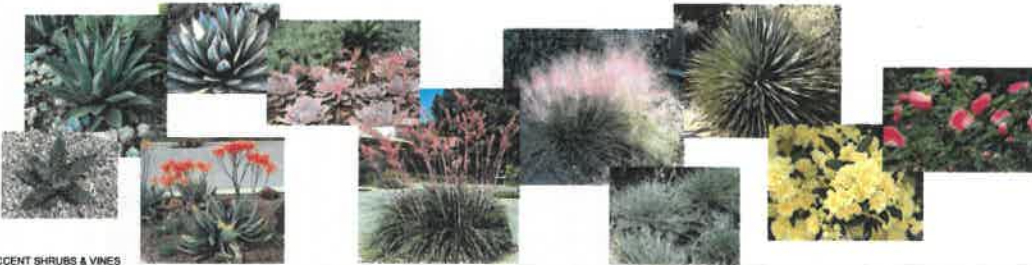
ACCENT TREE



HEDGE SHRUBS



LOW - MEDIUM SHRUBS



ACCENT SHRUBS & VINES



GROUNDCOVERS

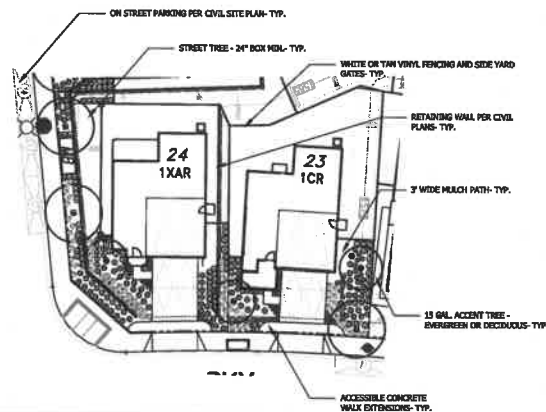
WDL
WELAND DESIGN GROUP, INC.
LANDSCAPE ARCHITECTURE • LANDSCAPE CONSTRUCTION MANAGEMENT
28001 LINDEN AVE. SUITE 200
TUSTIN, CA 92680
P 949.251.1111 F 949.251.1112
WWW.WELANDDESIGN.COM
201 SERRA AVENUE, SUITE 200, TUSTIN, CA 92680

MASTERCRAFT RESIDENTIAL
CITY OF HIGHLAND, CA
HIGHLAND PARK
LANDSCAPE CONCEPT PLAN
CONCEPTUAL PLANT PALETTE

REVISIONS	DATE



DATE: 02/18/22
SCALE: SEE SHEET
JOB #21-0090
DRAWN: JO/NL
SHEET: LC-03
3 OF 5



PERIMETER MASONRY WALL
PER CIVIL PLANS-TYP.

RETAINING WALL PER CIVIL
PLANS-TYP.

1.5
2C

FRONT YARD SWALES:
FRONT YARD DRAINAGE SWALE PER
CIVIL PRECISE GRADING PLANS -
CONTRACTOR TO INSTALL 2" LAYER OF
3/8" SOUTHWEST BROWN GRAVEL
OVER LANDSCAPE FABRIC PER CITY
RECOMMENDATIONS- TYP.

FRONT YARD PLANTING NOTES:

1. NO (2) TREE SHALL BE LOCATED CLOSER THAN 10' FROM EACH OTHER. CONTRACTOR RESPONSIBLE FOR CONTACTING LANDSCAPE ARCHITECT TO OMIT OR ADJUST (1) TREE IF NECESSARY TO AVOID CONFLICT.
2. TREE LOCATIONS SHALL BE REVISED IN THE FIELD TO ACCOMMODATE PLANTING DESIGN ON ADDINGING LOTS.
3. CONDITIONS SHOWN FOR EACH PRODUCT TYPE IS A TYPICAL REPRESENTATION. EACH MAY REQUIRE ADDITIONAL PLANT MATERIAL DUE TO ACTUAL FIELD CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING LANDSCAPE ARCHITECT AS THE SPACING SPECIFIED IN THE PLANT LEGEND FOR ANY ADDITIONAL PLANT MATERIAL THAT MAY BE REQUIRED TO COMPLETE THE PLANTING DESIGN.
4. CONTRACTOR TO INSTALL 3" PLANTER DECORATIVE LANDSCAPE TRAY OVER LANDSCAPE FABRIC IN FRONT YARD DRAINAGE SWALE - TYPE. CONTRACTOR SHALL SUBMIT A SAMPLE OF GRASS TO THE CITY / LANDSCAPE ARCHITECT FOR APPROVAL.
5. AN AGRONOMIC SOILS REPORT SHALL BE SUBMITTED TO THE CITY OF CHICAGO ARCHITECT PRIOR TO BEGINNING OF THE PRELIMINARY CONSTRUCTION OF LANDSCAPE INSTALLATION.

IRRIGATION NOTES:

1. IRRIGATION CIRCUITS SHALL BE ORGANIZED INTO HYDRO-ZONES.
2. IRRIGATION SYSTEMS WILL BE PERMANENT AND SHALL UTILIZE SPRINKLER/ ROTOR HEADS ON SLOPES, AND LOW PRECIPITATION RATE DRIP/ BUBBLER IN OTHER PLANTED AREAS.
3. CONTROLLER SHALL BE CAPABLE OF MULTIPLE PROGRAMMING AND SHALL BE CONNECTED TO A RAIN SHUT-OFF DEVICE.
4. THE OVERALL IRRIGATION SYSTEM SHALL BE DESIGNED WITH WATER EFFICIENCY AND CONSERVATION IN MIND, THROUGH GOOD DESIGN, SPECIFICATION OF EFFICIENT MATERIALS AND PROPER LANDSCAPE MAINTENANCE AND MANAGEMENT.
5. THE IRRIGATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY OF HIGHLAND LANDSCAPE MANUAL.

MAINTENANCE NOTES:

1. MAINTENANCE WITHIN THE RIGHT-OF-WAY ON BASE LINE SHALL BE MAINTAINED BY BY THE CITY OF HIGHLAND, CA.
2. ALL ON-SITE LANDSCAPING SHALL BE MAINTAINED BY THE PROPERTY OWNER'S ASSOCIATION.

TREE NOTES:

1. CONTRACTOR SHALL FIELD VERIFY SETBACKS FOR TREES AND UTILITIES. TREE SHALL NOT BE INSTALLED IF MINIMUM SETBACKS CANNOT BE ACHIEVED AND THE CONTRACTOR SHALL NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE.
2. FINAL LOCATION OF TREES SHALL BE COORDINATED WITH THE CITY LANDSCAPE ARCHITECT IN THE FIELD.

PLANT LEGEND			
WUOLDS WATER USE RATING INDICATED BEFORE ALL PLANT NAMES LISTED BELOW			
PALETTE 'A' - SPANISH ELEVATION (OR PER BUILDER)			
ACCENT TREE			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
•	(L) ARBUTUS MARINA / STRAWBERRY TREE VAR.	15 GAL	
⊙	(L) CUPRESSUS S. 'TINY TOWER' / ITALIAN CYPRESS	15 GAL	
SHRUBS			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
⊙	(L) SALVIA LEUCANTHA / MEXICAN SAGE	5 GAL	
⊙	(M) RHAPIDOLEPSIS L. 'PINK PRINCESS' / INDIAN HAWTHORN VAR.	5 GAL	
⊙	(M) DIANELLA 'LITTLE REV' / FLAX LILY VAR.	1 GAL	
SPREADING SHRUB / GROUNDCOVER			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
⊙	(L) LANтана 'BANDERA RED' / LANтана VAR.	5 GAL	
⊙	(L) TELICRUM C. MAJORICUM / TELICRUM VAR.	5 GAL	
PALETTE 'B' - TUSCAN ELEVATION (OR PER BUILDER)			
ACCENT TREE			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
•	(L) HETEROMELES ARBUTIFOLIA / TOYON STD.	15 GAL	
⊙	(L) LAURUS NOBILIS (COLLUMNAR) / SWEET BAY	15 GAL	
SHRUBS			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
⊙	(L) LEUCOPHYLLUM 'GREEN CLOUD' / TEXAS RANGER	5 GAL	
⊙	(L) RHODUS ADAMANTICUS / STICK MONKEY FLOWERS	5 GAL	
⊙	(M) DIANELLA 'CASSA BLUE' / FLAX LILY VAR.	1 GAL	
SPREADING SHRUB / GROUNDCOVER			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
⊙	(M) ROSA 'MEDIANO WHITE' / CARPET ROSE VAR.	5 GAL	
⊙	(L) LIPPIA NODIFLORA / KURUPAPA	5 GAL	
PALETTE 'C' - CRAFTSMAN ELEVATION (OR PER BUILDER)			
ACCENT TREE			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
•	(M) LAGERSTRÖMIA 'MUSKOGEE' / CRAPE MYRTLE	15 GAL	
⊙	(H) PRUNUS C. 'CORPACITA' (COLLUMNAR) / CALADORA CHERRY	15 GAL	
SHRUBS			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
⊙	(M) LIGULSTRUM J. 'TEXANUM' / TEXAS PRIVET	5 GAL	
⊙	(L) MUEHLBERGIA CAPILLARIS / PINK MUHLY	5 GAL	
⊙	(M) NANDINA D. 'FIRE POWER' / HEAVENLY BAMBOO VAR.	1 GAL	
SPREADING SHRUB / GROUNDCOVER			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
⊙	(L) TRACHELOSPERMUM JASMINOIDES / STAR JASMINE	5 GAL	
⊙	(L) ROSMARINUS O. 'PROSTRATUS' / ROSEMARY VAR.	5 GAL	
VINES			
SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	
~	(F) MACADENIA UNGUIS - CATS / CATS CLAW VINE	5 GAL	
PLANTS SHALL BE SPACED TO ENSURE FULL COVERAGE WITHIN ONE YEAR			

* **PLANT QUANTITY NOTE:**
PLANT QUANTITIES ARE BASED OFF TYPICAL LOT CONDITIONS ONLY. EXACT QUANTITY WILL HAVE TO BE VERIFIED IN THE FIELD TO MEET CITY COVERAGE STANDARDS

1. ESTIMATED BACKGROUND SHRUBS - 84
2. ESTIMATED MIDGEOUND SHRUBS - 548
3. ESTIMATED ACCENT SHRUBS - 1,014
4. ESTIMATED SPREADING SHRUBS - 405
5. ESTIMATED VINES - 95

SCALE - 1" = 20'-0"



MASTERCRAFT RESIDENTIAL

CITY OF HIGHLAND, CA
HIGHLAND PARK

TYPICAL PRODUCTION PLANTING PLAN

REVISIONS	DATE



DATE: 02/18/22

SCALE: SEE SHEET

IOB # 21-009

DRAWN:

SHEET: LC-04
OF 5

[illegible]

PIPE SIZES (C-90)		
0 TO 1	0.00	0.00 CL 200 PIG PIPE
1 TO 10	0.00	0.00 CL 200 PIG PIPE
10 TO 15	0.00	0.00 CL 200 PIG PIPE
15 TO 25	0.00	0.00 CL 200 PIG PIPE
25 TO 35	0.00	0.00 CL 200 PIG PIPE
35 TO 45	0.00	0.00 CL 200 PIG PIPE
45 TO 100.00	0.00	0.00 CL 200 PIG PIPE

NOTE:
 CONNECTION SHALL BE AT ALL LATERAL LINE PER
 PIPE SIZES QUANTITY IN NO INSTANCE SHALL PIPE
 SIZE EXCEED DESIGNATED QTY RANGE

Protein	0	10'	20'	40'	60'
100,000g supernatant	100	100	100	100	100
100,000g supernatant + 100,000g supernatant	0	0	0	0	0
100,000g supernatant + 100,000g supernatant + 100,000g supernatant	0	0	0	0	0

DATE: 02/18/22
SCALE: SEE SHEET
JOB # 21-009
DRAWN:
SHEET: LC-05
OF 5

ATTACHMENT 8
Rough Grading Plan

CITY OF HIGHLAND, CALIFORNIA ROUGH GRADING PLANS TRACT 19915

GRADING NOTES

1. ALL GRADING SHALL CONFORM TO THE CURRENT CITY ADOPTED EDITION OF THE CALIFORNIA BUILDING CODE.
2. ALL PROVISIONS OF THE PRELIMINARY SOILS REPORT PREPARED BY JETN. GEOTECHNICAL DATED APRIL 18, 2014 SHALL BE COMPLIED WITH DURING GRADING OPERATIONS.
3. THIS PLAN IS FOR GRADING PURPOSES ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF ANYTHING LOCATED ON OR OFF THE LOT, INCLUDING LOT LAYOUT, BUILDING LOCATIONS, CITY-SITE DRAINAGE FACILITIES OR OTHER ITEMS NOT RELATED DIRECTLY TO THE GRADING OPERATIONS.
4. CERTIFICATION (FORM PROVIDED BY CITY) FROM THE REGISTERED CIVIL ENGINEER AND SOILS/GEOTECHNICAL ENGINEER STATING THAT THE GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN AND A COMPACTION REPORT FROM THE SOILS ENGINEER ON ANY FILL AREAS THAT ARE REQUIRED SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.
5. CERTIFICATION (FORM PROVIDED BY CITY) FROM THE REGISTERED CIVIL ENGINEER STATING THAT THE FINE GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN IS REQUIRED PRIOR TO OCCUPANCY PERMITS BEING ISSUED.
6. CONTRACTOR IS RESPONSIBLE FOR EROSION, DUST, SILT, DEBRIS, AND TEMPORARY DRAINAGE CONTROL DURING GRADING OPERATIONS.
7. ANY ON-SITE RETAINING WALLS WILL REQUIRE APPROVAL AS PART OF THESE PLANS. ANY NECESSARY RETAINING WALLS ON THE PERIMETER OF THIS SITE MAY BE REQUIRED TO BE IN PLACE AND APPROVED BY THE CITY ENGINEER PRIOR TO THE START OF GRADING. APPROVED SEQUENCED GRADING WITH 1-1/2% MAXIMUM SLOPES TO WITHIN 2 FEET OF THE ADJACENT PROPERTY LINE MAY BE ACCEPTABLE TO ALLOW FOR START OF GRADING PRIOR TO COMPLETION OF ANY NECESSARY PERMANENT RETAINING WALLS (IF NO RETAINING WALLS ARE SHOWN ON THE PLAN, DO NOT PUT THIS NOTE ON PLAN).
8. ANY IMPROVEMENT CONSTRUCTED IN THE PUBLIC RIGHT OF WAY WILL REQUIRE SEPARATE PLAN APPROVAL AND INSPECTION FROM THE CITY ENGINEER.
9. ANY WALLS, FENCES, STRUCTURES AND/OR APPURTENANCES ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF GRADING OPERATIONS DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR AND/OR DEVELOPER IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNERS.
10. THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ENSURING THAT RETAINING WALLS DO NOT INTERFERE WITH PROVISION OF UTILITIES.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT COMPACTION HAS BEEN ATTAINED ON THE EXPOSED GRADING SITE, INCLUDING FILL AREAS OUTSIDE THE BUILDING FOOTPRINT AND ON ALL FILL SLOPES, TO THE SATISFACTION OF THE SOILS ENGINEER.
12. CITY APPROVAL OF THESE PLANS DOES NOT RELIEVE THE DEVELOPER FROM THE RESPONSIBILITY FOR CORRECTION OF ERROR OR OMISSION DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
13. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CALL THE CITY ENGINEER'S OFFICE AT (909) 884-8732, EXT. 241, FOR INSPECTION 24 HOURS PRIOR TO PERFORMING ANY WORK. WORK PERFORMED WITHOUT CALLING FOR INSPECTION MAY BE REJECTED AND, IF REJECTED, SHALL BE REMOVED SOLELY AT THE CONTRACTOR'S EXPENSE.
14. NO GRADING SHALL COMMENCE WITHOUT OBTAINING A GRADING PERMIT AND NOTIFYING THE GRADING INSPECTOR TO SCHEDULE A PREGRADING MEETING TWO WORKING DAYS PRIOR TO THE START OF WORK.
15. ALL ACTIVE EROSION LINES DISCONTINUED DURING CONSTRUCTION SHALL BE REPLACED WITH 12-GAUGE DIPPED AND WIPPED WELDED STEEL PIPE.
16. PRIOR TO THE START OF GRADING ALL EXISTING VEGETATION AND DEBRIS, INCLUDING EXISTING STRUCTURES, FOOTINGS, FOUNDATIONS, RUBBLE, TREES AND ROOT SYSTEMS SHALL BE REMOVED FROM THE SITE TO THE SATISFACTION OF THE SOILS ENGINEER.
17. AFTER REMOVAL OF DEBRIS, ANY EXISTING FILL OR DISTURBED NATURAL SOILS SHALL BE EXCAVATED TO THE SATISFACTION OF THE SOILS ENGINEER.
18. THE EXPOSED SOILS SHALL THEN BE INSPECTED BY THE SOILS ENGINEER, AND ANY ADDITIONAL OVEREXCAVATION SHALL THEN BE MADE IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS AND AS CONTAINED IN THE SOILS REPORT.
19. THE EXPOSED SOILS SHALL THEN BE SCARIFIED TO PROVIDE A BOND WITH NEW FILL BROUGHT TO PROPER MOISTURE CONTENT AND COMPACTED TO AT LEAST 95% OF THE MGDHARDENED DENSITY, AS DETERMINED BY ASTM D1557-79 ON EQUIVALENT COMPACTION SHALL BE OBTAINED BY METHOD SPECIFIED BY THE SOILS ENGINEER.
20. IF ANY UNDESIRABLE SUB-SURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER BEFORE PROCEEDING FURTHER.
21. THE SOILS ENGINEER SHALL ALSO BE RESPONSIBLE TO VERIFY AND REPORT THAT PROPER COMPACTION HAS BEEN OBTAINED BY SUBCONTRACTORS AND AGENCIES CONCERNING UTILITY LINE BENCHMARKS, INCLUDING, BUT NOT LIMITED TO SEWERS, WATER LINES, ELECTRICAL, GAS AND LANDSCAPE IRRIGATION LINES.
22. AN AS-GRADDED GRADING PLAN AND THE CERTIFICATION OF COMPLIANCE FORMS FOR SAID GRADING PLAN WITH THE PROPER SCALES AND SIGNATURES ARE TO BE SUBMITTED TO THE CITY ENGINEER PRIOR TO RELEASE OF GRADING BOND AND PRIOR TO FINAL GRADING INSPECTION.
23. ANY DRIVE APPROACHES SHOWN ON THESE PLANS SHALL CONFORM TO CITY OF HIGHLAND STANDARDS. NOTE THAT 4" OF SIDEWALK AT A 2% SLOPE SHALL BE MAINTAINED BEHIND DRIVE APPROACHES PER TITLE 24 AND ADA REQUIREMENTS.
24. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (LRS), PHONE NUMBER 811, TWO WORKING DAYS BEFORE DIGGING. NO INSPECTION WILL BE PROVIDED BY THE CITY ENGINEER'S OFFICE, AND NO CONSTRUCTION PERMIT ISSUED INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES WILL BE VALID UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY CERTIFICATION NUMBER BY LRS.
25. FOR GRADING OF AREAS OF 1 ACRE OR MORE, A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE KEPT ON-SITE AND MADE AVAILABLE UPON REQUEST OF A REPRESENTATIVE OF THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) - SANTA ANA REGION AND/OR OF THE CITY OF HIGHLAND, PRIOR TO PERMIT ISSUANCE, SUBMITTAL OF CORRESPONDENCE FROM THE RWQCB STATING THE WORK NUMBER IS REQUIRED.
26. FOR HISTORICAL PURPOSES, THE NORMAL WORK DAY SHALL BE CONSIDERED AS 7:00 A.M. TO 3:30 P.M., MONDAY THROUGH FRIDAY. ANY EXCEEDING LEGAL HOLIDAYS RECOGNIZED BY THE CITY, WITHIN THE SUBDIVISION, HAS CONTRACTORS, NEAR HIS SUBDIVISIONS SHALL PERFORM ANY WORK OUTSIDE THE ABOVE DETERMINED WORKING HOURS WITHOUT THE PRIOR APPROVAL OF THE CITY ENGINEER, AND THE POSTING OF AN AMOUNT DETERMINED BY THE CITY ENGINEER TO BE USED AS PENALTY FOR OVERTIME SERVICES.

SOILS ENGINEER'S STATEMENT

I, THE UNDERSIGNED SOILS ENGINEER, HAVE REVIEWED THESE PLANS AND AM SATISFIED THAT THEY ARE IN COMPLIANCE WITH THE RECOMMENDATIONS CONTAINED IN THE SOILS REPORT PREPARED FOR THIS SITE, DATED APRIL 15, 2014, AND ANY AMENDMENTS THEREOF.

BY: JETN. GEOTECHNICAL, INC.
REGISTRATION NO.: JG 071
PRINT NAME: CRISTIAN R. JULES
PHONE: (909) 884-8732

GEOLOGIST'S STATEMENT

I, THE UNDERSIGNED GEOLOGIST, HAVE REVIEWED THESE PLANS AND AM SATISFIED THAT THEY ARE IN COMPLIANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOLOGY REPORT PREPARED FOR THIS SITE, DATED APRIL 15, 2014, AND ANY AMENDMENTS THEREOF.

BY: JETN. GEOTECHNICAL, INC.
REGISTRATION NO.: JG 071
PRINT NAME: CRISTIAN R. JULES
PHONE: (909) 884-8732

LEGEND

- 5' PUBLIC UTILITY EASEMENT
- 15' MIN. BUILDING SETBACK LINE
- EXISTING LINE
- CONSTRUCTION
- RIGHT-OF-WAY
- LOT LINE
- TRACT BOUNDARY
- PROPOSED PERMETER WALL
- PROPOSED RETAINING WALL
- PROPOSED STREET NAME, SIGN
- DRAINAGE FLOW DIRECTION AND GRADE
- DENOTES ROUGH GRADING PLAN SHEET NUMBER

SHEET X

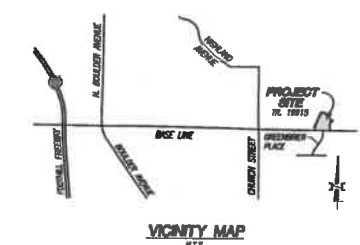
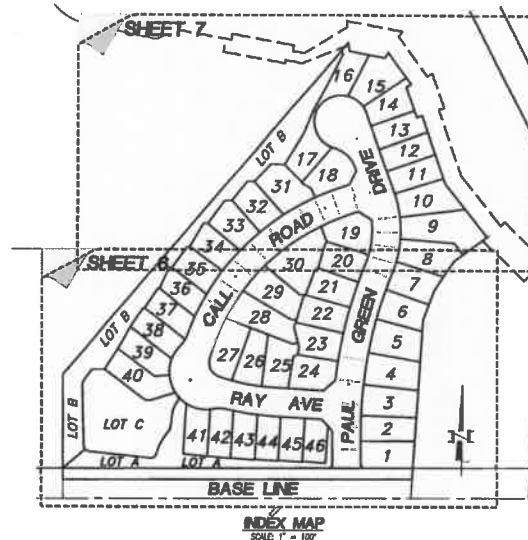
- EXIST. STREET LIGHT
- PROPOSED STREET LIGHT
- OVERFLOW FOR CATCH BASIN
- PROPOSED WATER LINE
- PEN SEWERAGE PLAN
- PROPOSED SEWER LINE
- PEN SEWERAGE PLAN
- PROPOSED STORM DRAIN
- PEN SEWERAGE PLAN
- PROPOSED 2:1 MAX SLOPE

NOTE TO CONTRACTOR

MDS CONSULTING MAKES NO REPRESENTATION CONCERNING THE ESTIMATED QUANTITIES ON THESE PLANS OTHER THAN ALL SUCH FIGURES ARE PRELIMINARY ESTIMATES AND FOR PERMIT PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREPARE HIS OWN QUANTITY ESTIMATE FOR CONSTRUCTION AND FOR COST PURPOSES. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS BETWEEN ESTIMATED QUANTITIES AND THE ACTUAL QUANTITIES AT THE TIME OF CONSTRUCTION.

UTILITIES

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCURRED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES, PRIOR TO ANY LINE CONSTRUCTION, TO VERIFY THE LOCATION. ANY DISCREPANCY BETWEEN THE PLANS AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF MDS CONSULTING.



ENGINEER'S NOTICE

1. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR ADVERSE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS RESPONSIBILITY SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
2. ALL UNDERGROUND UTILITIES OR STRUCTURES, REPORTED OR FOUND ON PUBLIC RECORDS, ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER, BY ACCEPTING THESE PLANS OR PROCEEDING WITH THE IMPROVEMENTS HEREON, AGREES TO ASSUME LIABILITY AND HOLD THE ENGINEER HARMLESS FROM ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED OR INDICATED ON PUBLIC RECORDS, OR THOSE CONSTRUCTED IN VIOLATION WITH REPORTED OR RECORDED LOCATIONS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF ALL UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.
3. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
4. QUANTITIES SHOWN HEREIN ARE PROVIDED FOR BIDDING PURPOSES ONLY. CONTRACTORS SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES PRIOR TO BIDDING FOR CONSTRUCTION.

EARTHWORK QUANTITIES ESTIMATE

EARTHWORK	CUT/CL	CUT/AREAS	FILL/CL	FILL/AREAS
WATER EXCAVATION	31,800	181,400		142,200
SHOULDER (CLSS)	(700)		32,178	
CLEARING & GRUBBING (0.1')	(700)		587	
SUBGRADE (0.1')	(700)		7,201	
ON-GRADING PLAN	10,424			
6-9 EROSION CONTROL PLAN				
BIDDING EARTHWORK QUANTITIES				
	41,100		41,100	
TOTAL PROJECT EARTHWORK QUANTITIES				
	41,100		41,100	

UNAUTHORIZED CHANGES AND USES

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS.

APPLICANT / DEVELOPER

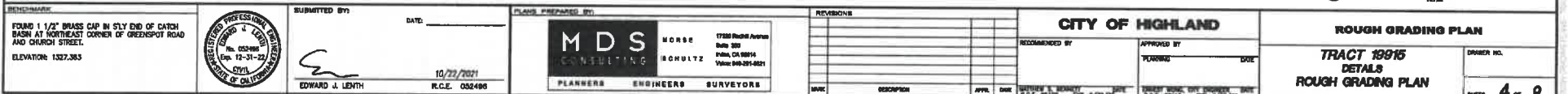
MASTERCRAFT RESIDENTIAL
2815 RED HILL AVENUE
COSTA MESA, CA 92626
(949) 252-1122
CONTACT: ANDREW DOUGLAS

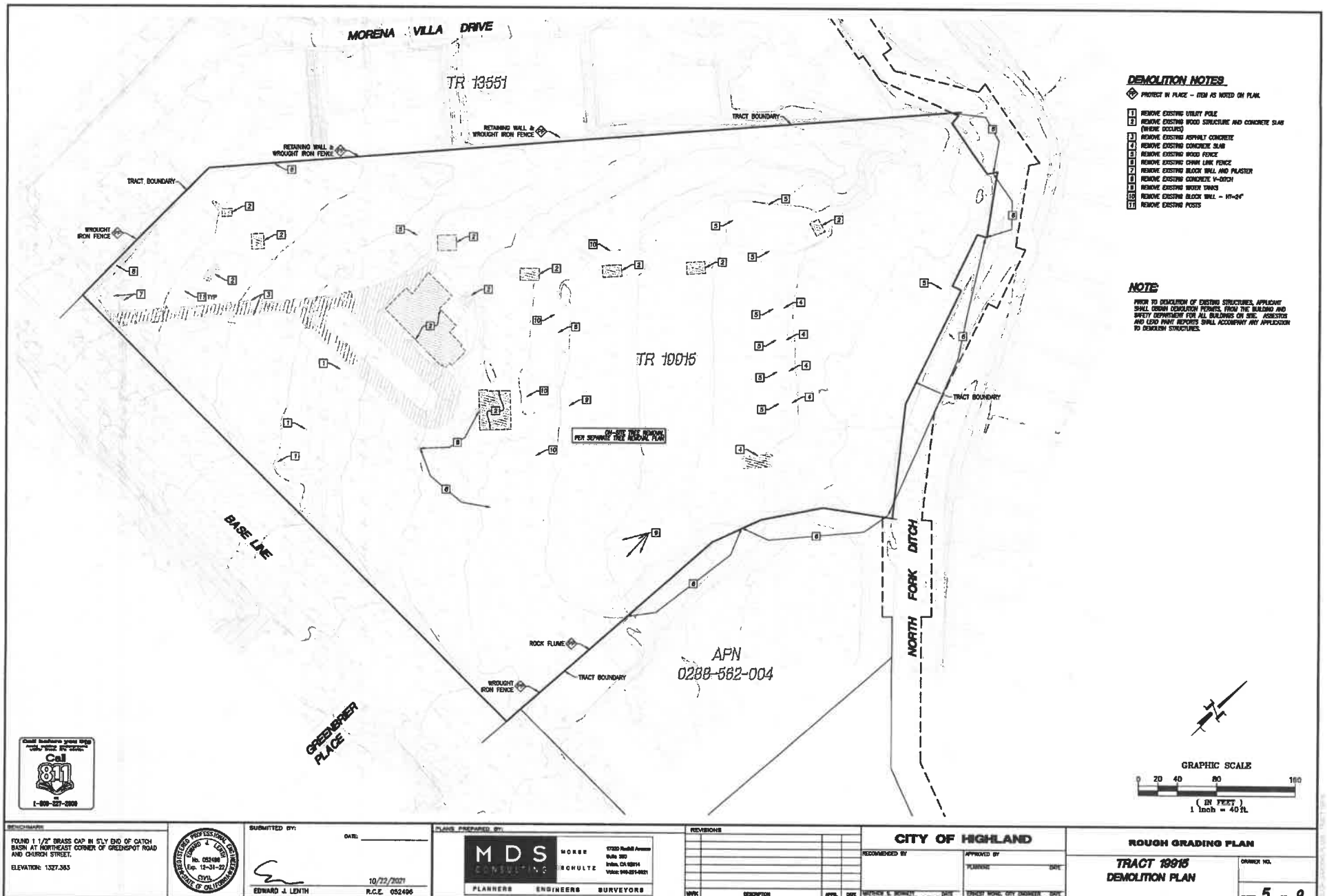
OWNER

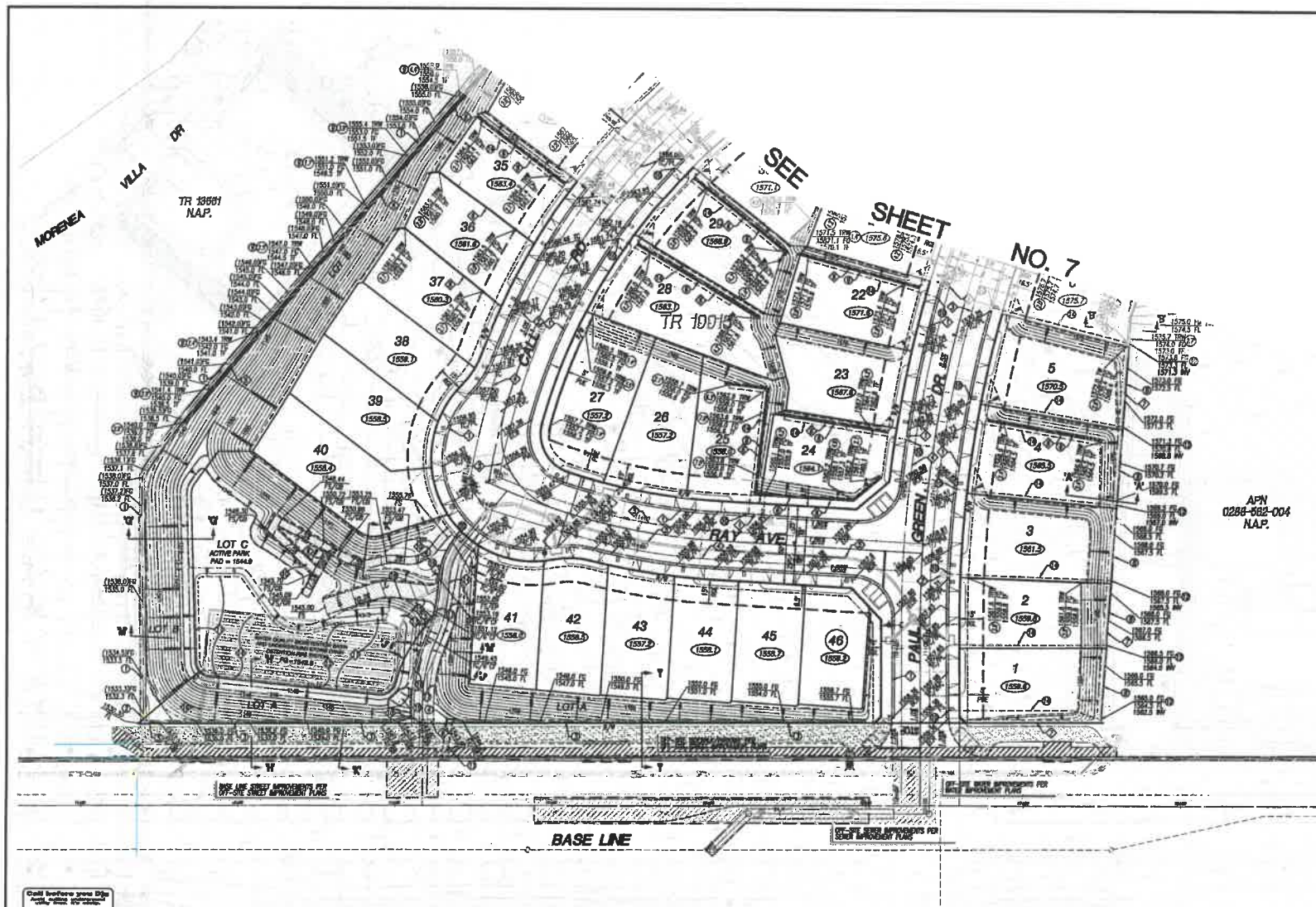
29300 BASELINE
PARTNERS, L.L.C.
2815 RED HILL AVENUE
COSTA MESA, CA 92626
(949) 252-1122
CONTACT: ANDREW DOUGLAS



BENCHMARK FOUND 1 1/2" BRASS CAP IN SLY END OF CATCH BASIN AT NORTHEAST CORNER OF GREENSPOT ROAD AND CHURCH STREET. ELEVATION: 1327.383		SUBMITTED BY: EDWARD J. LENTH R.C.E. 052490		DATE: 10/22/2021		PLANS PREPARED BY: MDS CONSULTING PLANNERS ENGINEERS SURVEYORS		17000 Pacific Avenue Suite 200 Irvine, CA 92614 Phone: 949-891-0821		REVISIONS <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		NO.	DESCRIPTION	APPROVED	DATE					CITY OF HIGHLAND RECOMMENDED BY: _____ APPROVED BY: _____ PLANNING: _____ DATE: _____		ROUGH GRADING PLAN TRACT 19915 TITLE SHEET/INDEX MAP ROUGH GRADING PLAN DRAWER NO.: _____ SHEET: 1 - 9	
NO.	DESCRIPTION	APPROVED	DATE																				







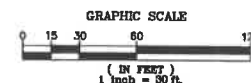
CONSTRUCTION NOTES

1. CONSTRUCT 3" RISE CONCRETE U-CHANNEL PER DETAIL 1 ON SHEET 4.
2. CONSTRUCT U-CHANNEL TO PIPE TRANSITION STRUCTURE PER DETAIL 2 ON SHEET 4.
3. CONSTRUCT 2" RISE CONCRETE V-DITCH PER DETAIL 3 ON SHEET 4.
4. CONSTRUCT 2" RISE CONCRETE V-DITCH TO CLUMB OUTLET STRUCTURE PER DETAIL 4 ON SHEET 4.
5. CONSTRUCT 2" RISE CONCRETE V-DITCH TO U-CHANNEL TRANSITION PER DETAIL 5 ON SHEET 4.
6. CONSTRUCT 1" CONCRETE V-DITCH AT TOP OF RETAINING WALL PER DETAIL 6 ON SHEET 4.
7. CONSTRUCT 1" CONCRETE V-DITCH TO U-CHANNEL PER DETAIL 7 ON SHEET 4.
8. CONSTRUCT 1" CONCRETE V-DITCH AS BACK OF PERIMETER BLOCK WALL PER DETAIL 8 ON SHEET 4.
9. CONSTRUCT CONCRETE V-DITCH AT TOP OF RETAINING WALL OVER THRU WALL PER DETAIL 9 ON SHEET 4.
10. CONSTRUCT THURM-CUMB DOWN PER DETAIL 10 ON SHEET 4.
11. CLUMB OUTLET STRUCTURE PER CITY OF HIGHLAND STANDARD DRAWING NO. 302, PER OFF-SITE STREET IMPROVEMENTS.
12. INSTALL 6" ATMAN GROUND INLET PER DETAIL 12 ON SHEET 4.
13. INSTALL 6" AHS ASTM-3 2709 300-35 DOWN PIPE WITH ADAPTOR PER DETAIL 13 ON SHEET 4.
14. CONSTRUCT DOWN OUTLET THRU U-CHANNEL.
15. CONSTRUCT 6" CLUMB AND GUTTER PER CITY OF HIGHLAND STANDARD DRAWING NO. 302.
16. CONSTRUCT 3" AC PAVEMENT OVER 6" CLASS 9 AG SOLS EXL TO PROVIDE CURB PAVEMENT SECTION TO CITY FOR APPROVAL.
17. CONSTRUCT 6" THICK DECOMPOSED GRANITE MAINTENANCE ACCESS ROAD PER SOILS ENGINEER RECOMMENDATIONS.
18. CONSTRUCT CONCRETE SPILLWAY PER DETAIL 18 ON SHEET 4.
19. CONSTRUCT CURB RETENTION AND TRANSITION FROM 6" TO 12" PER DETAIL 19 ON SHEET 4.

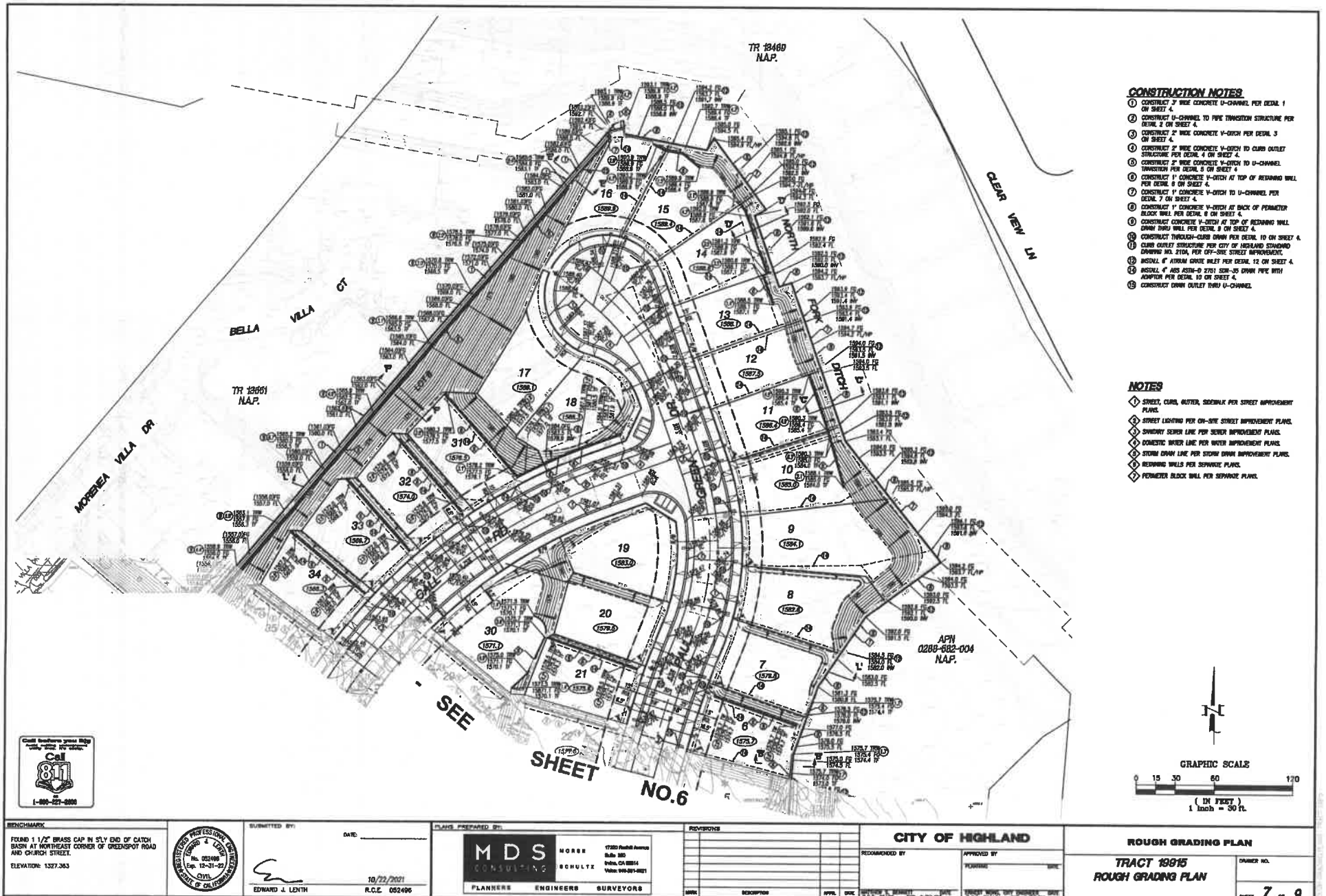
NOTES

- 1. STREET, CURB, GUTTER, SIDEWALK PER STREET IMPROVEMENT PLANS.
- 2. STREET LIGHTING PER ON-SITE STREET IMPROVEMENT PLANS.
- 3. SANITARY SEWER LINE PER SEWER IMPROVEMENT PLANS.
- 4. DOMESTIC WATER LINE PER WATER IMPROVEMENT PLANS.
- 5. STORM DRAIN LINE PER STORM DRAIN IMPROVEMENT PLANS.
- 6. RETAINING WALLS PER SEPARATE PLANS.
- 7. PERIMETER BLOCK WALL PER SEPARATE PLANS.
- 8. ACCESS CONTROL, GATE PER SEPARATE PLANS.
- 9. REINFORCED CONCRETE STAINWAY WITH HANDRAILS PER LANDSCAPE PLAN.
- 10. CONCRETE WALKWAY (8'-0") WITH HANDRAILS PER LANDSCAPE PLAN.
- 11. WATER QUALITY INFILTRATION DRAIN PER STORM DRAIN PLAN.
- 12. UNDERGROUND 40" CMP DETENTION PIPE SYSTEM PER STORM DRAIN INFILL PER DETAIL ON SHEET 2 AND SOILS ENGINEER'S RECOMMENDATIONS.
- 13. CONCRETE BOX SEGMENT FORWARD/REVERSE DETENTION PER STORM DRAIN PLAN.
- 14. STORM DRAIN MANHOLE WITH OVERLIFT STRUCTURE PER STORM DRAIN PLAN.
- 15. STORM DRAIN PIPE, 18" RCP PER STORM DRAIN PLAN.
- 16. STORM DRAIN PIPE, 24" RCP PER STORM DRAIN PLAN.

APN
0288-082-004
NAP.



BENCHMARK FOUND 1 1/2" BRASS CAP IN SLY END OF CATCH BASIN AT NORTHEAST CORNER OF GREENSPOT ROAD AND CHURCH STREET. ELEVATION: 1327.363		SUBMITTED BY: EDWARD J. LENTH	DATE: 10/22/2021 R.C.E. 052400	PLANS PREPARED BY: MORRIS SCHULTZ PLANNERS ENGINEERS SURVEYORS	REVISIONS <table border="1"> <tr><th>NO.</th><th>DESCRIPTION</th><th>APPR.</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	NO.	DESCRIPTION	APPR.	DATE													CITY OF HIGHLAND RECOMMENDED BY: _____ APPROVED BY: _____ BUILDING AND SAFETY	ROUGH GRADING PLAN TRACT 18915 ROUGH GRADING PLAN SHEET 6 OF 9
		NO.	DESCRIPTION	APPR.	DATE																		
101 File: 13/0807(15)/1890-15-000(06)R202 Created: 2021-10-20 05:51 AM Last Save: 2021-10-20 05:51 AM Plt Date: 2021-04-01 0:00:00 AM Plt Author:																							



GENERAL PERMIT NOTES

EROSION CONTROL

EROSION CONTROL, ALSO REFERRED TO AS "SOIL STABILIZATION", IS THE MOST EFFECTIVE WAY TO REPAIR SOIL AND SEDIMENT ON THE CONSTRUCTION SITE. TO ADDRESS EROSION CONTROL, IT IS TO PREVENT DISTURBED VEGETATION FROM ERODING, TO LIMIT DISTURBANCE, AND TO STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE AFTER GRADING OR CONSTRUCTION. PARTICULAR ATTENTION MUST BE PAID TO LARGE WASH GRADED SITES WHERE THE POTENTIAL FOR SOIL EXPOSURE TO THE EROSION EFFECTS OF RAINFALL AND WIND IS GREAT. WASH GRADED CONSTRUCTION SITES MAY BE EXPOSED FOR SEVERAL WEEKS WHILE THE PROJECT IS BEING BUILT OUT. THIS, THEREFORE, IS POTENTIAL FOR SIGNIFICANT SEDIMENT DISCHARGE FROM THE SITE TO SURFACE WATERS.

AT A MINIMUM, THE DISCHARGER / OPERATOR MUST IMPLEMENT AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL ON ALL DISTURBED AREAS DURING THE RAINY SEASON. THESE DISTURBED AREAS INCLUDE ROUGH GRADED ROADWAYS, SLOPES, AND BUILDING PADS. UNTIL PERMANENT VEGETATION IS ESTABLISHED, SOIL COVER IS THE MOST COST-EFFECTIVE AND EXPEDIENT METHOD TO PROTECT SOIL PARTICLES FROM DETACHMENT AND TRANSPORT BY RAINFALL. TEMPORARY SOIL STABILIZATION CAN BE THE SINGLE MOST IMPORTANT FACTOR IN REDUCING EROSION AT CONSTRUCTION SITES. THE DISCHARGER SHALL CONSIDER MEASURES SUCH AS: COVERING WITH MULCH, TEMPORARY SEEDING, SOIL STABILIZERS, BRUSHES, FIBER ROLLS OR BUNDLES, TEMPORARY VEGETATION, PERMANENT SEEDING, AND A VARIETY OF OTHER MEASURES.

THE SWPPP SHALL INCLUDE A DESCRIPTION OF THE EROSION CONTROL PRACTICES, INCLUDING A TIME SCHEDULE, TO BE IMPLEMENTED DURING CONSTRUCTION TO MINIMIZE EROSION ON DISTURBED AREAS OF A CONSTRUCTION SITE. THE DISCHARGER MUST CONSIDER THE FULL RANGE OF EROSION CONTROL BMPs. THE DISCHARGER MUST CONSIDER ANY ADDITIONAL, SITE-SPECIFIC AND SEASONAL, CONDITIONS WHEN SELECTING AND IMPLEMENTING APPROPRIATE BMPs. THE ABOVE-LISTED EROSION CONTROL MEASURES ARE EXAMPLES OF WHAT SHOULD BE CONSIDERED AND ARE NOT EXCLUSIVE OF NEW OR INNOVATIVE APPROACHES CURRENTLY AVAILABLE OR BEING DEVELOPED.

SEDIMENT CONTROL

THE SWPPP SHALL INCLUDE A DESCRIPTION OR ILLUSTRATION OF BMPs WHICH WILL BE IMPLEMENTED TO PREVENT A NET INCREASE OF SEDIMENT LOAD IN STORMWATER DISCHARGES RELATIVE TO PRECONSTRUCTION LEVELS. SEDIMENT CONTROL BMPs ARE REQUIRED AT APPROPRIATE LOCATIONS ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL INFLETS TO THE STORM DRAIN SYSTEM AT ALL TIMES DURING THE RAINY SEASON. SEDIMENT CONTROL PRACTICES MAY INCLUDE FILTERING DEVICES AND BARRIERS (SUCH AS FIBER ROLLS, SILT FENCE, STORM DRAIN BARRIERS, AND GRASS MATS) AND / OR SETTLING DEVICES (SUCH AS SEDIMENT TRAPS OR BASINS). EFFECTIVE PLANTING DEVICES, BRUSHES, AND SETTLING DEVICES SHALL BE SELECTED, INSTALLED AND MAINTAINED PROPERLY. A PROPOSED SCHEDULE FOR DEPLOYMENT OF SEDIMENT CONTROL BMPs SHALL BE INCLUDED IN THE SWPPP. THESE ARE THE MOST BASIC MEASURES TO PREVENT SEDIMENT FROM LEAVING THE PROJECT SITE AND MOVING INTO RECEIVING WATERS. LAND DISPOSITIONS MAY BE AUTHORIZED BY THE RIVER WHEN WORK ON ACTIVE AREAS PRECLUDES THE USE OF SEDIMENT CONTROL BMPs TEMPORARILY. UNDER THESE CONDITIONS, THE SWPPP MUST DESCRIBE A PLAN TO ESTABLISH PERMANENT COVERS PRIOR TO THE ONSET OF RAIN.

DURING THE NON-RAIN SEASON, THE DISCHARGER IS RESPONSIBLE FOR ENSURING THAT ADEQUATE SEDIMENT CONTROL MEASURES ARE AVAILABLE TO CONTROL SEDIMENT DISCHARGES AT THE DOWNSTREAM PERIMETER AND OPERATIONAL INFLETS IN THE EVENT OF A PREDICTED STORM. THE DISCHARGER SHALL CONSIDER A FULL RANGE OF SEDIMENT CONTROLS, IN ADDITION TO THE CONTROLS LISTED ABOVE, SUCH AS STORM DRAIN DICES, CATCH BASINS, BRUSH BARRIERS, DRAINAGE SWALES, CHECK DAMS, SURFACE DRAINING, SHEDDING DAMS, FIBER ROLLS OR OTHER CONTROLS. AT A MINIMUM, THE DISCHARGER / OPERATOR MUST IMPLEMENT AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL ON ALL DISTURBED AREAS DURING THE RAINY SEASON.

A SEDIMENT BASIN SHALL HAVE A MEANS FOR DETERMINING WHEN IT CALIBRATES FOLLOWING A STORM EVENT. SEDIMENT BASINS MAY BE FENCED IF SAFETY (WORKER OR PUBLIC) IS CONCERN.

THE OUTFLOW FROM A SEDIMENT BASIN THAT DISCHARGES INTO A NATURAL DRAINAGE SHALL BE PROVIDED WITH OUTLET PROTECTION TO PREVENT EROSION AND SCOUR OF THE DOWNSTREAM CHANNEL.

THE DISCHARGER MUST CONSIDER ANY ADDITIONAL, SITE-SPECIFIC AND SEASONAL, CONDITIONS WHEN SELECTING AND DESIGNING SEDIMENT CONTROL BMPs. THE ABOVE-LISTED SEDIMENT CONTROL MEASURES ARE EXAMPLES OF WHAT SHOULD BE CONSIDERED AND ARE NOT EXCLUSIVE OF NEW OR INNOVATIVE APPROACHES CURRENTLY AVAILABLE OR BEING DEVELOPED.

THE SWPPP SHALL INCLUDE A DESCRIPTION OF THE BMPs TO REDUCE THE TIMING OF SEDIMENT OUTFLOW PUBLIC OR PRIVATE INFRASTRUCTURE AT ALL TIMES. THESE PUBLIC AND PRIVATE INFRASTRUCTURE SHALL BE INSPECTED AND CLEANED AS NECESSARY. ROAD CLEANING BMPs SHALL BE DEPLOYED IN THE SWPPP AND WILL NOT RELY ON THE WASHING OF ACCUMULATED SEDIMENT OR SLT INTO THE STORM DRAIN SYSTEM.

NPDES NOTES (BMPs)

THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE CALIFORNIA STORMWATER BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TRACT FORCE, SANITATION, CALIFORNIA 2013 OR LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION. ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY INSPECTORS.

EROSION CONTROL BMPs

EC-1	SCHEDULING	EC-1	STABILIZED CONSTRUCTION ENTRANCE/EXIT
EC-2	PROTECTION OF EXISTING VEGETATION	EC-2	STABILIZED CONSTRUCTION ROUTING
EC-3	HYDROLOGICAL MONITORING	EC-3	STABILIZED CONSTRUCTION ROUTING
EC-4	HYDROLOGICAL MONITORING	EC-4	STABILIZED CONSTRUCTION ROUTING
EC-5	SOIL MONITORING	EC-5	STABILIZED CONSTRUCTION ROUTING
EC-6	SOIL MONITORING	EC-6	STABILIZED CONSTRUCTION ROUTING
EC-7	SOIL MONITORING	EC-7	STABILIZED CONSTRUCTION ROUTING
EC-8	SOIL MONITORING	EC-8	STABILIZED CONSTRUCTION ROUTING
EC-9	SOIL MONITORING	EC-9	STABILIZED CONSTRUCTION ROUTING
EC-10	SOIL MONITORING	EC-10	STABILIZED CONSTRUCTION ROUTING
EC-11	SOIL MONITORING	EC-11	STABILIZED CONSTRUCTION ROUTING
EC-12	SOIL MONITORING	EC-12	STABILIZED CONSTRUCTION ROUTING
EC-13	SOIL MONITORING	EC-13	STABILIZED CONSTRUCTION ROUTING
EC-14	SOIL MONITORING	EC-14	STABILIZED CONSTRUCTION ROUTING
EC-15	SOIL MONITORING	EC-15	STABILIZED CONSTRUCTION ROUTING
EC-16	SOIL MONITORING	EC-16	STABILIZED CONSTRUCTION ROUTING
EC-17	SOIL MONITORING	EC-17	STABILIZED CONSTRUCTION ROUTING
EC-18	SOIL MONITORING	EC-18	STABILIZED CONSTRUCTION ROUTING

TEMPORARY SEDIMENT CONTROL BMPs

TS-1	SILT FENCE	TS-1	SILT FENCE
TS-2	SEDIMENT TRAP	TS-2	SEDIMENT TRAP
TS-3	SEDIMENT TRAP	TS-3	SEDIMENT TRAP
TS-4	SEDIMENT TRAP	TS-4	SEDIMENT TRAP
TS-5	SEDIMENT TRAP	TS-5	SEDIMENT TRAP
TS-6	SEDIMENT TRAP	TS-6	SEDIMENT TRAP
TS-7	SEDIMENT TRAP	TS-7	SEDIMENT TRAP
TS-8	SEDIMENT TRAP	TS-8	SEDIMENT TRAP
TS-9	SEDIMENT TRAP	TS-9	SEDIMENT TRAP
TS-10	SEDIMENT TRAP	TS-10	SEDIMENT TRAP
TS-11	SEDIMENT TRAP	TS-11	SEDIMENT TRAP
TS-12	SEDIMENT TRAP	TS-12	SEDIMENT TRAP
TS-13	SEDIMENT TRAP	TS-13	SEDIMENT TRAP
TS-14	SEDIMENT TRAP	TS-14	SEDIMENT TRAP

TEMPORARY TRAPPING CONTROL BMPs

TC-1	STABILIZED CONSTRUCTION ENTRANCE/EXIT	TC-1	STABILIZED CONSTRUCTION ENTRANCE/EXIT
TC-2	STABILIZED CONSTRUCTION ROUTING	TC-2	STABILIZED CONSTRUCTION ROUTING
TC-3	STABILIZED CONSTRUCTION ROUTING	TC-3	STABILIZED CONSTRUCTION ROUTING
TC-4	STABILIZED CONSTRUCTION ROUTING	TC-4	STABILIZED CONSTRUCTION ROUTING
TC-5	STABILIZED CONSTRUCTION ROUTING	TC-5	STABILIZED CONSTRUCTION ROUTING
TC-6	STABILIZED CONSTRUCTION ROUTING	TC-6	STABILIZED CONSTRUCTION ROUTING
TC-7	STABILIZED CONSTRUCTION ROUTING	TC-7	STABILIZED CONSTRUCTION ROUTING
TC-8	STABILIZED CONSTRUCTION ROUTING	TC-8	STABILIZED CONSTRUCTION ROUTING
TC-9	STABILIZED CONSTRUCTION ROUTING	TC-9	STABILIZED CONSTRUCTION ROUTING
TC-10	STABILIZED CONSTRUCTION ROUTING	TC-10	STABILIZED CONSTRUCTION ROUTING
TC-11	STABILIZED CONSTRUCTION ROUTING	TC-11	STABILIZED CONSTRUCTION ROUTING
TC-12	STABILIZED CONSTRUCTION ROUTING	TC-12	STABILIZED CONSTRUCTION ROUTING
TC-13	STABILIZED CONSTRUCTION ROUTING	TC-13	STABILIZED CONSTRUCTION ROUTING
TC-14	STABILIZED CONSTRUCTION ROUTING	TC-14	STABILIZED CONSTRUCTION ROUTING

WASTE MANAGEMENT & MATERIALS

WM-1	WASTE MANAGEMENT	WM-1	WASTE MANAGEMENT
WM-2	WASTE MANAGEMENT	WM-2	WASTE MANAGEMENT
WM-3	WASTE MANAGEMENT	WM-3	WASTE MANAGEMENT
WM-4	WASTE MANAGEMENT	WM-4	WASTE MANAGEMENT
WM-5	WASTE MANAGEMENT	WM-5	WASTE MANAGEMENT
WM-6	WASTE MANAGEMENT	WM-6	WASTE MANAGEMENT
WM-7	WASTE MANAGEMENT	WM-7	WASTE MANAGEMENT
WM-8	WASTE MANAGEMENT	WM-8	WASTE MANAGEMENT
WM-9	WASTE MANAGEMENT	WM-9	WASTE MANAGEMENT
WM-10	WASTE MANAGEMENT	WM-10	WASTE MANAGEMENT

EROSION CONTROL GENERAL NOTES

- EQUIPMENT AND WORKERS FOR PLACEMENT OF EROSION CONTROL SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE AND CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
- THE DESIGN OR ENGINEER SHALL SUPERVISE EROSION CONTROL WORK AND INSURE THAT WORK IS IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN.
- ALL REMEDIABLE PROTECTIVE DEVICES SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN PROBABLY EXISTS.
- AFTER A FINISHED, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK DAMS, SILT FENCES, DESLTING BASINS, ETC.
- GRADED AREAS AROUND THE TRACT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPROVED WATER CREATES A HAZARDOUS CONDITION.
- DESILTING BASINS, WHEN UTILIZED, ARE TO BE CONSTRUCTED AS DIVERSION OF INDIVIDUAL AREAS ARE COMPLETE PER THE ROUGH GRADING PLAN.
- TEMPORARY EROSION PROTECTION IS REQUIRED FOR MANUFACTURED SLOPES PRIOR TO PERMANENT PLANTING.
- AREAS SHALL BE MAINTAINED IN SUCH A STATE THAT FIRE ACCESS SHALL BE MAINTAINED AT ALL TIMES (INCLUDING ACCESS TO NEIGHBORING PROPERTIES).
- NO OBSTRUCTION OR DISTURBANCE OF NATURAL DRAINAGE COURSES OR EXISTING STORM DRAIN INFLETS SHALL OCCUR DURING THE RAINY SEASON. UNLESS ADEQUATE TEMPORARY/PERMANENT DRAINAGE FACILITIES HAVE BEEN APPROVED AND INSTALLED TO CARRY SURFACE WATER TO A STREET, STORM DRAIN OR NATURAL WATER COURSE.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER THAT RUNOFF WILL BE CONTAINED WITHIN THE PROJECT OR CHANNELLED INTO THE STORM DRAIN SYSTEM WHICH SERVES THE RUNOFF AREA. STORM RUNOFF FROM ONE AREA SHALL NOT BE ALLOWED TO OVERTO OR TO ANOTHER RUNOFF AREA.
- CONFORMANCE WITH THE EROSION CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TO PROTECT ADJACENT PROPERTIES FROM POSSIBLE DAMAGE WHICH MAY ARISE AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. EROSION CONTROL SHALL CONSIST OF, BUT NOT BE LIMITED TO, CONSTRUCTING SUCH FACILITIES AND ANY OTHER MEASURES WHICH ARE NECESSARY TO PREVENT, CONTROL, AND AVOID EROSION, SLOPE AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT.
- SLOPES CONSTRUCTED PRIOR TO OCTOBER 1 SHALL BE TREATED FOR EROSION CONTROL PRIOR TO OCTOBER 15. SLOPES CONSTRUCTED AFTER OCTOBER 1 SHALL BE TREATED FOR EROSION CONTROL AS THE CONSTRUCTION OF SLOPE PROGRESSES IN INCREASINGLY OF 20 FEET OR LESS MEASURED VERTICALLY.
- ALL AREAS, WHILE BEING BRACKET UP TO GRADE AND DURING PERIODS OF COMPLETION PRIOR TO FINAL GRADE, SHALL BE PROTECTED BY MEASURES NECESSARY TO ELIMINATE EROSION AND THE SLOPES OF CONSTRUCTION FACILITIES AND ADJACENT AREAS. THESE MEASURES MAY INCLUDE, BUT NOT BE LIMITED TO: TEMPORARY DOWNHILLS, EROSION IN THE FORM OF PILES OR PAVED CRACKS WITH PROTECTED OUTFALL AREAS; GRADED BERMES AROUND AREAS TO ELIMINATE EROSION OF FILL SLOPES BY SURFACE RUNOFF; COVERED FORDS; PROTECTIVE BARRIERS TO VESSEL RUNOFF; TEMPORARY CHECK DAMS IN TIE OF SLOPE; DITCHES TO DRAIN RUNOFF; PROTECTIVE SUCH AS SAND BAGS AROUND INFLETS WHICH HAVE NOT BEEN BRACKET UP TO GRADE; AND EARTH BERMES AND APPROPRIATE GRADING TO DIRECT DRAINAGE AWAY FROM THE EDGE OF THE TOP OF SLOPES SHALL BE CONSTRUCTED AND MAINTAINED ON THESE FILL AREAS WHERE EARTHWORK OPERATIONS ARE NOT IN PROGRESS.

- TOP OF CUT BROW DITCHES, WHERE REQUIRED ON THE PLANS, SHALL BE CONSTRUCTED PRIOR TO EXCEEDING 12 FEET OF CUT MEASURED VERTICALLY.
- CLEANING AND GRADING SHOULD BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES WILL BE REQUIRED TO PROTECT AREAS WHICH HAVE BEEN GRADDED AND GRADINGS PRIOR TO GRADING OPERATIONS, AND WHICH ARE SUBJECT TO RUNOFF DURING THE PERIOD OF THE RAINY SEASON. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO: GRADED DITCHES; BRUSH BARRIERS AND SILT FENCES. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND LIMITS OF GRADING.
- AT THE COMPLETION OF STREET PAVING, EROSION CONTROL SHALL BE PLACED IN ACCORDANCE WITH ONE OF THE FOLLOWING ALTERNATES:

- GRAVEL BAG VELOCITY REDUCERS. A MINIMUM OF 3 BAGS HIGH, SHALL BE PLACED AT AN ANGLE OF 45° WITH THE CURB AND SILT BERM AT THE CURB AND EXTEND A DISTANCE OF 6' FROM THE CURB (MEASURED PERPENDICULAR TO THE CURB). THE DISTANCE BETWEEN VELOCITY REDUCERS SHALL BE AS FOLLOWS:
- | STREET CROWN DISTANCE | LESS THAN 40' | 40' TO 80' | 80' TO 120' | 120' TO 160' | 160' TO 200' | 200' TO 240' | 240' TO 280' | 280' TO 320' | 320' TO 360' | 360' TO 400' | 400' TO 440' | 440' TO 480' | 480' TO 520' | 520' TO 560' | 560' TO 600' | 600' TO 640' | 640' TO 680' | 680' TO 720' | 720' TO 760' | 760' TO 800' | 800' TO 840' | 840' TO 880' | 880' TO 920' | 920' TO 960' | 960' TO 1000' | |
|-----------------------|---------------|---------------|--------------|
| 200' MINIMUM | 200' MINIMUM | 200' MINIMUM | 200' MINIMUM |
- NOTE THAT HAY BALES SHALL NOT BE USED ON PAVED STREETS.
- PROVIDE EROSION CONTROL ON SIDEWALKS, INCLUDING, BUT NOT LIMITED TO SANDING VELOCITY REDUCERS ON THE LOTS AND IN THE PARKWAY AND CONTINUOUS PLACEMENT OF SANDING ALONG THE TOP OF CURB.

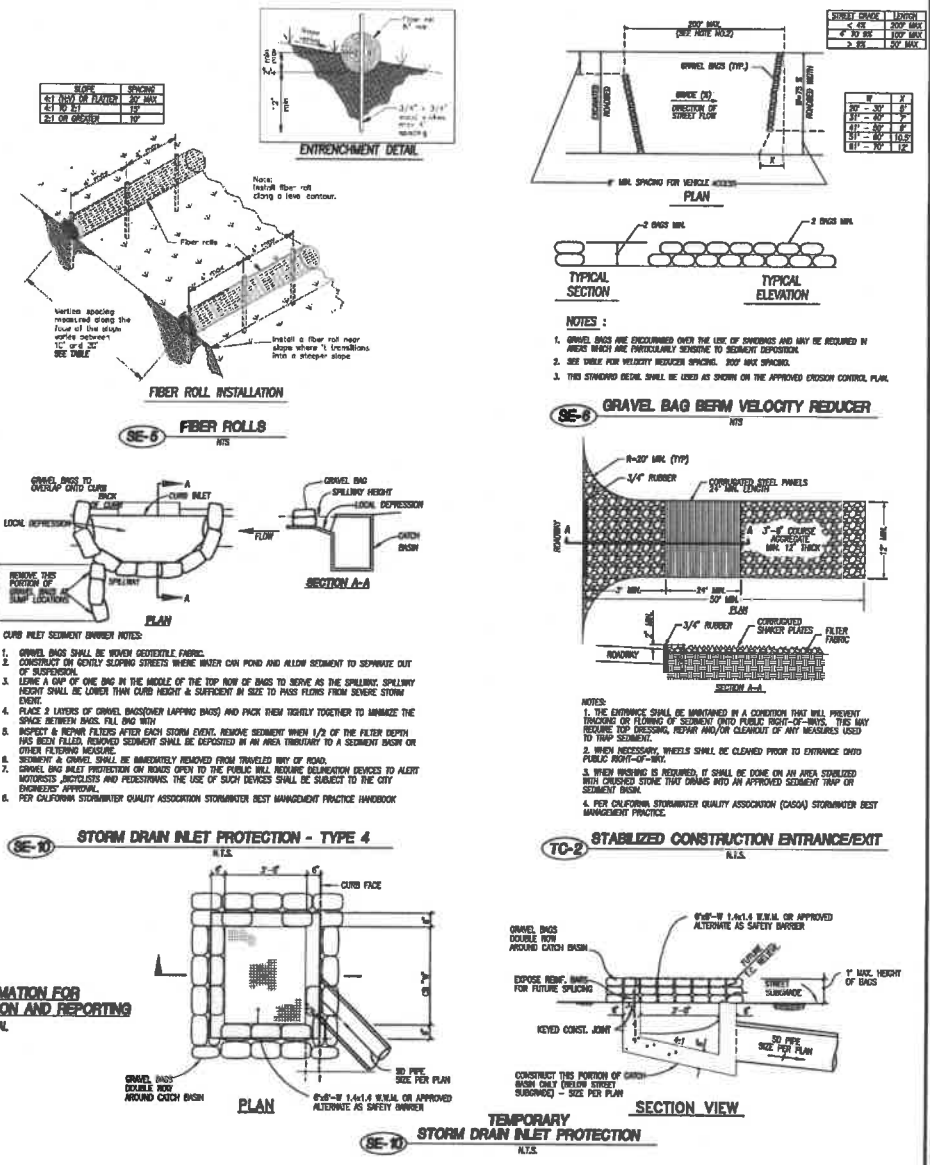
10. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM RESPONSIBILITY FOR THE CORRECTION OF ERROR AND OMISSION DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

EROSION CONTROL NOTES AND QUANTITIES

DESCRIPTION	UNIT	QUANTITY
1. INSTALL FIBER ROLL, SEE-6 PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	5,000
2. INSTALL ONE ROW GRASS, SEE-6 PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	2,415
3. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
4. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
5. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
6. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
7. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
8. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
9. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
10. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
11. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
12. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
13. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
14. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
15. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
16. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
17. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
18. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
19. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540
20. INSTALL ONE ROW VELOCITY REDUCER PER CATCH BASIN SEE-6 AND DRAIN, SEE-6, 1" IF	LF	540

CONTACT INFORMATION FOR SWPPP INSPECTION AND REPORTING

MASTERPLAN RESIDENTIAL
3105 RED HILL AVENUE
SAN JOSE, CA 95128
CONTACT: (408) 252-1122



REVISIONS	DATE	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION	APPROVED BY
1	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
2	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
3	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
4	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
5	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
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7	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
8	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
9	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
10	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021

RECOMMENDED BY	APPROVED BY	DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
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10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021
10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021	10/22/2021

HYDROSEED NOTES

- SCAFFY SOIL TO DEPTH OF ONE-HALF INCHES (1/2").
- 24 HOURS PRIOR TO THE APPLICATION OF SEED, BRUSH SLOPES TO A MINIMUM DEPTH OF FOUR INCHES (4").
- THE HYDROSEED SLURRY SHALL HAVE THE FOLLOWING SPECIFICATIONS PER ACRE:
 - COMMERCIAL FERTILIZER: 200 LBS. 10-10-10 (NUTRIENT MIXED)
 - 300 LBS. LIME: 31-0-0
 - SOIL CONDITIONER: 200 LBS. CALCIUM CARBONATE (15 CYPRIN OR EQUAL)
 - FIBER MULCH
 - 2,000 LBS. 100% WOOD FIBER, SLOPE APPLICATIONS 4:1 AND STEEPER (COMBINED OR ECO-FIBER OR EQUAL)
 - 1,500 LBS. 100% WOOD FIBER, FLAT APPLICATIONS LESS THAN 4:1 (COMBINED OR ECO-FIBER OR EQUAL)
 - ORGANIC SOIL STABILIZER
 - 150 LBS. ECOLOGICAL CONTROLS M-BINDER, SLOPES.
 - 80 LBS. ECOLOGICAL CONTROLS M-BINDER, FLAT.
 - HYDROSEEDING AGENT
 - 80 LBS. AG-150 (PER ACRE).
- APPLICATION
 - APPLY HYDROSEEDING WITH SOIL THOROUGHLY MOIST.
 - APPLY FIBER SEED, FERTILIZER, SOIL CONDITIONER, SOIL STABILIZER AND WATER AT RECOMMENDED RATES.
- THIRTY (30) DAYS AFTER SEEDING FERTILIZER WITH SIX (6) LBS. 10-20-0 PER 1,000 SQ. FEET AND IRON SULFATE AT THE RATE OF THREE (3) POUNDS PER 1,000 SQ. FT.

LEGEND

- ES-4 HYDROSEED SLOPE
- ES-5 STABILIZED CONSTRUCTION FOOTING
- ES-6 STABILIZED CONSTRUCTION ENTRANCE/EXIT
- ES-7 CROWN BAG BERM
- ES-8 FIBER MULCH
- ES-9 STORM DRAIN INLET PROTECTION
- STREET FLOW DIRECTION

EROSION CONTROL NOTES

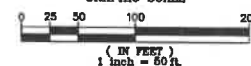
- INSTALL FIBER MULCH ES-8 PER CROWN BAG ES-7 AND DETAIL ON SHEET 8. (MINIMUM 1" VERTICAL INTERVALS AND AT TOE OF SLOPES)
- INSTALL ONE ROW CROWN BAG BERM ES-7, 2 BAGS HIGH PER CROWN BAG ES-7 AND DETAIL ON SHEET 8.
- INSTALL CROWN BAG VELOCITY REDUCER PER CROWN BAG ES-7 AND DETAIL ON SHEET 8.
- INSTALL CROWN BAG STORM DRAIN INLET PROTECTION ES-9 PER CROWN BAG ES-7 AND DETAIL ON SHEET 8.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE/EXIT ES-6 PER CROWN BAG ES-7 AND DETAIL ON SHEET 8.
- INSTALL TEMPORARY BERM AND STORM DRAIN INLET PROTECTION ES-10 (IF CROWN BERM NOT CONSTRUCTED) PER CROWN BAG ES-7 AND DETAIL ON SHEET 8.
- APPLY HYDROSEEDING TO EXPOSED SOIL SURFACE PER CROWN BAG ES-4. SEE HYDROSEEDING NOTES SHEET 8.
- STABILIZE CONSTRUCTION DRIVEWAY SURFACE PER CROWN BAG ES-2. SEE HYDROSEEDING NOTES SHEET 8.

INTERIOR VEHICLE AND EQUIPMENT CLEANSING, VEHICLE AND EQUIPMENT FILLING, VEHICLE AND EQUIPMENT MAINTENANCE PER MS-3, MS-4 AND MS-10 AND CONCRETE WASTE MANAGEMENT PER WA-5

INTERIOR MATERIAL DELIVERY AND STORAGE, MATERIAL USE AND SHEDDING/STORAGE, WASTE MANAGEMENT PER WA-1, WA-2, AND WA-9



GRAPHIC SCALE



BENCHMARK:
FOUND 1 1/2" BRASS CAP IN SLY END OF CATCH BASIN AT NORTHEAST CORNER OF GREENPOT ROAD AND CHURCH STREET.
ELEVATION: 1327.363



SUBMITTED BY:
EDWARD J. LENTH
DATE:
10/22/2021
R.C.E. 052498

PLANS PREPARED BY:
MDS CONSULTING
MORSE SCHULTZ
17000 Pacific Avenue
Suite 200
Irvine, CA 92614
Voice: 949-291-0821

NO.	DESCRIPTION	APPROVED BY	DATE
1	ISSUED FOR PERMIT	EDWARD J. LENTH	10/22/2021
2	REVISION		
3	REVISION		
4	REVISION		
5	REVISION		

CITY OF HIGHLAND

RECOMMENDED BY:
APPROVED BY:
PLANNING DEPARTMENT
DATE:

ROUGH GRADING PLAN

TRACT 18915

DRAWN NO.

EROSION CONTROL PLAN

SHEET 9 OF 9

400 File #17007/05/18021-42-510/03/000/000
Created: 2018-09-25 11:17:37 AM Last Save: 2021-10-18 02:25:31 PM Plot Date: 2021-04-09 09:11 AM Plt: vald-wls

ATTACHMENT 9
PC Resolution No. 2022 - _____
Including Conditions of Approval

PC RESOLUTION NO. 2022 – ____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF HIGHLAND, CALIFORNIA, APPROVING DESIGN REVIEW APPLICATION DRA-22-002 INCLUDING THE SITE PLAN, BUILDING ELEVATIONS, ROUGH GRADING PLAN, AND CONCEPTUAL LANDSCAPE PLAN FOR ‘HIGHLAND PARK’ PLANNED DEVELOPMENT, A 46-UNIT SINGLE-FAMILY HOME DEVELOPMENT WITHIN TRACT NO. 19915 LOCATED AT 29300 BASE LINE, HIGHLAND. ASSESSOR’S PARCEL NO. 288-562-03

APPLICANT: 29300 BASELINE PARTNERS, LLC

A. RECITALS

1. On January 20, 2022, the Applicant 29300 Baseline Partners LLC filed Design Review Application No. DRA-22-002 for the final development plans of a 46-unit single family housing tract, Tract No. 19915, located at 29300 Base Line, Highland, CA. The Application includes the Site Plan, Building Elevations, Conceptual Landscape Plan and Rough Grading Plan;
2. The site is located on approximately 7.6 acres on the north side of Base Line between Club View Drive and Weaver Street within the City’s Planned Development Zoning and General Plan Designations;
3. Pursuant to the provision of the California Environmental Quality Act (CEQA) and State and Local CEQA Guidelines, the City of Highland is the Lead Agency, and is charged with the responsibility of deciding whether or not to approve the proposed Project. A Mitigated Negative Declaration was approved by the Highland City Council on June 14, 2016, in compliance with state and local law. No further environmental review is necessary;
4. On March 15, 2022, the Planning Commission of the City of Highland conducted a Public Hearing at the City Hall Council Chambers in Highland, California, at 6:00 p.m. regarding this project;
5. All legal prerequisites to the adoption of this Resolution have occurred.

B. RESOLUTION

NOW THEREFORE, it is hereby found, determined and resolved by the Planning Commission of the City of Highland as follows:

- Section 1. The Planning Commission finds that all of the facts set forth in the Recitals, Part “A” of this Resolution, are true and correct.
- Section 2. Pursuant the California Code of Regulations, the City of Highland Planning Commission hereby finds that a Mitigated Negative Declaration was adopted for the project on June 14, 2016, in compliance with the California Environmental Quality Act (CEQA) and that the Planning Commission has reviewed and considered the information contained in the staff report, and the

comments received during the public review process, prior to approving the project.

Section 3. Based upon substantial evidence presented to the Planning Commission during the March 15, 2022, Public Hearing, including public testimony and written and oral Staff Reports, the Planning Commission finds as follows:

- a. All necessary public meetings and opportunities for public testimony and comment have been conducted in compliance with State Law and the Municipal Code of the City of Highland.

Section 4. Findings of Fact (Design Review)

- a. That the proposed project is consistent with the general plan or specific plan.

Response: The General Plan designation for the site is Planned Development (PD). PD allows all residential land uses as well as support uses such as open space and recreation. The General Plan requires a conditional use permit or similar device be used to approve a Planned Development Document as was done for 'Highland Park' in 2016, via City Council Resolution No. 2016-034. The PD Document established a development with a high level of community amenities and superior design. The proposed Design Review Application is consistent with the adopted document including, but not limited to, the PD Land Use and Development Standards, Architectural Design Guidelines and Landscape Design Guidelines.

- b. That the proposed use is in accordance with the objectives of Title 16, Land Use and Development of the City of Highland Municipal Code, and the purposes of the land use district in which the site is located.

Response: Title 16 establishes standards to protect and promote public health, safety, convenience and welfare of present and future citizens with respect to growth management, economic stability, hazards related to building improvements and orderly land use and resource planning. The project complies with the adopted standards of Title 16, specifically Chapter 16.16 Residential Standards as well as the standards adopted within the Highland Park Planned Development Document which contains certain standards that supersede Chapter 16. The project plans were reviewed for compliance with the land use as medium density (6-12 du/ac), minimum setbacks, architectural details, landscape plans, streetscape, monumentation, walls and fences.

- c. That the proposed use is in compliance with city design and landscape standards and criteria.

Response: The Highland Park PD Document provides standards for “Base Line Streetscape,” “Local Street Streetscape,” “Wall and Fence Plan and Details” as well as residential interface areas. The project’s Conceptual Landscape Plan for the Streetscape and the Park were reviewed by Planning Staff and the City’s Landscape Architect. The project meets the established guidelines for plant material and massing. Eight (8) Conditions of Approval were added to ensure explicit consistency.

- d. That the proposed use, together with the conditions applicable thereto, will not be detrimental to the public health, safety, or welfare or will not be materially injurious to properties or improvements in the vicinity of the site.

Response: The warehouse development will be in compliance with all applicable regulations. Each public safety division of the City has reviewed the project and provided relevant Conditions of Approval that will be adopted by resolution. The necessary ingress and egress are provided and all public utilities and services will be in place. There is no indication that the project would be detrimental to the public health, safety or welfare, or materially injurious to properties and improvement in the vicinity.

Section 5. Based on the Findings and Conclusions set forth above, the Planning Commission approves Design Review Application DRA-22-002. All improvements will be completed subject to the Conditions of Approval attached hereto and incorporated by reference.

C. ADOPTION OF RESOLUTION.

The City Clerk shall certify to the adoption of this Resolution and shall cause the same to be published or posted in the manner prescribed by law.

PASSED, APPROVED AND ADOPTED this 15th day of March, 2022.

ATTEST:

Randall Hamerly, Chairman
Planning Commission

Lawrence A. Mainez
Community Development Director

CITY OF HIGHLAND
PLANNING DIVISION CONDITIONS OF APPROVAL

Date: March 15, 2022
Applicant: 29300 Baseline Partners LLC
File/Index: **Design Review Application DRA 22-002**
Proposal: Design Review including Site Plan, Building Elevations, Rough Grading Plan, and Conceptual Landscape Plan for 'Highland Park' Planned Development, a 46-unit single-family home development within Tract No. 19915.
Location: A 7.6 acre site on the north side of Base Line between Club View Drive and Weaver Street. APN: 288-562-03

PLANNING CONDITIONS OF APPROVAL

Note: These conditions represent Planning Division conditions only and are meant to be only one part of the Project's overall conditions that may include Building and Safety, Engineering, and the Fire Department conditions of approval. All required on-site and off-site improvements shall be completed and approved prior to final inspection for occupancy, except where noted.

This Design Review Application is conditionally approved, subject to compliance with the requirements as specified below. The Conditions listed below are continuing Conditions; failure of the Applicant and/or operator to comply with any or all Conditions at any time, shall result in initiating revocation of the subject permit.

Standard Conditions

1. Design Review Application (DRA-22-002) shall become null and void:
 - a. Unless all conditions have been complied with and the occupancy or use of the land or structures authorized by this design review application, and have occurred within thirty-six (36) months from the approval date this design review application shall expire and be null and void without further action by the City of Highland.
 - b. Where circumstances beyond the control of the Applicant cause delays which do not permit compliance within the time limitation established in this Section, the Planning Commission may grant an extension of time for a period of time not to exceed an additional thirty-six (36) months. An application for an extension of time must be set forth in writing, stating the reasons for the extension, and must be filed with the community development department no less than 30 calendar days nor more than 90 calendar days prior to the expiration date of the permit or approval. Such

application shall be filed together with the City's processing fee, as established by the City Council.

NOTE: All required on-site and off-site improvements shall be completed and approved prior to final inspection for occupancy.

2. The proposed Design Review entitlement includes approval of a Site Plan, Building Elevations, Rough Grading Plan and Conceptual Landscape Plan for the development of 'Highland Park' Planned Development, a 46-unit single-family home development within Tract No. 19915.
 - a. The approved site plan, building elevations, rough grading plan, conceptual landscape plan, color and material samples are on file with the Planning Division and included herein by reference.
3. The operator and recorded owner of the property shall submit to the Planning Division written evidence of agreement with all conditions of this approval before the approval becomes effective. Plan check cannot begin prior to receipt of this signed documentation.
4. In compliance with the Highland Municipal Code, the Applicant/Owner shall agree, at his/her sole cost and expense, to defend, indemnify, and hold harmless, the City, its officers, employees, agents, and consultants, from any claim, action, or proceeding brought by a third-party against the City, its officers, agents, and employees, which seeks to attack, set aside, challenge, void, or annul an approval of the City Council, Planning Commission, or other decision-making body, including staff, concerning this project. The City may, at its sole discretion, participate at its own expense in the defense of any such action but such participation shall not relieve the Applicant/Owner of his/her obligations under this condition.
5. The Owner/Applicant is responsible for implementing all conditions of approval to the satisfaction of the Community Development Director, City Engineer, Building Official, and Fire Marshal. No final inspection or clearances shall be given until all conditions are met. Each condition of approval is separately enforced, and if one of the conditions of approval is found to be invalid by a court of law, all the other conditions shall remain valid and enforceable.
6. Revisions, modification, or deletions of associated plans must be submitted to the Planning Division for review and approval. Revisions may require additional review by the Planning Commission.
7. Development Impact Fees shall be paid in accordance with City policy.
8. A copy of the utility plan shall be submitted with or prior to the submittal of a grading plan to the Community Development Director and City Engineer for review and

approval. The utility plan shall show the location of all proposed above ground electrical transformers, utility cabinets, back flow devices, detector check valves, etc. both on site and in the public right-of-way.

9. Prior to issuance of a certificate of occupancy by the City, all on and off-site landscaping, irrigation or other improvements shown on the approved landscaping and irrigation plans, including any walls and fences, shall be installed.
10. The Developer shall comply with all applicable Conditions of Approval and the Mitigation Monitoring and Reporting Plan related to the associated entitlements; Tentative Tract Map No. 19915, 'Highland Park' Planned Development, and Mitigated Negative Declaration adopted via City Council Resolution Nos. 2016-032, 2016-034 & 2016-035.

Revisions to the Site Plan, Building Elevations and Wall Plan

11. Submit a revised Site Plan within 30 days of the project approval with the following clarifications: Lot 12 must have a minimum flat usable rear yard setback of 10', Lot 27 shall have a minimum front yard setback of 12' from the property line to the living area of the home, Lot 29 shall have a minimum left side yard setback of 4' flat usable area, Lot 34 shall have a minimum right side yard setback of 4' flat usable area, Lot 35 shall have a minimum right side yard setback of 4' flat usable area.
12. Both Lot 27 and Lot 40 have the same Building Elevation No. 3A (Spanish Plan 3). Substitute an alternative Building Elevation on Lot 27 that is not the same as the one used on an adjacent lot or lot across the street. The elevation selected shall have a front porch feature at the corner to reduce the two-story massing of the unit.
13. Both Lot 18 and 19 are the same Building Elevation No. 1C (Cottage Plan 1). Substitute either 18 or 19 with an alternative elevation that is not the same as the one used on an adjacent lot or lot across the street.
14. The project Street Names are hereby revised as follows:
Street 'A' - ~~Paul Green Drive~~ **Sky View Drive**
Street 'B' - ~~Call Road~~ **Veranda Lane**
Street 'C' - ~~Ray Avenue~~ **Crescent Way**
Revise and resubmit all affected plans within 30 days of project approval.
15. Retaining walls visible from the public right-of-way shall be split face block.
16. Solar panels, if used, should be a low profile mounted system in compliance with Planned Development Design Guideline A.c.vi.

Landscaping

17. Conceptual Landscape Plan submitted for review by the City's Landscape Architect shall include the following:
 - a. The type and location of all trees, shrubs and groundcover.
 - b. All garden and retaining walls noted on the project plans.
 - c. Landscape plans in substantial conformance with Chapter 16.40.390 of the Highland Municipal Code (HMC). A minimum of three (3) copies of the landscape plan shall be submitted to the Planning Division for plan check in conjunction with the construction plans, and landscaping shall be installed prior to final inspection.
 - d. Landscape and irrigation specifications shall adhere to the adopted Engineering/Public Works Standards as may be amended from time to time.

Landscape Maintenance District

18. Replace the Palm species shown along Base Line with a species providing a large shade canopy, complementary in appearance to large non-palm trees in place along Base Line. Consider California Sycamores to complement the existing stand located approximately 500 feet westward along Base Line.

Production Homes

19. Of the five species listed within the street tree palette, applicant shall assign one uniform species per street for all street trees shown on each individual street.
20. All non-lawn landscape areas shall be supplemented with a 3" layer of wood mulch or decorative gravel/ cobble material, so that no bare soil is left exposed on site (excepting fully enclosed private backyard spaces).

Park Site

21. Within the park site, images of benches, picnic tables, and waste receptacles are provided, but it is unclear regarding the count nor actual placement of said furnishings.
22. Within the park site, provide tree shade canopy or other means of introducing shade over the play structure and surrounding benches.
23. Within the park site, it appears that the water quality basin bottom is shown to be planted as a mowable turfgrass in a layout suitable for active recreation. However,

the basin bottom is completely surrounded by shrub/ groundcover area. If the intent is to allow play on the basin bottom, provide an accessible path all the way to the edge of the basin bottom.

24. The basin access road is called out as decomposed granite on the landscape concept plan for the park. The City has experienced ongoing maintenance issues with decomposed granite surfacing when placed on sloped applications, even when the material includes stabilizer.
25. Ensure that there is a continuous clear path between the lower end of the basin access road and the basin bottom. On the conceptual exhibits, basin bottom maintenance access appears to be impeded by a continuous band of shrub/ groundcover at the basin perimeter.
26. Coordinate the landscape plan layout with the project's Water Quality Management Plan and grading plans to ensure that the landscape layout aligns with sidewalks, utility footprints and runs, required Best Management Practices (BMP) facilities.

**ENGINEERING CONDITIONS OF APPROVAL
DR 22-002 /MASTERCRAFT HOMES**

A - Required Prior to Final Map Approval
B - Required Prior to Construction/Building Permit
C - Required Prior to Building Occupancy
D - Ongoing
E - Required Prior to Grading Permit
* - Non Standard Conditions

March 15, 2022

SOILS/GEOLOGY/GRADING

- B* 1. Comply with the recommendations of the Preliminary Geotechnical Evaluation, prepared by Petra Geotechnical, Inc., J.N.13-627 dated April 15, 2014, and any amendments thereto as approved by the City Engineer.
- A 2. Submit rough and/or precise grading plans to the City Engineer for review and approval. Comply with the City of Highland grading standards as shown on the grading plan checklist.
- A 3. Design individual lot grading to drain the entire area of each lot directly to the adjacent street.
- C* 4. In order to eliminate the creation of a strip of fenced-in area along the northwesterly tract boundaries behind Lots 9 through 16, attempt to obtain permission from the adjoining property owner to remove the existing chain link fence behind Lots 9 through 16. If the permission cannot be obtain after a good faith verifiable effort has been made, the existing chain-linked fence may remain as is.
- A 5. Submit structural design and location for any required retaining walls for review and approval by the City Engineer. Install concrete v-ditches at the back of retaining walls in accordance with the grading plan checklist.
- A 6. Submit an erosion and sediment control plan to minimize potential increases in erosion and sediment transport during construction activity for City Engineer approval. Place erosion control measures during or after grading work as required by the City Engineer.
- A 7. Design short term erosion control in accordance with Best Management Practices such as, hydroseeding, mulching, jute matting or plastic sheeting to protect slopes; silt fencing to control site perimeter; and straw bale barriers, sand bag barriers, rock filters or sediment basins to control internal erosion, or other methods to stabilize disturbed areas, as approved by the City Engineer.

- D 8. Implement dust control measures during construction activities including, but not limited to, daily watering of construction area as frequently as necessary during active and inactive periods, utilizing soil emulsions, limiting construction vehicle speed to 15 miles per hour, stabilized construction entrances to prevent trackout of sediments, and street sweeping.
- B 9. Submit original wet signed and stamped rough grading certifications from the soils engineer and the grading engineer, along with compaction reports, to the City Engineer.
- C 10. Submit original wet signed and stamped final grading certifications from the grading engineer, to the City Engineer.

STREET IMPROVEMENTS

- C* 11. Remove the existing curb-adjacent sidewalk and construct a 10' wide parkway sidewalk located 10' north of the face of curb with a 9.5' wide landscaped parkway across the Base Line project frontage. Remove existing curb and gutter and sidewalk necessary to construct a new cross-gutter, 25-foot radius curb returns, and access ramps at the Street 'A' intersection with Base Line. Remove the existing driveway approaches on Base Line and construct new curb and gutter and parkway sidewalk. Relocate the existing conflicting street light to the west side of Street 'A' and install 24-inch wide "Bike Lane" sign (R81-CA) and "No Parking" sign (R8-3a) on the street light pole. Grade the area within the public right-of-way to provide a two percent crossfall to the street.
- C* 12. Modify the existing landscaped median on Base Line to close off the existing median break and to provide for a 75-foot eastbound left-turn pocket with a 60-foot taper, as approved by the City Engineer and the Community Developer Director. Modify the irrigation system to include a water meter, an electric meter, a backflow device, and a controller that are separate from those of the existing irrigation system of the East Highlands Ranch Homeowners Association. Maintain the landscaping for one year after the City has approved the initial landscaping installation.
- C* 13. Construct street improvements on all interior streets including, but not limited to, curb and gutter, asphalt concrete pavement, class II aggregate base, six-foot curb adjacent sidewalk, and one driveway approach per lot. The minimum street grade shall be one percent on all new streets. Street widths shall be 36 feet, curb to curb, within a 50-foot right-of-way.
- A 14. Design all streets to comply with horizontal and vertical sight distance requirements in accordance with the Caltrans Highway Design Manual and the City street and storm drain improvement checklist.
- C* 15. Install street name signs, traffic control signs, and pavement markings with locations and types as approved by the City Engineer. Streets 'B' and 'C' shall be stop controlled at the intersections with Street 'A'.

- C* 16. Construct a 14' wide improved emergency access from the knuckle at the Street 'B'/Street 'C' intersection to the north side of Base Line as approved by the City Engineer and the Fire Marshall. Use City standard driveway approaches with 4-foot sidewalks. Construct access control to restrict day-to-day vehicular use but allow day-to-day pedestrian use of the emergency access.
- C* 17. Design and Install City owned and maintained street lighting system on interior streets using energy efficient luminaires on octagonal concrete poles at locations specified by the City Engineer. The poles shall be natural gray with black and white aggregate and shall have a factory-applied anti-graffiti coating. Install street lighting conduits, wirings, controls, electric meters etc. per City requirements. Pay Southern California Edison to energize the street lights. The property owner shall be responsible for the City's payment of energy charges for 12 months following energizing of the street lights.
- A 18. Submit street improvement and street lighting plans for required improvements to the City Engineer for approval. Indicate on the plans the location of any existing utility/facility which would affect construction of the improvements. Comply with City design standards as shown on the City's street and storm drain improvement checklist.
- B 19. Submit a design and a recommendation from a soils engineer for the structural sections to be constructed on the interior streets. Design the pavement structural section for a service life of 20 years as outlined in Section 600 of the Caltrans Highway Design Manual. The minimum pavement structural section is 3" A.C./4" A.B. The City Engineer will provide traffic indexes to be used in the pavement design.
- A 20. All required improvements shall be designed and constructed in accordance with the State of California Accessibility Standards, Title 24 California Administrative Code.
- D 21. After all houses are constructed, slurry seal the streets within the tract prior to final bond release or submit a cash payment in lieu of slurry seal.

WATER QUALITY/DRAINAGE

- E 22. Obtain approval by the City Engineer of a Final Water Quality Management Plan (F-WQMP), prepared in accordance with the City's NPDES permit requirements in effect at the time the Preliminary Water Quality Management Plan was approved unless subsequent City NPDES permits require otherwise. The WQMP shall (1) be prepared, signed, and sealed by a licensed Civil Engineer, (2) include Site Design Low Impact Development and Source Control Best Management Practices (BMPs) appropriate for residential development, (3) include a BMP implementation, operation, and funding mechanism, and (4) be certified by the property owner. The property owner shall also enter into a Stormwater BMP Transfer, Access, and Maintenance Agreement with the City on the City form. Include a copy of the recorded agreement in the WQMP.

- A* 23. ~~The park/water quality basin shall have maximum side slopes of 4:1, horizontal to vertical, including the entire slope south of the access road. Design of the basin, including types of drainage outlet and inlet, emergency overflow, access road, landscaping and fencing, etc. shall be as approved by the City Engineer and the Community Development Director. A 12-inch wide 2-sack slurry cut-off wall shall extend four (4) feet below the bottom of the infiltration chamber system. (Deleted March 15, 2022)~~
- C 24. Submit two sets of WQMP BMP Exhibits with a "WQMP BMP As-Built Certificate" wet signed and sealed by the Engineer of Record. The Certificate shall state:
- "I hereby certify that the Water Quality Management Plan Best Management Practices have been constructed under my supervision in accordance with the approved plans and are functional to the best of my knowledge."
- C* 25. Remove the existing rock flume and concrete v-ditch within Lot B along a portion of the westerly and northwesterly tract boundary. Construct a new concrete v-ditch within Lot B at the toe of slope along the entire northwesterly and westerly tract boundary, and connect it to the existing headwall at the southwest corner of the project.
- C* 26. Construct a new concrete v-ditch within Lot A at the toe of slope along the south tract boundary west of Street "A", and connect it to the existing headwall at the southwest corner of the project.
- C* 27. Construct concrete v-ditches at the top of the northerly rear slopes of Lots 9 through 16, and construct swales, drain pipes or concrete v-ditches as necessary to intercept and convey storm runoff to a public street or storm drain. Utilize under sidewalk drains at all street outlet locations.
- C* 28. Attempt to obtain permission from the owner of the easterly adjoining property to replace the existing rock flume along Lots 1 through 8 with a concrete channel or concrete v-ditch, and remove the existing chain link fence along Lots 3 through 8. If permission cannot be obtained after a verifiable good faith effort has been made, submit for review and approval by the City Engineer an alternate design to protect the proposed lots within Tract 19915 that are subject to potential impact if seepage from the existing rock flume occurs.
- C* 29. Construct storm drain in Street 'C' and the emergency access road and connect it to the existing storm drain in Base Line. Construct catch basins at locations as required by the City Engineer, including a catch basin located upstream and west of the emergency access.
- A 30. Prepare and submit a hydrology study to determine storm runoff quantities tributary to and generated by the site. Include hydraulic calculations to determine the size, locations and type of all drainage pipes, inlets, and catch basins.

- A 31. Submit storm drain plans for required improvements to the City Engineer for review and approval. Indicate on the plans the location of any existing utility/facility which would affect construction of the improvements. Comply with City design standards as shown on the City's street and storm drain improvement checklist.

MAP/DEDICATION/ANNEXATION

- B 32. Record a Final Map with the San Bernardino County Recorder pursuant to the provisions of the State Subdivision Map Act.
- A 33. At the time of Final Map submittal, include traverse calculation sheets which show error of closure, copies of recorded maps and deeds used as reference and/or showing original land division, tie notes and bench marks referenced, and a current title report. Inverse calculations will not be accepted for plan check.
- A 34. Dedicate corner property line cutoffs for all corner lots in accordance with City standards.
- A 35. Dedicate five-foot public utility easements and sidewalk easements on all interior streets.
- A* 36. Dedicate drainage easements within Lot A as required by the City Engineer.
- A* 37. Reserve private drainage easements for conveyance of landscape irrigation and storm runoff for the benefit of affected lots and/or upstream properties.
- A 38. Dedicate all public street rights-of-way and all necessary easements within the tract boundary by Final Map.
- A* 39. Attempt to purchase the property northerly of Lots 15 and 16, and easterly of Lots 13 and 14, to eliminate the angles in the property line and perimeter wall. If the property cannot be purchased after a good faith verifiable effort has been made, the property line may remain as is.
- B* 40. Establish a Homeowners Association (HOA) and secure a commitment from the HOA by means of an agreement with the City, and include in its By-laws and Covenants, Conditions and Restrictions, to maintain the park/water quality basin (Lot 47), landscaping and drainage ditches within Lots A and B, and the landscaped parkway areas along the Base Line project frontage.
- A* 41. Apply to the City to annex the project into "shell" Consolidated Landscaping and Lighting District for improvements that are to be maintained by the HOA but may be potentially maintained by the City by means of the maintenance districts, if deemed necessary by the City. The areas subject to potential City maintenance include the park/water quality basin (Lot 47), Lot A, and the parkway areas along Base Line. Sign ballots prepared by the City agreeing to the annexation and amount of assessment.

- A* 42. Apply to the City to annex the project into the City's Street and Drainage Maintenance District for maintenance of the emergency access and the public storm drains. Sign a ballot prepared by the City agreeing to the annexation and amount of assessment.
- A* 43. Apply to the City to annex the project into the City's Consolidated Landscape and Lighting District for maintenance of street lights and median landscaping on Base Line. Sign a ballot prepared by the City agreeing to the annexation and amount of assessment.

FEES/PERMITS/BONDING

- D* 44. Make a cash payment for one year of maintenance of median landscaping on Base Line. Maintenance will be provided by the City through the Landscape Maintenance District after a one-year maintenance period provided by the developer and acceptance of the landscaping by the City. City Public Works staff and the City's Landscape Architect will perform inspections at the beginning and end of the one-year maintenance period.
- D 45. Pay appropriate engineering fees for bond processing, district annexations, grading and improvement plan check, hydrology report review, water quality management plan review, retaining wall calculation review, on-site and off-site inspection, utility excavation permits, GIS map plan update, microfilming and storage of maps and plans, and other required fees.
- B 46. Obtain a permit from engineering prior to any on-site construction or construction within the City's right-of-way.
- E 47. Obtain coverage under the National Pollutant Discharge Elimination System General Construction Permit (GCP) for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Submit a copy of the Waste Discharge Identification (WDID) receipt letter issued by the State Water Resources Control Board confirming coverage under the CGP.
- A 48. Post a deposit for monumentation based on an estimate of the cost to perform the work prepared by the project surveyor or engineer as approved by the City Engineer. The deposit shall not be released prior to written verification from the surveyor or engineer that the monuments have been set and payment for the work has been received.
- E 49. Post a deposit for erosion control based on an estimate of the cost to perform the work prepared by the project engineer as approved by the City Engineer. The deposit shall not be released prior to completion of all on-site construction.
- A 50. Submit bonds for all required street and drainage improvements, grading, and median landscaping, in accordance with the City's Municipal Code.
- A 51. Enter into an agreement for construction of improvements with the City using the adopted City form.

UTILITIES/CONSTRUCTION

- C 52. Provide all utility services to each lot, including sanitary sewers, water, electric power, cable TV, internet, gas, and telephone. All utilities are to be underground.
- D 53. Coordinate, and where necessary, pay for the relocation of any existing public utilities as necessary.
- C* 54. Install underground electric burd transformers, telephone risers, and cable television and internet risers etc. located in the front yards of residential lots whenever the underground installation is an available option offered by the utility companies. If the underground installation is not available and utility enclosures must be installed above ground, install the above-ground utility enclosures and any flush mount utility structures at locations where construction of retaining walls will not be necessary for compliance with the setback requirements of the utility companies.
- D 55. Street pavement shall be constructed in lifts as directed by the City inspector. Final asphalt lifts shall be placed after all houses are built or within 12 months of the completion of each construction phase. Repair any damage and slurry seal all interior streets if the final asphalt cap is done before the completion of all house construction.
- E 56. Obtain written permission from the adjoining property owner(s) for off-site grading or construction, if any.
- E 57. Submit a Storm Water Pollution Prevention Plan for review and acceptance by the City.
- B 58. Destroy any abandoned wells on the property or similar structures that might result in contamination of underground waters in a manner approved by the City Engineer.
- B 59. All underground structures, except those desired to be retained, must be broken in, backfilled, and inspected before covering.
- D 60. Comply with the prevailing City design and construction standards and requirements at the time of permit issuance.
- D 61. Submit "Record Revisions" to construction plans which reflect the improvements as constructed, and any changes made during construction of public improvements such as streets, storm drains, parks, trails, public landscaping, etc. Provide original mylars and AutoCAD files.
- D 62. Comply with the City's Public Works Policies, Standards and Procedures prevailing at the time of permit issuance.

Building and Safety Division Conditions of Approval Updated

Date: February 22, 2022
Project: Design Review Application – Highland Park - (46) Single-family Homes
APPLICANT: 29300 Baseline Partners LLC
Site Location: 29300 Base Line
Project Numbers: **DRA: 22-002** (Tract 19915, TTM 015-004, CUP 015-001, SPA 015-001, Env 015-003, GPA 015-003, & ZC 015-001)
APN: 0288-562-03-0000

The Previous Comments and Conditions apply dated 11/30/2015, some have been updated for this Design review:

1. Please provide the following number of construction plans and documents listed below for the first review of the proposed project. The initial plan review time will take two weeks on most projects. The applicant will receive an application number at the time plans are submitted for Building & Safety's plan review. This number is needed to obtain information regarding your project.
 - (3) Architectural Plans
 - (3) Structural Plans
 - (2) Structural Calculations
 - (3) Plot/Site Plans
 - (3) Electrical Plans
 - (3) Electrical Load Calculations
 - (3) Plumbing Plans/Isometrics
 - (3) Mechanical Plans
 - (3) HVAC Duct Layout Plans
 - (2) Roof and Floor Truss Plans
 - (2) Title 24 Energy Calculations
 - (2) Soils Report
 - (3) Precise Grading Plans (Listed for Reference within the plan set)
 - (3) Condition of Approval Packages (to be submitted within the plan set)
 - (3) Temporary Fence Plan
 - (1) Fire Flow report
2. All deferred plan items are to be identified on the plans cover sheet.
3. All structures shall be designed in accordance with the current version of the California Building Codes (2019), including the California Green Building Standards Code. Design all structures to Risk Category II at exposure "C"

(ASCE7-16), and Energy Climate Zone 10. If the project plans are submitted after January 1, 2023, the project and plans will need to be designed to the 2022 California Building Code of Regulations.

4. Construction projects requiring fire permits must apply and submit fire plans prior to the issuance of the building permit, including fire sprinkler submittals.
5. Building and Safety does not release all meters until final approvals are obtained from all agencies and departments. Policy 295.
6. Identify all building utility locations and sizes, indicate if a new meter service is to be installed or connection is made to the existing service meter.
7. The City enforces the State of California provisions of the California Building Code disabled access requirements. The Federal Americans with Disabilities Act (ADA) standards may differ in some cases from the California State requirements, therefore it is the building owner's responsibility to be aware of those differences and comply accordingly.
8. Structures Constructed within a designated Very High Fire Hazard Severity Zone, shall comply with the requirements of the current version of the California Residential Code, Section R337 for Materials and Construction methods for Exterior Wildfire Exposure.
9. Prior to final inspection, provide Building & Safety with a flash disk of the final approved amended plans and documents.

ATTACHMENT B
BUILDING AND SAFETY

Conditions of Approval

Date: November 30, 2015
Applicant: Mastercraft Homes
Address of Applicant:
Site Location: 29300 Base line
Telephone:
File / Index No.: TTM 015-004, CUP 015-001, SPA 015-001, ENV 015-003, GPA 015-003, and ZC 015-001

1. Provide two (2) of the following construction plans and information for review of the proposed project. Initial plan review usually will take three weeks on most projects. You will receive a plan review number at the time you submit plans for the proposed project. This number will be needed to obtain information regarding your plan review.

Sets needed:

- (2) Architectural Plans
- (2) Structural Plans
- (2) Structural Calculations
- (2) Plot/Site Plans
- (2) Electrical Plans
- (2) Electrical Load Calculations
- (2) Plumbing Plans/Isometrics
- (2) Mechanical Plans
- (2) Duct layout Plans
- (2) Roof and Floor Truss Plans
- (2) Title 24 Energy Calculations
- (2) Soils Report
- (2) Compaction Report
- (2) Precise Grading Plans with erosion control Best Management Practices shown.
- (2) Condition of Approval Packages
- (2) Temporary Fence Plan

General Conditions

2. All structures shall be designed in accordance with the adopted Building Code at the time of plan submittal; currently the 2013 California Residential Codes and the California Green Standard Building Code are adopted by the City of Highland, Ordinance No. 386. Design

all structures to comply with Seismic Design Category D, wind speed 85 MPH, at exposure "C". Habitable structures shall comply with the 2013 California Energy Code requirements."

3. The Developer/Owner is responsible for the coordination of releasing any Deferral of Development Impact Fees or Bonds after such fees have been paid. The Developer/Owner should be aware, once the deferral is sent to the San Bernardino County Records Office; the release process takes two to three weeks. This process will delay final Certificates of Occupancy.
4. The Developer/Owner is responsible for the coordination of the final occupancy. The Developer/Owner shall request final clearances from each department and division prior to requesting the final building inspection from Building and Safety. Each agency shall sign the back of the Building and Safety Job Card and provide a copy of the signatures to Building and Safety at the time a final inspection is requested.
5. Building and Safety inspection requests can be made 24 hours in advance for the next day inspection. Please contact (909) 864-2136, Ext 228.

If your inspection request is left on another phone extension, your inspection will not be performed.

6. You may also fill out an inspection request at the Building and Safety counter. The request must be given to the front counter receptionist for the next day inspection.
7. A security fence with screening must protect all construction sites. The fencing and screening shall be maintained at all times to protect pedestrians. See Construction fencing requirement policy.
8. Toilet facilities shall be provided for construction workers and such facilities shall be maintained in a sanitary condition. Construction toilet facilities of the non-sewer type shall conform to ANSI ZA.3.
9. All construction materials, which are not used, shall be recycled pursuant to the requirements set forth by Ordinance No. 269. Receipts from the recycle company responsible for picking up the materials shall be kept in the construction office. After the construction is complete and ***before final occupancy***, the receipts shall be forwarded to the Planning Division.
10. Construction projects, which require temporary electrical power, shall obtain an Electrical Permit from Building and Safety. No temporary electrical power will be granted to a project unless one of the following items is in place and approved by Building and Safety and the Planning Division.
 - a. Installation of a Construction Trailer through the Temporary Occupancy Permit (TOP) procedure, or;
 - b. Security fenced area where the electrical power will be located

11. Installation of construction/sales trailers must be located on private property. No trailers can be located in the street unless a permit from the Engineering Department is obtained.

Attached to the approved plans are Building and Safety Policies, which are part of the Condition of Approval for this project.

12. Ordinance 209 requires Fire Sprinklers. Submit Fire Sprinkler Plans to the Deputy Fire Marshal located at 27215 Base Line, Highland CA. Please contact the Deputy Fire Marshal for information on the design requirements. (909) 864-2136, ext. 248.
13. Structures constructed within designated Very High Fire Hazard Severity Zone, shall comply with the requirement of the 2013 California Residential Code, Chapter 7A "Materials and Construction Methods For Exterior Wildfire Exposure"
14. Prior to the issuance of Building Permits, on site water service shall be installed and approved by the responsible agency. On site Fire Hydrants shall be approved by the Fire Department. No flammable materials will be allowed on the site until the Fire Hydrants are established and approved. No flammable construction materials shall be placed on the site without approvals by the Fire Department. All street and access roadways around the project shall be paved for emergency response vehicles before flammable materials are placed on the project.
15. Prior to issuance of permits, site-grading certifications shall be submitted to Building and Safety. Compaction reports shall accompany certifications.
16. Prior to issuance of building permits, provide a receipt from the Unified School District stating that all school fees have been paid. This project is located in the Redlands/ San Bernardino Unified School District.
17. Prior to issuance of building permits, provide Building and Safety with a Sewer and Water availability Letter from East Valley Water District. (909) 888-8986
18. The property shall be connected to East Valley Water District sewer service. If the sewer is not available, provide Building and Safety with a letter from East Valley Water District explaining that the sewer is not available to the site and the building can be serviced by a private septic system. The letter is required prior to plan review process. Submit the septic design plans along with a percolation test report for review, approval and permits.
19. All construction projects shall comply with the NPDES Stormwater Best Management Program. Prior to permit issuance; submit a plan indicating compliance methods.
20. Prior to the demolition of the existing structures, the following will be required:
 - a. Submit copies of property title to prove ownership.
 - b. Provide a hazardous materials survey (Asbestos and lead) for each structure.
 - i. If hazardous materials are present, contract with an approved abatement contractor to remove all materials to an approved landfill or disposal site.

- ii. Provide landfill or disposal site receipts to the Building Department prior to obtaining permits.
 - iii. Provide a hazardous material clearance certification from the abatement contractor or industrial hygienist.
21. Submit AQMD notification application a minimum of 10 days prior to start of the demolition work. (Provide copies of the certified mail receipt to the Building Department).
 22. Contact the approved City waste hauler for disposal of the demolition materials. All recyclable materials must be weight and reported. (Submit material amount estimates prior to issuance per Ordinance).
 23. Obtain demolition permits from the Building Department.
 24. Completely demolish each structure, removing all materials, foundations, slabs, trash and debris.
 25. Cap utility connections within 5 feet of the property line.
 26. Obligation and responsibility for determining the location of any or all wells, shafts, openings, septic tanks, cesspools, basements, pits or other like hazards lies with the property owner or contractor. All such hazards shall be abated as per the California Plumbing Code or by methods approved by the Building Official. (Septic systems shall be pumped, filled with sand with lids shall be crushed).
 27. Burying, covering or otherwise discarding of debris on the demolition site is prohibited.
 28. In instances regarding excavation and removal of fuel storage tanks, or other excavations involving substantial backfill, a compaction report by an approved agency shall be filed with the Building Department. Fuel storage tanks removal will require notification of San Bernardino County Fire, Hazardous Materials and San Bernardino County Environmental Health Department.
 29. All Best Management Practices set by NPDES shall be implemented and complied with.
 30. All dead trees shall be removed and other vegetation shall be trimmed to comply with weed abatement procedures.

Development Code Regulation

31. All residential dwelling units shall be equipped with security lighting affixed to the exterior of each garage door and/or above the exterior of each front and rear man doors.
 - a. Motion sensor devices shall activate lighting.
 - b. Lights shall be installed a minimum of eight feet above grade and shall be hard wired into the electrical power source.
 - c. Lights shall be shielded and directed away from surrounding residential uses and shall not blink, oscillate or be of unusually high intensity.

Amendments to the Plumbing Code

32. Due to pinhole leaks in copper tubing in the City of Highland we refer you to, Section 604.1, of the California Plumbing Code which has been changed to allow the use of CPVC and Cross Linked Polyethylene (PEX) for domestic water supply.
33. Copper pipe may be used in buildings if a letter from the owner of the building is submitted to Building and Safety accepting liability for future copper pipe failures in the structure. If copper pipe is proposed, Type K should be used below and above the ground. Water supply lines to fixtures should be plumbed in stainless steel or other approved materials.

City of Highland, **FIRE PREVENTION DIVISION**, Conditions of Approval.

DATE : February 3, 2022

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APPLICANT : Mastercraft: 'Highland Park'

Address : 29300 Baseline, Highland

SITE LOCATION : same 46 lot sub-division

FILE / INDEX No.: TTM 19915

THIS PROJECT IS PROTECTED BY THE CITY OF HIGHLAND FIRE DEPARTMENT / CAL-FIRE / CALIFORNIA DEPARTMENT of FORESTRY and FIRE PROTECTION.

Fire Department Review of all projects is required.

SUBMIT TO FIRE MARSHAL'S OFFICE: **ONE COPY** OF BUILDING AND/OR STRUCTURE PLANS FOR FIRE DEPARTMENT REVIEW.

ALL CONSTRUCTION (New and renovations to existing) SHALL COMPLY WITH THE CALIFORNIA FIRE CODE (**2019 edition**) Along with amendments as adopted within the Highland Municipal Code (Ord. #411).

Note: All weather access roads (CFC 503.2.3) and fire hydrant/water system installations shall be in place, inspected and approved, **PRIOR** to combustible material being brought on site.

Note: The City of Highland has 2 areas within the '**FIRE SAFETY OVERLAY DISTRICT**' designated as **FR-1** and **FR-2**. Both areas may border or overlap areas identified by the State/CalFire as '**High Fire Severity Zone**' or '**Very High Fire Severity Zone**'. See **HMC Section 4905.4** for construction requirements.

GENERAL.

1. **HF2:** THIS PROJECT IS LOCATED WITHIN **FIRE SAFETY REVIEW AREA 2**. THIS IS A '**HIGH FIRE HAZARD AREA**'. THIS PROJECT SHALL COMPLY WITH THE CONSTRUCTION AND DEVELOPMENT STANDARDS FOR A **FR-2 AREA**. CONTACT THE CITY BUILDING & SAFETY DIVISION FOR **FR-2 AREA** CONSTRUCTION AND DEVELOPMENT STANDARDS. A MINIMUM 30' CLEARANCE IS REQUIRED AROUND ANY STRUCTURE(s). **CFC CPTR 49 / CBC CPTR 7A**

2. **HF31:** APPROVED FIRE HYDRANT PAVEMENT MARKERS (BLUE DOTS) SHALL BE INSTALLED AT EVERY HYDRANT.
3. **HF50:** HIGH FIRE HAZARD AREAS FR-1 & FR-2: ONE-HOUR FIRE RESISTIVE CONSTRUCTION IS REQUIRED FOR EXTERIOR(s) WALL(s). **HMC 4905.4 / CBC Chapter. 7-A**
4. **HF51:** THE MAIN ELECTRICAL PANEL AND ALL SUB-PANEL(s) SHALL BE LABELED ON INSIDE COVER FOR ALL CIRCUITS. **CEC 408.4**
5. **HF52:** WATER HEATER (FUEL FIRED), SHALL BE PROPERLY VENTED TO EXTERIOR OF STRUCTURE. WATER HEATER SHALL BE SEISMIC STRAPPED TO WALL AND BE LOCATED 18" ABOVE A GARAGE FLOOR. **CBC**
6. **HF53:** A SOLID CORE, SELF-CLOSING AND LATCHING DOOR (MINIMUM 1-3/8 INCH) SHALL BE INSTALLED BETWEEN AN ATTACHED GARAGE AND LIVING SPACE. **CBC**
7. **HF47:** FOR EACH CHIMNEY, USED IN CONJUNCTION WITH ANY FIREPLACE OR HEATING APPLIANCE, IN WHICH SOLID OR LIQUID FUEL IS USED, AN APPROVED SPARK ARRESTER SHALL BE INSTALLED AND VISIBLE FROM THE GROUND. SPARK ARRESTER SHALL BE OF STAINLESS STEEL, COPPER OR BRASS, WOVEN GALVANIZED WIRE MESH, TWELVE (12) GAUGE, AND MINIMUM OF 3/8" TO 1/2" MAXIMUM OPENINGS. **CFC CHPTR 6; CBC; CMC**
8. **HF60:** ADDITIONAL PLANS FOR ACCESS, FIRE SAFETY SYSTEMS, **FIRE LANES** AND SIGNAGE, GATES, STORAGE, OR OTHER SPECIAL CONDITIONS MAY BE REQUESTED FOR REVIEW, CONDITIONING AND APPROVAL BY THE FIRE MARSHAL.
9. **HF48:** A CLASS "A" ROOF COVERING STRUCTURE WITH "BIRD STOPS" SHALL BE INSTALLED.

ACCESS:

10. **HF7:** FIRE DEPARTMENT **EMERGENCY ACCESS** ROAD (SPECIFIC TO THIS PROJECT) SHALL MEET THE FIRE DEPT. MINIMUM UNOBSTRUCTED WIDTH OF TWELVE (12) FEET. **THIS STANDARD SHALL NOT LESSEN OTHER AGENCY REQUIREMENTS.** ACCESS ROADS SHALL BE PAVED (ASPHALT/CONCRETE) AND IN PLACE PRIOR TO OCCUPANCY OF FIRST HOME.
11. **HF8:** ALL ACCESS ROADS, PUBLIC, PRIVATE STREETS AND RESIDENTIAL DRIVEWAYS SHALL MAINTAIN A MINIMUM VERTICAL CLEARANCE OF THIRTEEN (13) FEET-SIX (6) INCHES. **CFC 503.2.1**
12. **HF11:** FIRE DEPARTMENT ACCESS ROADWAY(s) AND/OR PUBLIC/PRIVATE STREET(s) EXCEEDING ONE HUNDRED FIFTY (150) FEET IN LENGTH SHALL PROVIDE AN APPROVED TURN-AROUND AT THE TERMINUS (**CUL-DE-SAC**). MINIMUM RADIUS SHALL BE **NOT LESS THAN 48 FEET**. OR AS APPROVED BY THE FIRE MARSHAL. CUL-DE-SACS PROVIDING ACCESS TO PERIMETER EMERGENCY ACCESS ROADS SHALL HAVE A MINIMUM RADIUS OF 48 FEET. **CFC 503.1.1 / APPENDIX D, D103.4, SBCO TRANSPORTATION STD 120/121**
13. **HF12:** FIRE DEPARTMENT ACCESS ROADWAY(s); PUBLIC/PRIVATE STREET(s) AND DRIVEWAYS SHALL NOT EXCEED 12% GRADE. **CBC 503.2.7 / APPENDIX D, D103.2 - HMC**
14. **HF13:** FIRE DEPARTMENT ACCESS ROADWAY(s); SHALL EXTEND TO WITHIN ONE HUNDRED FIFTY (150) FEET OF AND SHALL GIVE REASONABLE ACCESS TO ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF ANY BUILDING.

15. **HF14:** IN FR-1/FR-2 AREAS, STREETS ENDING IN A CUL-DE-SAC SHALL NOT EXCEED 350 FEET, IN ALL OTHER AREAS, NON CIRCULATING STREETS SHALL NOT EXCEED 600 FEET IN LENGTH AND SHALL PROVIDE AN APPROVED CUL-DE-SAC. **HMC**
16. **HF19:** MANUALLY OPERATED GATES ACROSS FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC AND/OR PRIVATE STREETS AND DRIVEWAYS, SHALL BE EQUIPPED WITH APPROVED EMERGENCY KEY-OPERATED "KNOX" PADLOCK OR BOX CONTAINING KEY TO OPEN THE PRIVATE LOCK. FOR AUTOMATIC GATES, A "KNOX" EMERGENCY ACCESS SWITCH, SHALL BE INSTALLED, AT LOCATION DETERMINED BY FIRE DEPARTMENT, AND SHALL OVER-RIDE ALL COMMAND FUNCTIONS AND OPEN GATE AUTOMATICALLY UPON ACTIVATION. ALL AUTOMATIC GATES SHALL HAVE A MANUAL OVER-RIDE FOR USE DURING LOSS OF ELECTRIC POWER. "KNOX BOX" REQUEST FORM IS AVAILABLE FROM THE FIRE MARSHAL. **CFC 506.6**
17. **HF24:** "NO PARKING – FIRE LANE" SIGNS SHALL BE POSTED AT LOCATIONS DESIGNATED BY FIRE MARSHAL. FIRE LANE CURBS SHALL BE PAINTED RED, WITH WHITE LETTERS STATING "NO PARKING – FIRE LANE" ON TOP, NOT FACE. **CFC 503.3 - APPENDIX D, D103.6**

WATER:

18. **HF25:** MINIMUM REQUIRED FIRE FLOW, AS DETERMINED BY I.S.O. FORMULA, IS AS FOLLOWS: **RESIDENTIAL;** GPM =1500; AT 20 PSI RESIDUAL; FOR 2 HOUR DURATION. **CFC APPENDIX B AND APPENDIX C**

Note: Hydrants shall meet EVWD standards.

19. **HF29:** FIRE HYDRANT SPACING SHALL BE :
SINGLE FAMILY RESIDENTIAL: 500 FEET MAXIMUM

CFC 507 / APPENDIX B AND APPENDIX C.

Note: Existing fire hydrants (off-site) can be included if they meet spacing requirements. Hydrants shall not be located at the 'bulb' end of cul-de-sacs.

20. **HF26:** THREE SETS OF WATER DELIVERY SYSTEM PLANS, DESIGNED TO MEET THE REQUIRED FIRE FLOW FOR THIS PROJECT AND/OR DEVELOPMENT, SHALL BE SUBMITTED TO THE FIRE DEPARTMENT FOR REVIEW AND APPROVAL. **CFC 501.3**
21. **HF27:** APPLICANT-DEVELOPER SHALL PROVIDE A LETTER FROM THE WATER COMPANY SERVING THE PROJECT-DEVELOPMENT, VERIFYING FINANCIAL ARRANGEMENTS HAVE BEEN MADE AND BONDED FOR THE REQUIRED WATER IMPROVEMENTS. **CFC 501.3**
22. **HF28:** FIRE HYDRANTS SHALL BE INSTALLED, INSPECTED AND OPERATIONAL AS PER APPROVED WATER SYSTEM DELIVERY PLANS **PRIOR** TO ANY FRAMING, CONSTRUCTION OR DELIVERY OF COMBUSTIBLE MATERIALS TO PROJECT SITE. **CFC 501.4 / CFC 3312.1**

ADDRESSING – IDENTIFICATION:

23. **HF18:** STREET NAME SIGNS SHALL BE INSTALLED PRIOR TO CONSTRUCTION ON ANY ROADWAY OR PHASE. TEMPORARY SIGNS MAY BE USED AS APPROVED BY THE FIRE MARSHAL. **CFC 505.2** **Note:** Permanent signage shall meet City standards as required by Planning.
24. **HF17:** THE PUBLIC AND/OR PRIVATE ROADWAYS SERVING THIS PROJECT SHALL BE IDENTIFIED WITH CITY APPROVED NAMES. **CFC 505.2**

25. **HF20:** RESIDENTIAL ADDRESS NUMBERS SHALL BE PLACED ON ALL NEW AND EXISTING STRUCTURES IN SUCH A MANNER AS TO BE **PLAINLY VISIBLE** AND LEGIBLE FROM THE ACCESS ROADWAY OR STREET. SINGLE FAMILY DWELLINGS SHALL HAVE NUMBERS OF 4" HEIGHT, 3/8" STROKE ON CONTRASTING BACKGROUND. ADDRESS NUMBERS SHALL BE LOW VOLTAGE, AUTOMATICALLY ELECTRICALLY ILLUMINATED. WHERE STRUCTURE SETBACK EXCEEDS ONE HUNDRED (100) FEET FROM THE ACCESS ROADWAY OR STREET, ADDITIONAL NON-ILLUMINATED NUMBERS 4" IN HEIGHT, 3/8" STROKE, ON CONTRASTING BACKGROUND SHALL BE DISPLAYED AT PROPERTY ACCESS ENTRANCE. **CFC 505.1**

FIRE PROTECTION & ALARM SYSTEMS:

26. **HF34:** RESIDENTIAL AUTOMATIC FIRE SPRINKLERS SHALL BE INSTALLED ACCORDING TO **NFPA 13D** AND FIRE DEPARTMENT REQUIREMENTS. SUBMIT THREE (3) SETS OF SHOP PLANS WITH MATERIAL CUT SHEETS AND HYDRAULIC CALCULATIONS FOR FIRE DEPT. REVIEW AND APPROVAL PRIOR TO ANY INSTALLATION. SUBMIT COPY OF CALIFORNIA C-16 LICENSE.
27. THE WATER METER SUPPLYING A 13D SYSTEM SHALL BE OF SUFFICIENT SIZE (usually 1-inch) TO PROVIDE THE CALCULATED FLOW REQUIREMENTS OF THE 13D FIRE SPRINKLER SYSTEM. MINIMUM PIPE SIZE BEYOND THE WATER METER SHALL BE 1-INCH. RESIDENTIAL SPRINKLER HEADS OF PROPER TEMPERATURE RATING SHALL BE INSTALLED IN ATTIC AND BUILT-UP STORAGE SPACES WHERE MECHANICAL EQUIPMENT (FAU, WATER HEATER, etc.) IS INSTALLED. **CFC CHPTR 9; CFC 903; CBC; & HMC 8.24; NFPA13D, CHAPT. 6 & 1.**
28. **HF46:** SMOKE DETECTORS, HARD WIRED IN SERIES WITH BATTERY BACK-UP, SHALL BE INSTALLED IN ALL SLEEPING AREAS AND IN ALL HALLWAYS AND AREAS/ROOMS LEADING TO SLEEPING AREAS. SMOKE DETECTORS SHALL BE INSTALLED AT THE TOP OF ALL STAIRWAYS. AT LEAST ONE SMOKE DETECTOR SHALL BE INSTALLED ON THE FIRST FLOOR LEVEL. **CFC 907; CBC**
29. **HF60:** 2019 CALIFORNIA FIRE CODE, CHAPTER 33, **FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION**, SHALL APPLY TO THIS PROJECT. IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO MEET WITH THE FIRE MARSHAL TO DISCUSS REQUIREMENTS SPECIFIC TO THIS PROJECT.
30. **HF62:** ADDITIONAL PLANS FOR ACCESS, FIRE SAFETY SYSTEMS, STORAGE OR OTHER SPECIAL CONDITION MAY BE REQUESTED FOR REVIEW, CONDITIONING AND APPROVAL BY THE FIRE MARSHAL.
31. **HF63:** SUBMIT TO FIRE MARSHAL'S OFFICE: **ONE COPY** OF BUILDING AND/OR STRUCTURE PLANS FOR FIRE DEPARTMENT REVIEW.

Craig Sanchez
City of Highland
Fire Prevention Department
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