

|

1997 Rio Vista Village Specific Plan Amended 2016 and 2017

Amended:
April 2024 Draft

TABLE OF CONTENTS

	Page
<u>INTRODUCTION</u>	<u>1</u>
<u>SECTION 1.0</u>	
<u>1.1</u> <u>AUTHORITY</u>	<u>6</u>
<u>1.2</u> <u>PURPOSE</u>	<u>6</u>
<u>1.3</u> <u>APPLICATION</u>	<u>6</u>
<u>1.4</u> <u>EXTENT</u>	<u>7</u>
<u>SECTION 2.0</u>	<u>8</u>
<u>SECTION 3.0</u>	<u>15</u>
<u>2024 SPECIFIC PLAN AMENDMENT</u>	<u>16</u>
<u>SECTION 4.0</u>	
<u>4.1</u> <u>SPECIFIC PLAN POLICIES AND OBJECTIVES</u>	<u>31</u>
<u>4.2</u> <u>NEIGHBORHOOD PLANNING STANDARDS</u>	<u>32</u>
<u>4.3</u> <u>LAND USE PLAN</u>	<u>32</u>
<u>4.4</u> <u>PHASING PLAN</u>	<u>34</u>
<u>4.5</u> <u>CIRCULATION PLAN.</u>	<u>34</u>
<u>4.6</u> <u>OPEN SPACE PLAN</u>	<u>36</u>
<u>4.7</u> <u>LANDSCAPE MASTER PLAN</u>	<u>37</u>
<u>4.8</u> <u>DRAINAGE AND GRADING PLAN</u>	<u>38</u>
<u>SECTION 5.0</u>	
<u>5.1</u> <u>USES PERMITTED</u>	<u>55</u>
<u>5.2</u> <u>GENERAL RESIDENTIAL SITE DEVELOPMENT STANDARDS.</u>	<u>61</u>
<u>5.3</u> <u>SPECIAL RESIDENTIAL SITE DEVELOPMENT STANDARDS.</u>	<u>63</u>
<u>5.4</u> <u>GENERAL COMMERCIAL/INSTITUTIONAL SITE DEVELOPMENT STANDARDS</u>	<u>71</u>
<u>5.5</u> <u>SPECIAL COMMERCIAL/INSTITUTIONAL SITE DEVELOPMENT STANDARDS</u>	<u>71</u>
<u>5.6</u> <u>GENERAL RECREATION SITE DEVELOPMENT STANDARDS</u>	<u>72</u>
<u>5.7</u> <u>SPECIAL RECREATION SITE DEVELOPMENT STANDARDS</u>	<u>72</u>
<u>5.8</u> <u>GENERAL RESIDENTIAL SITE DEVELOPMENT STANDARDS FOR R-2-CLUSTER SFD DEVELOPMENT</u>	<u>73</u>

5.9	DEVELOPMENT STANDARDS FOR THE 2024SPECIFIC PLAN AMENDMENT AREA	77
SECTION 6.0		
6.1	PHASING	95
6.2	OFF-SITE IMPROVEMENTS	96
6.3	HOME OWNER'S ASSOCIATION AND COVENANTS, CONDITIONS & RESTRICTIONS	97
6.4	ASSESSMENT DISTRICTS	98
6.5	ARCHITECTURAL CONTROLS AND DESIGN REVIEW	99
6.6	ENVIRONMENTAL MITIGATIONS	99
6.7	ON-SITE IMPROVEMENTS	115
6.8	FLOOD CONTROL	117
6.9	ADMINISTRATION AND AMENDMENT OF THE SPECIFIC PLAN	117

LIST OF EXHIBITS

<i>EXHIBIT</i>	<i>SYM</i>
NCP VERANO LLC PARCELS OWNERSHIP	1-1
SPECIFIC PLAN PLANNING AREAS AND LAND USE CATEGORIES <i>WITH THE 2024 AMENDMENT AREA OUTLINED IN RED.</i>	3-1
EXHIBIT 3.2: ORIGINAL PLANNING AREA BOUNDARIES AND 2024 LOTTING PLAN	3.2
REGIONAL MAP	4-A
VICINITY MAP	4-B
PLANNING AREAS	4-D
STATISTICAL SUMMARY (as amended 2024)	4-E
PHASING PLAN (as amended 2024)	4-F
CIRCULATION PLAN (as amended 2024)	4-G
OPEN SPACE PLAN 4-H (as amended 2024)	4-H
LANDSCAPE MASTER PLAN (as amended 2024)	4-I
Exhibit 4-I-1: Community Recreation Park (amended 2024)	4-I.1
VILLAGE COMMONS	4-I.2
BOULEVARD PARKWAY	4-I.3
BLVD MEDIAN DRY WASH	4-I.4
NEIGHBORHOOD PARK	4-I.5
DRAINAGE & GRADING PLAN	4-J
<u>SFD CONCEPTUAL LAYOUTS AND DEVELOPMENT STANDARDS</u>	<u>5.1</u>
<u>ATTACHED CONCEPTUAL LAYOUTS AND DEVELOPMENT STANDARDS</u>	<u>5.2</u>
LOT CONCEPTS USE OF TERMS	5-A
LOT CONCEPTS USE OF TERMS	5-A.1
FRONT SETBACK ENCROACHMENTS	5-B
FRONT SETBACK ENCROACHMENTS	5-B.1
SIDE DRIVE SETBACK	5-B.2
SIDE DRIVE SETBACK	5-B.3
GARAGE SETBACK SERVICE LANES	5-C
GARAGE SETBACK CORNER/STREET	5-C.1
PRIVATE OPEN SPACE	5-D
SOLAR WALLS & SHADING DEVICES	5-E

LIST OF TABLES

Table 3-1 – Comparison of Approved and Proposed Unit Counts
(As Amended by 2024 Specific Plan Amendment)

Table 5.1 –Development Standards (Minimums) PA3.1, 5.1 – 5.4, 6.1 – 6.5

Table 5.2 –Development Standards (Minimums) PA 1.1 and 1.2

Table 6.1 – Blow Sand Mitigation Program

INTRODUCTION

Purpose and Intent of the 2024 Specific Plan Amendment (SPA 97-55-D)

The proposed action involving SPA 97-55-D is to amend the approved Rio Vista Village Specific Plan (RVVSP) (SP 97-55 as amended in 2016 (SPA 97-55-B) and 2017 (SPA 97-55-C)) for the following purposes:

- Establish single-family lots and multifamily parcels with associated tentative tract maps covering the undeveloped areas of the approved Specific Plan.
- Update development standards to address contemporary home and lot configurations.
- Update the Landscape Master Plan (Section 4.7) to allow climate appropriate trees in addition to mesquite trees for better longevity and appearance since mesquite trees have not weathered well the impacts of strong winds.
- Provide additional egress to Verona Road, aligned with Ventura Drive to the south.
- Modify the size of neighborhood parks within the Specific Plan Amendment Area and a number of smaller open spaces from the originally approved Exhibits 4-H, 4-I, 4-I.5.
- Omit the requirement for alley loaded units along Rio Vista Drive.
- Modify the design and programming of the recreation center by eliminating the “Beach Club and Water Park” and adding sports courts and gathering spaces.
- Provide updated technical studies to assess future development within the RVVSP. Where appropriate, mitigation developed under the 1997 SPA will be updated accordingly based on the updated technical studies and implemented for proposed future development under the SPA.
- Update the RVVSP second dwelling unit provisions to be consistent with current State law governing second dwelling units (Government Code section 65852.2 or as subsequently amended).
- Modify the circulation plan to be consistent with Tentative Maps 38709, 38710, 38711, 38712, 38713, and 38902.

The Amendment maintains the approved density, maximum unit count and the General Plan Land Use designation RL for the single-family detached residential areas (Planning Areas 3.1 (portion), 5.1, 5.2, 5.3, 5.4, 6.1, 6.2, 6.3, 6.4, and 6.5) and RMH and RH for the multi-family areas (Planning Areas 1.1 and 1.2) within the Specific Plan Amendment Area. The 2024 SPA presents home types to support the goals of the Specific Plan and the ongoing build-out of the Rio Vista Village Specific Plan.

- The Amendment will enable contemporized residential building types. This modification from the approved Specific Plan will address City housing needs and develop the vacant

residential areas of the partially developed Specific Plan property in a manner that fits well within the existing neighborhood fabric and offers additional housing options.

- Site development standards set forth in this Section and in the currently approved Specific Plan are tailored toward smaller lot single-family development and multi-family home configurations while being compatible with the adjacent uses.
- The continuing vision of the RVVSP is to encourage creative design solutions to accommodate a pedestrian-oriented neighborhood with ample recreation amenities and open space, consistent with the approved Specific Plan goals.
- Minor modifications to street configuration to provide larger parks and address neighborhood needs for circulation while remaining consistent with the Specific Plan's circulation pattern.

The 2024 Specific Plan Amendment Area is limited to 128 acres within APNs: 677-050-017, -018, -027, -031, -032, -033 and -034. Refer to Exhibit 1-1: Specific Plan Amendment Area.

2024 Specific Plan Amendment Compliance with California Environmental Quality Act (CEQA).

The Rio Vista Village Specific Plan (RVVSP or Verano) was originally adopted by the City of Cathedral City in 1998. In accordance with CEQA requirements, the RVVSP was evaluated pursuant to a mitigated negative declaration (Adopted MND) adopted by the City of Cathedral City (City) on January 14, 1998. The RVVSP allows for development of 1,362 residential units within the entire 303-acre RVVSP area. Development of 1,362-units over the 303-acre RVVSP area is referred to as the Approved Project.

The Adopted MND evaluated buildout of the RVVSP area pursuant to RVVSP design criteria and residential and non-residential allowances which included the development of 1,362 residential units within the entire 303-acre RVVSP area. In 2017, a second MND was adopted for Tentative Tract Map 37124, focusing on General Residential Site Development Standards for R-2 Cluster Single-Family Development and to add reference to other sections of the RVVSP referring to said development standards for cluster lots. Since 1998, a total of 528 residential units have been approved (470 constructed and 58 approved but not constructed).

The 2040 General Plan was adopted by the City of Cathedral City in 2021 and serves as a guide to the City's development and conservation through 2040. The CCGP EIR evaluated buildout of the Project site pursuant to proposed City of Cathedral City land use and zoning designations

(Low Density Residential (RL), Medium High Density Residential (RMH) and High-Density Residential (RH)).

The current amendment (SPA 97-55-D) does not propose changes to the approved RVVSP unit count and the approved maximum unit count, and the General plan Land Use designations and density for the single-family and multiple-family areas of the undeveloped portion of the specific plan. More specifically the current SPA proposed the following changes to the 1997 RVVSP (as amended 2016 and 2017):

- (i) Revision and modification of development standards for the undeveloped portions of the specific plan area for development of single-family and multiple-family within the undeveloped areas of the approved RVVSP and incidental changes to the landscape plan, circulation plan, parks plans, and to provide for alley-loaded units on Rio Vista Drive;
- (ii) Tentative Tract Map Nos. 38709, 38710, 38711, 38712, 38713 (consisting of 459 single-family residences), and Tract Map No. 38902 (consisting of up to 375 multi-family residential, attached and detached condominium units); and
- (iii) Construction of the remaining 834 residential units (of the originally approved 1,362 units) over the undeveloped portion of the RVVSP area (128 acres), with associated onsite and offsite improvements (collectively, the Project).

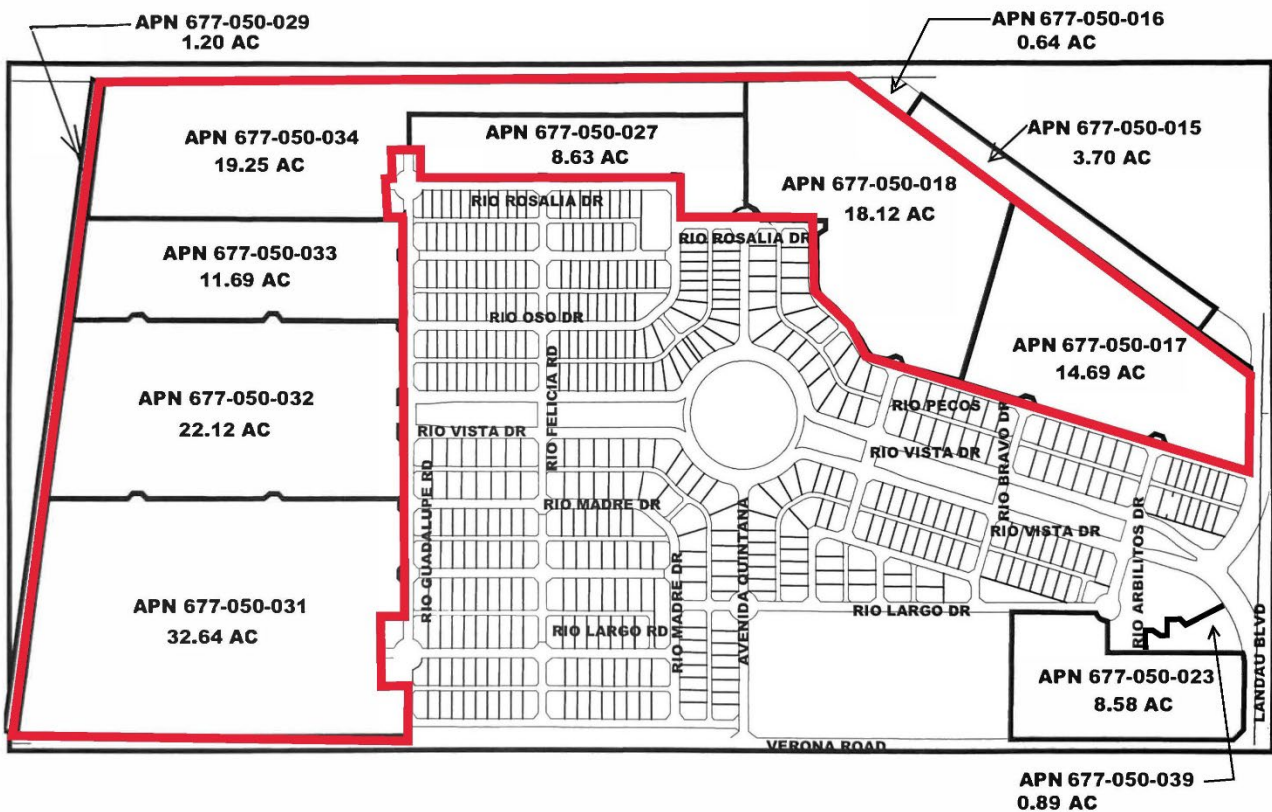
The Project implements the Approved Project and facilitates the development of the undeveloped portion of the RVVSP consistent with the maximum unit count, General Plan Land Use designations and densities and the approved uses in the RVVSP and is within the assumptions that were evaluated in the CCGP EIR and Adopted MND. A consistency analysis was prepared for the Project that evaluated construction and operation of the remaining 834 residential units, including onsite and offsite improvements.

The consistency analysis was prepared in January 2024 for the Project pursuant to Public Resources Code Section 21166 and State California Environmental Quality Act (CEQA) Guidelines Section 15162, 15163, 15164 and 15183. The consistency analysis determined that the Project is within the scope of the RVVSP/the Adopted MND and that no supplemental or subsequent negative declaration, environmental impact report or addendum is required to the Adopted MND. The consistency analysis evaluated the Project's consistency with the General Plan and Adopted MND. The consistency analysis determined that:

(1) the Project qualifies for streamlined CEQA review and exemption per CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan or Zoning);

(2) the Project is consistent with the conclusions in the Adopted MND; and
(3) none of the conditions requiring a supplemental or subsequent EIR, as specified in Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 (Subsequent EIRs) and 15163 (Supplement to an EIR), are present.

The Cathedral City 2040 General Plan Final EIR (CCGP EIR) and RVVSP Adopted MND, in conjunction with the consistency analysis, serves as the environmental review for the proposed Project.



Note: Area outlined in red is within the 2024 SPA area. Those parcels shown with APNs outside of the red outlined area are also owned by NCP Verano LLC but are not within the 2024 SPA area.

Exhibit 1-1: Specific Plan Amendment Area 2024

This Specific Plan was prepared to implement the intent of the Ahwahnee Principles in a predominantly residential village setting. The 303-~~area-acre~~ site that is Rio Vista Village Specific Plan is located on the northwest corner of Verona and Landau and is approximately 1 mile by 1/2 mile in dimension. Its location at the edge of existing development permits the use of innovative planning concepts without impacting in a negative way any of the existing developments (Sunix) or those approved, but not yet completed projects such as La Pasada. Yet for all its sense of partial isolation, Rio Vista is an inseparable portion of the whole of Cathedral City and as such is servant to the planning decisions made over the years that establish controls and precedents Rio Vista cannot and should not attempt to alter.

Within the boundaries of the project, we have attempted to include every suitable "new urbanism" principle that is appropriate for the size and nature of the project. We have proposed narrow streets to "calm" traffic and are using contemporary roundabouts and traffic circles. We have proposed smaller lots, service lanes, reduced front yards, porches, patios and verandahs, walkable streets, increased street trees and landscaping, open space distributed throughout the community, a hierarchy of common open space elements from passive parks to active water features and a concentration of community activity in a small village center.

What we cannot control is the fact that the site is removed from Vista Chino, the nearest through arterial and as such, local commercial and institutional uses will be small, phased and dependent on the immediate market area for economic support. We have proposed a roundabout at the intersection of Verona and Landau that requires the cooperation of the City and a minimum of four landowners. It is at this intersection that a village center ought to be developed but only Rio Vista has located uses and proposed improvements to support this notion.

The result is a valid attempt to integrate the planning principles of the new urbanists into an existing infrastructure of both land uses and existing community sensibilities. The result can be a truly innovative and vibrant community provided the City, the community, the developer and the merchant builders all adhere not to the strict letter of the zoning regulations but to the spirit of the underlying intent as embodied in the "Community Character Criteria.

SECTION 1.0

AUTHORITY, PURPOSE AND APPLICATION OF THE SPECIFIC PLAN

1.1 AUTHORITY

Specific plans are required to implement and be consistent with the General Plan. Rio Vista Village adheres to the underlying General Plan land use classification of Residential L-SP and proposes to construct no more than the permitted 4.5 dwelling units per acre which applied to the 302.62 acres of the site yields 1,362 units. The specific plan allows flexibility in design and planning standards, permits the drafting of a unique set of zoning regulations applicable only to the areas within the specific plan boundaries and in conjunction with applicable portions of the Planned Development Ordinance ensures adequate open space and recreational opportunities for the residents and guests of Rio Vista Village.

1.2 PURPOSE

The purpose behind this specific plan is simply to take maximum advantage of the flexibility offered by the ability to draft a unique and suitable set of development policies, regulations and guidelines based on the Ahwahnee Principles. Its authority is found in Division B, Specific Plans of the Zoning Ordinance of the City of Cathedral City which enables landowners to implement California Government Code 65450 authorizing the use of specific plans.

1.3 APPLICATION

This specific plan addresses a variety of development and zoning issues for which regulations and standards are proposed. When specifically addressed, the provisions of this specific plan shall prevail over other city standards and existing zoning regulations. When the specific plan is silent on an issue, the currently enforced and applicable city regulations shall prevail.

In matters of interpretation the Ahwahnee Principles shall be looked to for guidance. Where specifically identified, the Director of Community Development shall render interpretations and make findings according to applicable law and the dictates of the policies and ordinances of the City of Cathedral City.

1.4 **EXTENT**

This specific plan deals directly with the permitted uses of the land, development regulations, densities, and site development criteria. Since this project is developed as a master planned community, the design themes and guidelines are provided in the Community Character Criteria booklet to be submitted separately and administered by the Master Developer or their representative or assignee.

SECTION 2.0

GENERAL PLAN CONSISTENCY

The following section contains specific General Plan policies, and objectives that are pertinent to Rio Vista Village. In general, however, the planning and design of Rio Vista Village is very sensitive to General Plan policies and especially to those that reflect the adoption of the Ahwahnee Principles. In the discussion of the General Plan that follows, the page number on which the applicable section is found precedes the section in *italics*. That is followed by the RIO VISTA RESPONSE section wherein those portions of the Specific Plan that apply are discussed.

SECTION/PAGE POLICY DISCUSSION:

A. COMMUNITY STRUCTURE

1. COMMUNITY SECTORS COMPONENT

11-6 (c. Needs) "...Vista are in many ways the most challenging. The overwhelming need in this area is to find ways of living with the pattern of existing lots without creating a chaotic mess. Very creative development standards and incentives will be needed. Considerable refurbishing of existing public improvements and protection from blowsand will be required."

RIO VISTA RESPONSE: The planning and design concepts that guide the development of Rio Vista Village are founded in the Ahwahnee Principles, the planning principles adopted by the city. Far from creating a "chaotic mess," these principles and their application in Rio Vista Village create clear organization within a framework of safe streets, walkable neighborhoods, local open space network and innovative design guidelines.

11-7 (e. Objectives, Policies and Programs)

*1.1.2 **Program:** Develop landscape programs which allow some localized variation where local identity can be reinforced.*

*1.1.3 **Program:** Wherever possible, reinforce sector identity through design of public improvements.*

RIO VISTA RESPONSE: The master landscape program for Rio Vista Village is a creative response to the desert environment and is based on the notion of developing a community within a grove of mesquite trees or other climate appropriate trees. Additionally, the signature street, Rio Vista Drive, is a median divided street. The 100' wide median serves as both detention basin and landmark landscape feature unique in the city.

2.1.1 Program: Write zoning districts to recognize sector variations.

RIO VISTA RESPONSE: The zoning regulations and development standards written for this specific plan create unique, specific and locally sensitive criteria aimed at implementing the Ahwahnee Principles at the local level.

2. ACTIVITY CENTERS COMPONENT

11-10 (e. Objectives, Policies and Programs)

2.1.1 Program: *Write zone code and subdivision regulations which provide for neighborhood activity centers.*

2.1.3 Program: *Coordinate future school locations with the Palm Springs Unified School District so sites, to the extent needed, will function as neighborhood centers.*

RIO VISTA RESPONSE: Rio Vista Village provides a village center that contains an elementary school (located and sized per PSUSD criteria), a small commercial/institutional facility and a community recreation center inclusive of swimming pool, sports court and clubhouse-a city level recreation facility, proposed as a water park.

3. OPEN SPACE, CONSERVATION AND RECREATION COMPONENT

II-17 (e. Objectives, Policies and Programs)

1.1.6 Program: *Develop standards, criteria, regulations and incentives to achieve strengthened community features and image by use of open space features.*

1.2.1 Program: *Develop landscape standards and lists of approved desert landscaping materials for open space and landscaped areas.*

1.4.3 Program: *Establish assessment districts for each community sector for the purpose of funding park acquisition or improvement budgets.*

RIO VISTA RESPONSE: Rio Vista Village utilizes a well-connected network of open space elements and features, each of which contributes to the sense of unique identity established for the village. The single largest open space feature, the detention basins encompass over 11 acres of xeriscape treatment linking the designed environment back to its environmental context in an appropriate and water conserving manner. As a part of the development, a ~~4-acre city park is planned for a water feature, swimming lagoon with sandy beaches and tree groves a the major entry to the village~~four-acre community recreation facility will be included with swimming pool, sports court and a clubhouse. -Thus, both the city and the village enjoy the park's design and location as a place-making feature of the urban scape.

4. URBAN DESIGN COMPONENT

11-2 (e. Objectives, Policies and Programs)

1.1.3 Program: Regulate the setbacks, height and bulk of buildings through the provisions of an updated zone code.

RIO VISTA RESPONSE: This specific plan proposes a complete zoning code to regulate the development within the project boundaries. These provisions are both updated and based on the neo-traditional planning concepts and principles embodied in the Ahwahnee Principles and the Charter of the New Urbanism.

B LIVING ENVIRONMENTS

1 LAND USE COMPONENT

Note: On February 19, 1992, the City Council approved a General Plan Amendment and Re-zoning application that placed Rio Vista Village within Land Use Category “L-SP”, Low Density Residential requiring a Specific Plan. The property was rezoned to R1-7.2-S

11-33 1) Residential

Low Density Residential: This category permits residential development from a base density of 2 du/ac to a maximum of 4.5 du/ac. It is intended to accommodate single-family detached dwelling units.

RIO VISTA RESPONSE: Rio Vista Village proposes to develop the entire residential portion of the village within the density limits of Low Density Residential. A maximum of 1,362 units are permitted. Within individual planning areas of the project, however, higher densities are both permitted and encouraged to achieve the mix of residential types, prices and ~~life-styles~~ lifestyles that are at the heart of the Ahwahnee Principle’s attempt to develop real, integrated communities. Within the planning constraints of the plan, in excess of 1,000 of the 1,392 units are proposed as detached single-family units. ~~An additional 150 units~~ The remainder are expected to be developed as attached single-family within a condominium ownership program. The result is that ~~approximately 1,150 of the 1,362~~ most of the dwellings within the plan are intended for home ownership opportunities.

II-39 (e. Objectives, Policies and Programs)

2.1.1 Program:

Identify vacant or underutilized areas of the City where support systems are capable of serving intensification of development.

3.1.2 Program:

Establish and adopt Specific Plans for developing or guiding development of major land holdings.

3.2.1 Program:

Establish planning areas as building blocks of community planning efforts.

3.2.2 **Program:**

Identify development control needs to support individual planning area character.

RIO VISTA RESPONSE: Rio Vista Village was a large (303-acre) vacant parcel immediately adjacent to existing development. Substantial infrastructure improvements were made prior to 2024 by the City in terms of water and sewer services to the adjacent tracts. The underlying General Plan category required a Specific Plan for the 1997 project on the site. The Specific Plan utilized the planning area concept to develop both sensible units of development and neighborhood-sized components that relate to infrastructure and land use patterns. A companion document to the 1997 Specific Plan is the Community Character Guidelines in which reside the design and image controls for the entire village.

2

ENERGY COMPONENT

11-109 (e. Objectives, Policies and Programs)

1.1.1 **Program:**

Explore conservation measures then apply them to building design, to include, but not be limited to:

- *Minimal glazing exposure to reduce heat transfer.*
- *Light colored reflective walls and roofs.*
- *South oriented roofs for greatest heat gain in winter and ease of retrofit for solar energy installation.*
- *Weather strip on all doors and windows.*
- *Entry airlocks (vestibules) to reduce exterior air infiltration.*
- *Insulated air conditioning air ducts and hot water pipes.*
- *Active and passive solar heating.*

1.1.2 **Program:**

Apply the following conservation measures to site design:

- *Locate buildings as much as possible to benefit from natural ventilation and cooling; perpendicular to the direction of the wind in summer.*
- *Reduce extent of paved areas.*
- *Shade paved areas by using trees along streets and parking areas.*
- *Utilize landscaping to maximize shading of structures in summer months.*

RIO VISTA RESPONSE: The design of individual dwellings within the project will be in the hands of the planners, engineers, architects and landscape architects retained by the

merchant builders working within the overall sales and management plan for the village. Certain portions of the master plan, however, will be built by the master developer who will exert both control over the design and by example set a high level of sensitivity to the environmental forces acting upon the site. The accompanying Community Character Criteria booklet contains specific design recommendations dealing with the placement of structures, their design, the use of the lot, and provides for specific measures and features to be employed to deal with solar heat gain, wind and blowsand intrusion and the creation of sizable shaded outdoor living areas.

Ahwahnee Principles and the New Urbanism:

The Ahwahnee Principles have been adopted by Cathedral City as the guiding framework for community development. The principles are derived from the best of our older and most pleasant communities. They stress walkable communities, integrated uses, a fine grain mix of housing types and densities, a focus on the community center, a return to pedestrian orientation and a relegation of the automobile to a subservient, rather than a dominant role. Since that time the Congress of the New Urbanism has refined the principles and re-directed them to the most discrete issues faced by architects and planners designing neighborhoods and their components: the blocks, streets lots and homes of the community.

RIO VISTA RESPONSE

Rio Vista Village will include such practical applications as reduced local street widths, tighter intersection curb radii, service lanes (alleys), reduced front yards and grid street layouts. We have re-introduced the “roundabout” to facilitate local traffic flow and are employing a grand boulevard as the central organizing element of the plan. The boulevard serves a variety of purposes, e.g., traffic separation and control, storm water retention in the median, xeriscape landscape development, passive recreational enjoyment and a PAR course and in the central traffic circle, a 3-acre community park.

Specific Plan Ordinance:

The Specific Plan Ordinance, (Division B of the Zoning Ordinance) details the requirements for the preparation of specific plans. This document responds to these requirements and addresses every mandatory element. In particular, a specific plan may amend the General Plan and create a set of zoning regulations applicable to the parcels within the project boundaries. These regulations may vary from the underlying zone classification so long as the density and basic criteria for consistency with the General Plan are observed.

RIO VISTA RESPONSE

Within this document, a unique set of zoning regulations are provided that implement the Ahwahnee Principles in specific terms as applied to both neighborhood planning and individual lot design. Rio Vista Village has adopted the most flexible and the most

innovative sections of all applicable ordinances and combined them with the precepts of the new urbanist principles.

Planned Unit Development Ordinance:

The Planned Unit Development Ordinance (~~Ord. 262, DIVISION S, ARTICLE V of the Zoning Ordinance~~Codified as Chapter 9.98 in the Cathedral City Zoning Ordinance) provides for the use of innovative planning and design treatments that vary in some manner from the strict requirements of the standard zoning regulations.

RIO VISTA RESPONSE

In particular, the Planned Development Ordinance requires additional common open space as a trade-off for using lots smaller than the standard lot of 7200 square feet. Rio Vista Village provides more than the required aggregate area.

THE AHWAHNEE PRINCIPLES AND CHARTER OF THE NEW URBANISM

These sections have been moved to an appendix at the end of the Specific Plan.

SECTION 3.0

PROJECT DESCRIPTION

INTRODUCTION

In 1997, the City of Cathedral City approved the Rio Vista Village Specific Plan (RVVSP). The RVVSP was composed of 302.62 acres of which 275 were developable. The Specific Plan permitted up to 1,362 homes to be constructed in addition to open spaces, recreational amenities, and other community features. The vision of Rio Vista Village was, and continues to be, a pedestrian-oriented community inspired by the Ahwahnee Principles and cornerstones of the Congress for New Urbanism, inclusive of walkable streets, homes that front the public realm (sidewalks and streets), compact development, and a mix of uses.

The Rio Vista Specific Plan was amended in 2016 and 2017 to accommodate additional development standards for cluster development. The 2016 amendment included a change to the text of the MF-4 land use category and a density transfer between Planning Areas 2.2 and 2.2. The 2017 amendment included a text amendment to add Section 5.8: General Residential Site Development Standards for R-2 cluster development and subdivision of 7.06 acres into 58 single-family cluster lots. Neither the 2016 nor the 2017 amendment increased the maximum number of dwelling units permitted under the RVVSP. The maximum number of dwellings remained the same at 1,362 units.

~~Rio Vista Village contains 302.62 acres of which 275 are developable, and will accommodate 1362 homes and perhaps 4000 people at full build out. While not a town, four thousand people do comprise a village by most any definition. Within the village will be found a school, day care center, neighborhood commercial uses, a major community water park, community information/project sales center, a variety of residential types and prices and both village and neighborhood parks.~~

~~In the planning and design of Rio Vista Village we are addressing the creation of a new community. As important as the homes are to those who live in them, as important as the local commercial establishments are to those who operate them and as important as the local recreation facilities are to those who frequent them, it is in the overall sense of community and the creation of a real identity and sense of place that we find our fundamental objective.~~

~~Rio Vista Village is, as most new urbanism based developments are, a pragmatic blend of real world market demands mixed with a sense of idealism and the notion that good community design can contribute something of lasting value to our culture. Rio Vista adds another ingredient to the mix in the name of ecological sensitivity and response to environmentally generated criteria.~~

~~The recession brought to a halt the southern California practice of home purchasing as a speculative commodity investment, certain to appreciate annually in double digits. Southern Californians are remaining in their homes longer. They are rekindling their interest in the~~

surrounding community. The historic preservation movement is growing rapidly and wielding an ever growing political clout in local decision-making chambers. Neighborhood Watches abound. School boards are proactively dealing with day care and latch key issues. The search for community is real.

The Coachella Valley has few if any truly environmentally based master planned communities. Most of the valley has developed as an extension of the Planned Unit Development or tract type land development patterns originated in the less severely constrained environments of coastal and inland Southern California. The other dominant development pattern has been the country club resort plans that really define the desert response to demands for creative planning and these are fundamentally PUD based plans. The resort plans are primarily known by their lush landscaping, provided at a tremendous water cost and creating an artificial, but welcome, oasis in the desert valley. Further, the plant material is both exotic and non-adaptive, i.e., without water, most species would wither and die quickly.

Country clubs and resorts have yet another profoundly important aspect that Rio Vista cannot duplicate. Resorts are by definition high end in the market place. Rio Vista, on the other hand, will provide affordable housing without the benefit of redevelopment funds or the largess of wealthy guests and tourists.

Out of this simple set of parameters emerge four central drivers of the design:

- 1——An honest desire to utilize the Ahwahnee Principles and the practical applications of "new urbanism" in the design of the community.
- 2——The need to market each design decision to the merchant builder community with its understanding of the market.
- 3——The need to provide affordable housing independent of agency assistance while keeping supplemental tax burdens and association dues to a minimum.
- 4——An awareness of the need to respect the environment and its severe demands and impacts. These influences include the railroad/freeway as noise and vibration sources; the powerful impact of the wind and blowsand, exacerbated by the sites immediate proximity to the Whitewater River/Morongo Wash; on-site storm water retention; and the heat and solar exposure of the summer sun.

2024 SPECIFIC PLAN AMENDMENT

The Specific Plan Amendment area is comprised of a total of approximately 128 acres located within the RVVSP. More specifically, the applicable Planning Areas (PAs) are PA-1.1, 1.2, 3.1 (portion), 5.1, 5.2, 5.3, 5.4, 6.1, 6.2, 6.3, 6.4, and 6.5. The Planning Areas are currently vacant within the partially developed Specific Plan. The Specific Plan Amendment area is generally bounded by the following existing features: Landau Boulevard to the east, the Union Pacific Railroad and Interstate 10 to the northeast, vacant land to the north, Rio Rosalia Drive, Rio Pecos Drive and Verona Road to the south, and Whitewater River and Morongo Wash flood control channel to the west.

The 2024 Specific Plan Amendment (the Amendment) does not increase density but presents new development standards to address new housing typologies. Refer to Exhibit 3-1 and Table 3.1.

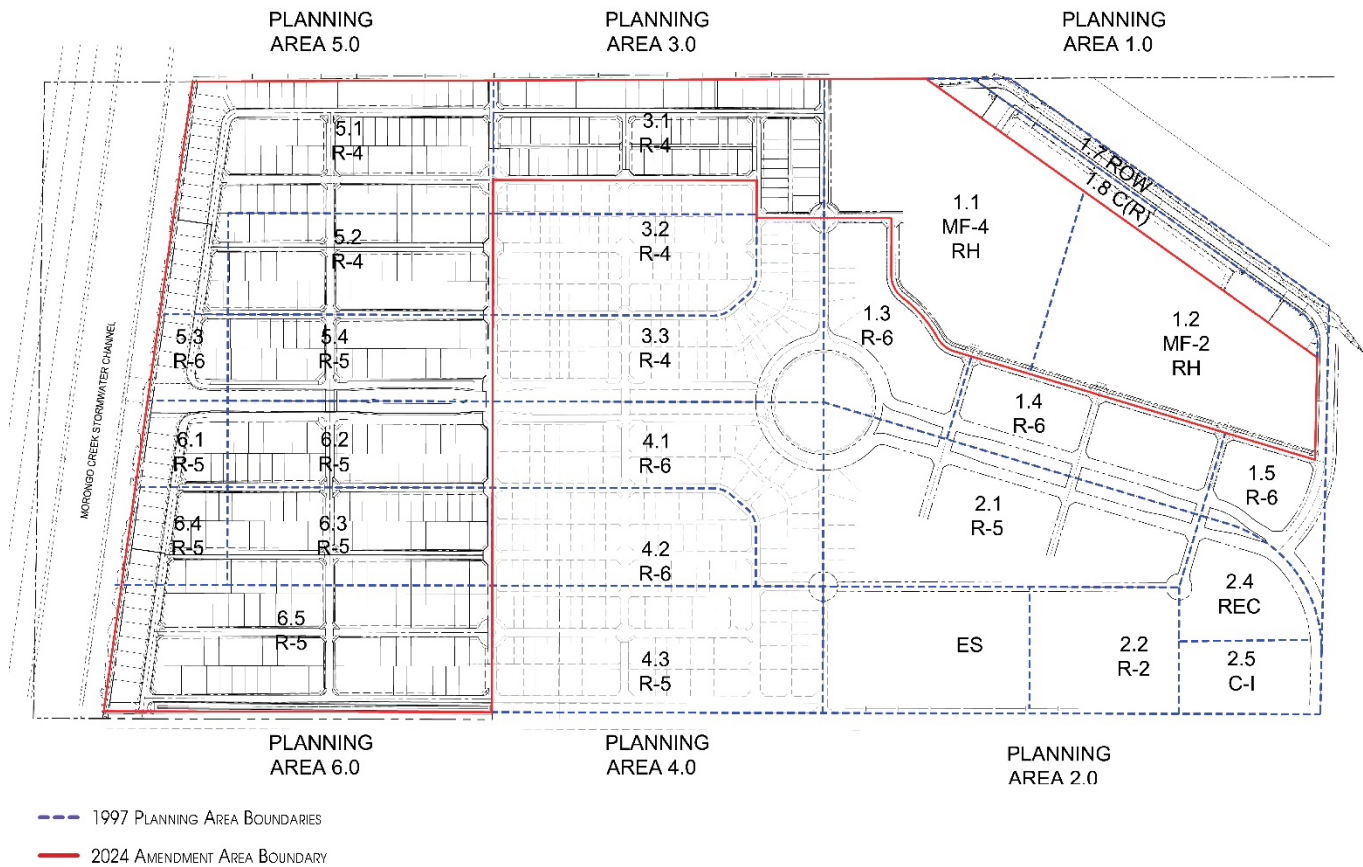


Exhibit 3-1: Specific Plan Planning Areas and Land Use Categories with the 2024 SPA Area Outlined in Red.

Table 3.1: Comparison of Approved and Proposed Unit Counts
(As Amended by 2024 Specific Plan Amendment)

PA	Land Use Category	Acres	Max Allowable Residential Density (As Amended 2017)	Max Allowable Units (As Amended 2017)	Actual Density	Actual Units	Proposed Density (2024 SPA & TM37124)	Proposed Units (2024 SPA & TM37124)		Transfer
1										
1.1	Residential (MF-4)	18.1	24	434	TBD	TBD	11.60	210		
1.2	Residential (MF-2)	14.61	20	292	TBD	TBD	11.29	165		
1.3	Residential (R-6)	4.95	5.5	27	4.85	24	N/A	N/A		N/A
1.4	Residential (R-6)	5.73	5.5	32	5.58	32	N/A	N/A		N/A
1.5	Residential (R-6)	1.96	5.5	11	7.65	15	N/A	N/A		N/A
1.6	Recreation	0.44	N/A	N/A	N/A	N/A	N/A	N/A		N/A
1.7	Roadway Dedication	3.92	N/A	N/A	N/A	N/A	N/A	N/A		N/A
1.8	Commercial	4.69	N/A	N/A	N/A	N/A	N/A	N/A		N/A
		54.4		796		71		375	*	
2										
2.1	Residential (R-5)	13.23	6.5	86	5.29	70	N/A	N/A		N/A
2.2	Residential (R-2)	4.49	15	58	12.92	N/A	N/A	58		N/A
2.3	Elem. School	10	N/A	N/A	N/A	N/A	N/A	N/A		N/A
2.4	Recreation	4.07	N/A	N/A	N/A	N/A	N/A	N/A		N/A
2.5	Commercial	3.03	N/A	N/A	N/A	N/A	N/A	N/A		N/A
		34.82		144		70		58	**	
3										
3.1	Residential (R-5)	16.86	8	135	N/A	21	6.58	90		N/A
3.2	Residential (R-5)	8.8	8	70	7.39	65	N/A	N/A		N/A
3.3	Residential (R-5)	8.84	8	71	8.03	71	N/A	N/A		N/A
		34.5		276		157		90	*	
4										
4.1	Residential (R-6)	8.88	5.5	49	5.18	46	N/A	N/A		-1
4.2	Residential (R-6)	8.65	5.5	48	6.24	54	N/A	N/A		+6

4.3	Residential (R-6)	14	6.5	91	5.14	72	N/A	N/A		-5
		31.53		187		172		0		
5										
5.1	Residential (R-4)	17.15	8	137	N/A	N/A	5.25	90		-11
5.2	Residential (R-4)	8.8	8	70	N/A	N/A	5.91	52		
5.3	Residential (R-6)	1.56	5.5	7	N/A	N/A	5.77	9		+2
5.4	Residential (R-5)	5.73	6.5	26	N/A	N/A	6.11	35		+9
		33.24		240		0		186	*	
6										
6.1	Residential (R-5)	1.91	6.5	9	N/A	N/A	5.76	11		+2
6.2	Residential (R-5)	5.73	6.5	26	N/A	N/A	6.28	36		+10
6.3	Residential (R-5)	8.8	6.5	57	N/A	N/A	5.80	51		
6.4	Residential (R-5)	3.21	6.5	21	N/A	N/A	5.61	18		
6.5	Residential (R-5)	16.17	6.5	105	N/A	N/A	4.14	67		-12
		35.82		218		0		183	*	

Total **224.31** **470** **892**

Notes:

*: Unit count proposed in 2024 SPA.

**: Unit count Approved in TM37124.

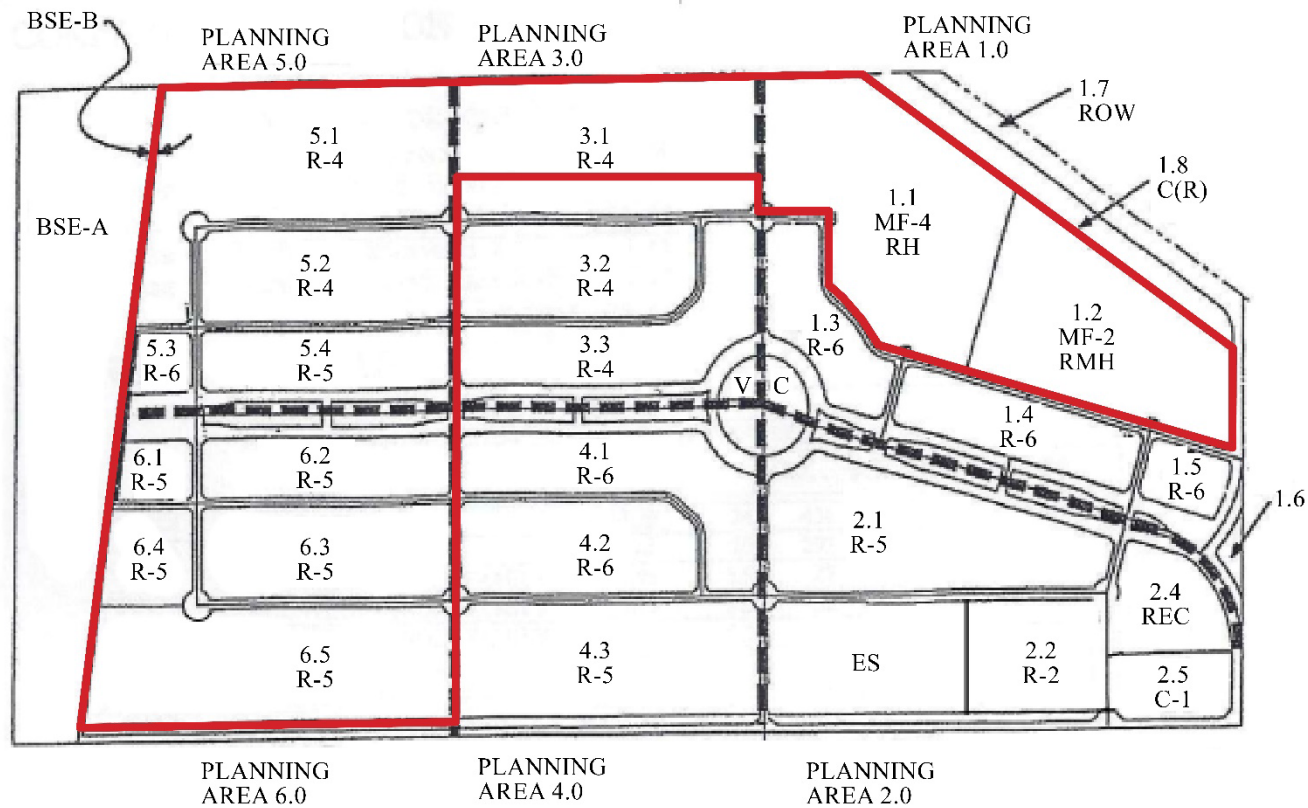
Second dwelling units for rent may be included above the 1,362-unit limit subject to the requirements of Government Code section 65852.2.

Planning Areas have slightly adjusted from the original Specific Plan to adhere to the 2024 proposal; however, no Planning Area exceeds its allowable unit count or density. Refer to Exhibit 3.2.

Within Planning Area 4, Planning Area 4.2 receives 6 units transferred under Section 4.3.2 from Planning Area 4.1 (1 unit) and Planning Area 4.3 (5 units). Planning Area 4.1 is now permitted to have 47 units, Planning Area 4.2 is now permitted to have 54 units, and Planning Area 4.3 is now permitted to have 72 units.

Within Planning Area 5, Planning Area 5.3 receives 2 units transferred under Section 4.3.2 from Planning Area 5.1; and Planning Area 5.4 receives 9 units transferred under Section 4.3.2 from Planning Area 5.1. Planning Area 5.1 is now permitted to have 126 units, Planning Area 5.3 is now permitted to have 9 units, and Planning Area 5.4 is now permitted to have 35 units.

Within Planning Area 6, Planning Area 6.1 receives 2 units transferred under Section 4.3.2 from Planning Area 6.5; and Planning Area 6.2 receives 10 units transferred under Section 4.3.2 from Planning Area 6.5. Planning Area 6.1 is now permitted to have 11 units, Planning Area 6.2 is now permitted to have 36 units, and Planning Area 6.5 is now permitted to have 93 units.



— 2024 AMENDMENT AREA

2024 Amendment Area

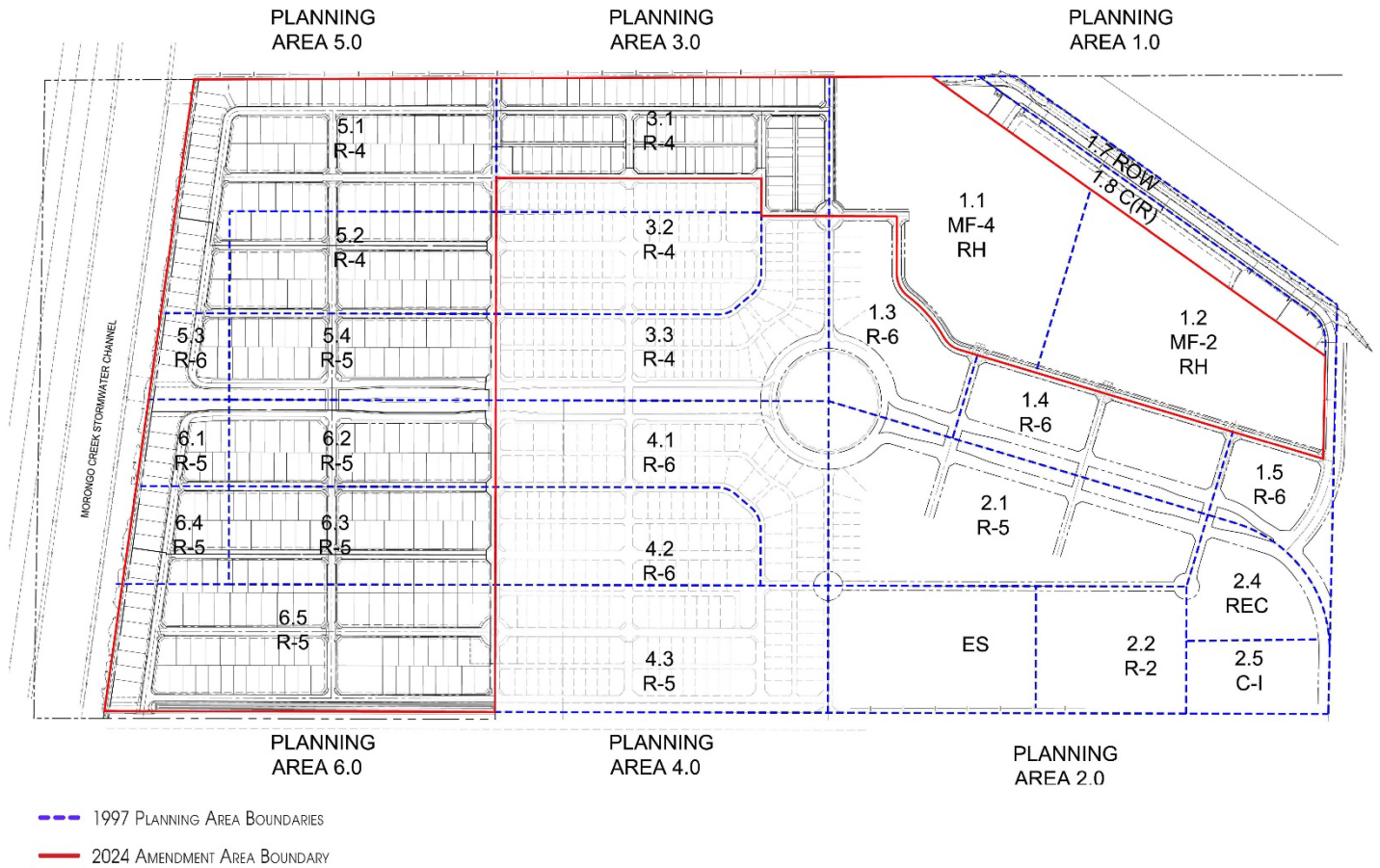


Exhibit 3-2: Original Planning Area Boundaries and 2024 Lotting Plan

COMMUNITY AND NEIGHBORHOOD: For ~~our purposes we define~~ the purposes of the Specific Plan, neighborhoods and villages are defined as serving essentially the same role in the hierarchy of human habitation. The primary distinction between villages and neighborhoods is one of size and intensity of commercial development.

RIO VISTA VILLAGE

Rio Vista is a village in that it contains six distinct neighborhoods and a small district/village center. By no means, however, could Rio Vista Village be defined as being self-contained. It is and will always be a component part of the larger community of Cathedral City and of the valley in general. As a component part, Rio Vista faces the challenge of integrating its neo-traditional environment into the suburban patterns that define its surrounding context. Rio Vista Village will have a distinct village center containing open space, civic uses, recreation and goods and services required for daily life.

COMPACT COMMUNITIES: That Rio Vista Village has definitive edge conditions there can be little doubt. The Verona Road (southern) and Landau Blvd. (eastern) edges are developed as local collector streets. Verona has the additional distinction of a linear, 40-foot-wide storm water retention basin landscaped as a desert dry wash that will further separate and define the community's boundary. To the west lies the Whitewater River and Morongo Wash, permanent flood control channels that define not only the village of Rio Vista, but is the municipal boundary as well. To the north lies undeveloped land and the blower corridor, railroad and freeway.

~~*MIXED USE COMMUNITIES: Rio Vista Village is currently programmed for seven housing types, densities and price ranges. We also propose to develop a community water park offering a swimming lagoon, picnic areas, parking and modest restroom and administrative facilities. The village center also contains a neighborhood commercial complex including sales office and information center. Immediately adjacent is a 10-acre elementary school site.*~~

PEDESTRIAN COMMUNITIES: Perhaps in its handling of the car has Rio Vista paid its greatest allegiance to the new-traditional planning principles. ~~Every single~~ Single-family homes ~~fronting the boulevard will either contain service lanes (alleys) or be conventionally loaded with architecture "forward."~~ Architecture forward is a term used to describe homes where garages are set back farther from the street than living space, thus highlighting the living space part of the house elevation rather than the garage becoming the dominant visual feature. ~~fronting the boulevard is served by a service lane (alley) which provides both vehicular access to the garages and serves as the utility spine and service corridor.~~ The proposed design guidelines encourage the use of service lanes but also permit garages located toward the rear of the lot.

Local streets are narrow, parking is permitted on both sides which will contribute to slowing through traffic to a safe rate of speed. Sidewalks are separated from the street by a parkway and the parking lane. At local street intersections the parkway is extended another five feet thus narrowing the drive aisle to 20 feet. Curb radii are 15 feet and create an opportunity for more extensive landscaping which will define intersections.

NEIGHBORHOOD CHARACTER

At the neighborhood scale, the relationships between homes, homes and street and homes across the street become the defining characteristics of neighborhoods. The character of neighborhoods is not so much architectural styles as forms, mass, landscape, materials and the handling of the car. ~~Neighborhood character is relatively immediate. Neighborhood character is tactile, fragrant and acoustic. Neighborhood character is not a thing, it's a feeling, a perception of the small and large relationships that exist without conscious thought.~~

~~A setback is felt not as so many feet, but as close or far, as comfortable or uncomfortable. Within the setback lies a piece of Americana known as the front yard. The American front yard is unique in the world. Nowhere else is so much precious land given away for so little utilitarian value. Nowhere else is private land devoted to an essentially public purpose or do so many weekend gardeners devote such love and caring on space never used. American front yards are primarily street decoration, bought, improved and maintained by private funds for purely aesthetic purpose.~~

RIO VISTA VILLAGE

~~Our~~ *The neighborhoods within the RVVSP are intended to will be pedestrian and resident friendly. Pedestrian friendly means streets designed for slow moving traffic, enjoyable walking,s and setbacks that bring building frontage closer to the sidewalk, and compact development. allow casual conversation between pedestrian and porch dweller. Resident friendly means smaller front yards, porches and front patios that return the front yard to family and social use, and a return to service lanes for handling automobiles, utilities and various urban services.*

NEIGHBORHOOD PLANNING ISSUES

Neighborhoods are the conceptual organizing element around which the community is developed. However many designs and projects comprise a neighborhood, they are intended to create a single socio/geographic framework for common community experience.

- VILLAGE IDENTITY: Among the issues demanding attention is the need to create a sense of place, a separate and perceivable identity for the village.
- STREET FRIENDLY DESIGN: Streets will be designed to be friendly both for pedestrians, residents and drivers.
- MATURE LANDSCAPE: A critical component will be the introduction of mature landscape within an overall master plan for planting.
- LANDMARKS IN THE LANDSCAPE: While homes and civic/commercial buildings will certainly create the vast majority of architectural experiences in the community, unique landmarks will be introduced to assist in locating oneself in the spatial environment.
- VILLAGE CENTER: There will be a village center containing civic/recreational uses, a school and neighborhood level commercial retail and service facilities.

VILLAGE IDENTITY: Each village and each neighborhood within it should exhibit some central focus around which the identity and activity of the community can coalesce. This central area will serve as an activity node tying together pedestrian circulation, offering small scale recreational uses, and an open space element. This is the area within each neighborhood where thematic design treatments are carried over from the village center and given some unique twist to set each neighborhood apart.

RIO VISTA VILLAGE

Rio Vista will have six identifiable residential neighborhoods plus the village center. Each neighborhood will have a clear set of boundaries: the boulevard, a property edge condition, a local collector and/or a change in use. Village identification efforts (signage, specimen landscape planting, architectural enrichments and monuments) are most intense at the village center and become more dilute the further one moves into the surrounding neighborhoods. Within the village center all buildings will receive special treatment to establish the architectural theme at the front door of the community, so to speak.

STREET FRIENDLY DESIGN: The concept of "street friendly" design suggests the notion that there can be a friendly relationship between home and street and vice versa. Porches, patios and reduced front yards all address the street and sidewalk as co-equal elements in the neighborhood spatial organization. Making the street friendly means narrow paved sections to slow traffic, convenient and attractive sidewalks, ample trees and on-street parking to provide a barrier between pedestrians and moving vehicles.

Streets are viewed from three different perspectives, each of which has its own merits and requirements. First, perceived from the window of a passing car, the neighborhood street scene is one of briefly glimpsed vignette. From a passenger's point of view, the neighborhood quickly becomes a collage of impressions and images, none dominant unless something emerged so visually grabbing that it stands out among the collective impressions. Remember, vehicles moving at 25 MPH takes slightly less than 3 seconds to pass a typical 100' lot frontage. From the standpoint of a pedestrian, the impressions are considerably more acute and readily separated one from another. The 2.5 MPH strolling pace is sufficiently slow that very specific observations can be made including quite deliberate study as progress is halted and extended viewing is conducted. This could also occur concurrently with conversation either with other pedestrians or with porch/yard dwellers.

The third point of view is ultimately the most critical and belongs to the person living in the home, facing the street and wanting to feel comfortable, safe and pleased with the view all at the same time. From a stationary point of view, the overall ambiance of the street becomes the perception

of significance until something occurs to draw attention to a specific feature or activity somewhere in the overall tableau.

RIO VISTA VILLAGE

The neighborhood streets of Rio Vista Village are designed to calm traffic by being narrow and by utilizing expanded sidewalks at intersections. Porches, patios and front courts may be ~~within 105 feet of from~~ the sidewalk, thus encouraging casual conversation between residents and passersby. Low walls at the back of sidewalk or raised porches with low handrails serve to define front yards as semi-private spaces, accessible only for those with legitimate business, whether commercial or social in nature.

The Front Porch: Typically raised to permit natural light and ventilation to basements, the handrails and steps, columns and beams and the roof form have all been combined in the public eye as an icon of civility and neighborliness, thus epitomizing the notion of "street friendly" design. Particularly in older, urban neighborhoods, setbacks are smaller, street trees plentiful and the distance between sidewalk and porch very comfortable for casual, unforced conversation. The raised floor, handrails and steps all declare the porch a private space, accessible, but only for those with legitimate purpose, either business or social.

RIO VISTA VILLAGE

Front porches are ~~encouraged~~encouraged, and an incentive is provided to further stimulate their use. A functioning front porch, however, must be at least 8' by 8' in dimension 6' deep to qualify as a standard porch. When so designed, the front setback is reduced to 10'. This expands the private rear yard area, reduces front yard maintenance costs and reduces water usage where xeriscapes are developed.

Service Lanes (Alleys): Second only to the lack of a porch in terms of creating unfriendly and antisocial spaces is the architecturally dominant garage and driveway. ~~For r~~Rear--loaded garages ~~and~~ accessed from an alley or service lane, ~~no~~ driveway is required. Properly designed, the service lane is surveillable by police, offers increased firefighting access to homes, provides the perfect location for utilities and such odious but necessary urban services as trash collection and above all, offers a safe haven for the automobile that simultaneously clears our streets of their presence and returns front yards to a human and social purpose. ~~The resulting improvement in the quality of the street scene and the opportunity for neighborly social contact is absolutely dramatic.~~

RIO VISTA VILLAGE

Service lanes are incorporated into the housing facing the boulevard. Within this regime, every type and density of single family dwelling is proposed to be built. Outside of the boulevard residences, however, service Service lanes are both permitted and encouraged, but not required. When garages are accessed directly from the public street, the street setback forces the garage to wards the rear of the lot. ~~Only a single car width of driveway may be used and within the front setback areas, this driveway must be a "Hollywood" type~~

~~drive with landscaping between the two concrete tire ribbons.~~

THE MATURE LANDSCAPE: The mature landscape is the dominant feature in visual preference surveys and may be the single most important element of beautiful neighborhoods and communities. A mature landscape supports the identity of the project by providing a gracious framework for streets, neighborhoods and special facilities.

RIO VISTA VILLAGE

A grove of mesquite and/or other climate appropriate trees: In Rio Vista Village we are proposing to develop the community as a collection of homes and streets carved from a grove of climate appropriate trees. Mesquite, a native of the desert and completely adaptable to the Coachella Valley environment matures into a lacy, gracefully branching ~~30 foot tall~~30-foot-tall canopy tree that becomes more veil-like as it matures. As a veil does not completely hide the features behind, so the mesquite filters the view but does not obscure it. With maturity the foliage becomes ever more gauze like so that the backdrop features, whether architecture, monument or other landscape, become more apparent as the tree grows taller and widens its canopy. Because mature mesquite trees have not weathered well in the strong winds, the 2024 Specific Plan Amendment allows for climate appropriate trees other than the existing mesquite such Prosopis X Phoenix which is a hybrid mesquite and other wind hardy trees.

Xeriscape design: On the ground plane, the xeriscape approach conserves water, reduces maintenance and lowers HOA dues. In an affordable community, landscape maintenance portions of the dues structure can frequently be the single largest line item of the annual budget. In the boulevard median, the treatment assumes the qualities of a dry stream bed and since its functional purpose is to store 100-year storm water, the landscape concept reinforces its functional role.

The Boulevard: The median of the boulevard is the visual spine of the project, flanked by the boulevard's one-way travel lanes. It serves as the primary visual and pedestrian element linking the entire project together. The median is conceived as a desert wash, dry virtually every day except when the infrequent but violent rains that define the desert climate hit with the force of monsoon storms. This wash, which also serves as a retention basin, is 100 feet wide, 8 feet deep and rises at a 4:1 slope to the boulevard elevation.

Within the wash is a meandering path, with intermittent trees of Mesquite, Palo Verde, and Willow planted in clusters to create "rest spots" for the pedestrian and jogger. Surface treatments will consist of low, spreading native and indigenous plant species, with abundant seasonal color, grouped in masses with the remaining area consisting of neutral color crushed stone and stabilized decomposed granite for trails. After studying the climate conditions and how residents currently use such outdoor spaces, the meandering path will remain along with landscape treatments. However, exercise installations as initially

proposed in the infant stages of this master planned community will no longer be implemented in the wash, as climatic conditions make these installations unusable at many times of the year. Recreation and fitness opportunities will be focused on the Recreation Center.

In the village center, more green is required to create the look and feel of an oasis, so a new palette of material is introduced. Turf appears, lush ground covers and shrubs are used and trees are more densely foliated and clustered into glens and groves.

Neighborhood character: In the neighborhoods, however, the xeriscape approach becomes less dominant. Front yards are treated as man-made and designed extensions of the natural desert environment and the home is designed to rise naturally and comfortably from the desert floor. Porches and entry courts are treated as semi-private retreats from the sun and heat of the yard and cast deep, dark shadows in high contrast to the walls that define them. ~~Because the front yards are reduced in size to 10 feet, active recreation is inappropriate and is redirected to the neighborhood parks or back yards. It is here, in the rear yards behind secure walls and enclosed by the structures themselves, that turf, shrubs, flowers and water dependent trees will be found. The rear yard is each family's personal oasis, a retreat from the public realm of intense climatological influences.~~ High fence/walls (8 feet high) and sun walls (southern exposure walls permitted two stories high) enclose a very private and secure personal zone, free from the exposure and noise of the street and designed to keep adjacent eyes from prying.

LANDMARKS IN THE LANDSCAPE: Landmarks are specific elements of the environment (not necessarily man-made) that retain an individual and unique identity over time, and thus provide a locational fix for residents and guests. Landmarks can be public art, statues, buildings or parts of buildings or special landscape features.

- Keep the number and nature of landmarks unique and well-spaced within the community.
- Their impact is far more important than simply to serve as locating devices. Landmarks become community symbols and serve as visual links to historical, local and/or regional culture.

RIO VISTA VILLAGE

Entry Monument: Rio Vista Village proposes to develop an entry feature of substantial size and quality. The parklike setting occurs directly in the sight line of entering vehicles. A tightly clustered grove of date palms will serve to identify and mark Rio Vista in the urban landscape.

Commercial Architecture: The commercial site is quite small yet uniquely situated to provide a dramatic architectural statement at the entry to the village.

~~Bridges: Bridges are proposed at the crossings of Rio Vista Drive and local collector streets. These bridges are raised crossings with separated pedestrian walkways and special architectural and landscape treatments. Each bridge is intended to become a singular landmark in the community.~~

Village Commons: The Commons is the central core of the community and will serve as the primary landmark for both locational and identification purposes. This three- acre community park breaks the linearity of the boulevard into two smaller segments and is positioned to be seen from a multitude of vantage points. The commons contains both active and passive recreation spaces, highlighted by a tightly grouped, mature date palm grove with stabilized decomposed granite surfaces and a water element with table games and seating. The date palm grove alludes to the regional history of date farming, the water element to the vital role water plays in the Coachella Valley. Mesquite and/or other climate appropriate trees, used to provide shade in parking areas ties the park to its desert environment and continues the theme begun in the boulevard median. Access is provided through a four-quadrant sidewalk system, connecting to each adjacent neighborhood, by safe crosswalks through the roundabout. Open lawn for active play is provided of approximately 3/4 acre and includes an interactive water feature.

THE VILLAGE CENTER: Village centers are intended to be the focus of communal life in the community. The village center is made up of the elementary school, the water park recreation facility and the commercial/institutional center. While too small for standalone civic and institutional facilities, the village center does offer the best opportunity for creating a community meeting place and for tying the most intense uses together in a setting for community activities.

RIO VISTA VILLAGE

The architectural forms and massing of the commercial structures will be simple, strong and accented with architectural features such as clock towers and vaulted roofs that create in themselves, landmarks in the civic landscape. Commercial structures in our village center have two faces. One fronts the street and must be both welcoming and formal. Welcoming because commerce must open its arms to its clients and consumers, formal because the street facade is its public face. The other face is its plaza or parking face and here it can be casual, open, pedestrian oriented and still accommodate service and utility requirements.

All community serving structures, particularly commercial buildings, will display a special concern for creating social spaces, using striking and colorful architectural features, employing tactile and human scale detail treatments and sporting embellishments (treillage, arbors, plazas, awnings, lighting standards and fixtures, special graphics, colonnades, pergolas, cloisters, porticos, etc.) that create a distinct presence on the street and within the overall community.

The ~~beach club~~Recreation Facility: The ~~beach club~~recreation facility is the third element of the village center and provides multiple recreation opportunities. It is also a component of the primary entry to the entire village being located across from the project identification monument and date palm grove. The ~~beach club~~recreation facility consists of ~~several swimming ponds with sandy beaches~~a swimming pool, proposed sports court, support structures and picnic areas within the ~~Mesquite~~ groves of mesquite and/or other climate appropriate trees.

SECTION 4.0

COMMUNITY DEVELOPMENT POLICIES AND REGULATIONS

The following policies and regulations apply to the large-scale development of neighborhoods and projects within Rio Vista Village.

4.1 SPECIFIC PLAN POLICIES AND OBJECTIVES

- 4.1.1 The primary objective is the creation of a walkable, pedestrian oriented village with a mix of housing types set on narrow, tree lined streets. A village center containing the community serving commercial, recreation and institutional uses will serve as the focus of activity. Within the overall context of the village, a consistent and uniformly applied set of thematic design principles and guidelines will create a coherent sense of place and unique identity.
- 4.1.2 Rio Vista Village is a compact village, utilizing small lots, narrow streets, reduced front yards and service lanes. Each separate project within the village boundaries shall utilize these basic design and planning concepts to achieve a consistent sense of place. Service lanes are not mandatory but are highly encouraged for the benefit they provide in terms of increasing on-street parking capacity and removing garage doors and driveways from street view.
- 4.1.3 There is an accompanying document titled "Community Character Guidelines" that must be followed by planners, engineers, architects and landscape architects in the design of in-tract streets, blocks and houses.
- 4.1.4 Underlying all design and planning in Rio Vista Village are the Ahwahnee Principles, the principles of the Congress of New Urbanism and the tenets of sound environmental analysis and planning.

4.2 NEIGHBORHOOD PLANNING STANDARDS

The Land Use Plan creates six neighborhood areas plus the Village Center. Each of these neighborhoods is defined by external boundary conditions as well as internal edge conditions such as Rio Vista Drive or local collector streets. The Land Use Plan at the end of this section illustrates the variety of uses and their physical location within the village.

- 4.2.1 It is at the neighborhood level that specific environmental design criteria are first applied. Site (lot) and building orientations must be thought through with concern for *the* impact of *heat* gain via solar exposure, for the impacts of blowsand during major storms and for the effects of the naturally windy environment. Building mass, height and orientation to the sun should be an important consideration of on-site design thought. Using adjacent structures for both solar and wind protection is highly encouraged and will be given special consideration in the design review process.

4.3 LAND USE PLAN

The maximum number of units permitted within the development is 1,362 dwellings. Maximum densities are applied to specific portions of the project as illustrated in the Planning Areas plan. Densities may be transferred between Planning Areas as market conditions and buyer preferences dictate. The aggregate number of units, however, within the Specific Plan boundary may not exceed 1,362 units. The maximum unit count of 1,362 units is not a guarantee. Every development proposal must receive the approvals required by this Specific Plan and by all other applicable ordinances and regulations of the City.

- 4.3.1 The use of second dwelling units ~~shall be as provided allowed in accordance with (as defined by the City of Cathedral City zoning ordinance) for rent may be included above the 1362 unit limit in an amount not to exceed 25% of the total count. The application of this program is limited, however, to those areas having an "R" (single family detached) land use designation. The maximum potential number of such units will be further constrained as only lots served by a service lane may develop a second dwelling unit.~~ by California Government Code section 65852.2.
- 4.3.2 Unit/density transfers within the specific plan area: It is the intent of this Specific Plan to permit flexibility in adjusting the number of residential units allocated to any Planning Area in response to market demand and subdivision design considerations. To further this intent, units/density may be transferred between Residential Planning Areas, provided any increase or decrease in the number of units allocated to any residential Planning Area does not result in an absolute overall dwelling unit count that exceeds 1,362 ~~units, notwithstanding units notwithstanding the permitted use of second dwelling units meeting affordable housing criteria. second/accessory dwelling units permitted in accordance with Government Code section 65852.2, which may be included above the 1,362-unit limit.)~~ Such transfer must be approved by the Planning Commission and the following findings must be made:
- A The transfer and receiving Planning Areas are properly designated residential Planning Areas within Rio Vista Village Specific Plan.
 - B The transfer and receiving Planning Areas will comply with all development standards and requirements of this specific plan and other applicable regulations.
 - C The transfer and receiving Planning Areas will accommodate such density adjustments in terms of the serving infrastructure and no adverse environmental impacts will result from such transfer.
 - D Information, as determined necessary by the Planning Director, to determine zoning, Specific Plan and General Plan consistency shall be submitted identifying the impacts and ability to accommodate any increase or decrease in density on both the transfer and receiving Planning Areas.
 - E Subdivision maps proposing a unit/ density transfer shall be accompanied by revised Specific Plan maps and land use tables to account for the resulting density adjustments. Such adjustments are within the intent of the Specific Plan and, if consistent with the above provisions and findings, shall not require amendment to the Plan.

- 4.3.3 Lower densities are permitted within any planning area than those listed in the Planning Area plan (Exhibit 4-D).

4.4 PHASING PLAN

- 4.4.1 Rio Vista Village is intended to progress with a ~~three-five-phased~~ program. ~~The entire development is scheduled for completion within seven to ten years.~~

- 4.4.2 Phase I ~~is~~ the largest phase in terms of both land area and number of units. Development of every type of residential use except for the largest ~~single single~~-family lots is proposed for this phase. Phase I is ~~all of all~~ the property between Landau and Quintana plus some additional lots along Rio Vista Blvd. to the west. This phase is complete.

- 4.4.3 Phase II contains the balance of the middle third of the site. This phase is also complete.

- 4.4.4 Phase III contains the small undeveloped land south of Rio Largo Road and north of Verona Road. The parcel is located at the south-east corner of the 2024 Specific Plan Amendment area.

- 4.4.4.4.5 Phase IV contains the multi-family development, Tentative Tract Map 38902.

- 4.4.5.4.6 Phase V contains the single-family development in the westerly portion of the Specific Plan, Tentative Tract Maps 38709, 38710, 38711, 38712, and 38713.

- 4.4.6.4.7 Within each major phase, smaller sub-phases may be developed to ensure proper coordination of infrastructure construction, to match development financial commitments with market conditions and to facilitate the sale and marketing of parcels to builders.

4.5 CIRCULATION PLAN

Rio Vista Village is intended to be pedestrian friendly while providing safe streets for automobiles and service traffic. The hierarchy of streets is simple and limited. The use of service lanes (alleys/~~common drive~~) is encouraged, but not required. ~~However, to reduce the impact of curb cuts and driveways accessing local streets, any lot with less than 50 feet of frontage must utilize a service lane for vehicular access to on-site parking. The exception to these rules is small lots plotted in a cluster concept.~~

- 4.5.1 The design and layout of streets shall be on an interconnected grid system in which residents have a number of alternative routes from their dwelling to the other areas within the village boundaries. The street sizes and uses shall conform to the Circulation Plan and related street sections. All in-tract streets shall be 30-foot (minimum) Local Streets. When implementing a Service Alley/Common Drive, minimum dimension shall be 30-feet from garage door to garage door. Refer to Section 6, Implementation

Plan of this document for additional detail on the financing, construction, and phasing of circulation system improvements.

- 4.5.2 Rio Vista Drive. is a median divided community collector that runs the length of the project from east to west. Designed as a one-way tandem street, the boulevard is divided by a 100-foot-wide storm water retention basin landscaped and used as an open space and recreation area. Each one-way portion of the street is a 45-foot-wide ROW made up of a five-foot wide parkway adjacent to the median, a ~~14-foot-wide~~ travel lane, an 8-foot wide parking lane and an 18-foot wide parkway. At major crossings ~~(designed as "bridges")~~ the parking lane is omitted, and an additional traffic lane is used to facilitate turning movements.
- 4.5.3 Local collectors are 36-foot-wide streets linking neighborhoods together. ~~while creating vistas by positioning neighborhood parks at the intersections of local collectors. Direct access to Local Collector Streets shall be prohibited except in the case of corner lots where a garage located to the rear of the lot directly accesses the local collector. In such cases, such access to a local collector shall be permitted only when direct access to a local street is difficult or constrained due to imposed street geometries.~~ Lots served by service lanes may not utilize direct access to either a local or local collector street. Parking is permitted on both sides of the street.
- 4.5.4 Local streets are ~~30-32~~ feet wide (at minimum), permit parking on both sides and are the immediate means of access to individual dwellings when service lanes are not utilized. ~~and are permitted only when service lanes are also utilized.~~
- 4.5.5 Service lanes are alleys serving the rear of residential lots.
- A Service lanes are designed to accommodate car and service vehicle traffic, are 20 wide and permit no parking of vehicles.
 - B Garages fronting on service lanes are required to be setback a minimum of 5 feet from the edge of the lane.
 - C Internal curves within an alley shall have a minimum 100-foot radius thus permitting access by utility vehicles and trucks.
 - D Service lanes shall *be signed as* "Emergency Access and Fire Lanes-No Parking".
 - E A man gate/door for emergency access must be provided in the fence/wall of every lot served by a service lane.
- 4.5.6 Pedestrian circulation is by means of 5-foot-wide sidewalks located adjacent to every street within the village. ~~In particular, the double and triple rows of s~~Street trees along Rio Vista ~~Boulevard Drive~~ will provide shade throughout the year making strolling a comfortable and enjoyable experience.

- 4.5.7 Bicycle routes are on sidewalks and in the streets. The streets are deliberately narrow to slow traffic, the sidewalks sufficiently wide to permit bicycle traffic. Such an informal system does not require separated lanes, dedications or special signage.
- 4.5.8 Parking of oversized vehicles and/or trailers is prohibited on any street on which such parking would result in a clear travel lane of less than 20 feet in width. Such vehicles are defined but not limited to recreational vehicles (RV), commercial tractor/trailer rigs, trailers for cars, boats and small recreational vehicles and commercial trucks in excess of 10,000 pounds gross vehicle weight.
- 4.5.9 ~~Landau Boulevard is offered for dedication to provide primary access to the properties to the north of Rio Vista Village. At the time of adoption of this specific plan, the City's General Plan Update has yet to be approved. If at the time of development application for Planning Areas within which northerly extensions of local collector streets are shown, the General Plan Update has failed to re-designate the property to the north of Rio Vista Village to Residential and appropriate zoning has not been adopted, the connections shown on the Circulation Plan may be terminated and through access denied to the properties to the north.~~ Landau Boulevard is designated as a Major Highway (2040 General Plan Circulation Element). At the time of the original approval, the General Plan had not yet assigned this designation to Landau Boulevard.
- 4.5.10 Ventura Drive shall extend to Verona Road providing additional access into and out of the neighborhoods.

4.6 OPEN SPACE PLAN

Open space within the village is intended to be distributed about the community thereby providing convenient pedestrian access. The open space system is comprised of community parks, village parks, neighborhood parks and the median of Rio Vista Drive. Refer to applicable sub-sections of Section 6, Implementation Plan for additional information on phasing, financing and construction of the open space elements of the specific plan.

- ~~4.6.1—Community Recreation Center: This recreation facility will be maintained by the Homeowners Association and for use by residents of the HOA. This facility will include a swimming pool, sports court, and indoor gathering space. Community Water Park: This park is intended to serve the community and is located near the intersection of Verona and Landau in the village center. Planned as a swimming lagoon facility, shared parking with the adjacent commercial site will be utilized. The water park concept is expected to take an extended period of time to be completed. In the interim, the master developer or the City, providing the City has assumed ownership and development responsibility for the site, may develop a passive park that is either converted to the water park or remains as a passive recreation facility in perpetuity.~~

4.6.1

- 4.6.2 Village Commons: A ~~3-3~~-acre park in the central traffic circle, this facility is designed to serve multiple purposes. The concept is an active play area surrounded by groves and sculptural elements. On-site parking is provided as is convenient access from the surrounding neighborhoods. The park's location is axially aligned so that major views along Rio Vista Boulevard and Avenida Quintana toward the park are created. The park thus becomes a landmark element in the urban scape of the village.
- 4.6.3 Neighborhood Parks: These smaller and locally accessible parks are intended to provide close-by pedestrian access to recreation areas for residents of all ages and interests. These smaller parks will be located towards the north (at Rio Hondo Road) and south (east side of Rio Hondo Road and Rio Veracruz Road) boundaries. s~~Located on the four corners of intersecting local collector streets, each park of 14,400 S.F. is intended to serve those homes within a quarter mile walk of the park. Situated on the four corners, each park may be reached from the neighborhood it serves without crossing a local collector. The developer of the adjacent neighborhood is responsible for the design, development and construction of these neighborhood parks.~~
- 4.6.4 The final major element of the Open Space Plan is the boulevard median, designated for multi-purposes and designed as a desert dry wash. In many ways it is the landscape treatment of this median that sets the tone and theme for the entire village. The landscape is native trees, shrubs and ground covers mixed with abundant local color. ~~The ground surface is crushed stone into which is woven a meandering trail of stabilized decomposed granite.~~ There will be paved sidewalks along the Rio Vista Road edge of the median and accents of crushed rock and landscape plantings for visual interest. Depressed an average of 8 feet to accommodate its role as retention basin, its 100-foot width and mile-long consistent landscape treatment will establish a powerful and definitive theme of Mesquite ~~grove,trees and/or grove groupings of other climate appropriate trees,~~ amid a natural desert environment.
- 4.6.5 Common Open Space: Every lot less than 7,200 SF in area is required to provide an additional 500 SF of common open space area available for use by all the community's residents. Rio Vista Village provides an amount of common open space that exceeds the requirement and approval of this specific plan will constitute approval of the common open space requirement. Individual projects will not be required to provide additional calculations validating open space provisions. This requirement is not applicable to the PAs the 2024 Amendment Area.

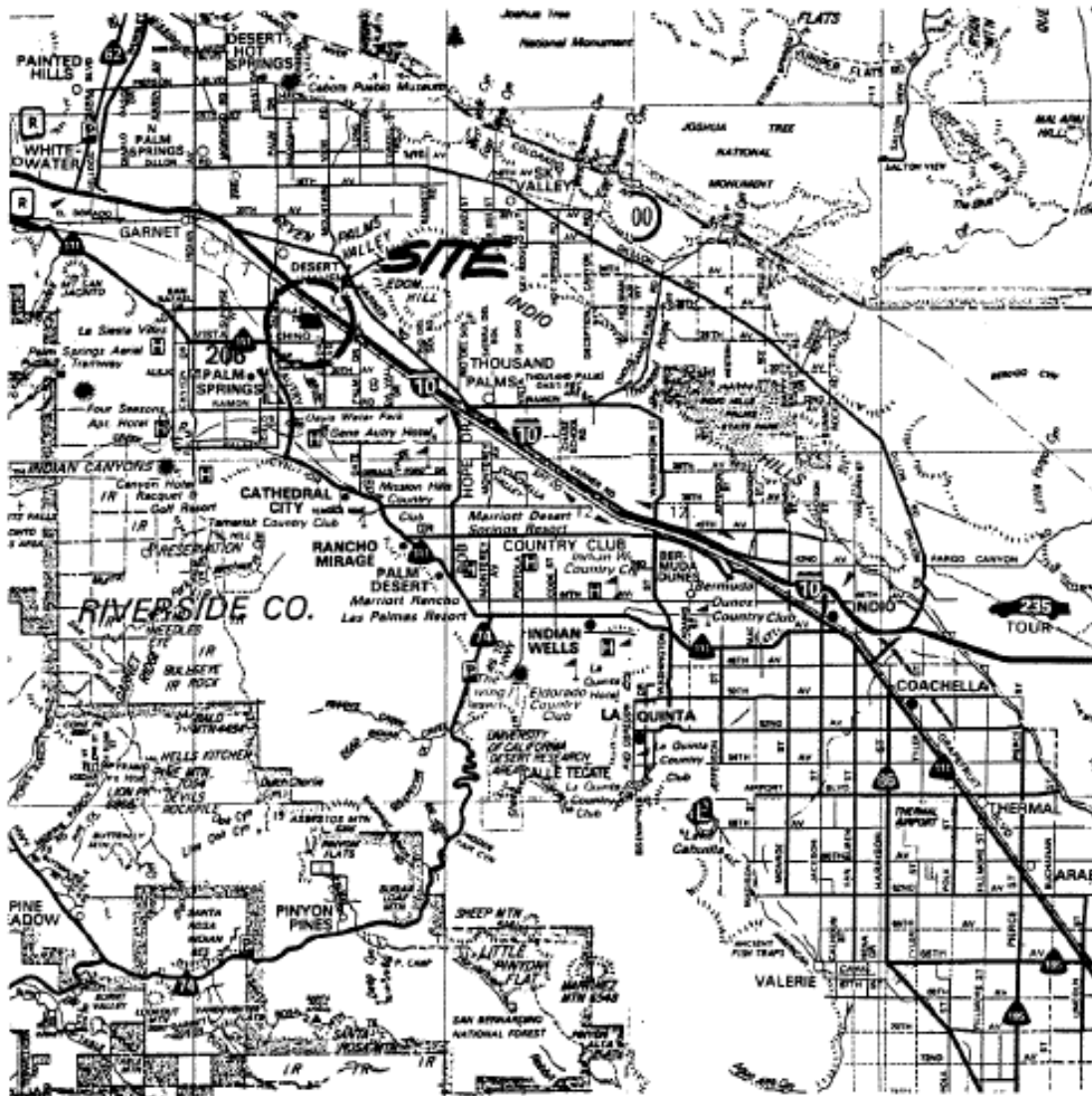
4.7 LANDSCAPE MASTER PLAN

Rio Vista Village is a unique "new" community for Coachella Valley and Cathedral City. The vision borrows from the desert landscape and distinctive images of the Southwest.

- A The dominant visual character of the project is best described as a vast grove of Mesquite, and/or other climate appropriate trees, punctuated at several locations by Desert Date Palm clusters that become the regional icon and identifiable feature for Rio Vista Village. The ~~Mesquite~~ grove's character will be that of an "oasis", of cool shade and filtered sunlight; a fine-textured canopy of delicate foliage, creating a transparent "lid" to the community.
- B The grove occurs in its strongest form along the boulevard, flanking each side of the Linear Park "Wash". Double and triple rows of Mesquite, and/or other climate appropriate, trees will be planted on either side of the sidewalk, and within front yards of homes by the Merchant Builder. With a less dense canopy, the ~~Mesquite~~ grove will transition to each neighborhood, through the grid of trees.
- C To provide for unique neighborhood character, similar varieties of trees, such as Palo Verde, Jacaranda and Mimosa will be used to identify special neighborhoods, or communities, within Rio Vista Village. These will be located at corners and in clusters, to provide a strong neighborhood identity.
- D Precise landscape plans will be prepared for each development and/or tract within the village. At that time a specific tree schedule will be prepared and approved that provides for a mix of sizes, including larger and more mature trees that will impart the sense of a mature grove that is the essence of the landscape concept.
- E Precise landscape plans for each phase will be prepared that illustrate in detail the proposed landscape treatment and how the concept is being executed in specific areas.

4.8 DRAINAGE AND GRADING PLAN

The site generally drains from northwest to southeast. It is proposed that Boulevard Retention Areas as well as the Verona Retention Areas be used to retain 100% of the stormwater runoff from a 100 year ~~243~~-hour storm. ~~Based on the Land Use Plan for Rio Vista Village approximately 60 acre-feet of total~~ Total storage capacity ~~shall account for is required to retain~~ the 100 year ~~243~~-hour storm. The Boulevard Retention Areas are 7.5 acres in size and have a capacity of 54 acre-feet. The Verona Retention Areas are 4 acres in size and have a total capacity of 15 acre-feet. If additional stormwater storage volume is required, underground storage chambers will be installed to provide additional capacity. ~~In addition,~~ The Morongo Creek Stormwater Channel, the neighborhood park, the roundabouts, and portions of the school site ~~and the swimming lagoon~~ will not ~~contribute-contribute~~ to the stormwater runoff that must be retained and would be passed through downstream.



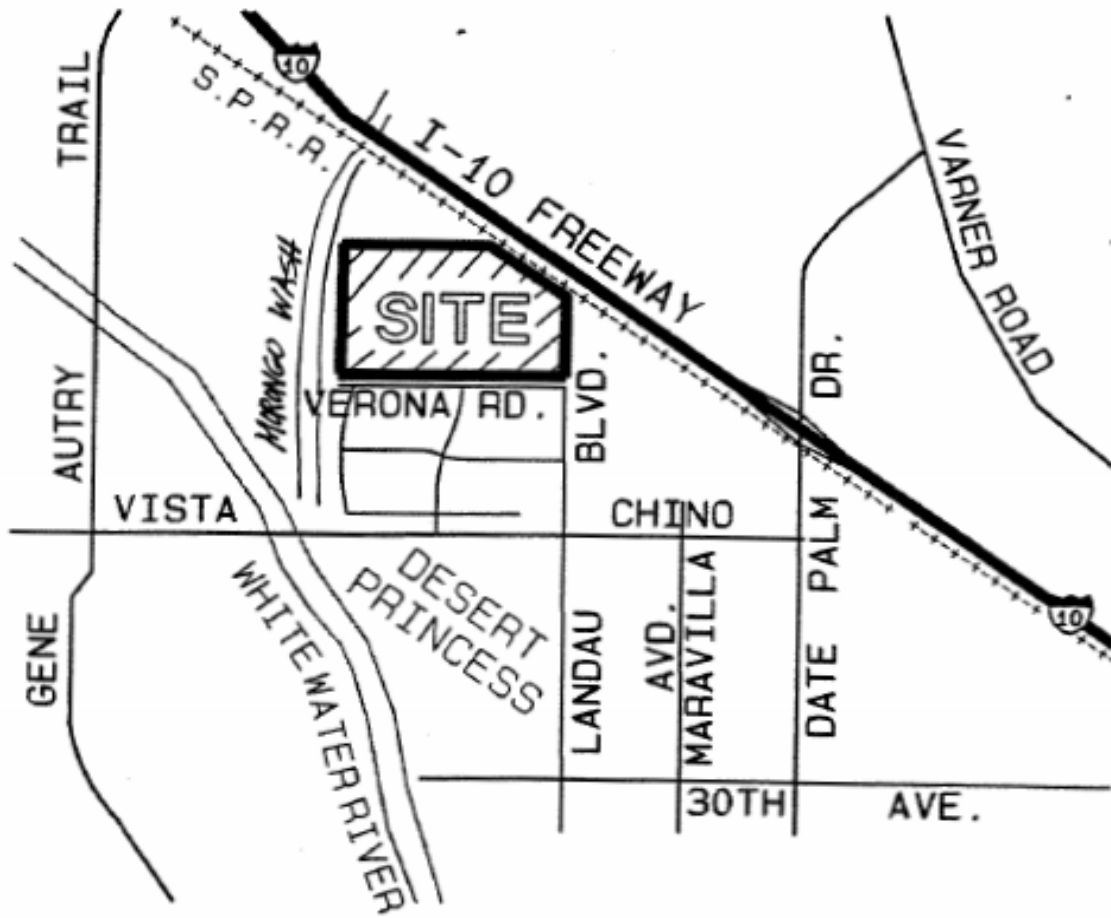
RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13031 NEWPORT AVE. SUITE 200
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2950 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 909.788.5422

EXHIBIT 4-A
REGIONAL MAP

SCALE: NONE
DATE: 10.28.97



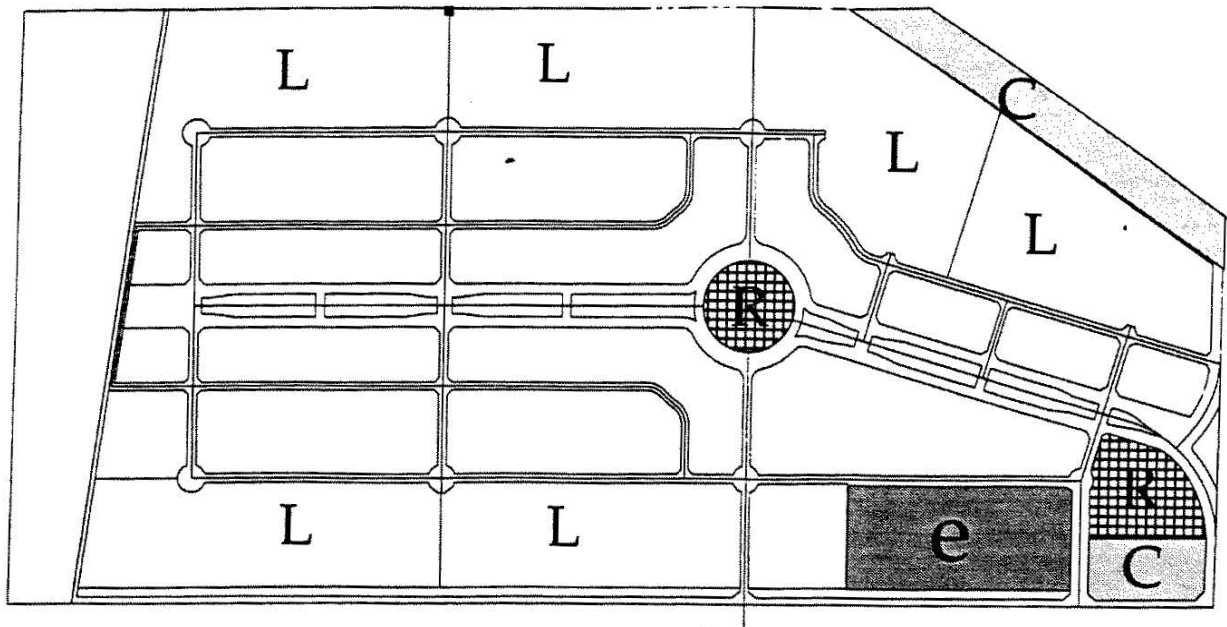
RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
15001 NEWPORT AVE, SUITE 300
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2450 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 909.796.5412

EXHIBIT 4-B
VICINITY MAP

SCALE: NONE
DATE: 10.26.97



LAND USE PLAN

The Land Use Category applying to the entire site per the amended General Plan of May, 1988 is "L" Low Density Residential permitting 2 to 4.5 units per acre.

Rio Vista Village Specific Plan proposes to apply the "L" category over the entire 302.62 acre site, thus permitting a maximum of 1362 units. Within the boundaries of the specific plan, however, a variety of densities are proposed as are commercial, institutional and recreational uses.

LEGEND

SYMBOL	LAND USE CATEGORY	DESCRIPTION OF LAND USE Uses include circulation, detention areas and related infrastructure.	APPROX. ACREAGE
	Low Density Residential	Residential housing types ranging from single family homes to attached single family and attached multi-family housing. Also permitted are assisted care facilities of any type. Second units are permitted in specifically designated areas.	245 acres
	Commercial-Institutional	Neighborhood level commercial uses and/or institutional uses providing neighborhood and village level goods and services.	12 acres
	Recreational	Recreational and open space uses intended to serve neighborhood, village and city level recreational needs.	7 acres
	School (e)	Elementary school per the request of the Palm Springs Unified School District	10 acres

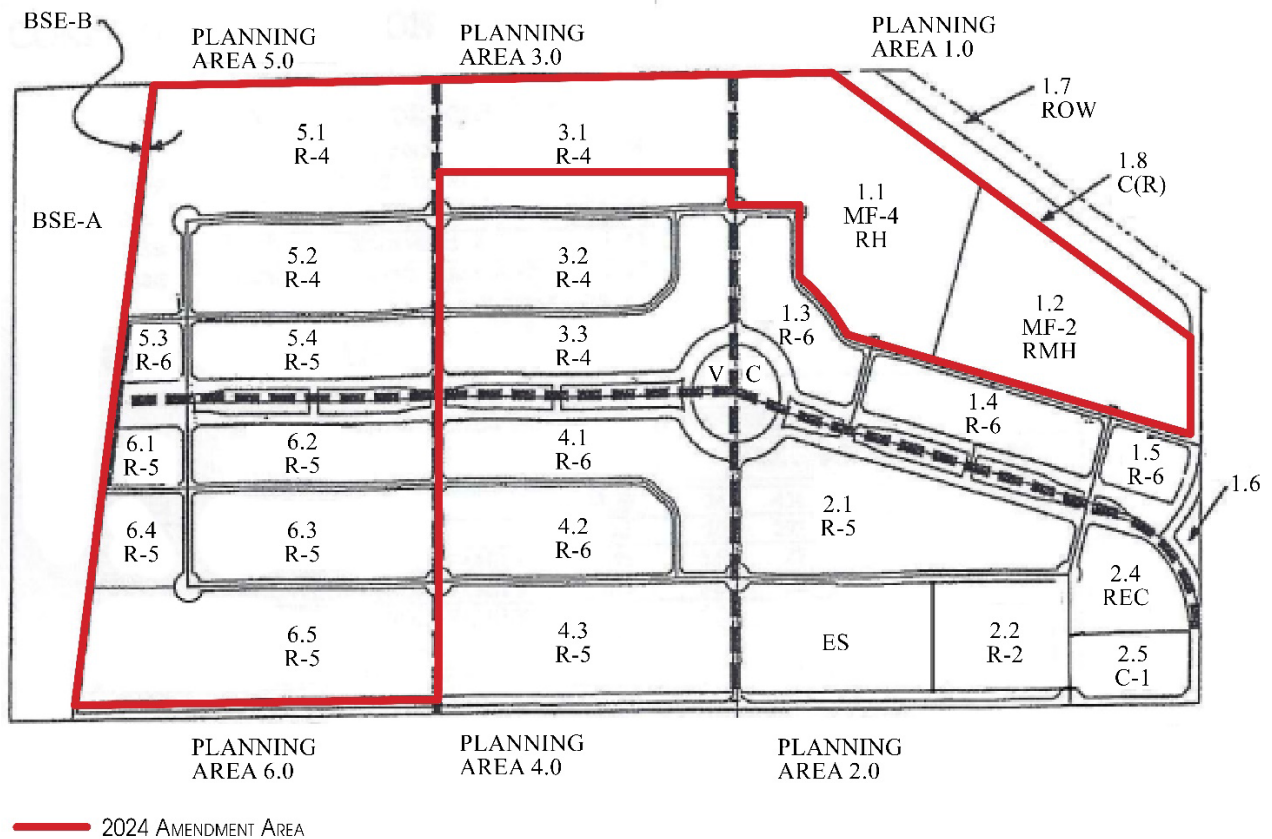


RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13031 NEWPORT AVE, SUITE 200
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2950 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 909.788.5422

EXHIBIT 4-C
LAND USE
PLAN
SCALE: NONE
DATE: 10.26.97



PLANNING AREAS AND LAND USE CATEGORIES

RESIDENTIAL USES:

- R-2 Cluster lots of a minimum 2000 S.F. in area at a maximum density of 15 DU/AC.
- R-4 Lots of a minimum 4000 S.F. in area at a maximum density of 8 DU/AC
- R-5 Lots of a minimum 5000 S.F. in area at a maximum density of 6.5 DU/AC
- R-6 Lots of a minimum 6000 S.F. in area at a maximum density of 5.5 DU/AC
- R-8 Lots of a minimum 8000 S.F. in area at a maximum density of 4.5 DU/AC
- MF-2 Multi-family dwellings at a density not to exceed 20 DU/AC.
- *MF-4 Multi-family dwelling at a density not to exceed 24 DU/AC

NON-RESIDENTIAL USES:

- VC Village Commons: A community level park serving the residents of Rio Vista Village.
- ES Elementary School: A 10 acre site offered to the Palm Springs Unified School District.
- REC A 4 acre site for use as a city-wide park.
- C-1 A 3 acre site for development of village level services to meet the daily needs of the local community.
- DA Detention areas to hold storm water runoff per city requirements. These areas are developed as multi-use corridors permitting active recreation and passive park uses.
- BSE Blowsand Easements: These areas are set aside as catchment areas for transported blowsand. These areas are also used for access and maintenance of the blowsand mitigation devices
- C(R) Commercial (Reserve): Sites reserved for commercial development.
- ROW Right-of-Way: Parcels offered for dedication as public streets serving adjacent parcels.

ABBREVIATIONS

- S.F. Square Feet
- DU/AC Dwelling Units per Acre

*Amended 2016

RIO VISTA VILLAGE	Specific Plan No.	BURNETT DEVELOPMENT CORPORATION	EXHIBIT 4-D
CITY OF CATHEDRAL CITY	SP 97-55	13221 NEWPORT AVE, SUITE 200	PLANNING
35-325 DATE PALM DRIVE	DEPT. OF	TUSTIN, CA 92680-7600	AREAS
CATHEDRAL CITY, CA	COMMUNITY	WARKENTIN PARTNERSHIP	SCALE: NONE
760.770.0396	DEVELOPMENT	2950 FAIRMOUNT BLVD.	DATE: 10.26.97
		RIVERSIDE, CA 92501 909.788.0422	

COMMUNITY/COMMON AREAS

LAND USE DESIGNATION

LAND USE DESCRIPTION		
VC	VILLAGE COMMONS	2.88
ROW	STREET RIGHT OF WAY	36.65
DA	DETENTION BASIN AREA	11.30
BSE A	BLOWSAND EASEMENT A	26.41
BSE B	BLOWSAND MAINT EASEMENT B	1.19
SUBTOTAL		78.43

PLANNING AREAS

LAND USE DESIGNATION		AREA IN ACRES		
LAND USE DESCRIPTION			PERMITTED DENSITY	
				MAX. ALLOW. UNITS
PA 1.0				
1.1	MF-2 MULTI-FAMILY	18.10	20	362
1.2	MF-2 MULTI-FAMILY	14.61	20	292
1.3	R-7 RESIDENTIAL-SINGLE FAMILY	4.95	5.5	27
1.4	R-7 RESIDENTIAL-SINGLE FAMILY	5.73	5.5	32
1.5	R-7 RESIDENTIAL-SINGLE FAMILY	1.96	5.5	11
1.6	THEME FEATURE PARK	0.44		0
1.7	FUTURE LANDAU DEDICATION	3.92		0
1.8	C(R) COMMERCIAL (RESERVED)	4.69		0
SUBTOTAL		54.40		724
PA 2.0				
2.1	R-6 RESIDENTIAL-SINGLE FAMILY	13.23	6.5	86
2.2	R-6 RESIDENTIAL-SINGLE FAMILY	4.49	6.5	29
2.3	ES ELEMENTARY SCHOOL	10.00	0	0
2.4	REC WATER PARK RECREATION	4.07	0	0
2.5	C-I COMM'L/INSTITUTIONAL USES	3.03	0	0
SUBTOTAL		34.82		115
PA 3.0				
3.1	R-4.5 RESIDENTIAL-SINGLE FAMILY	16.86	8	135
3.2	R-4.5 RESIDENTIAL-SINGLE FAMILY	8.68	8	69
3.3	R-4.5 RESIDENTIAL-SINGLE FAMILY	8.84	8	71
SUBTOTAL		34.38		275
PA 4.0				
4.1	R-7 RESIDENTIAL-SINGLE FAMILY	8.88	5.5	49
4.2	R-7 RESIDENTIAL-SINGLE FAMILY	8.65	5.5	48
4.3	R-7 RESIDENTIAL-SINGLE FAMILY	14.00	5.5	77
SUBTOTAL		31.53		173
PA 5.0				
5.1	R-4.5 RESIDENTIAL-SINGLE FAMILY	17.15	8	137
5.2	R-4.5 RESIDENTIAL-SINGLE FAMILY	8.80	8	70
5.3	R-8.5 RESIDENTIAL-SINGLE FAMILY	1.56	4.5	7
5.4	R-8.5 RESIDENTIAL-SINGLE FAMILY	5.73	4.5	26
SUBTOTAL		33.24		240
PA 6.0				
6.1	R-8.5 RESIDENTIAL-SINGLE FAMILY	1.91	4.5	9
6.2	R-8.5 RESIDENTIAL-SINGLE FAMILY	5.73	4.5	26
6.3	R-6 RESIDENTIAL-SINGLE FAMILY	8.80	6.5	57
6.4	R-6 RESIDENTIAL-SINGLE FAMILY	3.21	6.5	21
6.5	R-6 RESIDENTIAL-SINGLE FAMILY	16.17	6.5	105
SUBTOTAL		35.82		218
		302.62 ACRES		1745

NOTE ON MAXIMUM UNITS ALLOWED

A maximum of 1362 units are permitted, exclusive of permitted second units. The 1745 unit count represents the aggregate total of the maximum units allowed in every planning area. In practice, however, as individual planning areas are approved, the cumulative total will be monitored by the Department of Community Development and density/unit transfers will be adjusted to ensure that no more than the permitted 1362 unit are approved.

RIO VISTA VILLAGE	Specific Plan No.	BURNETT DEVELOPMENT CORPORATION	EXHIBIT 4-E
CITY OF CATHEDRAL CITY	SP 97-55	13031 NEWPORT AVE, SUITE 200	STATISTICAL
35-325 DATE PALM DRIVE	DUPY. ON	TUSTIN, CA 92680-7600	SUMMARY
CATHEDRAL CITY, CA	COMMUNITY	WARKENTIN PARTNERSHIP	SCALE: NONE
760.770.0396	DEVELOPMENT	2950 FAIRMOUNT BLVD.	DATE: 10.26.97
		REVERSHIDE, CA 92501 909.788.5422	

Refer to Table 3-1 for the statistical summary related to the 2024 Amendment.

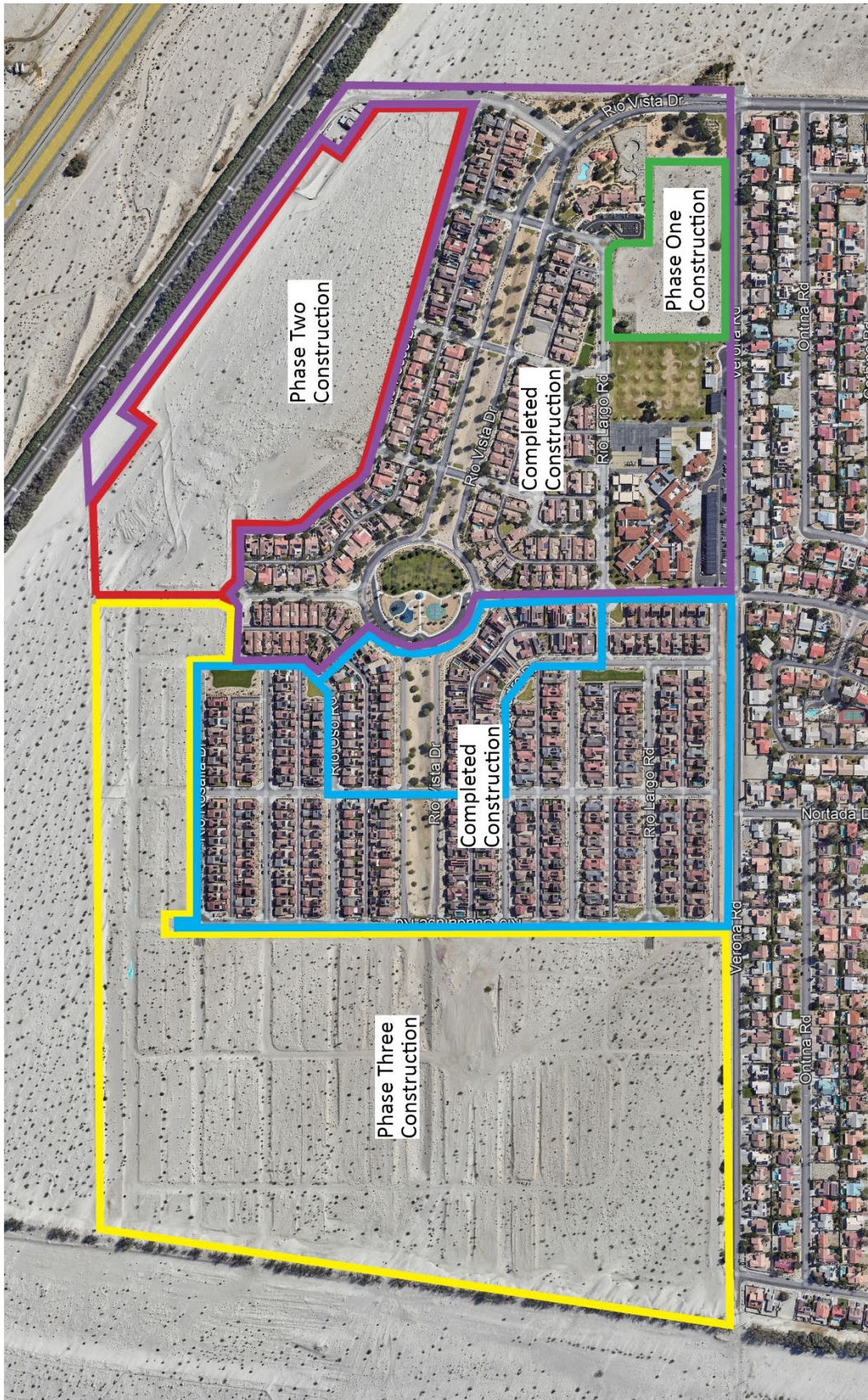
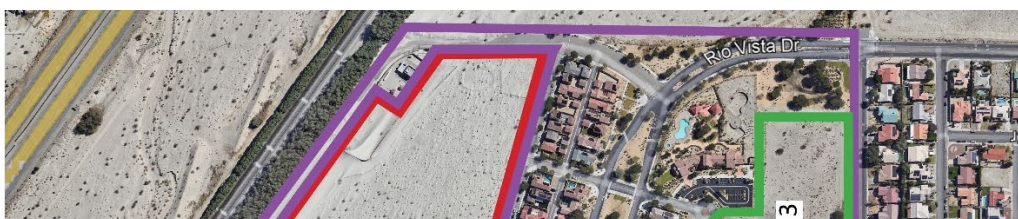


Exhibit 4-F: Phasing Plan (As Amended 2024)



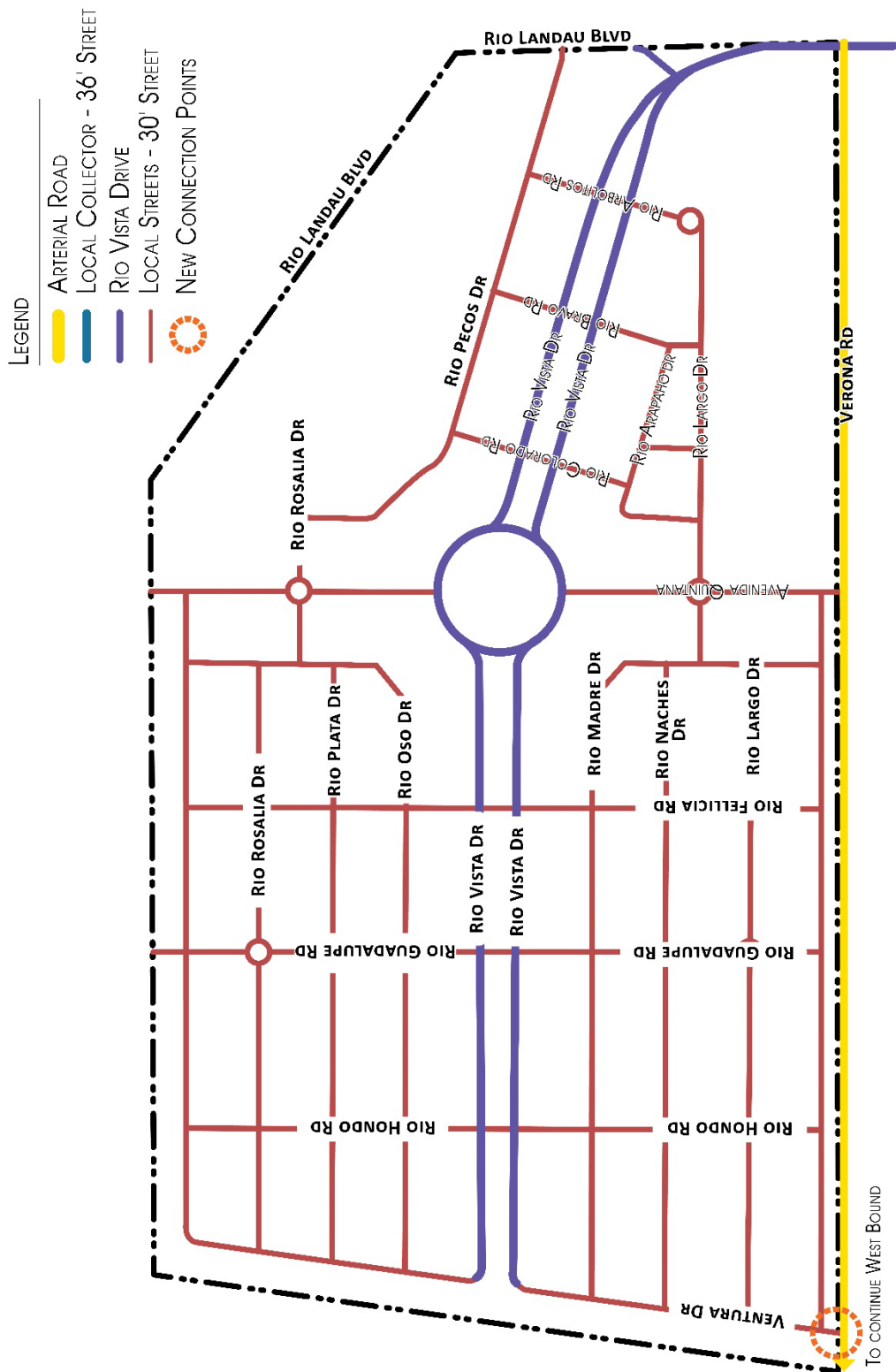
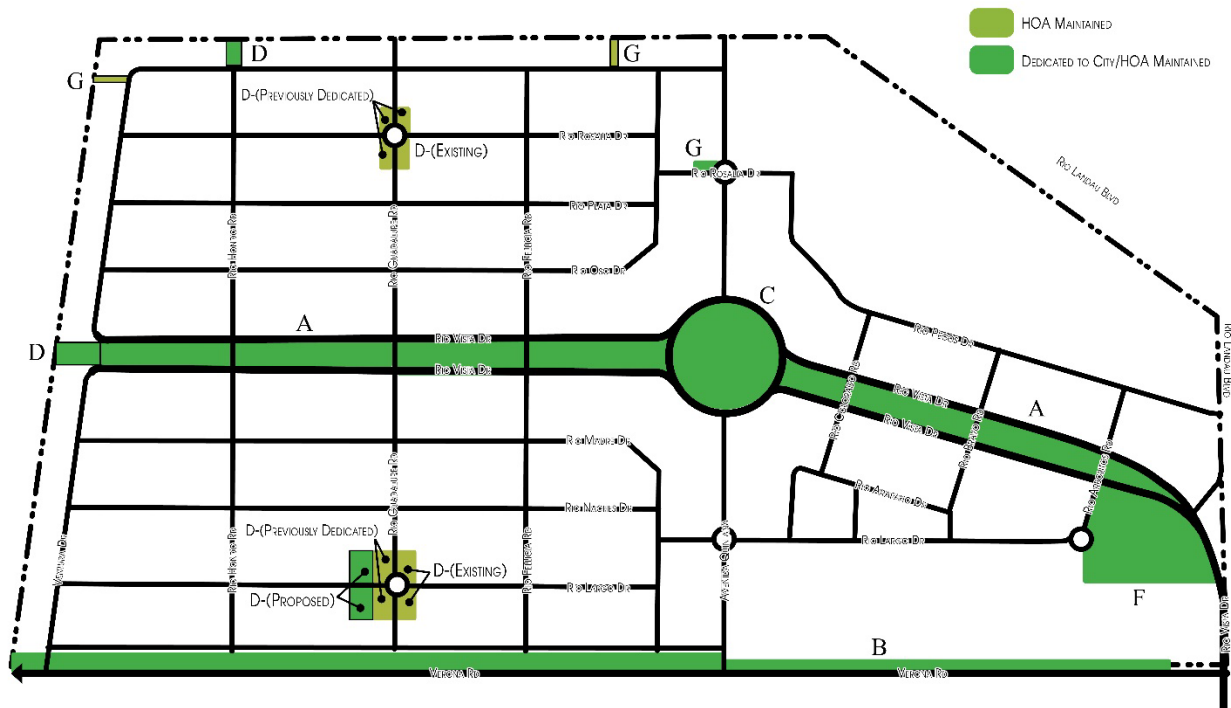


Exhibit 4-G: Circulation Plan (As Amended 2024)



**Changes from 1997 Rio Vista Village Specific Plan include the Neighborhood Park locations and Open Space locations within 2024 Specific Plan Amendment A area.*

SYMBOL	OPEN SPACE ELEMENT
A	Rio Vista Drive detention basin: These elements are designed to accommodate the 100-year stormwater run-off on-site. Each link in the corridor is 100' wide, approximately 8 feet deep with sloping sidewalks not exceeding 4:1. Within the basins will be located a PAR course, and frequent opportunities for strolling and resting. The entire length of the corridor is landscape in xeriscape to reinforce the concept of a village set within a <u>grove of mesquite grove and/or other climate appropriate trees</u> in the desert environment.
B	Verona Street detention basin: A 40' wide landscape detention basin running parallel to Verona along the entire southern boundary of the site except for the commercial site.
C	Village Commons: The Village Commons is a 2.88-acre park intended to serve the residents of Rio Vista Village and their guests.
D	Neighborhood Parks: Each park is located to serve the residents of a local neighborhood without having to cross a local collector street. Parks vary in size with the minimum size being <u>0.15 acres</u> . The parks will be designed by the developer of the neighborhoods served.
E	Entry Feature Park: This .44-acre passive park is the location of the entry monument, a landscape and architectural feature announcing the village to those approaching from Landau.
F	City Park Community Recreation Park : This 4-acre park is conceptually designed as a water park utilizing a swimming lagoon, picnic areas and sandy beaches. Parking is shared with the commercial center. with a recreation building, a pool, and a sport court.
G	Open Space

Exhibit 4-I: Landscape Master Plan (As Amended 2024)

communities, within Rio Vista. These will be located at corners and in clusters to provide a strong neighborhood identity.



Community Recreation Park (As of March 2024- Prior to SPA Approval)

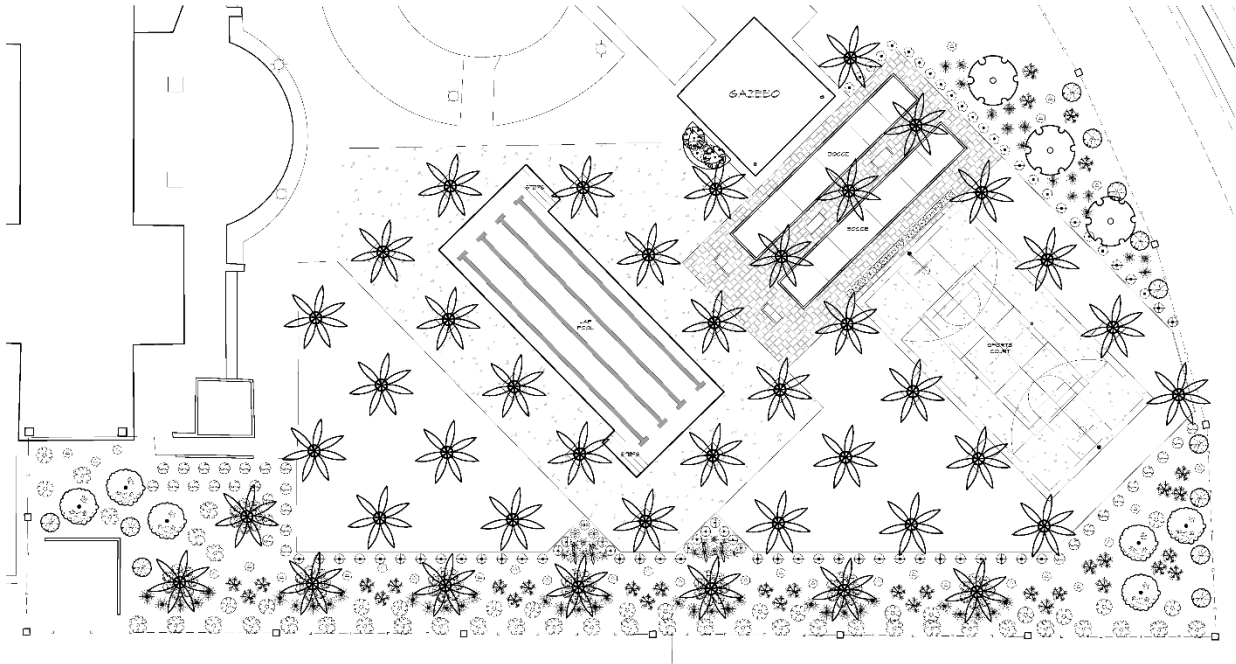
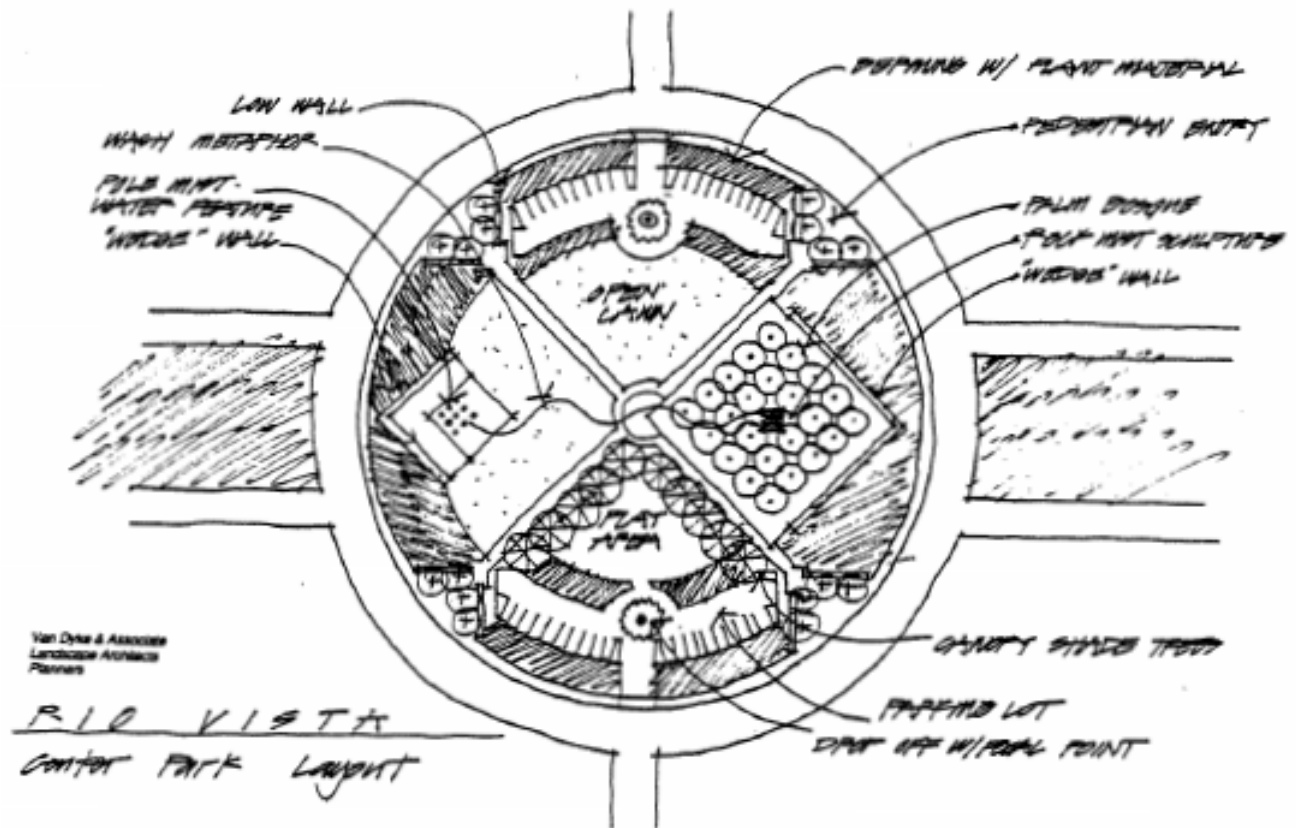


Exhibit 4-I-1: Community Recreation Park Conceptual Design (as Amended 2024)

Final design of the Community Recreation Park Facility Expansion will require an administrative design review application along with the site plan, landscape plans, and conceptual grading.



CONSTRUCTION COMPLETE



RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13021 NEWPORT AVE, SUITE 200
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2950 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 959.784.5422

EXHIBIT 4-I.2
VILLAGE COMMONS
SCALE: NONE
DATE: 10.26.97

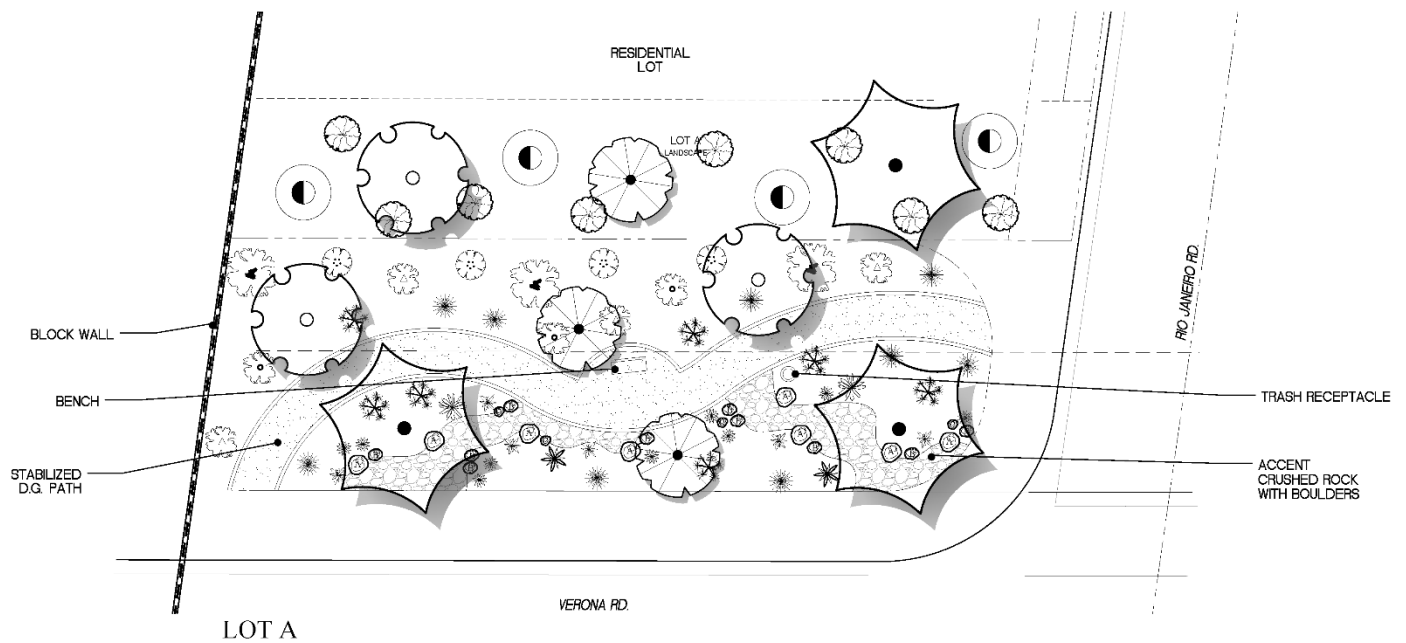


Exhibit 4-I.3 Conceptual Boulevard Parkway Park (As Amended 2024)
(Conceptual Only. New Park designs will be reviewed through the Planning Department).

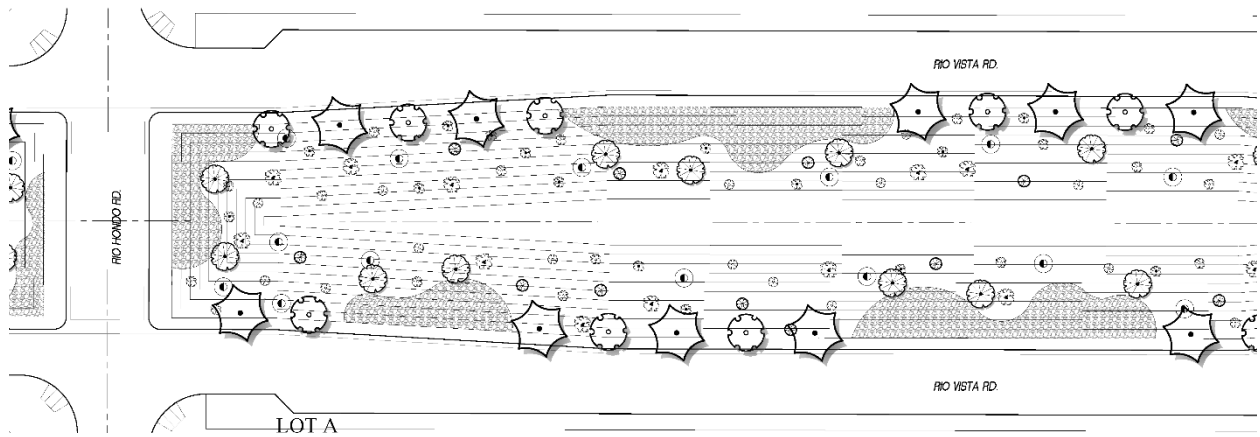


Exhibit 4-I.4 Conceptual Boulevard Median Dry Wash (As Amended 2024)
(Conceptual Only. New Park designs will be reviewed through the Planning Department).

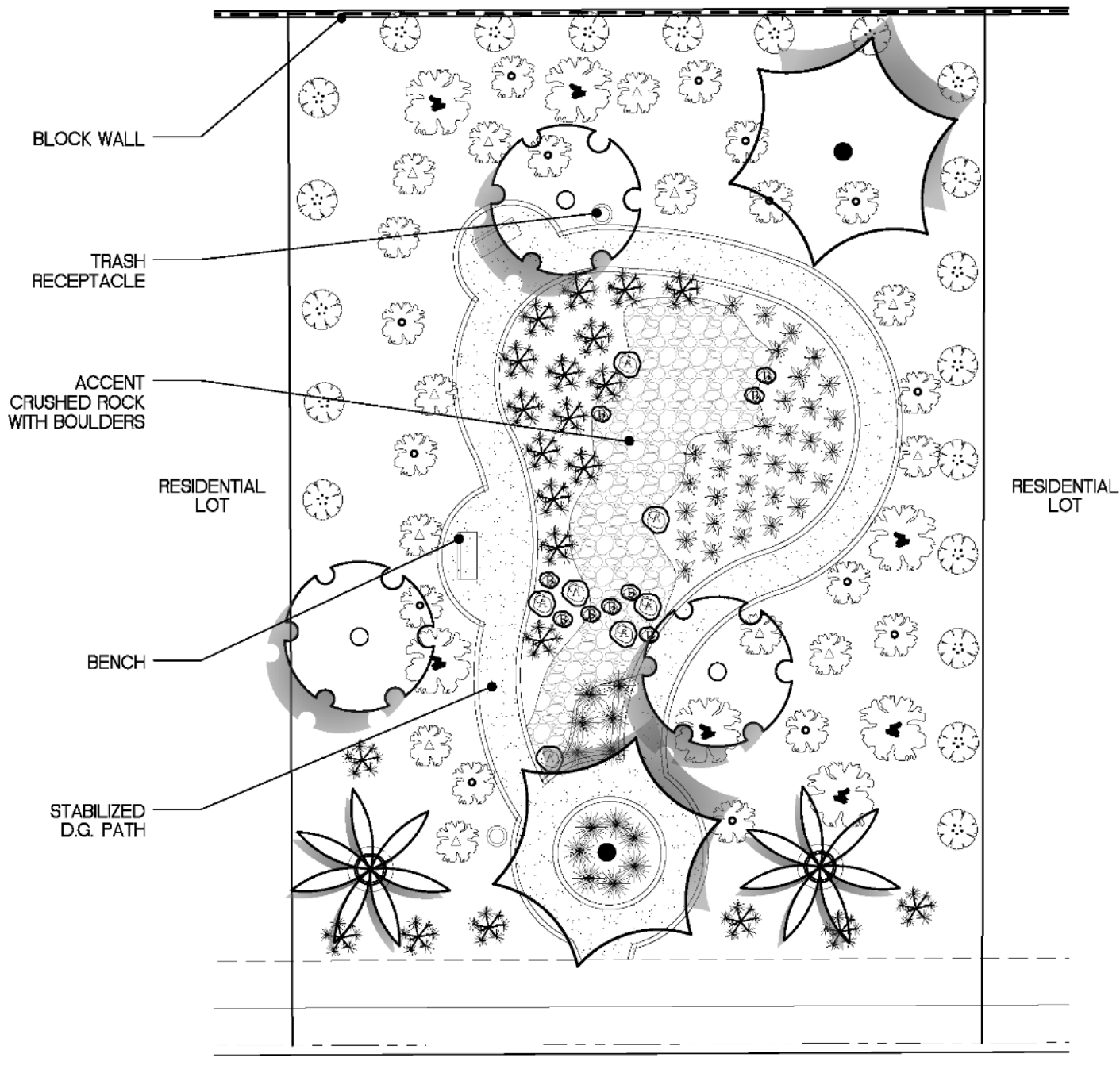
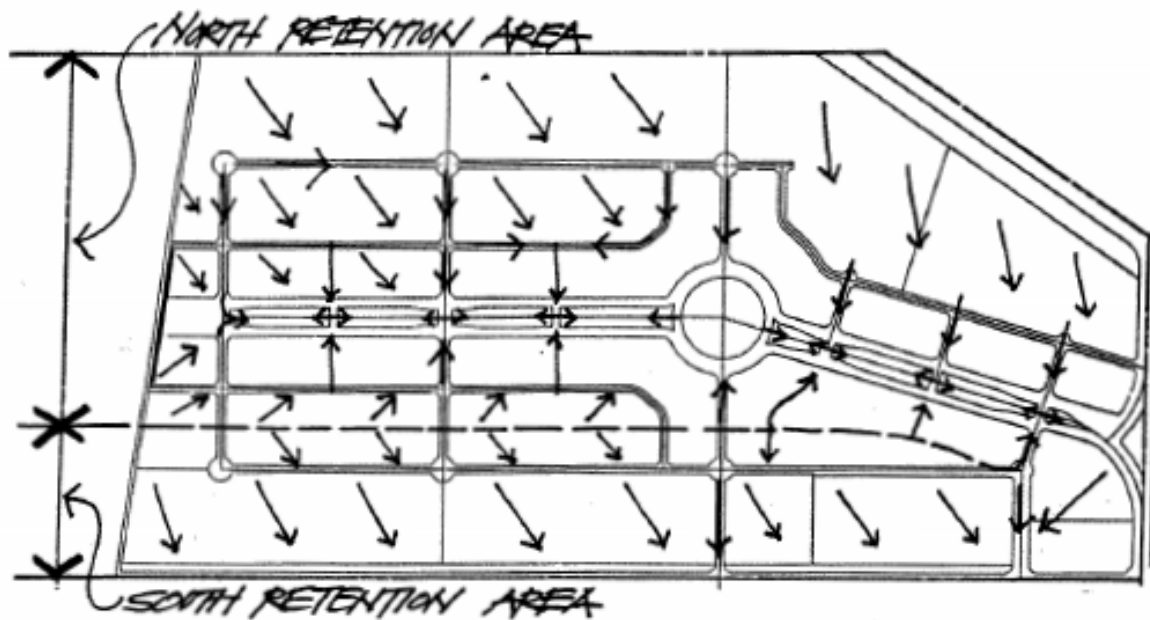


Exhibit 4-I.5 Conceptual Neighborhood Park (As Amended 2024)
(Conceptual Only. New Park designs will be reviewed through the Planning Department.)



RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0896

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13001 NEWPORT AVE, SUITE 200
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2950 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 951.788.3422

EXHIBIT 4-J
**DRAINAGE &
GRADING PLAN**
SCALE: NONE
DATE: 10.25.97

SECTION 5.0

DEVELOPMENT PLAN REGULATIONS

5.1 USES PERMITTED

The following uses are permitted in accordance with the provisions of this section. All development is subject to approval of the appropriate development application and is subject to all provisions of this specific plan as well as all other applicable ordinances and regulations of the City.

5.1.1 PERMITTED RESIDENTIAL USES: The following residential uses are permitted:

- A Within all residential planning areas:
 - (1) Single-family dwellings on individual lots, including detached guest suites, studios, etc.
 - (2) Attached or detached garages and carports.
 - (3) Adult age-restricted dwellings in compliance with CCMC Section 9.98. and/or projects.
- B Single-family detached dwellings within condominium regimes
- C Within use classification "MF" in Planning Area 1.0:
 - (1) Attached dwellings are permitted. These dwelling may be in condominium ownership or may be developed as rental properties. Related recreational and support service uses such as recreation facilities, swimming pools, restrooms, enclosed storage areas, meeting rooms, management office and manager's unit are also permitted.
 - (2) Cluster single family dwellings on lots no smaller than 2000 SF.
- D Assisted care facilities in Planning Area 2.2
- E Second-Accessory Dwelling Units ~~meeting City Zoning criteria with one of the units having the owner in residence~~in accordance with Government Code Section 65852.2.
- F Recreation uses reserved for village residents and guests such as parks and play fields.
- G Home occupations.
- H Market/Grocer: An alternative to the development of the Neighborhood Commercial site shall allow the development of a ground floor grocery market of less than 2000 square feet where the use is located adjacent to the Village Commons, the owner/operator is a resident of the property residing in an attached residential unit, alcohol and tobacco sales are prohibited and a Conditional Use Permit is approved by the City.

5.1.2 PERMITTED COMMERCIAL AND INSTITUTIONAL USES: The following uses are permitted within the Commercial-Institutional use classification:

- A Neighborhood serving retail uses such as but not limited to: Grocery store, pharmacy, dry goods, jewelry store, clothes, bookstore, florist shop, and pet supplies.
- B Neighborhood commercial services such as bakery, dry cleaning, laundry, tailor, barber shop, bank, medical/dental/chiropractic clinics, beauty salon and cafe.
- C Professional and office use such as accountants, insurance firms, engineers and attorneys.
- D Institutional uses such as churches, day-care facilities, private schools
- E Commercial (Reserve), Planning Area 1.8: Uses proposed in this area shall require approval of the Planning Commission with a finding that the use accommodates the needs of the residents of the area or is a compatible ancillary use. Mini-storage units and self-storage uses restricted for the use of residents of Rio Vista Village are examples of uses that would meet the intent of this regulation.
- F All uses in Section 5.1.3
- G A Conditional Use Permit is required to permit the development of a mixed-use commercial/residential project combining a single proprietor's or employee's unit attached to a commercial use exclusively serving neighborhood needs whose commercial component may not exceeding 5000 square feet in gross area.

5.1.3 PERMITTED RECREATION USES: The following recreational uses are permitted:

- A Community recreation facilities such as, but not limited to water parks, play fields and courts, open turf areas, picnic areas, tot lots, passive groves and landscaping, courts and sculptural elements, monuments, and other similar uses
- B Management offices, restrooms, storerooms for the exclusive use of the management of the facility for storage of equipment and material required for the operation of the recreation facility.

5.1.4 USES PERMITTED BUT NOT SPECIFICALLY LISTED: Any use not listed as permitted may follow the Similar Use Determination per the Zoning Code.

5.1.5 DEFINITIONS AND USE OF TERMS: The use of new urbanism and neo-traditional planning concepts requires some new descriptive language. The application of the specific plan regulations in this section uses the following terms.

TERM	APPLICATION
Bays: Bays are projections from exterior walls in which windows or other interior features are located and are supported as extensions (cantilevers) of the walls.	Applies to required setbacks and permitted encroachments
Buildable Area/Building Envelope: This is the area within which the structure may be constructed. Typically, this includes all areas within the setback lines.	Applies to all construction within the village.
Common Open Space: Open space provided for use by any resident or guest of Rio Vista Village.	Required in the amount of 500 square feet for every lot with less than 7200 square feet in area.
Exterior Property Line: That portion of an individual lot's property lines that is co-terminus with a public street, private park or dedicated Right of Way.	Applies to standard residential lotting approaches.
Front Yard Setback: The required setback along the narrowest street frontage of an individual lot except for lots specifically designed to be wider than they are deep. In the case of lots fronting parks, the Front Yard is typically the narrowest property line of the lot facing a publicly accessible area	Applies to all residential lotting approaches. In multi-family and condominium projects, front yard setbacks are applied to any structure adjacent to a street or public right-of-way or are measured from an imaginary lot line set midpoint between two adjacent buildings.
Garden Walls: Low walls located anywhere within required setbacks and not exceeding 30 inches in height	Applies to lotting approaches in which owners may landscape front and side yard setback areas. Garden walls in the front setback may not intrude into the projection of the side setback line within the front yard
Hollywood Drive: A single lane private residential driveway consisting of two 30 inch wide concrete wheel ribbons separated by a 36 inch landscaped strip	Applies to all lotting approaches in which private garages access the public street via such drives. Where external structural supports are used to build over the drive, a gated opening of 8 feet is permitted, beyond

TERM	APPLICATION
	that a minimum of 10 feet clear space is required.
Interior Property Line: The property line between two adjacent lots lying effectively perpendicular to the front property line.	Applies to all lotting approaches.
Lot Line Corner Cut-Off: That portion of the lot line set 9 feet behind the property line at corner conditions and intersections.	Applies to all residential lotting patterns.
Lot Line: The line from which setback regulations are measured.	Applies to all lotting approaches.
Paseo: A pedestrian only walkway that can connect from sidewalks to front entries or in between structures.	Applies to all lotting approaches.
Patio/Court: A patio or court is an enclosed private or semi-private area within a required setback area reserved for the use of the resident and open to the sky except for permitted projections.	Applies to any residential type as well as commercial and institutional developments.
Porch Rails or Walls: Porch rails may be solid to 30" above the porch finish floor. Openable enclosures are permitted to screen the sun and block the impacts of wind.	The wall above 30 inches may be enclosed by openable shutters, grilles or other similar assemblies that when open, admit a clear view into the porch.
Porch: A covered ground floor space adjacent to the dwelling with open sides (exclusive of permitted guardrails) and accessible from the interior spaces to which it is attached.	Applies to any residential project using porches.
Private Open Space: Open space reserved exclusively for the use of the residents of a dwelling unit.	Applies to all dwelling units.
Property line: The legal line defining the limits of ownership of a lot or residential parcel	Applies to any legal parcel within the village boundaries.
Public Use Easement: (PUE) An easement over private property reserving the area for public uses.	Applies to all residential projects and is the area within which sidewalks and parkways occur.
Rear Yard Setback: The setback required from the rear property line of the lot.	Applies to all residential structures in any use classification or housing type.

TERM	APPLICATION
Second dwelling units: Units developed on a single family lot in addition to the primary dwelling. Such units must meet affordable housing criteria and may not exceed 25% of the total number of permitted units. <u>Accessory dwelling Units. units in accordance with Government Code Section 65852.2.</u>	Applies to single family detached dwellings with service lanes. As defined in Government Code Section 65852.2.
Service Lane: A minimum 20-foot-wide lane suitable for vehicular traffic including service, utility and emergency vehicles set to the rear of a residential lot and providing access to private garages.	Applies to any residential project utilizing the service lane concept.
Setback Line: The line to which construction of the dwelling or garage must conform.	Applies to all residential structures in any use classification or housing type.
Shading Devices: Any appropriate architectural feature designed to provide shading. Examples range from awnings, sun screens, overhangs, and fin walls to shutters, grilles, treillage, and lattice work.	May project into required setbacks 30 inches and up to 48 inches with Director approval.
Shared Side Yard: A side yard reserved for the adjacent unit's use through the application of an exclusive use easement.	Used in projects that design one side of the structure devoid of access and limiting openings to the upper floor only.
Side Yard Setback The setback required from the lot line in side-yard situations.	Applies to all residential structures in any use classification or housing type.
Solar Wall/ Brise Soleil: A wall constructed to limit the intrusion of the sun and located anywhere within the buildable area of the lot. In no case may solar walls be higher than the highest adjoining parapet or peaked roof.	Applies to residential design solutions to control solar heat gain.
Standard Porch: A porch with a minimum dimension of <u>8-6</u> feet.	Applies when the 10 foot front yard setback is desired. The porch area behind the 15 foot front setback must be equal to the enclosed area encroaching beyond the 15 foot standard front yard setback. <u>Applies to all residential home types.</u>
Standard Sidewalk Pattern: The standard sidewalk pattern in Rio Vista Village is a four-foot-wide parkway and a five-foot-wide sidewalk. In the typical condition the back of sidewalk is coincident with the lot line.	Applies to all residential projects in the village.

TERM	APPLICATION
The street side of the PUE occurs 1 foot from the face of curb.	
Zero Side Yard: The condition in which a dwelling is built to one side property line and no openings in that wall of the structure are permitted. The open side yard (the yard opposite the zero side) is double the normal width.	Applies to those projects electing to use the zero side yard approach

5.2 GENERAL RESIDENTIAL SITE DEVELOPMENT STANDARDS (Apply only to development completed prior to 2024). The following standards establish the permitted densities, setbacks, heights and massing requirements for the design of individual homes and multi-family attached dwellings on parcels within the project. [Refer to Section 5.9 for Development Standards pertaining to projects within the 2024 Specific Plan Amendment Area.]

5.1.65.2.1 ALLOWABLE DENSITIES BY LOT SIZE.

TYPE	USE SYMBOL	MAX DENSITY DU/AC	MIN AREA (SF)
SFD	R-4	8	4000
SFD	R-5	6.5	5000
SFD	R-6	5.5	6000
SFD	R-8	4.5	8000
TYPE	USE SYMBOL	MAX DENSITY DU/AC	MIN AREA (SF)
CLUSTER SFD	R-2	15	2000
RENTALS	MF 2	20	
ATTACHED OR— SFD (CONDO)	ASF MF 4	+524	

NOTES:

- A SFD: Individual lots suitable for single-family dwellings in a variety of sizes at a variety of densities. These lots and houses may be owned in any manner consistent with City of Cathedral City ordinances.
- B CLUSTER SFD: Small lots with detached dwellings arranged in non-traditional clusters, frequently using private auto courts or common drives and arranged without requiring frontage along public streets. For Cluster SFD Residential Site Plan Development Standards, refer to Section 5.8.
- C RENTALS: Multi-family units in a common structure.
- D ATTACHED SFD: Attached dwellings of any ownership type which may be owner occupied or rented.

5.1.75.2.2 SETBACK REQUIREMENTS FOR RESIDENTIAL SITES

- A STANDARD FRONT SETBACK: 15 feet.
- B REDUCED FRONT SETBACK: 10 feet with the use of a standard porch.
- C STANDARD SIDE SETBACK: 5 feet
- D SIDE SETBACK WITH DRIVEWAY: 12 feet minimum. Above 8 feet in height, second story enclosed space may project to the standard side setback by 2 feet (maximum).
- E SHARED SIDE SETBACK: 5 feet.
- F ZERO SIDE SETBACK: Zero feet: no projections, encroachments or openings permitted.
- G CORNER SIDE SETBACK: 10 feet.
- H REDUCED SIDE SETBACK: 5 feet with the use of a standard porch.
- I REAR SETBACK WITH SERVICE LANE: Dwellings: 5 feet. Garages: 5 feet.
- J REAR SETBACK: 15 feet.
- K ENCROACHMENTS AND MISCELLANEOUS PROVISIONS
 - (1) Fireplaces, bays, cornices, eaves and other similar architectural features may project a maximum of 30 inches into required front setbacks, a maximum of 24 inches elsewhere.
 - (2) Shading devices may project a maximum of 30 inches into required front setbacks, a maximum of 24 inches elsewhere unless waived by the Director of Community Development with validating documentation.
 - (3) Garden walls no higher than 30 inches may be constructed immediately behind the front and side lot lines.
 - (4) Patio/court walls may be constructed up to 6 feet in height behind the front and side lot lines.
 - (5) Within the building envelope walls up to 8 feet in height may be constructed.
 - (6) Pools and spas must provide a minimum of 5 feet of lateral clearance to any adjacent lot line.
 - (7) Solar walls may be constructed to a two-story height anywhere within the building envelope.
 - (8) A 3-inch thick, 30 inch by 48 inch concrete slab must be provided along the rear fence/wall directly accessible from the service lane for the placement of trash receptacles.
 - (9) Fences/walls adjacent to garages on service lanes must provide a 5-foot corner cutoff between the garage corner and the service lane ROW to provide additional visibility for vehicles backing out of garages.
- L MULTI-FAMILY PROJECTS: In all circumstances where this specific plan is silent on an issue of development standards for multi-family projects, refer to the

applicable section of the R-3 or R-4 regulations of the Zoning Code. [Refer to Section 5.9 for Development Standards pertaining to multi-family projects within the 2024 Specific Plan Amendment Area.]

5.1.85.2.3 SETBACK REQUIREMENTS FOR DETACHED GARAGES

- A Access to Service Lanes: Minimum 5 foot setback to service lane ROW. A total of 25 feet of backup space is required including the width of the service lane.
- B Side Setback: 5 feet standard or 3 feet with Director approval. Zero feet when zero side yard is used.
- C Access to Local Street: 25' behind lot line for side entry condition. 25 feet behind the front setback line for garages facing the street.
- D Corner Lot Condition to Service Lane: 5'. A total of 25 feet of backup space is required including the width of the service lane.
- E Corner Lot Side Access to Local Street/Local Collector Street: Either 5 feet or a minimum of 18 feet.

5.1.95.2.4 SPACE BETWEEN BUILDINGS: For purposes of developing multi-family projects that do not follow the standard block pattern, adjacent buildings shall be presumed to have a property line/lot line between them.

- A The standards for setbacks shall define the required building separations. Buildings with entries facing each other across an open space, courtyard or plaza shall be deemed to be facing front to front and each shall meet front setback criteria.
- B If only one of two facing structures has an entry, it shall respond to front setback criteria, the other building shall meet side setback criteria.
- C Any portion of a multi-unit building containing a porch or enclosed private yard shall be deemed the front of the building unless the Director makes findings to the contrary.

5.25.3 SPECIAL RESIDENTIAL SITE DEVELOPMENT STANDARDS. [Refer to Section 5.9 for specific development standards pertaining to the 2024 Specific Plan Amendment Area].

The following standards deal with areas of concern regarding the implementation of new urbanism concepts and for complying with applicable local ordinances.

5.2.15.3.1 PRIVATE OPEN SPACE: Each single-family dwelling site must contain a minimum of 400 SF of contiguous private open space with a minimum dimension of 15'. Each multi-family dwelling must contain a minimum of 120 SF of private open space. This required area may be achieved in multiple areas so long as the minimum dimension is 10' for ground floor patios and 6' for balconies or decks and the minimum area is 60 SF. Up to 50% of the required area may be covered.

~~5.2.25.3.2~~ SERVICE LANES: ~~Service lanes when used, must be used for every lot within a contiguous Planning Area. All garages serving interior lots must be accessed directly from the service lane.~~ Service lanes if provided, shall be signed as “Emergency Access and Fire Lanes” in which parking is prohibited.

- A When utilized, service lanes must be a minimum of 20 feet in clear width with a minimum paved section of 17 feet distributed evenly about the center line of the lane. When the entire width is not paved, the balance must be landscaped or other treatment that provides visual relief from the privacy walls and garage doors that dominate the service lane.
- B A 10-foot corner cutoff is required at the junction of the lot line and the service lane ROW.

~~5.2.35.3.3~~ (INTENTIONALLY BLANK)

5.3.4 PARKING REQUIREMENTS (This section applies to homes built prior to the 2024 Amendment. Refer to Tables 5.1 and 5.2 for parking requirements related to the 2024 Amendment Area)

- A Each single-family dwelling must be provided with a two-car garage. On lots with sufficient area, an additional covered parking space(s) may be provided by a carport.
- B Attached dwellings shall provide a single covered and/or enclosed and secured parking space for each unit.
- C If a standard block pattern permitting street parking is used, no additional guest parking is required. When the block pattern is abandoned, an additional parking space for every two units is required to be provided on-site. This number may be normalized at 15 per acre.
- D Aggregate parking areas for more than 10 cars must be landscaped so that a minimum of 50% of the paved area is shaded at noon, June 21, within 5 years of issuance of the Certificate of Occupancy. Carports provided for parking where covered parking is not required may be used to meet this requirement.

~~5.2.45.3.5~~ GARAGE ACCESS AND ACCESSIBILITY:

- A When used, a carport must access a service lane (direct access from a carport to a local street is prohibited) and there must be a positive security device, a minimum of 8' high, to separate cars from publicly accessible areas.
- ~~B No direct access to Rio Vista Boulevard is permitted.~~
- ~~CB~~ In all cases, from the garage door to the opposite side of the service lane a minimum of 25 feet of clear backup space must be provided.
- ~~D Designs taking access from the local street must utilize a one lane drive of 8' width to access the garage or carport. "Hollywood drives" are encouraged (two~~

~~30" ribbons of concrete separated by 36" of turf or acceptable loose paving material.~~

EC ~~Garages on interior lots directly accessing a local street must provide 25' of clear back up space immediately in front of the garage door and occurring behind the front setback line the full width of the garage. The last 24" of the required 25' as well as the sides of the backup area may be in landscape material. Conventionally loaded homes (front door and garage on same side of house) shall have a driveway of 18' from back of sidewalk if taking direct access from local street.~~

F ~~In the special condition of corner lots, garages may access a local street or local collector street within the rear 30 feet of the lot and may utilize a full width driveway and apron.~~

~~5.2.55.3.6~~ HEIGHT: No dwelling shall exceed 35' or two stories in height measured to the peak of a sloping roof or the parapet of a flat roof.

~~5.2.65.3.7~~ SOLAR WALLS: Solar walls (brise soleil) may be constructed anywhere within the buildable area of the lot to a height of two stories. The portion of such walls above 8 feet in height or where a lower roof intersects the plane of the wall must be 50% open to permit the breezes to flow through. Such opening may be gridded, shuttered, louvered or of any other functional and attractive method.

~~5.2.7~~ SECOND DWELLING UNITS: ~~An additional dwelling is permitted on any lot served by a service lane on which the following standards shall apply. [Note: All All newly proposed second dwelling units within the Rio Vista Specific Plan area are provisions for second dwelling units are superseded governed by Government Code section 65852.2]~~

~~Second dwelling units may only be developed on lots with single family detached homes in land use designations "R".~~

~~5.2.8 B~~ ~~Only lots served by a service lane may develop second dwelling units.~~

~~5.2.9 C~~ ~~The second dwelling unit may be used for rental purposes or for the exclusive use of the residents of the primary dwelling. When used as a rental unit, the second dwelling unit is required to be maintained and managed in accordance with the CC&Rs of the Rio Vista Village Community Association.~~

~~5.2.10 D~~ ~~The second dwelling unit may be attached or detached from the primary dwelling unit. When detached, the separations between structures shall be a minimum of 10 feet. All other setbacks and site development standards shall apply as though the second dwelling unit were attached to the primary structure.~~

~~5.2.11 E~~ ~~A one car carport or garage is required for the resident of the second dwelling unit. This carport or garage must have a secure separation from the service lane a minimum of 8 feet high and lockable.~~

~~5.2.12 F~~ ~~Second dwelling units must have a separate entry from the primary dwelling, whether attached or detached, and directly accessible to the designated on-site parking space.~~

~~5.2.13 G~~

~~Second dwelling units constructed above the garage must have at least one window from a living area overlooking the service lane.~~

~~5.2.14 H~~

~~Second dwelling units must be provided with a private outdoor open space of 90 square feet with a minimum dimension of 6 feet.~~

~~5.3.8 I Second dwelling units require a Conditional Use Permit.~~

~~5.2.155.3.9~~ RESIDENTIAL LANDSCAPE REGULATIONS: The following regulations apply to all residential units, whether on individual lots or within common ownership projects. In common ownership projects, these regulations apply to those areas within private ownership or held for exclusive use through the granting of an easement.

A. Boulevard Landscape Treatment

- (1) Trees shall be a minimum ~~15~~24-gallon size, spaced at 15 feet o.c. in a 90 degree grid pattern, to the curb/sidewalk line.
- (2) At intersections, trees shall be in 3 rows from the corner, extending to the curb return at parallel street parking.
- (3) Parkway trees shall be planted on both sides of the sidewalk one tree in public right-of-way and one tree in public utility easement.
- (4) Parkway groundcover shall consist of low, spreading native/indigenous species (minimum 1-gallon size) and spaced at not more than 8 foot on center. Maximum plant height at maturity shall not exceed 12 inches.
- ~~(5) The surface area directly adjacent to the rolled (2 ft. Wide) curb, shall contain open structural pavement stone, with decomposed granite filling each void.~~
- ~~(6)~~(5) The public utility easement shall be planted with similar material as (4) and shall include the addition of a minimum 5-gallon shrub, one per each 5 lineal feet of area, and shall be a maximum height at maturity of 3 feet.
- ~~(7)~~(6) Irrigation: All plant material shall be irrigated with a low-precipitation head, operated by an automated, climatic monitored controller.

B Local Street Treatments

- ~~(8)~~(7) Similar to the Boulevard, but with less intensity, local streets shall include the grove of Mesquites~~climate appropriate trees~~, minimum ~~15~~24-gallon size, spaced at 15 foot o.c., with double rows.
- ~~(9)~~(8) Punctuated by alternative varieties of trees, minimum ~~15~~24-gallon size (Jacaranda, Mimosa, etc.), various local streets will become gateways into distinct neighborhoods. These trees shall be placed on a similar grid

pattern, to those identified for the ~~Mesquite~~-climate appropriate tree grove.

~~(10)~~(9) Parkway trees shall be planted in the parkway portion of the public use easement.

~~(11)~~(10) An additional row of trees shall be planted within the front setback at the ratio of one tree per every 15 feet of lot frontage. Such trees may be clustered in any manner appropriate to the design of the site. This requirement is waived for corner side setback conditions in which there is insufficient area to support the growth of the trees.

~~(12)~~(11) Parkway groundcover shall consist of low, spreading native/indigenous species (minimum 1-gallon size) and spaced at not more than 8 foot on center. Maximum plant height at maturity shall not exceed 12 inches.

~~(13)~~(12) The public utility easement shall be planted with similar material as (4) and shall include the addition of a minimum 5-gallon shrub, one per each 5 lineal feet of area, and shall be a maximum height at maturity of 3 feet.

~~(14)~~(13) Irrigation: All plant material shall be irrigated with a low-precipitation head, operated by an automated, climatic monitored controller.

~~(15)~~(14) In neighborhoods that do not include garden walls in front yards, section 5.3.9(E) shall apply.

C Parkway Landscaping and Maintenance

(1) Landscape and irrigation systems shall be maintained through a "common area" association (Master Community Association or Homeowners Association) and shall include all grounds care, necessary to promote healthy growth and maintain standard growth patterns of all plant varieties, as outlined in section 5.3.9(A).

D Service Lane Landscaping

(1) Trees

- (a) Trees shall be planted in fence wells (either recessed in fences/walls or set between the fence/wall and the paved section on alternate sides of service lane, at two lot intervals, the entire service lane length.
- (b) Openings shall be recessed 3 foot deep and 5 foot wide.
- (c) Tree varieties shall consist of a minimum ~~15~~24-gallon size evergreen standard, with a maximum spread of 25 feet and shall be pruned to provide a minimum of 14 feet of clearance within the service land for emergency apparatus access.

(2) Vine Pockets

- (a) Vine pockets shall be located on one-lot diagonals (across service lane) from each tree location.
- (b) Vines shall be minimum 15-gallon size, supported by wood trellis and planted in surface opening, 2 feet by 4 feet.
- (c) Irrigation: All plant material shall be irrigated with a low precipitation head, operated by an automated, climatic monitored controller.

E On-site Private Landscaping

(1) Front Yard

- (a) Garden Wall: A 30-inch-high garden wall ~~will~~may be included at each lot. Material will be of unclad unit masonry, with returns of 4 ft. and offsets of 2 ft. at each property line.
- ~~(b) Front yard landscape, inside low wall, shall consist of 70 percent lawn and 30 percent ground covers/shrub beds.~~
- ~~(e)~~(b) Shrub beds shall consist of spreading ground cover, planted by material to reach maturity within a 6-month period.
- ~~(d)~~(c) Foundation shrubs shall be planted at not less than one 5-gallon shrub per two lineal foot of building footage.

(2) Rear Yard "The Oasis"

- (a) Rear yard surface planting shall be chosen by each homeowner and may include turfs and other water intensive plants.
- ~~(b) Trees: A minimum of one shade tree per each rear yard shall be provided. Trees shall be evergreen and positioned to take full advantage of solar/shared/orientation of rear and side yards, windows and blank walls.~~
- ~~(e)~~(b) ~~Where rear yard orientations face north, trees should be located adjacent to rear yard fencing, so as to maximize sun/light on windows.~~ Areas not planted with turf shall be treated with a combination of shrubs, ground covers and/or crushed stone.
- ~~(d)~~(c) Irrigation: All plant material shall be irrigated with a low-precipitation head, operated by an automated, climatic monitored controller.

F Reference Documents for Selection of Plant Materials

- (1) Sunset Western Garden Book
- (2) Lush & Efficient, Coachella Valley Water District
- (3) Landscape Plants for Western Regions, Perry
- (4) Section 8.57 Water Efficient Landscape and the Coachella Valley model water efficient landscape ordinance No. 1302.1.

5.3.5.4 GENERAL COMMERCIAL/INSTITUTIONAL SITE DEVELOPMENT STANDARDS

The following standards establish the permitted setbacks, heights, and massing requirements for the design of commercial and institutional sites and buildings on appropriately designated parcels within the project.

5.3.15.4.1 SETBACK REQUIREMENTS AND SPACE BETWEEN BUILDINGS:

Conform to the regulations for Zone Classification PLC - Planned Limited Commercial.

5.4.5.5 SPECIAL COMMERCIAL/INSTITUTIONAL SITE DEVELOPMENT STANDARDS

5.4.15.5.1 PARKING REQUIREMENTS:

- A The parking requirements of the Zoning Code shall apply with regard to the number of parking stalls required, sizes and parking area layout standards. A 40% maximum reduction in parking requirements may be granted by the Planning Commission for uses determined to serve primarily neighborhood residents and which is designed to promote pedestrian use.
- B Aggregate parking areas for more than 10 cars must be landscaped so that a minimum of 50% of the paved area is shaded at noon, June 21, within 5 years of issuance of the Certificate of Occupancy. A shade analysis must be prepared and submitted by the architect or landscape architect for the project.
- C Carports provided for parking where covered parking is not required may be used to meet this requirement.

5.4.25.5.2 OPEN SPACE: Each project shall devote a minimum of 2.5% of the gross site area for use as publicly accessible open space. The intent of this requirement is to create a shaded space central to the project that may be used by the facility's patrons and employees. This open space area may be used to meet the landscape area requirement.

- A No space may be less than 200 square feet in area with a minimum dimension of 15 feet and at least one space must be a minimum of 500 square feet with a minimum dimension of 40 feet.
- B Such space must be landscaped, including paving, plant material, arbors, treillage, water features and seating areas.
- C These areas must be designed so that a minimum of 50% of the ground areas is shaded. When plant material is used to provide this shading, the requirement must be met within 5 years of the issuance of Certificate of Occupancy. A shade analysis must be prepared and submitted by the architect or landscape architect for the project. Parkways and sidewalks in front of buildings and serving as access to the facilities, businesses, or services within may be used to meet this

requirement, however, the space under covered porticos, arcades and colonnades designed as part of the building's structure may not be used.

5.4.35.5.3 HEIGHT AND NUMBER OF STORIES: Buildings are limited to 2 stories or 40 feet in height. Theme structures or architectural features may not exceed 60 feet in height and no portion above the basic height limit may be habitable.

5.4.45.5.4 TRASH ENCLOSURES, LOADING BAYS AND SERVICE AREAS: All portions of the site devoted to service bays, trash collection and loading zones must be screened from the view of all adjacent properties. Uses requiring no greater level of delivery service than vans or small trucks (no longer than 30' or having no more than 10 wheels) are not required to provide separate delivery or loading zones.

5.4.55.5.5 SITE LIGHTING: Site lighting shall conform to the applicable regulations of the City.

5.4.65.5.6 SIGNAGE: On-site signage shall conform to the requirements of the sign regulations of the City and according to the recommendations of the Community Character Criteria.

5.4.75.5.7 LANDSCAPE REGULATIONS: A minimum of 15% of any commercially or institutionally developed parcel shall be landscaped ~~according to the recommendations of the Community Character Criteria.~~

5.55.6 GENERAL RECREATION SITE DEVELOPMENT STANDARDS

The following standards establish the permitted setbacks, heights and massing requirements for the design of recreational sites and buildings on appropriately designated parcels within the project.

5.5.15.6.1 SETBACK REQUIREMENTS AND SPACE BETWEEN BUILDINGS: Conform to the regulations of Zone Classification PLC - Planned Limited Commercial.

5.65.7 SPECIAL RECREATION SITE DEVELOPMENT STANDARDS

5.6.15.7.1 PARKING REQUIREMENTS:

- A The parking requirements of the Zoning Code shall apply with regard to the number of parking stalls required, sizes and parking area layout standards.
- B Aggregate parking areas for more than 10 cars must be landscaped so that a minimum of 50% of the paved area is shaded at noon, June 21, within 5 years of issuance of the Certificate of Occupancy.
- C Carports provided for parking where covered parking is not required may be used to meet this requirement.

~~5.6.25.7.2~~ **OPEN SPACE:** Open space must be landscaped, including paving, plant material, arbors, treillage, water features and seating areas. Since open space is a critical ingredient of community level recreation facilities, no mandatory area is required.

- A Open space, when normally habitable (which excludes swimming areas, for example) must be designed so that a minimum of 50% of the open space area is shaded at noon, June 21, within 5 years of issuance of the Certificate of Occupancy.
- B A shade analysis must be prepared and submitted by the architect or landscape architect for the project. Parkways and sidewalks in front of buildings and serving as access to the facilities, businesses or services within may be used to meet this requirement, however, the space under covered porticos, arcades and colonnades designed as part of the building's structure may not be used.

~~5.6.35.7.3~~ **HEIGHT AND NUMBER OF STORIES:** Buildings are limited to 2 stories or 40 feet in height. Theme structures or architectural features may not exceed 60 feet in height and no portion above the basic height limit may be habitable.

~~5.6.45.7.4~~ **TRASH ENCLOSURES, LOADING BAYS AND SERVICE AREAS:** All portions of the site devoted to service bays, trash collection and loading zones must be screened from the view of all adjacent properties. Uses requiring no greater level of delivery service than vans and small trucks (no longer than 30' or having no more than 10 wheels) are not required to provide separate delivery or loading zones.

~~5.6.55.7.5~~ **SITE LIGHTING:** Site lighting shall conform to the applicable regulations of the City.

~~5.6.65.7.6~~ **SIGNAGE:** On-site signage shall conform to the requirements of the sign regulations of the City and according to the recommendations of the Community Character Criteria.

~~5.75.8~~ **GENERAL RESIDENTIAL SITE DEVELOPMENT STANDARDS FOR R-2-CLUSTER SFD DEVELOPMENT**

CLUSTER SFD: Small lots with detached dwellings arranged in nontraditional clusters, frequently using private auto courts or common drives, and arranged without having frontage on public streets. The following standards establish the permitted densities, setbacks, heights, and massing requirements for the design of individual homes and multi-family attached dwellings on parcels within the project.

~~5.7.15.8.1~~ **SETBACK REQUIREMENTS FOR RESIDENTIAL SITES**

- A. **STANDARD FRONT SETBACK:** 8 feet if fronting on Private Local Street and 2 feet if fronting on a Common Drive.

- B. REDUCED FRONT SETBACK: Not Applicable
- C. STANDARD SIDE SETBACK: 5 feet.
- D. SIDE SETBACK WITH DRIVEWAY: Not Applicable
- E. SHARED SIDE SETBACK: 5 feet.
- F. ZERO SIDE SETBACK: Zero feet: no projections, encroachments or openings permitted.
- G. CORNER SIDE SETBACK: 10 feet.
- H. REDUCED SIDE SETBACK: Not Applicable
- I. REAR SETBACK WITH SERVICE LANE: Not Applicable
- J. REAR SETBACK: 10 feet.
- K. ENCROACHMENTS AND MISCELLANEOUS PROVISIONS
 - (1) Fireplaces, bays, cornices, eaves, and other similar architectural features may project a maximum of 24 inches into required setbacks.
 - (2) Shading devices may project a maximum of 24 inches into required front setbacks, a maximum of 24 inches elsewhere unless waived by the Director of Community Development with validating documentation.
 - (3) Garden walls in front setbacks are not permitted.
 - (4) Pools and spas must provide a minimum of 5 feet of lateral clearance to any adjacent lot line.
 - (5) Solar walls may be constructed to a two-story height anywhere within the building envelope.
 - (6) A 3-inch thick, 30-inch by 48-inch concrete slab must be provided along the rear fence/wall directly accessible from the private local street or from the common drive for the placement of trash receptacles. In addition, a 24 inch by 36-inch concrete pad shall be provided in front of the unit next to the Garage for placing the trash receptacles during the trash pickup day.

~~5.7.2.5~~5.8.2 **SPACE BETWEEN BUILDINGS:** For purposes of developing Cluster SFD Residential Development projects that do not follow the standard block pattern, adjacent buildings shall be presumed to have a lot line between them for the purpose of measuring setbacks. The minimum building separations shall be 10 feet.

5.8.3 Special residential site development standards for cluster SFD residential development projects.

The following standards deal with areas of concern regarding the implementation of new urbanism concepts and for complying with applicable local ordinances.

~~5.7.2.1~~5.8.2.1 **COMMON OPEN SPACE:** Common open space requirements are deemed met under the Rio Vista Village Specific Plan. Additional common open space shall be provided to establish pedestrian circulation links to areas within and beyond the project boundary.

~~5.7.2.2~~5.8.2.2 **PRIVATE OPEN SPACE:** Each single-family dwelling site in a Cluster SFD project must contain a minimum of 300 SF of contiguous private open space with a minimum dimension of 10 feet.

~~5.7.2.3~~5.8.2.3 **COMMON DRIVES:** Use Private Street

- A. Common drives serving Cluster SFD Residential Development shall be in the form of a private drive having a minimum width of 24 feet curb to curb where no street parking is allowed. Garages shall be setback a minimum of 25 feet.
- B. Private Street shall have a minimum width of 26 feet and shall be signed as 'Emergency Access and Fire Lane-No Parking'. Emergency gated access shall be required that will enable access onto a public street other than the primary access road.

~~5.7.2.4~~5.8.2.4 **PARKING REQUIREMENTS:**

- A. Each single-family dwelling must be provided with a two-car garage.
- B. If a standard single-family lot pattern is used that accommodates on-street parking, no additional guest parking is required. When a non-traditional lot pattern is used, one additional off-street parking space for every two units is required, to be allocated in proximity to dwelling units, and provided onsite.
- C. Aggregate parking areas for more than 10 cars must be landscaped so that a minimum of 50% of the paved area is shaded at noon, June 21, within 5 years of issuance of the Certificate of Occupancy. Carports provided for parking where covered parking is not required may be used to meet this requirement.

~~5.7.2.5~~5.8.2.5 GARAGE ACCESS AND ACCESSIBILITY:

- A. Garage may be accessed from either a common drive or directly from the private or public local street.
- B. No direct access to Rio Vista Boulevard is permitted.
- C. In all cases, from the garage door to the opposite side of the common drive minimum of 25 feet of clear backup space must be provided.
- D. Garages on interior lots directly accessing a local street must provide 25 feet of clear back-up space immediately in front of the garage door and occurring behind the front setback line the full width of the garage. The last 24 inches of the required 25 feet as well as the sides of the backup area may be in landscape material.
- E. Garages must be equipped with automatic roll up doors and flanked by at least one wall-mounted carriage light.

~~5.7.2.6~~5.8.2.6 HEIGHT: No dwelling shall exceed 35 feet or two stories in height measured to the peak of a sloping roof or the parapet of a flat roof.

~~5.7.2.7~~5.8.2.7 RESIDENTIAL LANDSCAPE REGULATIONS: The following regulations apply to common residential areas. All proposed landscape species must be identified in the Lush and Efficient Gardening in the Coachella Valley produced by CVWD.

A. Local Private Street Treatments

- (1) Local streets aligned along a project boundary shall include minimum ~~15~~24-gallon trees spaced at- 50 feet on center.
- (2) Where dwelling units are oriented to the local street, minimum ~~15~~24-gallon trees shall be planted at a ratio of 1:1.5 per dwelling unit along the street block.
- (3) Alternative varieties of trees, minimum ~~15~~24-gallon size, shall be planted at gateways into distinct neighborhoods.
- (4) Street trees, minimum ~~15~~24-gallon size, shall be planted in any island of the public use easement.
- (5) A three (3) foot landscape setback shall be provided between the sidewalk and the dwelling unit to be planted in groundcover, 4 feet on center and having a maximum plant height at maturity not exceeding 12 inches, with a two-inch thick layer of decomposed granite having a common accent color.
- (6) Guest parking areas shall have a landscape island for every seven spaces and planted with one minimum ~~15~~24-gallon tree. Guest parking nodes

having more than 10 spaces shall have minimum ~~15-24~~-gallon trees planted 25 feet on center within the five-foot landscape setback.

~~5.7.3~~5.8.3 SPECIAL RECREATION SITE DEVELOPMENT STANDARDS.

~~5.7.3.1~~5.8.3.1 PARKING REQUIREMENTS:

A. The parking requirements of the Zoning Code shall apply with regard to the number of parking stalls required, sizes and parking area layout standards.

B. Aggregate parking areas for more than 10 cars must be landscaped so that a minimum of 50% of the paved area is shaded at noon, June 21, within 5 years of issuance of the Certificate of Occupancy.

C. Carports provided for parking where covered parking is not required may be used to meet this requirement.

~~5.7.3.2~~5.8.3.2 OPEN SPACE: Open space must be landscaped, including paving, plant material, arbors, treillage, water features and seating areas. Since open space is a critical ingredient of community level recreation facilities, no mandatory area is required.

~~5.7.3.3~~5.8.3.3 TRASH ENCLOSURES AREAS: All portions of the site devoted to trash collection must be screened from the view of all adjacent properties.

~~5.7.3.4~~5.8.3.4 SITE LIGHTING: Site lighting shall conform to the applicable regulations of the City.

~~5.7.3.5~~5.8.3.5 SIGNAGE: On-site signage shall conform to the requirements of the sign regulations of the City and according to the recommendations of the Community Character Criteria.

5.9 DEVELOPMENT STANDARDS FOR THE 2024 SPECIFIC PLAN AMENDMENT AREA

The primary objective for the 2024 Specific Plan Amendment is to provide a variety of home sizes and plans to serve the needs of different life stages and market segments. In addition, the Rio Vista Specific Plan allows for individual homeownership and rental opportunities in a higher density setting than typical single-family development Homes may be located on fee simple lots, in condominium arrangements, or in rental accommodations. All homes will have minimum fire separation distances as required by the California Residential and Building Codes.

Exhibits 5.1 through 5.4 provide conceptual plotting examples for a variety of residential housing types and arrangements. The plotting concepts are provided to illustrate development standards and are not intended to be mandated layouts. Where these standards are silent, Section 5.3 standards apply. (See also exhibits A-9.5 through A-9.7 of the Community

Character Guidelines for additional concept plan for conventionally loaded lots.)

Tables 5.1 and 5.2 provide development standards for Single-Family Detached configurations as well as attached residential development within the 2024 Specific Plan Amendment area.

<u>Table 5.1: Development Standards (Minimums)</u>	
<u>Applicable to PAs 3.1, 5.1, 5.2, 5.3, 5.4, 6.1, 6.2, 6.3, 6.4, and 6.5 except where specifically noted.</u>	
<u>Lot Size</u>	<u>Minimum 4,000 S.F.</u>
<u>Planning Area Boundary Line to Living Space (Front or Side)</u>	<u>15'</u>
<u>Public Street to Living Space (Front or Side) - Rio Pecos Drive, Avenida Quintana, and Landau Boulevard</u>	<u>10'</u>
<u>Internal Street ROW or Back of Sidewalk if no ROW to Living Space (Front or Side)</u>	<u>10'</u>
<u>Interior Street ROW to Garage Door (Conventionally Loaded Homes)</u>	<u>20'</u>
<u>Internal Street ROW to Low Wall/ Patio/Porch (Porch dimension shall be minimum 6' in depth if being counted toward private open space)</u>	<u>5'</u>
<u>Rear Yard (Conventionally Loaded Homes)</u>	<u>10'</u>
<u>Interior Side Yard</u>	<u>4' (5' is preferred)</u>
<u>Zero Side Yard</u>	<u>0' (no projections, encroachments or opening permitted on 0' lot line side)</u> <u>(Adjacent side yard must be a minimum of 8' to maintain minimum building separation.)</u>
<u>Building Separation</u>	<u>8'</u>
<u>Garage to Garage Separation</u>	<u>30'</u>
<u>Rear Setback with Service Lane</u>	<u>5' (Living Space) / 3' (Garage Door)</u>
<u>Private Open Space</u>	<u>Continuous 300 S.F. per unit/15' minimum width required as private open space in PAs 3.1, 5.1-5.4, 6.1-6.5)</u> <u>300 S.F. per unit for all other PAs within the Amendment area may be combined with common open space, but not more than 200 square feet of</u>

	<u>common open space may be counted toward this calculation. Private space may be a combination of patio and/or balcony.</u>
<u>Encroachments into Yard Setbacks (Maximum)</u> <u>Encroachments include fireplaces, bays, furr outs, potshelves, brackets, eaves, awnings, eyebrows, canopies, cantilever decks, and second floor cantilever over garage.</u>	<u>3' (CRC/CBC code requirements shall be adhered to. Therefore, permitted encroachments may be less).</u>
<u>Building Coverage (Maximum)</u>	<u>60% of Net Lot Area</u>
<u>Height</u>	<u>35' or two stories in height measured to the peak of a sloping roof or the parapet of a flat roof</u>
<u>Parking</u>	<u>2.0 Spaces (at least 1 space per unit shall be covered)</u> <u>.25 Space per Unit for Guest (driveways may be counted if meets 18' minimum depth)</u> <u>Location of parking: No vehicles shall be parked in any area except within approved garages, carports, or improved open parking spaces.</u>
<u>Landscape (Private Front Yards)</u>	<u>Garden Wall: A 30-inch-high garden wall may be included at each lot. Material will be of unclad unit masonry, with returns of 4 ft. and offsets of 2 ft. at each property line.</u> <u>Shrub beds shall consist of spreading ground cover, planted by material to reach maturity within a 6-month period.</u> <u>Foundation shrubs shall be planted at not less than one 5-gallon shrub per two lineal foot of building footage.</u>
<u>Landscape (Private Rear Yards)</u>	<u>No standards required.</u> <u>Fencing/Wall: A 72-inch (maximum) high wall or fence may be included if private rear or side yard proposed.</u>

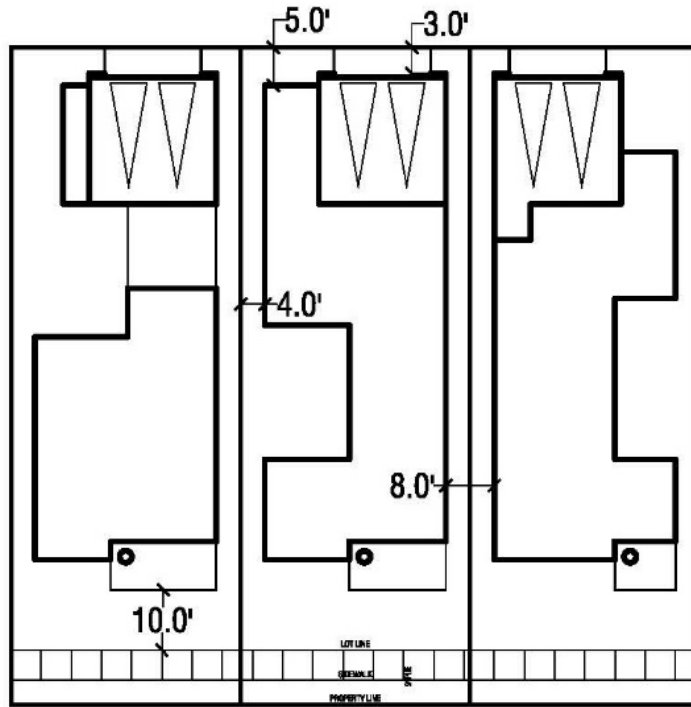


EXHIBIT 5-1: SFD CONCEPTUAL LAYOUTS AND DEVELOPMENT STANDARDS (Applicable to PA 3.1)

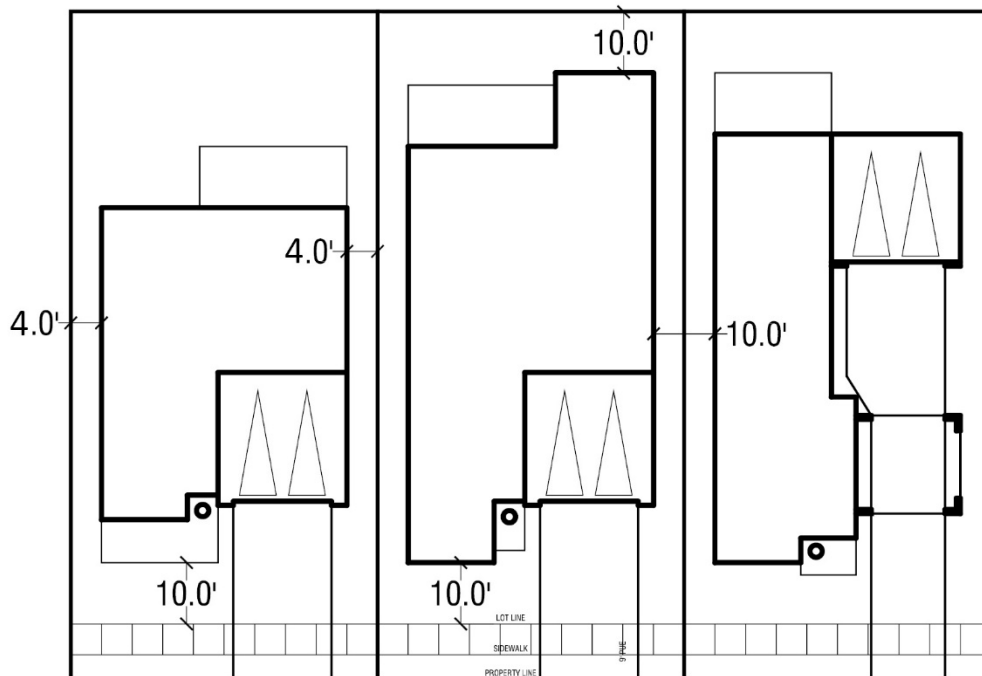


Exhibit 5-2: SFD CONCEPTUAL LAYOUTS AND DEVELOPMENT STANDARDS (Applicable to PAs 3.1, 5.1, 5.2, 5.3, 5.4, 6.1, 6.2, 6.3, 6.4 and 6.5)

<u>Table 5.2: Development Standards (Minimums)</u>	
<u>Applicable to PAs 1.1 and 1.2</u>	
<u>Planning Area Boundary Line to Living Space (Front or Side)</u>	<u>15' (for front) / 13' (for side)</u>
<u>Public Street to Living Space (Front or Side) - Rio Pecos Drive, Avenida Quintana, and Landau Boulevard</u>	<u>15'</u>
<u>Internal Street ROW or Face of Curb (if private street) to Living Space (Front or Side)</u>	<u>10'</u>
<u>Interior Street ROW to Low Wall/Patio/Porch (Porch dimension shall be minimum 6' in depth if being counted toward private open space)</u>	<u>5'</u>
<u>Rear Yard</u>	<u>10'</u>
<u>Interior Side Yard</u>	<u>5'</u>
<u>Zero Side Yard</u>	<u>0' (no projections, encroachments or opening permitted on 0' lot line side)</u>
<u>Building Separation (front to front when triplex or larger)</u>	<u>20'</u>
<u>Building Separation (side to side)</u>	<u>10'</u>
<u>Building Separation (side to front)</u>	<u>10'</u>
<u>Garage to Garage Separation</u>	<u>30'</u>
<u>Rear Setback with Service Lane</u>	<u>5' (Living Space) / 3' (Garage Door)</u>
<u>Open Space</u>	<u>300 S.F per unit (may be a combination of private and common open space).</u> <u>At least 100 S.F. shall be in private open space and may be a combination of patio and balcony space.</u>
<u>Encroachments into Yard Setbacks (Maximum)</u> <u>Encroachments include: fireplaces, bays, furr outs, potshelves, brackets, eaves, awnings, eyebrows, canopies, cantilever decks, Second floor cantilever over garage.</u>	<u>3' (CRC/CBC code requirements shall be adhered to. Thus, encroachment may be less.)</u>
<u>Building Coverage (Maximum).</u>	<u>60% of Net Lot Area</u>
<u>Height</u>	<u>35' or two stories in height measured to the peak of a sloping roof or the parapet of a flat roof.</u>

<u>Parking</u>	<u>1.5 Spaces (at least 1 space per unit shall be covered)</u> <u>Plus .25 Space per Unit for Guest (min).</u> <u>No vehicles shall be parked in any area except within approved garages, carports, or improved open parking spaces.</u>
<u>Landscape (Private Front Yards)</u>	<u>Garden Wall: A 42 to 48-inch high garden wall may be included if patio or private front yard proposed.</u>
<u>Landscape (Private Rear Yards)</u>	<u>Fencing/Wall: A 72-inch (maximum) high wall or fence may be included if private rear or side yard proposed.</u>

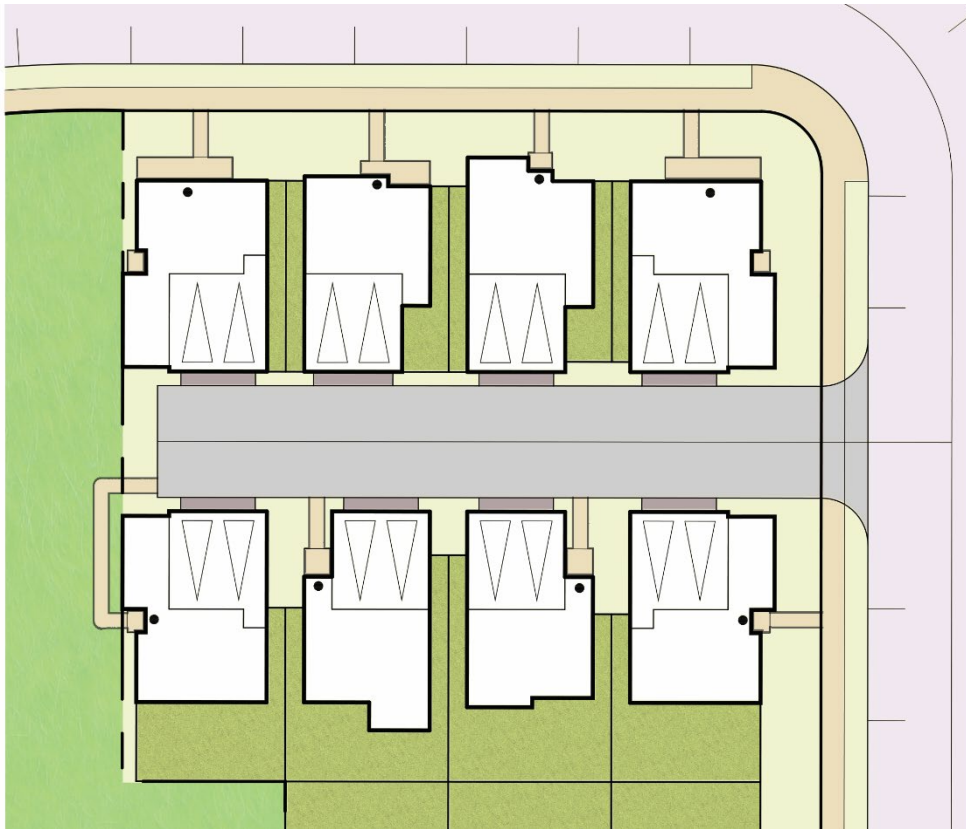
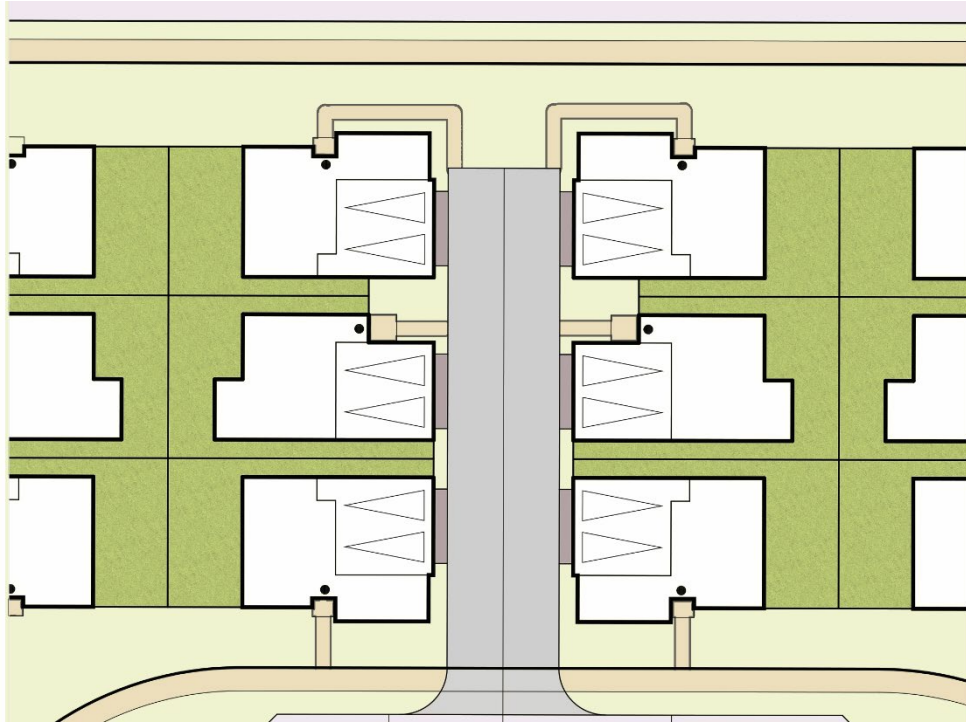


Exhibit: 5-3: CONCEPTUAL LAYOUTS AND DEVELOPMENT STANDARDS
(Applicable to PAs 1.1 and 1.2)

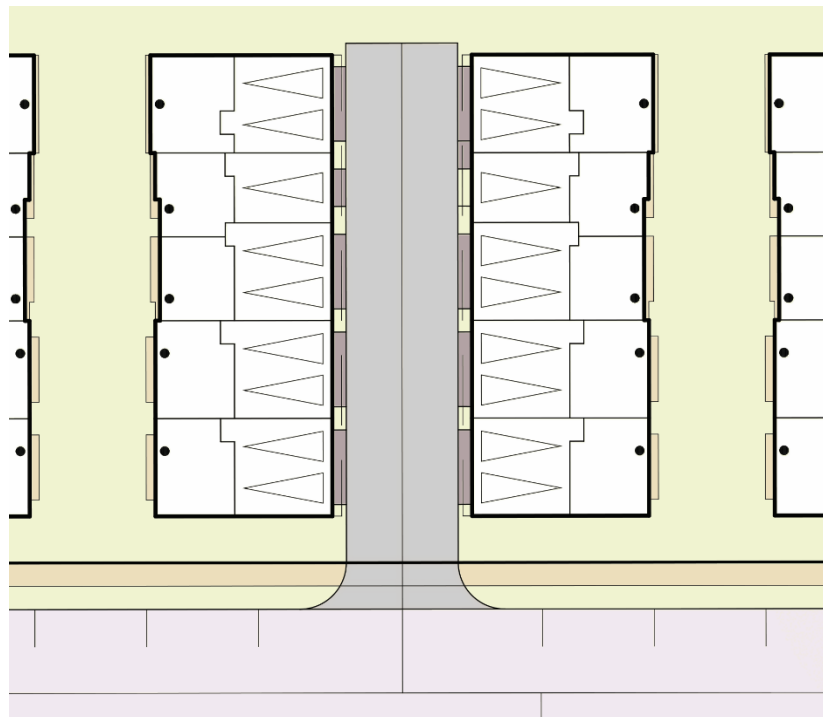
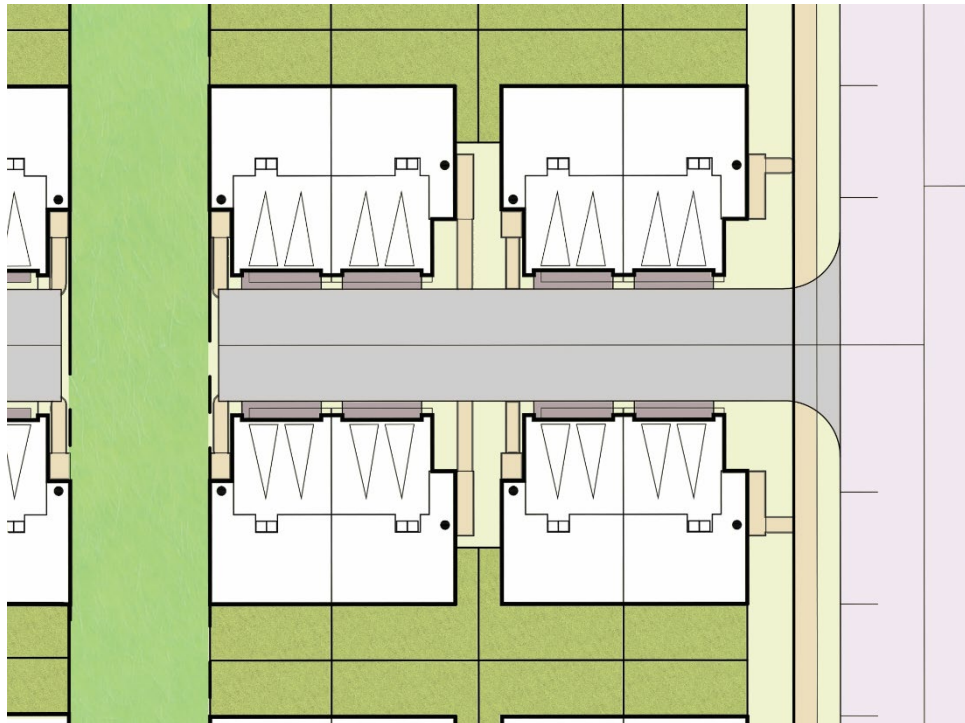
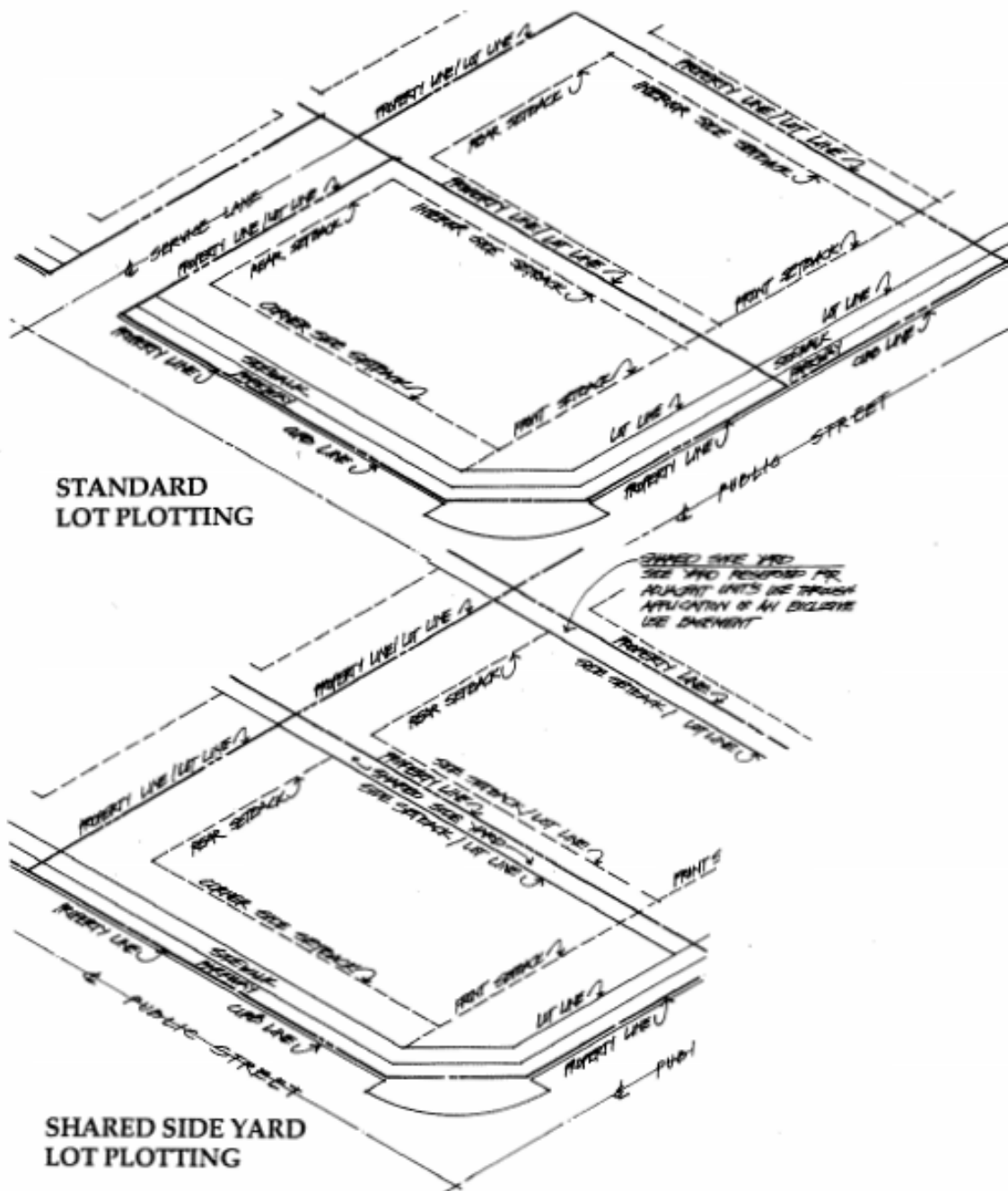


Exhibit: 5-4: CONCEPTUAL LAYOUTS AND DEVELOPMENT STANDARDS
(Applicable to PAs 1.1 and 1.2)

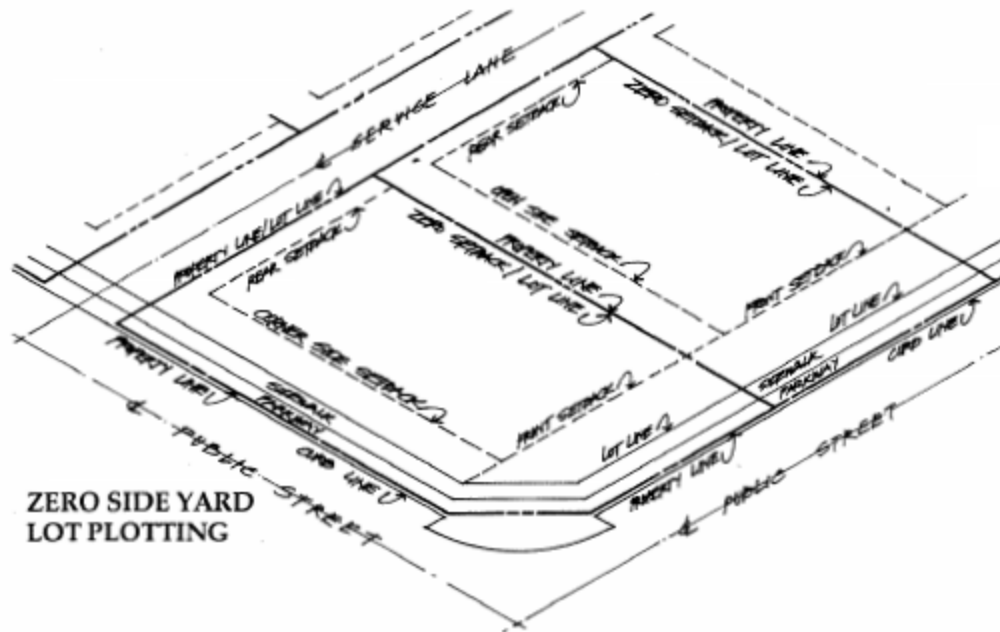


RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

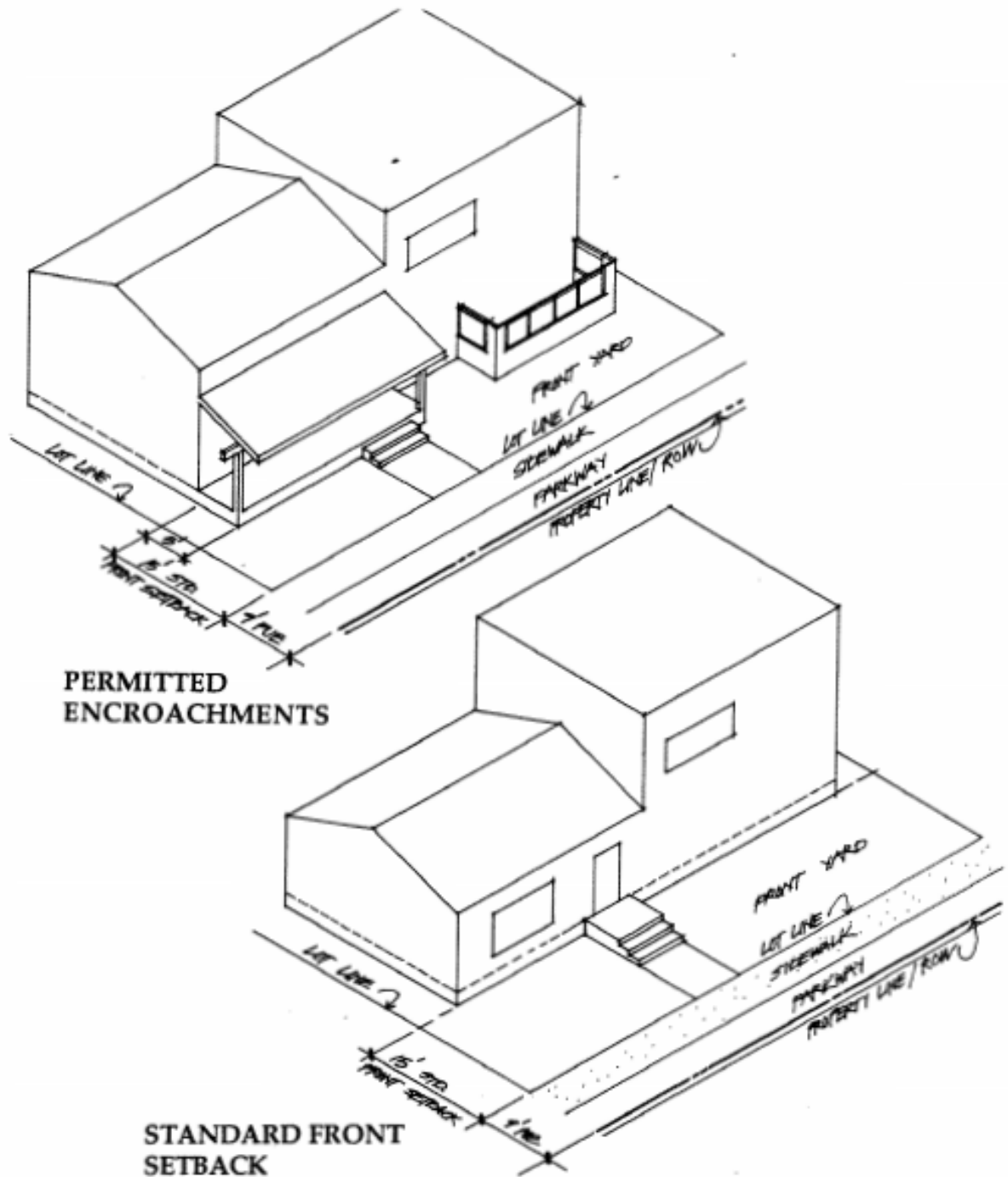
BURNETT DEVELOPMENT CORPORATION
13221 NEWPORT AVE, SUITE 200
TUSTIN, CA 92680
714.544.7600
WARKENTIN PARTNERSHIP
2550 SACRAMENTO BLVD.
RIVERSIDE, CA 92501 951.781.5422

EXHIBIT 5-A
LOT CONCEPTS
USE OF TERMS
SCALE: NONE
DATE: 10.26.97

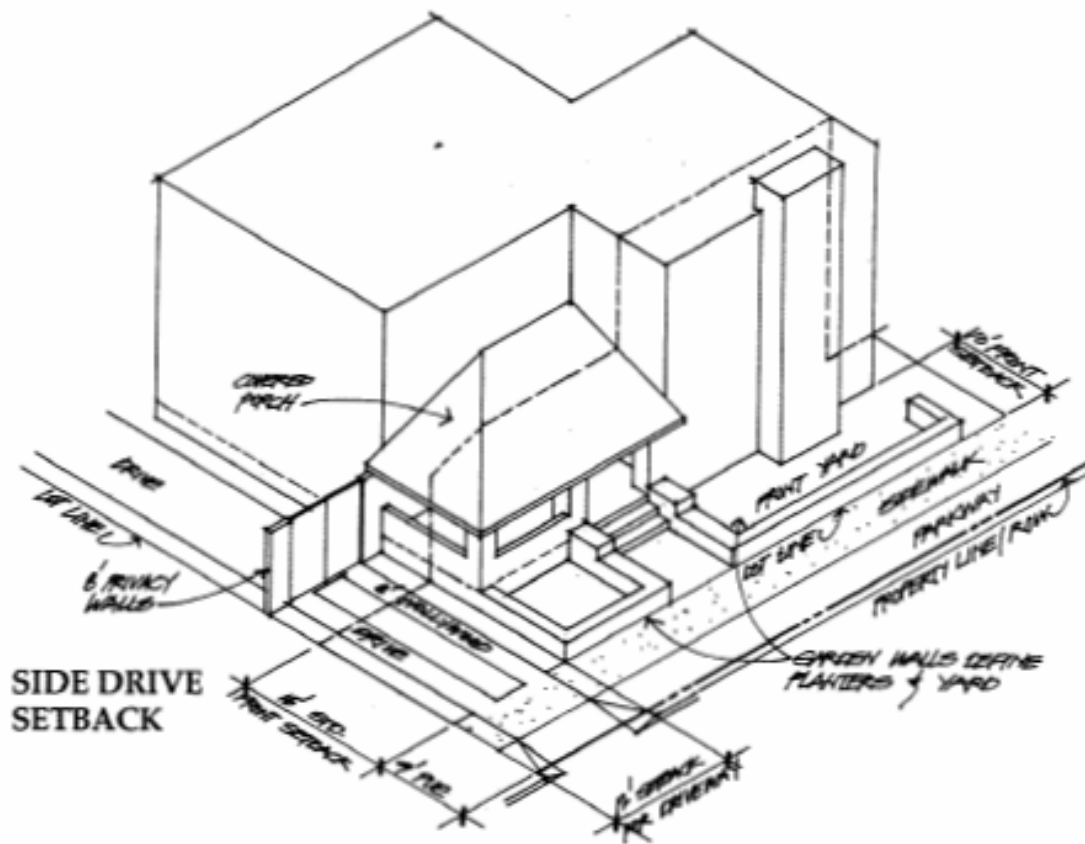


**ZERO SIDE YARD
LOT PLOTTING**

RIO VISTA VILLAGE CITY OF CATHEDRAL CITY 35-325 DATE PALM DRIVE CATHEDRAL CITY, CA 760.770.0396	Specific Plan No. SP 97- 55 DEPT. OF COMMUNITY DEVELOPMENT	BURNETT DEVELOPMENT CORPORATION 13031 NEWPORT AVE, SUITE 300 TUSTIN, CA 714.544.7600 WARKENTIN PARTNERSHIP 2850 FAIRMOUNT BLVD. RIVERSIDE, CA 92501 951.788.5422	EXHIBIT 5-A.1 LOT CONCEPTS USE OF TERMS SCALE: NONE DATE: 10.28.97
--	---	---	---



RIO VISTA VILLAGE	Specific Plan No.	BURNETT DEVELOPMENT CORPORATION	EXHIBIT	5-B
CITY OF CATHEDRAL CITY	SP 97- 55	13351 NEWPORT AVE, SUITE 200	FRONT SETBACK	
35-325 DATE PALM DRIVE	DEPT. OF	TUSTIN, CA 92680	ENCROACHMENTS	
CATHEDRAL CITY, CA	COMMUNITY	WARKENTIN PARTNERSHIP	SCALE:	NONE
760.770.0396	DEVELOPMENT	2850 FAIRMOUNT BLVD.	DATE:	10.26.87
		RIVERSIDE, CA 92501 951.788.5422		

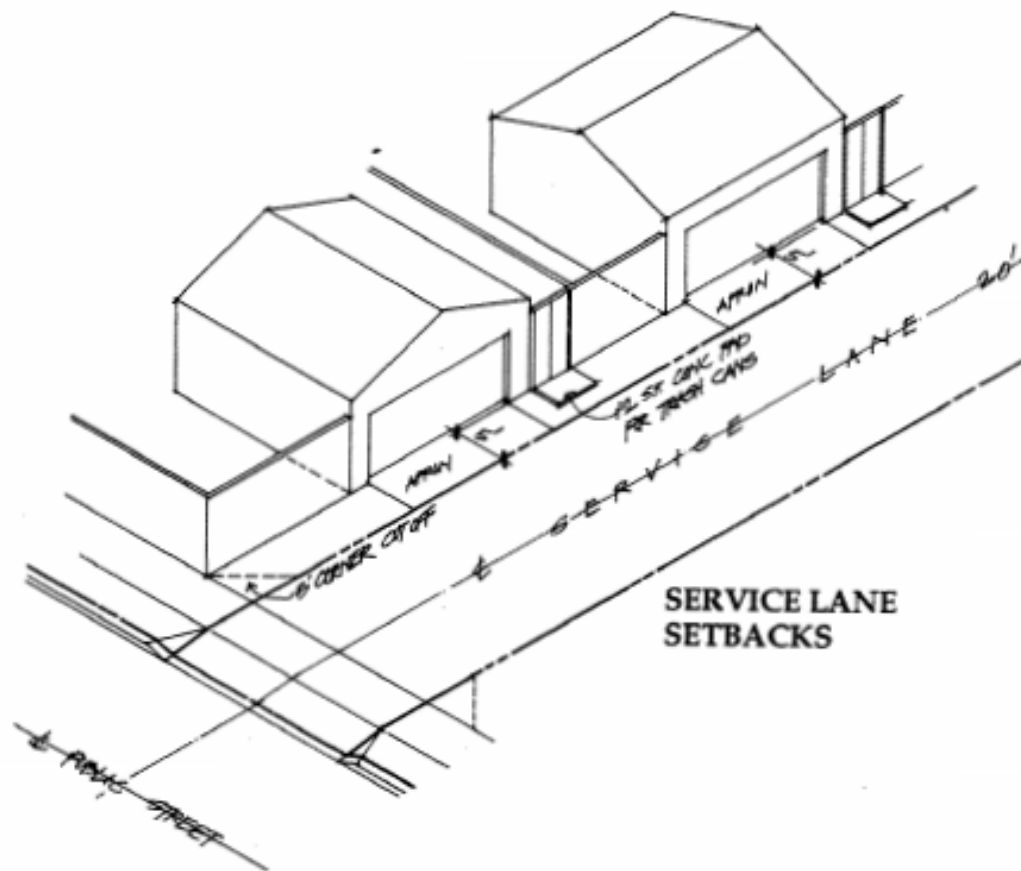


RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13221 NEWPORT AVE. SUITE 200
TUSTIN, CA 714.564.7400
WARKENTIN PARTNERSHIP
2800 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 951.788.5422

EXHIBIT 5-B.2
SIDE DRIVE SETBACK
SCALE: NONE
DATE: 10.24.97

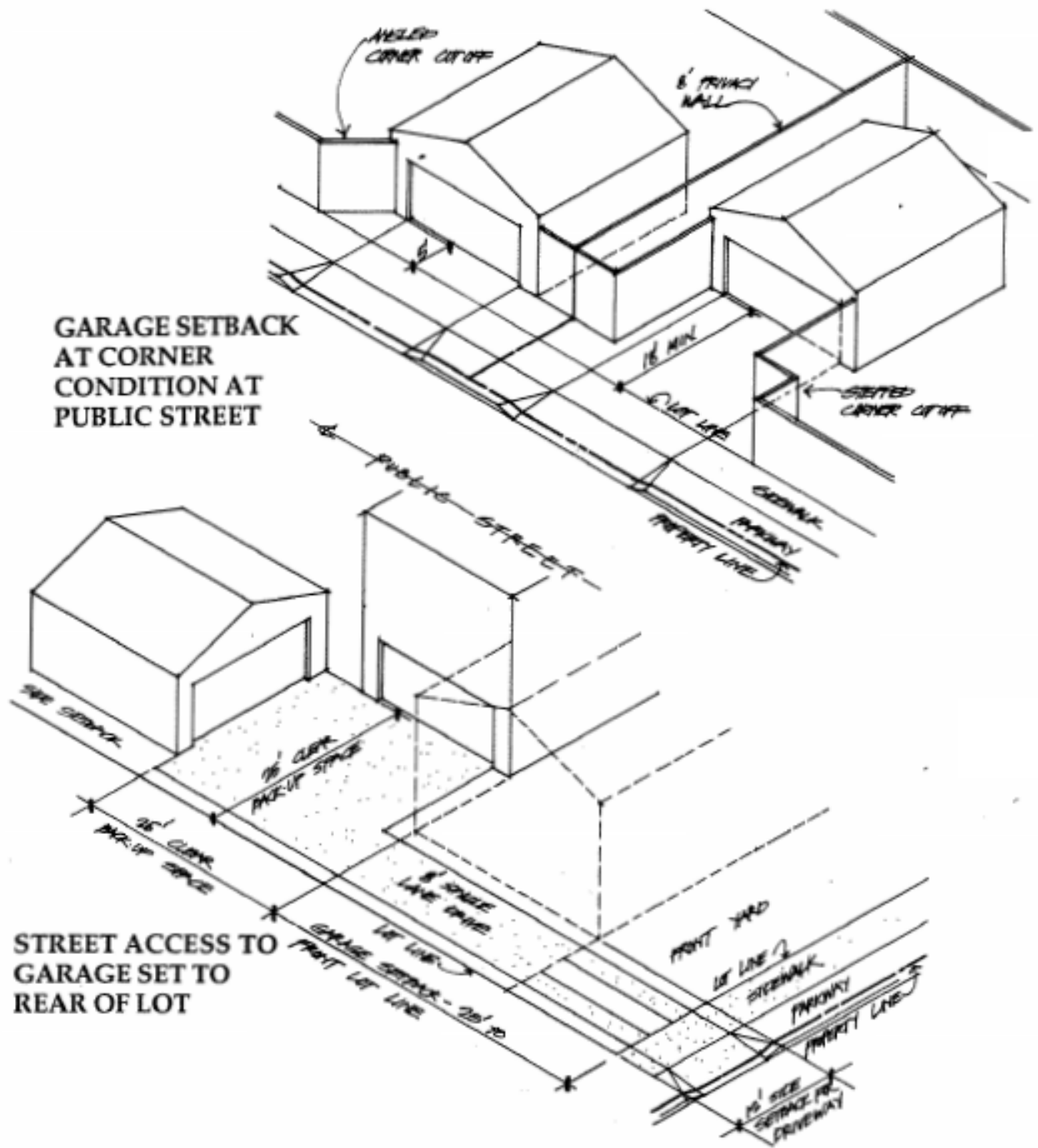


RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0096

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13031 NEWPORT AVE, SUITE 200
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2550 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 951.788.5422

EXHIBIT 5-C
**GARAGE SETBACK
SERVICE LANES**
SCALE: NONE
DATE: 10.26.97

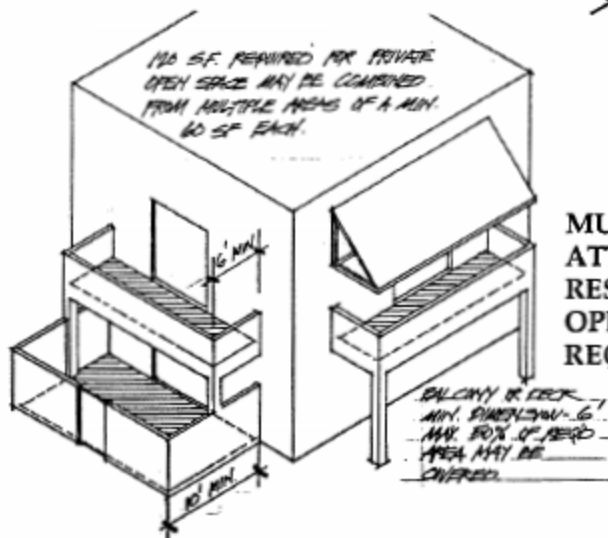
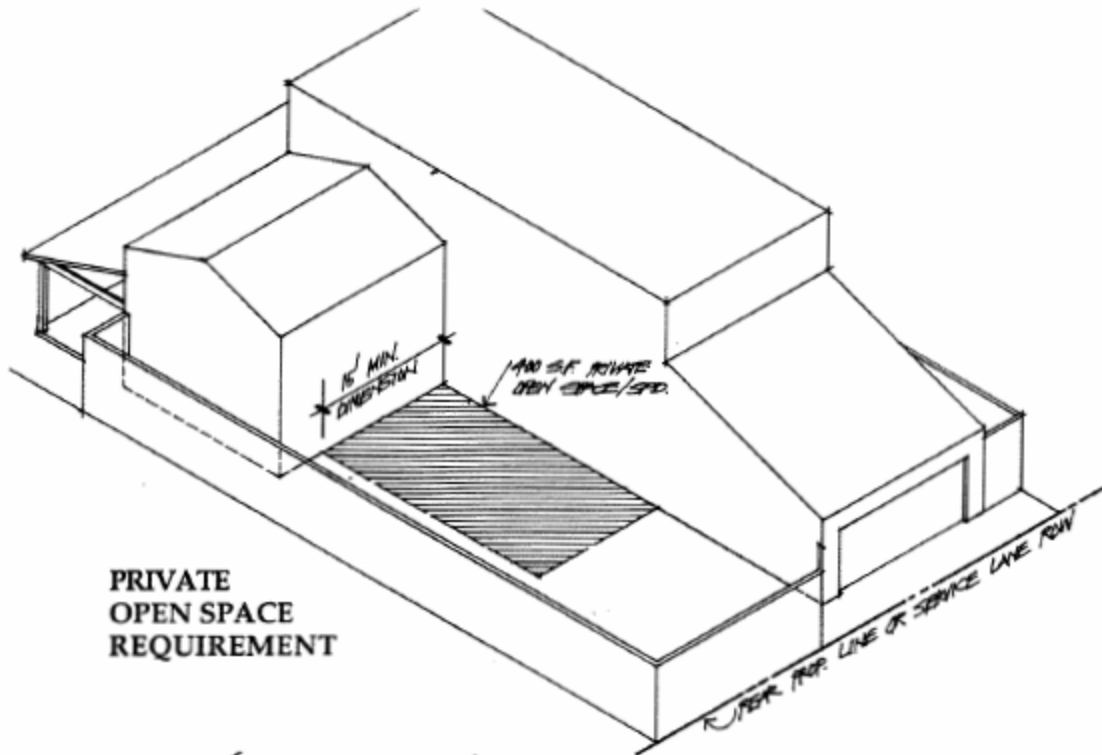


RIO VISTA VILLAGE
 CITY OF CATHEDRAL CITY
 35-325 DATE PALM DRIVE
 CATHEDRAL CITY, CA
 760.770.0396

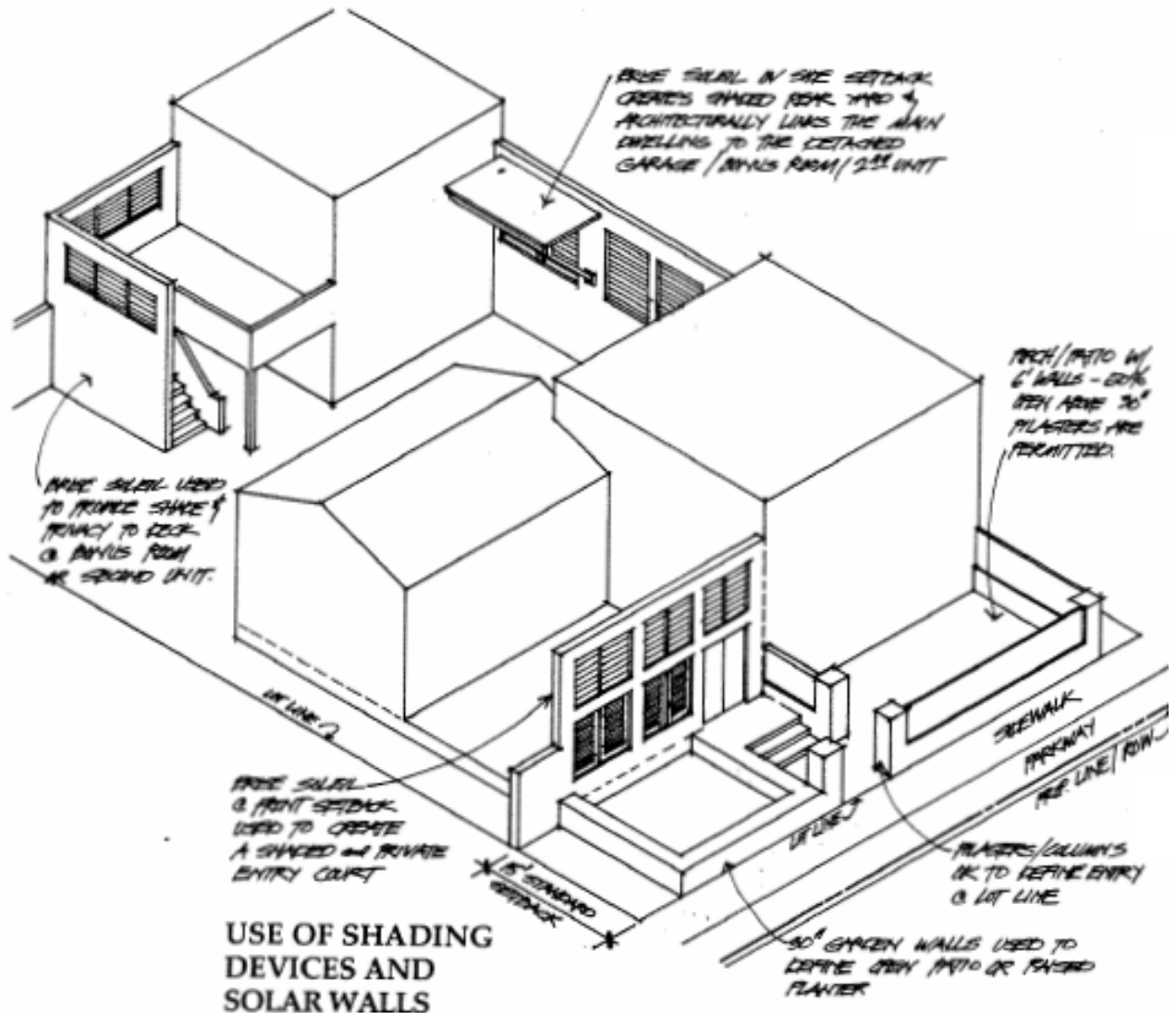
Specific Plan No.
 SP 97- 55
 DEPT. OF
 COMMUNITY
 DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
 13031 NEWPORT AVE. SUITE 200
 TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
 2950 FAIRMOUNT BLVD.
 RIVERSIDE, CA 92511 951.788.5422

EXHIBIT 5-C.1
GARAGE SETBACK
CORNER/STREET
 SCALE: NONE
 DATE: 10.26.97



RIO VISTA VILLAGE CITY OF CATHEDRAL CITY 35-325 DATE PALM DRIVE CATHEDRAL CITY, CA 760.770.0396	Specific Plan No. SP 97- 55 DEPT. OF COMMUNITY DEVELOPMENT	BURNETT DEVELOPMENT CORPORATION 13031 NEWPORT AVE, SUITE 200 TUSTIN, CA 92680 WARKENTIN PARTNERSHIP 2850 FAIRMOUNT BLVD. EVERETT, CA 92501 909.788.5422	EXHIBIT 5-D PRIVATE OPEN SPACE SCALE: NONE DATE: 10.28.87
--	--	--	--



RIO VISTA VILLAGE
CITY OF CATHEDRAL CITY
35-325 DATE PALM DRIVE
CATHEDRAL CITY, CA
760.770.0396

Specific Plan No.
SP 97- 55
DEPT. OF
COMMUNITY
DEVELOPMENT

BURNETT DEVELOPMENT CORPORATION
13001 NEWPORT AVE, SUITE 200
TUSTIN, CA 714.544.7600
WARKENTIN PARTNERSHIP
2950 FAIRMOUNT BLVD.
RIVERSIDE, CA 92501 951.788.5422

EXHIBIT 5.E
SOLAR WALLS & SHADING DEVICES
SCALE: NONE
DATE: 10.26.97

SECTION 6.0

IMPLEMENTATION

This section discusses phasing, infrastructure construction and finance, environmental mitigation programs and the development of CC&Rs administered by a Community Association (HOA).

6.1 PHASING

The project is intended to be developed in ~~three~~ five master phases. Each of these master phases may have one or more sub-phases to facilitate the development and financing of infrastructure and other public and private improvements.

Refer to Section 4.4 for an updated Phasing discussion pertaining to the 2024 Amendment. Exhibit 4-F Phasing Plan illustrates the locations of the five phases.

~~6.1.1 Phase 1: Phase I begins at the corner of Landau and Verona and extends north and west to the northerly extension of Avenida Quintana. Phase I includes the Village Center and both residential land use areas permitting multi-family housing. Infrastructure required to serve this phase is will primarily focus around the boulevard which is the central organizing element of the village. Backbone utility systems will be installed and designed with the ultimate density and size of the village in mind. Sizing of utilities will include provisions for density/unit transfers in future phases.~~

~~A The extension of Landau Boulevard is accommodated by the offer of dedication of the required right of way along the easterly and northerly property lines.~~

~~B A 10 acre school site has been located along Verona Avenue according to the size and locational requirements of the Palm Springs Unified School District.~~

~~C A special land use designation C(R) Commercial (Reserve) has been created to permit useful development of lands adjacent to and parallel with the railroad right of way which are initially being kept undeveloped to assist in the blowsand mitigation program.~~

~~D The easement used for blowsand mitigation along Verona that was granted by the land owner to the City will revert to public right of way to improve the north half of Verona as each phase is developed.~~

~~E A four acre site has been reserved for development as a community wide water park. Design and construction of the park are subjects in discussion with the City. Final determination of the financing, construction and ownership/operation of the facility are yet to be determined. Since the approval of the Specific Plan in 1997, the community wide water park has been eliminated as part of the project. In place of a water park, the 2024 Amendment proposed will to expand the existing Recreational Facility to include additional seating areas and sports courts. The beach club is also no longer applicable.~~

~~6.1.2 Phase II: Phase II completes the middle third of the site.~~

~~6.1.3 Phase III: This last phase completes the project and builds out the available land to the westerly boundary, adjacent to the pipeline easement and blowsand berm.~~

~~6.1.4 It is the intent of the master developer to construct the backbone utility systems, improve certain roads and streets, parks, storm water retention basins and provide public area landscaping in the interest of establishing the theme and tone for the entire village. It is also the intent of the master developer to secure such public assistance in the financing of such improvements as is available or may be obtained with City assistance and cooperation.~~

6.2 OFF-SITE IMPROVEMENTS

Certain improvements to adjacent properties are contemplated in the overall development of Rio Vista Village. These include Verona Avenue, Landau Boulevard and blowsand mitigations in Morongo Wash.

6.2.1: Verona Ave.: The north half of Verona will be improved as each phase of Rio Vista Village is developed. In the 1997 Specific Plan, a roundabout was proposed as for the intersection of Verona and Landau. The 2024 Amendment acknowledges the constructed four-way intersection. A roundabout is no longer being offered. At the intersection of Verona and Landau is a proposed roundabout whose construction will require the assistance and cooperation of the City and adjacent landowners.

6.2.2: Landau Boulevard: A portion of Landau Boulevard outside of Rio Vista Village and extending north from Verona has been dedicated. The on-site portion will be improved by the master developer of Rio Vista Village. That portion serving the property to the north is adjacent to the Commercial (Reserve) portion of Rio Vista Village.

6.2.3: Blowsand Mitigations: [Refer to 2024 updated blow sand mitigation program for information specific to 2024 Specific Plan Amendment.] Rio Vista Village has prepared a blowsand mitigation program that calls for community cooperation and involves both on-site and off-site improvements. The master developer of Rio Vista Village contemplates completing at least a first phase of such improvements, both on- and off-site involving additional landscaping to the berm and the building of one or more fences in the Morongo Wash, subject to City Engineer approval. The sand berm (APN 677-050-001) is planned to be placed within the Whitewater Floodplain Conservation Area (WFCA) associated with the Coachella Valley Multiple Species Conservation Plan (CVMSHCP). The CVMSHCP includes Land Use Adjacency Guidelines in order to avoid or minimize indirect effects from development adjacent to or within designated conservation areas. Therefore, consistent with the Land Use Adjacency Guidelines as described in Section 4.5 of the CVMSHCP, once the berm is placed into the WFCA, landscape treatments on the sand berm shall incorporate recommended native plant materials to the maximum extent feasible as listed in CVMSHCP Table 4-112, *Coachella Valley Native Plants Recommended for Landscaping*. Additionally, the plants listed in CVMSHCP Table 4-113, *Prohibited Invasive Ornamental Plants*, shall not be used on the sand berm. (Refer to Section 6.6.1 BLOWSAND).The 2024 Amendment is inclusive of an updated blow sand mitigation program that could be undertaken dependent on consent of property owners to the north of the Project, issuance of necessary permits and area-wide financing; or alternatively, project-specific interim on-site fencing until such time as the 6-foot-high perimeter masonry wall is constructed. Consistent with the 1997 MND, in the absence of implementation of a regional blow sand mitigation program, the previously developed portions of the RVVSP installed interim blow sand fencing pending installation of masonry perimeter walls. The updated blow sand improvement report prepared by RWDI on November 2, 2023 (Appendix C to the 2023 CEQA Analysis) analyzes Project-specific blow sand mitigation and supersedes the Approved Project's Blow Sand Mitigation Program dated December 10, 1997.

6.3 HOME OWNER'S ASSOCIATION AND COVENANTS, CONDITIONS & RESTRICTIONS

~~The developer shall create a~~ Master Community Association (MCA) to administer the affairs of the owners of common property and the various interests of the association was created at the time of initial home development. The MCA ~~will~~ manages such affairs as come before the owners in common and will, at the minimum, manage the parks, common area landscaping and infrastructure, drainage retention and nuisance water management facilities and blowsand protection improvements.

- 6.3.1 The master developer ~~will~~established Covenants, Conditions and Restrictions applicable to every property under the jurisdiction of the MCA. They may be amended depending on applicability to the 2024 Amendment.
- 6.3.2 Each residential project may create a local Home Owners Association (HOA) to which purchasers of homes will be members in addition to having membership in the Master Community Association.
- 6.3.3 Membership in the MCA will include every parcel in the specific plan area including commercial, institutional and recreational interests.
- 6.3.4 The master developer will retain an interest in local Home Owners Associations and in the MCA according to law and will continue to retain such interest until such time as all ownership in real property has been transferred to subsequent purchasers.
- 6.3.5 The master developer will include homeowners on the Design Review Board in a minority position until such time as the master developer no longer has a majority ownership interest in the residential areas of the project.

6.4 ASSESSMENT DISTRICTS

It is the intent of the master developer to propose special improvement districts, composed entirely of the Specific Plan area, for the purpose of contracting with the city or other public or private entity to develop, manage and maintain certain facilities, either on- or off-site, that provide ~~a general public~~a public benefit.

- 6.4.1 The master developer may seek to annex to existing districts should the opportunity be available and in the project's interests.
- 6.4.2 Currently assessment districts or special facilities/service districts apply to Rio Vista Village as follows:
 - A CITY-WIDE COMMUNITY SERVICE AREA: There is an existing city-wide community service area which provides police service, parks and landscaping, street lighting, emergency and paramedic services. The charge is based on equivalent dwelling units (EDU). A single-family house is one (1.0) EDU. Vacant land is 1/2 EDU per acre. The charge for one EDU is \$136 per year.
 - B COMMUNITY SERVICE AREA (CSA) NO. 152: There is another community service area which addresses the National Pollutant Discharge Elimination System. The charge is \$8.20 per unit per year.
 - C ASSESSMENT DISTRICT FOR SEWER AND WATER SYSTEM IMPROVEMENTS: An assessment district was formed to install sewer and water system improvements in the Rio Vista (formerly Sun-X) Area. Burnett

Development Corporation paid \$72,000 for the oversizing of the mains and stubs to serve Rio Vista Village.

- D A fee is currently collected for the acquisition and development of a community park to be constructed within Rio Vista Village

6.5 ARCHITECTURAL CONTROLS AND DESIGN REVIEW

A design guideline document entitled "Community Character Criteria" will be submitted for review and approval under separate cover after both Specific Plan and Master Tentative Tract Map approvals have been secured. It is the intent of the master developer, ~~Burnett Development Corporation~~ to enforce the design standards and guidelines contained therein.

- 6.5.1 DESIGN REVIEW BOARD: ~~Burnett Development Corporation~~ The Master Developer will establish a Design Review Board to administer the Community Character Criteria and deal with such issues as may come before the Board. The Board will consist of at least three voting members, one of who must be a licensed architect in the state of California, one of whom must be a representative of the master developer and one of whom is to be appointed by the Master HOA. At such time as the master developer no longer has a majority ownership interest in the residentially zoned property, two additional HOA members may be appointed. The number of voting members must be odd and until such time as the master developer's interests are completely sold out, at least one member must represent ~~his~~ the master developer interests. The licensed architect may come from the HOA or be appointed at large.

- 6.6 ENVIRONMENTAL MITIGATIONS [Refer to 2024 CEQA Consistency Analysis for the Rio Vista Village (Verano) Specific Plan Amendment and Tentative Tract Map Nos. 38709, 38710, 38711, 38712, 38713 and 38902 for environmental mitigation information specific to 2024 Specific Plan Amendment area.]

BLOWSAND MITIGATION PROGRAM

- ~~6.6.1 BLOWSAND: Per report "Blowsand Considerations for the Rose Trust Property", November 8, 1991, amended to address the conditions of the Rio Vista Village Specific Plan, October 16, 1997. Prepared by: Donald C Weaver, P.E., Corp., P.O. Box 5414, Riverside, CA 92517, (909) 883.3796. The Weaver report prepared in 1991 was reviewed by Mr. Weaver in 1997 and found to be factually correct for application at this time. Basic blowsand conditions, both causative phenomenon and the resulting set of environmental impacts remain unchanged. The currently recommended program of mitigations is tailored to the specific circumstances of Rio Vista Village and meets or exceeds the mitigations recommended in the 1991 report.~~

6.6.2—A

BLO

~~WSAND IMPACTS: Approximately 52,000 cubic yards can be expected to be intercepted by the upwind property boundaries on a mean annual basis. This is comprised of 15,000 cubic yards per year along the westerly boundary, where mean annual rates of sand transport range from 5 cubic yards per foot wide path of sand movement at the southerly end to 10 cubic yards per foot wide path at the northwest corner; and 33,000 cubic yards per year along approximately 3,100 feet of the northerly boundary between the CVWD levee and a point approximately 200 feet measured at a right angle to the railroad, and some 4,000 cubic yards per year across the remaining distance to the railroad. Mean annual rates along this line vary from the 10 cubic yards per foot wide path of sand movement at the northwest corner to 15 cubic yards per foot wide path at the point 200 feet flow the railroad, and approaching 20 cubic yards per foot wide path the remaining distance to the railroad.~~

6.6.3—B

BLO

~~WSAND MITIGATIONS: Development of the site will constitute an obstruction to the natural passage of sand, effectively resulting in the stoppage and retention of some 52,000 cubic yards of sand annually as noted above. Therefore implementation of appropriate protection at the upwind borders of the property will be necessary. Due to the existence of the CVWD channel directly upwind the subject property, unlike developments that can anticipate protection as other developments occur upwind and thus shield them from blowsand, properly designed and maintained blowsand control facilities will be necessary for this site indefinitely. This property is also unique in that it may be possible to locate some of the necessary blowsand control facilities off-site, in the CVWD channel.~~

~~6.6.4—MORONGO WASH FENCING: It is proposed that three sand fence lines be located adjacent to or within the Morongo Wash/Storm Water Channel which, with proper long term maintenance, will adequately serve to control the transport of sand that would otherwise impact the subject property. The extent of the fencing clearly lies outside the boundaries of the property, indicating the need for a mitigation program requiring community level cooperation. The master developer will apply for an encroachment permit to construct such fences in accordance with letters of concurrence issued previously by CVWD.~~

~~6.6.5—MAINTENANCE ACCESS WAY: Adjacent to the westerly property blowsand maintenance access way, with a width of 20 feet has been provided to permit equipment to access the berm areas and remove sand as necessary.~~

~~6.6.6 BLOWSAND TRANSPORT CORRIDOR: Along the northeast boundary, adjacent to the railroad right of way, is a 200-foot wide corridor left essentially undeveloped. This is the area of most severe sand transport and by remaining undeveloped will permit convenient and unobtrusive access for maintenance and sand removal. Further, in light of the nature of the currently recommended area wide program as extending northerly to the Railroad ROW, the 200 foot wide blowsand corridor recommended along the north east corner of Rio Vista Village is suitable for use as the future Landau ROW as well as for limited commercial uses such as storage provided blowsand conditions within the corridor at the time of such proposed development are verified as having been mitigated by the proposed fence and berm program.~~

~~6.6.7 BERM IMPROVEMENTS: An existing berm is currently in place between the western edge of Rio Vista Village and the Morongo Wash. This berm is used for both flood control and blowsand control purposes. The top of the berm is planted with tamarisk trees that have become sparse due to the lack of irrigation. The existing tamarisk trees will be inspected by the project landscape architect and a report prepared documenting the status of the exiting trees. The following components are proposed for the berm:~~

~~6.6.8 (a) _____ Additional tamarisk trees will be planted to fill in the double row. Dead or dying trees will be replaced.~~

~~6.6.9 (b) _____ The installation of an above ground irrigation line to provide water for the tree rows.~~

~~6.6.10 OFF-SITE MITIGATIONS ON THE PROPERTY TO THE NORTH: •~~

~~6.6.11 It is expected that the mitigation measures in the Morongo Wash will effectively control the transport of sand from off-site. With these measures in place the loose surficial sand on properties to the north will quickly stabilize as the native vegetation continues to grow. Should these measures require additional mitigations on a temporary basis, the following programs are proposed:~~

~~6.6.12 (a) _____ With appropriate permission from the property owners to the north, the master developer will undertake either sand fencing or surface stabilization or both on the northerly properties.~~

~~6.6.13 (b) _____ Tempo~~

~~rary security fencing (chain link) at the boundary of said properties will be installed to protect surface stabilization efforts at the master developer's expense upon receipt of such permissions.~~

~~6.6.14 (e)~~

~~_____ Lacki
ng such permission, interim on-site fencing will be installed along the northerly property line until such time as the 6 foot high perimeter masonry wall is constructed.~~

~~6.6.15 (6)~~

~~_____ COUR
SE OF CONSTRUCTION MITIGATIONS: During the course of construction and to mitigate blowsand impacts prior to complete build-out of the project the following measures are proposed.~~

~~6.6.16 (a)~~

~~_____ Constr
uction vehicle and equipment routing will be directed to the northerly portions of the site.~~

~~6.6.17 (b)~~

~~_____ Wateri
ng and dust controls will be enforced per local ordinance.~~

~~6.6.18 (e)~~

~~_____ Blows
and fencing will be installed within the un-built portions of the project area in locations specifically selected to protect adjacent residential development. The number, extent and location of such fences will be determined as a function of phased building permits so that the mitigation measures may be tailored to construction and development schedules.~~

~~6.6.19 (d)~~

~~_____ Additi
onal measures such as surface stabilization, the planting of ground cover and access control to prohibit vehicular use will all be reviewed as to their efficacy at the time the measures are required.~~

~~6.6.20 (7)~~

~~_____ SCHE
DULE OF OFF SITE IMPROVEMENTS: The actual construction of off site blowsand mitigation improvements has two components: First, those to be~~

~~provided by the developer during the developer's involvement in the overall development of the village; and second, those improvements and maintenance operations to be conducted after the master developer has terminated involvement in the project. Since blowsand transport is a function of natural events not entirely predictable, the monitoring program becomes the key ingredient in matching the buildup of blowsand to the construction of new and/or expanded mitigation measures and the schedule of maintenance.~~

~~6.6.21 (a) _____ The master developer will install blowsand fencing according to the program described in the plans and diagrams attached to the blowsand report. In summary, the master developer will install incremental improvements sized to handle the annual blowsand transport as determined by the report.~~

~~6.6.22 (i) _____ The proposed improvements to the existing berm will be undertaken as a part of Phase I construction and will be completed prior to the first occupancy in that phase. These improvements are limited to the extent of the berm within the developer's control. Should the appropriate owners of property to the north agree to such and the required permits be issued for portions of the berm to the north extending from the northern boundary of Rio Vista Village to the Railroad ROW, the master developer will also install and maintain such improvements in Phase I. Should these required permits not be available until sometime after the commencement of Phase I, the master developer will undertake these improvements off-site whenever such permits are available during the course of the developer's involvement.~~

~~6.6.23 (ii) _____ The initial sand fence construction will be undertaken as a Phase I improvement. This requires an encroachment permit issued by CVWD, the agency with Association at such time as the developer relinquishes appropriate and designated control to the MCA.~~

~~6.6.24 (iii) _____ Subsequent sand fence construction will be undertaken as a function of the monitoring program. Analysis of the average annual sand transport buildup indicates that within the first seven years of operation, only one segment of the three fences will grow to the ultimate 15 feet in height. Most segments will be 10 feet high, permitting the relative free flow of water through Morongo Wash at such time as the Railroad replaces the culvert with an open structure bridge.~~

~~6.6.25 (iv) On-site blowsand mitigations will be undertaken as the specific improvement plans for each phase and tract are undertaken.~~

~~6.6.26 (b) Blows and monitoring program: The monitoring program shall be established by the master developer and transferred to the MCA at the appropriate time.~~

~~6.6.27 (i) The program shall establish benchmark levels of sand build-up and semi-annually measure additional build-up at designated locations along the extent of the Morongo Wash adjacent to the project.~~

~~6.6.28 (ii) Permanent monitoring will be conducted on a semi-annual basis and adjustments to the scheduled improvements will be made according to the results of the measurements taken during the scheduled monitoring events.~~

~~6.6.29 (iii) During years one through three, monitoring shall occur quarterly and after every significant sand storm event.~~

~~6.6.30 (iv) Measurements shall be taken and when the sand build-up exceeds threshold values, additional and/or expanded fencing or sand removal shall be commenced.~~

~~6.6.31 (8) TRANSFER OF RESPONSIBILITY TO THE MASTER COMMUNITY ASSOCIATION (MCA): It is the intent of the master developer to transfer responsibility for construction and maintenance of the blowsand mitigation improvements to the Master Community Association at such time as the developer relinquishes appropriate and designated control to the MCA.~~

~~6.6.32 (a) At such time as the transfer of responsibility occurs, the MCA will assume responsibility for construction of subsequent blowsand control measures according to the provisions of the mitigation program.~~

~~6.6.33 (b) The MCA shall provide within its annual budget a provision for both maintenance and construction of blowsand mitigation measures.~~

~~6.6.34 (9) MASTER DEVELOPER'S FINANCING OF IMPROVEMENTS: Until such time as the MCA assumes responsibility the master developer will fund such improvements and maintenance operations as are required to permit the mitigation measures to function in the manner for which they were designed.~~

~~6.6.35 (10) REIMBURSEMENT FOR OFF-SITE IMPROVEMENTS: The master developer will install and maintain blowsand mitigation measures off-site in areas serving as primary barriers for properties not within the master developer's control until such time as the owners of such properties assume responsibility.~~

~~6.6.36 (a) North of Rio Vista Village: This area has no currently proposed development plans. The master developer will install and maintain the off-site blowsand mitigations and maintenance efforts until the MCA assumes control and continues to provide mitigation measures and maintenance. At such time as the property to the north develops, the City will impose a fee and/or require the property to participate in an on-going maintenance program.~~

~~6.6.37 (b) South of Rio Vista Village: Blowsand mitigations in this area directly benefit the residents of the Sunix tract. Any and all mitigations financed by the master developer as a part of the area-wide mitigation program shall be limited to initial construction only. All maintenance and subsequent construction shall be borne by the residents or by the City using funds collected for such purposes.~~

~~6.6.38 (c) The City agrees to assist the master developer in the establishment of a reimbursement program to repay the costs of providing area-wide improvements of clear benefit to properties outside the boundaries of Rio Vista Village. This program could include any or all of the following and is not limited to these specific provisions:~~

~~6.6.39 (i) the creation of a special district for bowsand mitigation and/or~~

~~6.6.40 (ii) an agreement affected property owners to repay their fair share portion of the capital costs and/or~~

~~(iii) an agreement to assume on-going mitigation measures and maintenance costs.~~

6.6.1 BLOW SAND. The 1997 Adopted MND included regional blow sand mitigation measures that could be undertaken dependent on consent of property owners to the north of the project, issuance of necessary permits and area-wide financing; or alternatively, project-specific interim on-site fencing until such time as the 6-foot-high perimeter masonry wall is constructed.

Consistent with the 1997 MND, in the absence of implementation of a regional blow sand mitigation program, the previously developed portions of the RVVSP installed interim blow sand fencing pending installation of masonry perimeter walls. The updated blow sand mitigation improvements report prepared by RWDI on November 2, 2023 (Appendix C of the 2024 CEQA Consistency) analyzes Project-specific blow sand mitigation and supersedes the Approved Project's Blow Sand Mitigation Program dated December 10, 1997. Below is a table describes the 1997 Blow Sand Mitigation Program and the current Project's Blow Sand Mitigation Program.

Table 6.1: Blow Sand Mitigation Program

<u>1997 Blow Sand Mitigation (Superseded)</u>	<u>2024 Blow Sand Mitigation</u>
<u>Development of the site will constitute an obstruction to the natural passage of sand, effectively resulting in the stoppage and retention of some 52,000 cubic yards of sand annually as noted above. Therefore, implementation of appropriate protection at the upwind borders of the property will be necessary. Due to the existence of the CVWD channel directly upwind the subject property, unlike developments that can anticipate protection as other developments occur upwind and thus shield them from blow sand, properly designed and maintained blow sand control facilities will be necessary for this site indefinitely.</u>	<u>RWDI understands that NCP Verano LLC will have an encroachment permit only to access the portion of the east side and top of the existing berm adjacent to the west side of the Specific Plan (SP). Therefore, the only off-site blow sand improvements are to be along the east side and top of the existing berm, and within the City-controlled access road easement along the north side of the SP. Therefore, feasible sand mitigation program includes: 1) reshaping the east slope of the existing CVWD storm berm, 2) installing irrigation lines on the east and top of the existing CVWD storm berm together with planting at the top and eastern slope of the berm, 3) construction of a 20' maintenance road on the east side of the existing berm, construction of a blow sand wall along the east side of the maintenance road on the west side of the west boundary of the specific plan area, and 4) construction of a blow sand wall along the north boundary of the SP and maintenance road within the City-controlled road easement along most of the north boundary.</u>
<u>1. Morongo Wash Fencing: It is proposed that three sand fence lines be located adjacent to or within the Morongo Wash/Storm Water Channel which, with proper long-term maintenance, will adequately serve to control the transport of sand that would otherwise impact the subject property. The extent of the fencing clearly lies outside the boundaries of the property, indicating the need for a mitigation program requiring community level</u>	<u>In RWDI's opinion these are feasible options from a sand mitigation perspective. RWDI recommends the</u>

cooperation. The master developer will apply for an encroachment permit to construct such fences in accordance with letters of concurrence issued previously by CVWD.

2. Maintenance Accessway: Adjacent to the westerly property line a blow sand maintenance access way, with a width of 20 feet has been provided to permit equipment to access the berm areas and remove sand as necessary.

3. Blow sand Transport Corridor: Along the northeast boundary, adjacent to the railroad right of way, is a 200-foot wide corridor left essentially undeveloped. This is the area of most severe sand transport and by remaining undeveloped will permit convenient and unobtrusive access for maintenance and sand removal. Further, in light of the nature of the currently recommended areawide program as extending northerly to the Railroad ROW, the 200 foot wide blow sand corridor recommended along the north east corner of Rio Vista Village is suitable for use as the future Landau ROW as well as for limited commercial uses such as storage provided blow sand conditions within the corridor at the time of such proposed development are verified as having been mitigated by the proposed fence and berm program.

4. Berm Improvements: An existing berm is currently in place between the western edge of Rio Vista Village and the Morongo Wash. This berm is used for both flood control and blow sand control purposes. The top of the berm is planted with tamarisk trees that have become sparse due to the lack of irrigation. The following components are proposed for the berm:

(a) Additional tamarisk trees to fill in the double row. (2024 Amendment suggests not using Tamarisk as they are invasive species.)

(b) The installation of an above ground irrigation line to provide water for the tree rows.

(c) The planting of a layer of ground cover and low shrubs along the top of the berm to aid in capturing blow sand transported beyond the upwind fences.

5. Offsite Mitigations on the Property to the North: It is expected that the mitigation measures in the Morongo Wash will effectively control the transport of sand from offsite. With these measures in place the loose surficial sand on properties to the north will quickly stabilize as the native vegetation continues to grow.

following requirements to ensure that the mitigation is effective.

- Ensure that the wall is at least 6' tall.
- Make sure that sand is cleared out from the downwind side of the wall at least every 6 months or as necessary based on HOA monitoring.
- Ensure that the vegetation remains established.

Sand will accumulate on the downwind side of the perimeter walls over time. Based on the sand transport flux analysis from Image 8, it is recommended that sand be removed at least every 6 months or as deemed necessary by the HOA from behind the wall. It is possible that sand will need to be cleared in some areas more frequently, depending on the specific geometry and topography that surround the wall.

Similarly, it is recommended that the vegetation atop the east berm be regularly inspected and repaired, as necessary. A 6-month schedule is advised, as some areas of the vegetation may fill with sand like behind the mitigation walls.

Common equipment for removing sand from behind mitigation walls include a typical excavator and dump truck. Other equipment that is commonly used is a sweeping device, to minimize any potential damage to the wall and service road.

Should these measures require additional mitigations on a temporary basis, the following programs are proposed:

- (a) With appropriate permission from the property owners to the north, the master developer will undertake either sand fencing or surface stabilization or both on the northerly properties.
- (b) Temporary security fencing (chain link) at the boundary of said properties will be installed to protect surface stabilization efforts at the master developer's expense upon receipt of such permissions.
- (c) Lacking such permission, interim onsite fencing will be installed along the northerly property line until such time as the 6-foot high perimeter masonry wall is constructed.

6. Course of Construction Mitigations: During the course of construction and to mitigate blow sand impacts prior to complete build-out of the Project the following measures are proposed.

- (a) Construction vehicle and equipment routing will be directed to the northerly portions of the site.
- (b) Watering and dust controls will be enforced per local ordinance.
- (c) Blow sand fencing will be installed within the un-built portions of the project area in locations specifically selected to protect adjacent residential development. The number, extent and location of such fences will be determined as a function of phased building permits so that the mitigation measures may be tailored to construction and development schedules.
- (d) Additional measures such as surface stabilization, the planting of ground cover and access control to prohibit vehicular use will all be reviewed as to their efficacy at the time the measures are required.

6.6.2 NOISE/VIBRATION: An updated Noise Report dated January 2024 was prepared by LSA Associates, Inc., for the 2024 SPA and is included as Appendix M of the 2024 SPA CEQA Consistency Analysis. The updated Noise Report determined, consistent with the Adopted 1997 MND, with implementation of mitigation measures shown below, no new noise impacts would occur as a result of implementation of the 2024 SPA. An updated vibration study will be prepared for the 2024 Specific Plan Amendment area in accordance with the City's current General Plan mitigation measure NOI-3 requiring a draft and/or final vibration study prior to approval of development plans or issuance of a building permit for new development projects within 150 feet of UPRR railroad tracks. The original "Rio Vista Village Preliminary Noise Analysis", City of Cathedral City, California, prepared by Robert Kahn John Kain & Associates, Inc., 1601 Dove Street, Suite 290, Newport Beach, CA 92660, October 15, 1997 was updated by the LSA Noise Report. The noise impacts and mitigation measures contained in the 1997 noise analysis by Kain and Associates and revised by the 2024 LSA noise report are as follows:

- A PROJECT IMPACTS: An acoustical analysis has been completed to determine the exterior and interior noise exposure and the necessary noise mitigation measures for the Rio Vista Village project. The project site is located north of Verona Road and west of Landau Boulevard in the City of Cathedral City.
- (1) The results of this analysis indicate that future vehicle noise from the I-10 Freeway and the Southern Pacific Railroad tracks are the principal source of community noise that will impact the site. However, noise levels on the project site will meet the City's outdoor 65 CNEL exterior standard for outdoor areas and 45 CNEL interior noise standards, if the recommended mitigation measures include the construction of an ~~15~~-8 foot-high noise barrier, a "windows closed" condition requiring a mechanical ventilation system and upgraded windows for those residential units exposed to the I-10 Freeway and the Southern Pacific Railroad tracks. Noise control measure details are presented in the "Summary of Recommendations" of this report.
 - (2) The noise control analysis and recommendations in this report are intended to demonstrate that the noise criteria of the General Plan of Cathedral City for the project will be met, if the mitigation measures as recommended in this report are implemented.
- B RECOMMENDED MITIGATION MEASURES: The following mitigation measures are recommended to mitigate the project's potential noise impacts:
- (1) TRAFFIC NOISE MITIGATION MEASURES: Prior to approval of any subsequent maps for the Rio Vista Village project, the developer shall

coordinate with the City in providing mitigation of traffic noise impacts on existing residences. Specific mitigation shall include:

- (a) Preparation of a detailed acoustical analysis determining precise needs for roadway attenuation,
 - (b) Construction of any improvements identified in the study as necessary to mitigate adverse impacts, and
 - (c) A fair-share assessment of fee responsibilities among the major developers for construction of improvements, based on each major development's contribution to traffic volumes along the impacted roadways.
 - (d) The ~~15~~8 foot high wall will be fully constructed prior to occupancy of any dwellings within areas requiring the wall for noise mitigation.
- (2) For all areas within the General Plan buildout (Post-2020) 65 CNEL roadway contours, residential lots and dwellings shall be sound attenuated against present and projected noise, which shall be the sum of all noise impacting the project, so as not to exceed an exterior standard of 65 CNEL in outdoor living areas and an interior standard of 45 dB CNEL in all habitable rooms. An acoustical study shall be prepared under the supervision of a person experienced in the field of acoustical engineering. Evidence that above standards will be satisfied in a manner consistent with applicable zoning regulations shall be submitted as follows:
- (a) Prior to the recordation of a final tract/parcel map or prior to the issuance of Grading Permits, at the sole discretion of the City, an Acoustical Analysis Report shall be submitted to the City for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy "B" below.
 - (b) Prior to the issuance of any building permits, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted to the City for approval along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report(s) have been incorporated into the design of the project.
 - (c) Prior to the issuance of any Certificates of Use and Occupancy, field testing in accordance with California Administration Code Title 25 regulations may be required by the County, to verify compliance

with Sound Transmission Class (STC) and Impact Insulation Class (HC) design standards.

- C CONSTRUCTION NOISE MITIGATION MEASURES: All construction activity shall comply with the provisions of the Cathedral City Municipal Code including but not limited to restrictions concerning the hours and days of operation. Consistent with Cathedral City Municipal Code Section 11.96.070, construction would be permitted to occur between the hours of 7:00 a.m. to 5:30 p.m., Monday to Friday, and between 8:00 a.m. and 5:00 p.m. on Saturdays between October 1 and April 30 and between 6:00 a.m. to 7:00 p.m., Monday to Friday, and between 8:00 a.m. to 5:00 p.m. between May 1 through September 30.

- (1) All construction vehicles or equipment fixed or mobile-operated shall be equipped with properly operating and maintained mufflers.
- (2) Stockpiling and/or vehicle staging areas shall be located as far as practical from noise sensitive areas.

- D UNIT VENTILATION: When the operable doors and windows are open, it is expected that the interior 45 CNEL limit for the Rio Vista Village may be exceeded. Therefore, a windows "Closed" condition is required for this use to meet the interior noise standard. For this windows-closed condition, a means of mechanical ventilation may be provided using one of the following alternative methods:

- (1) A "summer switch" on the forced air heating/cooling unit for the building. The summer switch permits fan operations for ventilation at reference points 1 and 2, independent of the heating and cooling function. The UBC requires that the system shall be capable of supplying a minimum of 5 cubic feet per minute of outside air per occupant, with a total circulated of not less than 15 cubic feet per minute per occupant in all portions of the building, during such time as the building is occupied. If the velocity of the air at the register exceeds 10 feet per second, the register shall be placed more than 8 feet above the floor directly beneath. The fresh air intake duct should be a flexible fiberglass sound attenuating construction. The duct may be at least ten (10) feet long or at least six (6) feet long with one sharp 90° bend. The intake duct should have an in-line mechanical quad damper before the fan.
- (2) A through wall air conditioner or heat pump. Such a unit must supply a minimum of 5 cubic feet per minute outside air per occupant for the total circulated air of not less than 15 cubic feet per minute per occupant in all portions of the building, during such time as the building is occupied. The unit should have an approximate overall dimension of 18" x 24" or less with a vent opening no greater than 6" in diameter. Or, the unit may be an approved alternative with acceptable acoustical transmission performance.

- (3) An attic fan system. Such a system would bring outside air to the building interior and exhaust the interior area air past a ceiling fan into the attic space and out the attic vent. The air may be ducted into the building through 10 feet of flexible fiberglass ducting, with one sharp 90° bend. The intake opening for the ducting should be in the side of the building which faces away from the I-10 Freeway. As required by the UBC, the system must provide 5 cubic feet per minute of outside air per occupant, with a total circulated of not less than 15 cubic feet per minute per occupant within all portions of the building, during such time as the building is occupied.
- (4) Any other method of ventilation which meets the UBC requirements for 5 cubic feet per minute of outside air per occupant, with the total circulated of not less than 15 cubic feet per minute preoccupant in all portions of the building, during such time as the building is occupied.

E NOISE CONTROL BARRIER CONSTRUCTION MATERIALS: The necessary noise barrier mitigation will be accomplished if the noise barrier construction materials have a weight of at least 4 pounds per square foot of face area. The recommended barrier must present a solid face from top to bottom, and no openings or decorative cutouts should be made. All gaps (except for weep holes) should be filled with grout or caulking. The required noise control barriers may be constructed using one of the following alternative materials:

- (1) Masonry block;
- (2) Stucco veneer over wood framing (or foam core), or 1-inch-thick tongue and groove wood of sufficient weight per square foot;
- (3) 1/4-inch-thick glass, acrylic plastic, or other transparent materials with sufficient weight per square foot may be used to provide views;
- (4) Earthen berm;
- (5) Any combination of these materials or other construction materials with a minimum weight of 3.5 pounds per square foot of face area.

6.6.3 TRAFFIC IMPACT: Per report "Rio Vista Village Traffic Impact Analysis", City of Cathedral City, California, prepared by: Robert Kahn John Kain & Associates, Inc., 1601 Dove Street, Suite 290, Newport Beach, CA 92660, October 8, 1997.

A DEVELOPMENT DESCRIPTION: Rio Vista Village has been designed to incorporate Traditional Neighborhood Design (TND) circulation features. In addition, the proposed development minimizes "through traffic" impacts to the surrounding area by terminating Landau Boulevard within the boundary of Cathedral City.

- (1) For Opening Year traffic conditions, the project site is proposed to be developed with 260 single-family detached residential dwelling units, 156 apartment dwelling units, 179 condominium dwelling units, and 7 acres of

park use. For buildout traffic conditions, the project site will be developed with a total of 1,030 single-family detached residential dwelling units, 156 apartment dwelling units, 179 condominium dwelling units, 7 acres of park, 700 student elementary school and 15,000 square feet of commercial retail.

- (2) For existing traffic conditions, the study area intersections operate at Level of Service "C" or better during the peak hours. The proposed Opening Year development is projected to generate approximately 5,290 trip-ends per day with 400 vehicles per hour during the AM peak hour and 530 vehicles per hour during the PM peak hour.
- (3) The proposed buildout development is projected to generate a total of approximately 15,570 trip-ends per day with 1,230 vehicles per hour during the AM peak hour and 1,520 vehicles per hour during the PM peak hour. The proposed project will have access to the extensions of Landau Boulevard and Avenida Quintana.
- (4) For Opening Year without project traffic conditions, study area intersections are projected to operate at Level of Service "C" or better during the peak hours without improvements.
- (5) For Opening Year with project traffic conditions, study area intersections are projected to operate at Level of Service "C" or better during the peak hours without improvements.
- (6) For study area buildout without project traffic conditions, the following study area intersections are projected to operate at unacceptable levels of service during the peak hours, without improvements: Gene Autry Trail (NS) at Vista Chino (EW); Date Palm Drive (NS) at Vista Chino (EW).
- (7) For study area buildout without project traffic conditions, study area intersections are projected to operate at Level of Service "D" or better during the peak hours with the improvements listed in Table 5-4 of the traffic report.
- (8) For study area buildout with project traffic conditions, the following study area intersections are projected to operate at unacceptable levels of service during the peak hours, without improvements: Gene Autry Trail (NS) at Vista Chino (EW); Date Palm Drive (NS) at Vista Chino (EW).
- (9) For study area buildout with project traffic conditions, study area intersections are projected to operate at Level of Service "D" or better during the peak hours with the improvements listed in Table 5-64 of the traffic report.
- (10) For study area building traffic conditions with the project, a traffic signal is projected to be warranted at the following study area intersections: Landau Boulevard (NS) at Rio Vista ~~Boulevard-Drive~~ (EW). *This measure was*

satisfied through the completion of a Traffic Signal Warrant Analysis prepared by EPD Solutions on December 22, 2023, which determined a traffic signal is not warranted at the intersection.

B PHASE I MITIGATIONS: For Phase 1 of the project site, the following network features should be constructed.

- (1) Construct the extension of Landau Boulevard as a ~~Secondary~~ Major Highway to the Rio Vista Boulevard one-way couplet. This measure is complete.
- (2) Construct the Rio Vista Boulevard couplet from Landau Boulevard to west of the central project traffic circle. This measure is complete.
- (3) Construct a traffic roundabout at the intersection of Verona Road and Landau Boulevard. Existing intersection constructed without a roundabout. This measure is complete.
- (4) ~~Construct The Completion of construction of~~ the northerly extension of Avenida Quintana as a Local Collector will be completed as a project design feature as part of the project for the 2024 SPA area.
- (5) Improve the north side of Verona Road from Avenida Quintana to Landau Boulevard at its ultimate half-section width as a Local Collector. This measure is complete.

C PHASE 2 MITIGATIONS: For Phase 2 of the project site, the following additional network features should be constructed.

- (1) Construct a Collector connection to Verona Road from Rio Vista Boulevard between the proposed elementary school and the project commercial retail site. This measure is complete.
- (2) ~~The Completion of the~~ westerly extension of Rio Vista Boulevard will be completed as a project design feature as part of the 2024 SPA.
- (3) A traffic signal is projected to be warranted at the intersection of Landau Boulevard/Rio Vista Boulevard in conjunction with development of the site north of the project which will take access to the northerly extension of Landau Boulevard. This measure was satisfied through the completion of a Traffic Signal Warrant Analysis prepared by EPD Solutions on December 22, 2023, which determined a traffic signal is not warranted at the intersection.
- (4) The project should contribute to the installation of off-site traffic signals when warranted through the payment of traffic signal mitigation fees. . This measure is satisfied through the Applicant's payment of the Development Impact Fees.
- (5) The project should participate in an area wide funding program to provide phased implementation of the study area buildout approach lane geometrics

at study area intersections as shown on Exhibits 5-1 through 5-Q 4 of the traffic report. *This measure will be satisfied through the Applicant's payment of the latest areawide impact fees.*

6.6.4 HYDROLOGY: *[Please refer to CEQA Consistency Analysis Rio Vista Village (Verano) Specific Plan Amendment and Tentative Tract Map Nos. 38709, 38710, 38711, 38712, 38713 and 38902 for 2024 Specific Plan Amendment Area hydrology information.]*

Per report "Rio Vista Village Hydrology/Drainage" prepared by Mainiero Smith and Associates, 777 Tahquitz Canyon Way, Suite 301, Palm Springs, CA, October 7, 1997.

- A IMPACTS: The site generally drains from northwest to southeast. It is proposed that Boulevard Retention Areas as well as the Verona Retention Areas be used to retain 100% of the stormwater runoff from a 100 year 243-hour storm. Based on the Land Use Plan for Rio Vista Village approximately 60 acre-feet of total storage capacity is required to retain the 100 year 243-hour ~~storm~~. In addition, the Morongo Creek Stormwater Channel, the neighborhood park, the roundabouts, portions of the school site and the swimming ~~lagoon-pool~~ will not contribute to the stormwater runoff that must be retained and would be passed through downstream.
- B MITIGATIONS: In general, it is proposed that storm water retention be accommodated by a series of linear retention basins located either within the 100 foot wide median of the main boulevard or in a 40 foot wide easement along the south side of the project adjacent to the Verona Road ROW.
- (1) The Boulevard Retention Areas are 7.5 acres in size and have a capacity of 54 acre-feet. Each basin is intended to receive storm water from a designated section of the project and are not intended to permit flow from one basin to another. These basins are a maximum of 8 feet deep and have side slopes of 4:1 to generate the required volume of retention.
 - (2) The Verona Retention Areas are 4 acres in size and have a total capacity of 15 acre-feet. Each ~~basins is~~ basin is a maximum of 5 feet deep with side slopes of 4:1.

***Status: Satisfied.** Existing stormwater retention basins are in place between Rio Vista Drive and to the north of Verona Road which will be utilized by the proposed project, consistent with the above mitigation. The stormwater retention basins for the Project site have been designed with the capacity to retain the 100-year, 3-hour storm event.*

6.7 ON-SITE IMPROVEMENTS

The master developer is in discussion with the City and other agencies to establish a financially feasible method of infrastructure financing. Existing Assessment Districts, Community Service Districts and Community Facility Districts may be used when such existing districts meet the requirements of Rio Vista Village. In the event that a ~~new~~ district could serve as a means of

securing the needed financing, the master developer will determine the feasibility of creating such new district(s) and assist the City in their creation.

6.7.1 BACKBONE CIRCULATION SYSTEM: The master developer shall on a phased basis construct the backbone circulation system of streets, sidewalks, parkways, curb and gutters and service lanes. The precise phasing shall be determined by the sequence of Tract Maps submitted within each major phase.

A It is the intention of the master developer to develop the streets and service lanes as public Rights-of-Way and turn such public facilities over to the City for maintenance.

B In the event a particular project selects to utilize a private street system, maintenance costs shall be determined and included in the local Home Owners Association dues structure.

6.7.2 UTILITIES: All required backbone utilities for each major phase shall be installed by the master developer in accordance with currently accepted practices.

6.7.3 PARKS AND RECREATION FACILITIES: The master developer shall be responsible for the design, construction and interim maintenance of the Entry Feature Park, the Village Commons and the ~~Water Park/Beach Club~~ recreation facility.

A ENTRY FEATURE PARK: This passive park at the entry to the village will serve as the site for the entry monument. This monument is intended to provide a distant visual clue to the location of Rio Vista Village. The master developer shall design, construct and provide interim maintenance of this park/monument until such time as the Master HOA assumes responsibility. Discussions are on-going as to the manner in which the design will take place, competitions, selected commissions and the developer's choice being the currently discussed alternatives.

B VILLAGE COMMONS: The Village Commons is the local village park and will be constructed in Phase I. The design, construction and interim maintenance will be the responsibility of the master developer until the Master HOA assumes control.

C ~~WATER PARK/BEACH CLUB: This facility is intended to meet the water oriented recreation needs of a service area much larger than Rio Vista Village. As such, the design, construction, operation and maintenance are not the sole responsibility of Rio Vista Village. The master developer has indicated a desire to assist in the design and construction of the facility as a component part of Phase I and is in discussion with the city regarding ownership, operations and maintenance responsibilities. It is clear, however, that the issues of ownership, operational control, legal liability and facility maintenance have not been resolved to the level necessary to execute the agreements between Burnett Development and the City.~~

D: RECREATION FACILITY: This facility is intended to complete and expand upon the existing amenity located at the southeast corner of Rio Vista Drive and Rio Arbolitos Road. This facility will include the existing pool, and new pool to

replace the incomplete pool shells, and sports courts. The design, construction and maintenance will be the responsibility of the master developer and the Master HOA will assume control as they do with the currently operating recreation facility.

6.7.4 COMMON AREA LANDSCAPE TREATMENTS: The master developer will improve all common landscape areas on a phased basis and provide interim maintenance until the Master HOA assumes responsibility. These improvements will be in accordance with the Master Landscape Plan.

6.8 FLOOD CONTROL

The Whitewater River and Morongo Wash are regional waterways serving to channel local flood waters. In the developed areas, stormwater runoff is collected within streets and pipes before discharging into on-site basins. A portion of these basins, the basins east of Avenida Quintana, will be utilized by the multifamily development to mitigate the runoff. The runoff from the remainder of the SPA, the single-family lots, will be mitigated with the extension of Rio Vista Drive to the west and the proposed basins matching the basins in the developed area. Additionally, the existing basin immediately north of Verona Road will be extended westerly to help with the stormwater management of the project.

~~While outside the purview of the developers of Rio Vista Village, the master developer is working with CVWD to coordinate the flood control and blowsand mitigation programs. Currently the Morongo Wash is blocked upstream of Rio Vista Village by the elimination of the bridge at the railroad more than 10 years ago. Discussions with CVWD indicate that a proposed trestle crossing of the Wash is in the design stage and within the near future the restoration of Morongo Wash as an active component of the regional flood control system is probable. At that time, CVWD is expected realign the channel and complete the concrete lined levee from Verona Road to the UP/SP railroad ROW.~~

6.9 ADMINISTRATION AND AMENDMENT OF THE SPECIFIC PLAN

The Director of Community Development shall determine if any proposal submitted for development review requires Planning Commission review and approval, including public hearings pursuant to City zoning procedures and policies. The underlying principles of the specific plan, however, endorse flexibility, adaptability and options as opposed to fixed and pre-determined solutions. As the Director reviews proposed development proposals, including alternative development approaches, findings shall be made in light of these underlying principles as well as the specific letter of the regulations.

- 6.9.1 When a development proposal is determined to be consistent with the purpose and intent of this specific plan, approval may be granted including minor and incidental changes to the development standards within this specific plan.
- 6.9.2 APPEALS: Appeals of the decisions of the Director of Community Development or of the Planning Commission shall be administered per the policies and ordinances of the City Zoning Ordinance and according to prevailing law.

APPENDIX A: Ahwahnee Principles (removed from body text of Specific Plan)

AHWAHNEE PRINCIPLES

PREAMBLE

Existing patterns of urban and suburban development seriously impair our quality of life. The symptoms are: more congestion and air pollution resulting from our increased dependence on automobiles, the loss of precious open space, the need for costly improvements to roads and public services, the inequitable distribution of economic resources and the loss of a sense of community. By drawing upon the best from the past and the present, we can plan communities that will more successfully serve the needs of those who live and work within them. Such planning should adhere to certain fundamental principles.

COMMUNITY PRINCIPLES

- 1 All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.
- 2 Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
- 3 As many activities as possible should be located within easy walking distance of transit stops.
- 4 A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
- 5 Businesses within the community should provide a range of job types for the community's residents.
- 6 The location and character of the community should be consistent with a larger transit network.
- 7 The community should have a center focus that combines commercial, civic, cultural and recreational uses.
- 8 The community should contain an ample supply of specialized open space in the form of squares, greens and parks, whose frequent use is encouraged through placement and design.
- 9 Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.
- 10 Each community or cluster of communities should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.
- 11 Streets, pedestrian paths and bike paths should contribute to a system of fully connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting, and by discouraging high speed traffic.

- 12 Wherever possible, the natural terrain, drainage and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.
- 13 The community design should help conserve resources and minimize waste.
- 14 Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.
- 15 The street orientation, the placement of buildings and the use of shading should contribute to the energy efficiency of the community.

REGIONAL PRINCIPLES

- 1 The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.
- 2 Regions should be bounded by and provide a continuous system of greenbelt/ wildlife corridors to be determined by natural conditions.
- 3 Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.
- 4 Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.

IMPLEMENTATION STRATEGY

- 1 The General Plan should be updated to incorporate the above principles.
- 2 Rather than allowing developer-initiated, piecemeal development, local governments should take charge of the planning process. General Plans should designate where new growth, infill or redevelopment will be allowed to occur.
- 3 Prior to any development, a specific plan should be prepared based on the planning principles. With the adoption of specific plans, complying projects could proceed with minimal delay.
- 4 Plans should be developed through an open process and participants in the process should be provided visual models of all planning proposals.

Authored by: Peter Calthorpe
 Michael Corbett
 Andres Duany
 Elizabeth Platter-Zybeck
 Stefanos Polyzoides
 Elizabeth Moule

CHARTER OF THE NEW URBANISM

The Congress of the New Urbanism .views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society’s built heritage as one interrelated community-building challenge.

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

We recognize that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We represent a broad-based citizenry, composed of public and private sector leaders, community activists, and multi-disciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

We dedicate ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions and environment.

We assert the following principles to guide public policy, development practice, urban planning, and design:

The region: Metropolis, city, and town

1. Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The

Metropolis is made of multiple centers that are cities, towns, and villages, each within its own identifiable center and edges.

2. The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.
3. The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
4. Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
5. Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
6. The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
7. Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
8. The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.
9. Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.

The Neighborhood, the district, and the corridor

1. The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
2. Neighborhoods should be compact, pedestrian friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design

- when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
3. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
 4. Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
 5. Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
 6. Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.
 7. Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.
 8. The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
 9. A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

The block, the street, and the building

1. A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
2. Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
3. The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.
4. In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
5. Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
6. Architecture and landscape design should grow from local climate, topography, history, and building practice.

7. Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.
8. All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.
9. Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.

APPENDIX B: Plant Palette (Updated as of 2024)

PROPOSED PLANT PALETTE		
TREE AND PALMS		
BOTANICAL NAME	COMMON NAME	SIZE
DALBERGIA SISOO	INDIAN ROSEWOOD	24" BOX
TIPUANA TIJU	TIPU TREE	24" BOX
OLEA EUROPAEA	SWAN HILL - OLIVE TREE	24" BOX
ACACIA STENOPHYLLA	SHOESTRING ACACIA	24" BOX
ACACIA SALICINA	WILLOW ACACIA	24" BOX
CERCIDIUM X 'DESERT MUSEUM'	PALO VERDE	24" BOX
ACACIA ANEURA	MULGA	24" BOX
PINUS HALEPENISS	ALEPPO PINE	24" BOX
ACACIA FRANESIANA	SWEET SIERRA	24" BOX
CHILOPSIS LINEARIS	DESERT WILLOW	24" BOX
PHOENIX DACTYLIFERA	'ZAHIDI DATE PALM'	18' BTH
WASHINGTONIA ROBUSTA	MEXICAN FAN PAM	18' BTH
DESERT ACCENTS		
AGAVE SISALANA	SISAL	5 GAL.
AGAVE ANGUSTIFOLIA	CARIBBEAN AGAVE	5 GAL.
AGAVE GEMINIFLORA	TWIN-FLOWERING AGAVE	5 GAL.
HESPERALOE PARVIFLORA	DESERT FLAMENCO	5 GAL.
ECHINOCACTUS GRUSONII	GOLDEN BARREL CACTUS	5 GAL.
SHRUBS		
CAESALPINIA PULCHERRIMA	RED BIRD OF PARADISE	5 GAL.
LEUCOPHYLLUM PRUINOSUM	SIERRA BOUQUET	5 GAL.
SENNA ARTEMISIOIDES	FEATHERY CASSIA	5 GAL.
TECOMA STANS	YELLOW BELLS	5 GAL.
LEUCOPHYLLUM LANGMANIAE	LYNS LEGACY	5 GAL.
OLEA EUROPAEA	LITTLE OLLIE	5 GAL.
RUSSELIA EQUISETIFORMIS	CORAL BELLS	5 GAL.
LEUCOPHYLLUM ZYGOPHYLLUM	CIMARRON	5 GAL.
CARISSA MACROCARPA	BOXWOOD BEAUTY	5 GAL.
CALLISTEMON VIMINALIS	LITTLE JOHN	5 GAL.
GRASSES		
MUHLENBERGIA CAPILLARIS	REGAL MIST	5 GAL.
LOMANDRA LONGIFOLIA	PLATINUM BEAUTY	5 GAL.
DIANELLA TASMANICA	VARIEGATA	5 GAL.
GROUND COVER AND VINES		
DALEA GREGGII	TRAILING INDIGO BUSH	5 GAL.
CARISSA M.	GREEN CARPET	5 GAL.
EVOLVULUS GLOMERATUS	HAWAIIAN BLUE EYES	5 GAL.
BOUGANVILLEA	'LA JOLLA'	5 GAL.
DURANTA REPENS	SKY FLOWER	5 GAL.
MACFADYENA UNGUIS	CATS CLAW	5 GAL.

Model Output: OFFROAD2021 (v1.0.5) Emissions Inventory

Region Type: Sub-Area

Region: Riverside (SS)

Calendar Year: 2025

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	VehClass	MdlYr	HP_Bin	Fuel	Fuel Consumption	Horsepower Hours	Fuel Rate
Riverside (SS)	2025	Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	39377.46092	829789.08	0.047455
Riverside (SS)	2025	Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	1053990.624	19841398.14	0.053121
Riverside (SS)	2025	Construction and Mining - Graders	Aggregate	Aggregate	Diesel	157679.7216	3059408.044	0.051539
Riverside (SS)	2025	Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	406133.9976	8445175.594	0.048091
Riverside (SS)	2025	Industrial - Forklifts	Aggregate	Aggregate	Diesel	80254.51297	1507014.993	0.053254
Riverside (SS)	2025	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	41377.56677	356893.35	0.115938
Riverside (SS)	2025	Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	120293.4434	2269158.267	0.053012
Riverside (SS)	2025	Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	36996.19921	974155.8	0.037978
Riverside (SS)	2025	Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	69365.55688	1346471.665	0.051517
Riverside (SS)	2025	Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	76942.24607	1503796.395	0.051165
Riverside (SS)	2025	Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	183381.4822	3486892.487	0.052592
Riverside (SS)	2025	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	6467.092835	198523.5	0.032576
Riverside (SS)	2025	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	431.9533036	10358.7	0.041700
Riverside (SS)	2025	Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	338238.7454	6699353.865	0.050488
Riverside (SS)	2025	Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	448766.4049	9171411.033	0.048931

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Riverside (SS)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate
Riverside (SS)	2025	MHDT	Aggregate	Aggregate	Diesel	124731.247	13.71086011	9.10
Riverside (SS)	2025	HHDT	Aggregate	Aggregate	Diesel	1394439.606	221.7595315	6.29

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Riverside (SS)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	
Riverside (SS)	2025	LDA	Aggregate	Aggregate	Gasoline	4293886.826	145.9017666	29.43
Riverside (SS)	2025	LDT1	Aggregate	Aggregate	Gasoline	442743.1717	18.42400625	24.03
Riverside (SS)	2025	LDT2	Aggregate	Aggregate	Gasoline	2642156.909	109.8065669	24.06
							50/25/25 Split	26.74

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Riverside (SS)

Calendar Year: 2040

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	
Riverside (SS)	2040	LDA	Aggregate	Aggregate	Gasoline	4189547.543	120.7292253	34.70
Riverside (SS)	2040	LDT1	Aggregate	Aggregate	Gasoline	403907.8326	13.76605098	29.34
Riverside (SS)	2040	LDT2	Aggregate	Aggregate	Gasoline	3273883.687	113.1273758	28.94
							50/25/25 Split	31.92

Previous Verano Residential Development Project Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

3.3. Grading (2025) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

- 3.9. Building Construction (2027) - Unmitigated
- 3.11. Building Construction (2028) - Unmitigated
- 3.13. Building Construction (2029) - Unmitigated
- 3.15. Building Construction (2030) - Unmitigated
- 3.17. Building Construction (2031) - Unmitigated
- 3.19. Building Construction (2032) - Unmitigated
- 3.21. Building Construction (2033) - Unmitigated
- 3.23. Building Construction (2034) - Unmitigated
- 3.25. Building Construction (2035) - Unmitigated
- 3.27. Building Construction (2036) - Unmitigated
- 3.29. Building Construction (2037) - Unmitigated
- 3.31. Building Construction (2038) - Unmitigated
- 3.33. Paving (2038) - Unmitigated
- 3.35. Paving (2039) - Unmitigated
- 3.37. Architectural Coating (2039) - Unmitigated
- 3.39. Architectural Coating (2040) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Previous Verano Residential Development Project
Construction Start Date	1/1/2025
Operational Year	2040
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	11.2
Location	33.859065543543224, -116.4855266631483
County	Riverside-Salton Sea
City	Cathedral City
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5638
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
------------------	------	------	-------------	-----------------------	------------------------	--------------------------------	------------	-------------

Single Family Housing	459	Dwelling Unit	112	895,050	4,687,123	—	1,483	—
Apartments Low Rise	375	Dwelling Unit	16.4	397,500	689,078	—	1,211	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	37.1	37.6	53.9	0.06	7.82	4.52	11,948
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	37.0	37.6	37.2	0.06	7.82	4.52	10,979
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	16.7	25.0	29.1	0.04	4.86	2.42	7,982
Annual (Max)	—	—	—	—	—	—	—
Unmit.	3.04	4.55	5.31	0.01	0.89	0.44	1,321
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2025	4.14	37.6	34.1	0.06	7.82	4.52	7,040
2026	3.48	30.0	53.9	0.06	6.90	2.31	11,948
2027	3.09	14.8	51.1	0.05	6.86	1.92	11,745
2028	2.95	14.0	48.7	0.05	6.82	1.88	11,560
2029	2.82	13.3	46.3	0.05	6.79	1.86	11,373
2030	2.53	12.8	44.3	0.05	6.77	1.84	11,197
2031	2.43	12.4	42.3	0.05	6.76	1.83	11,027
2032	2.34	11.9	40.6	0.05	6.74	1.81	10,813
2033	2.25	11.4	39.1	0.05	6.71	1.79	10,667
2034	2.16	11.2	37.7	0.05	6.70	1.78	10,526
2035	2.12	10.9	36.4	0.05	6.69	1.76	10,402
2036	2.07	10.5	35.3	0.05	6.67	1.75	10,292
2037	1.99	10.3	34.4	0.05	6.64	1.74	10,188
2038	1.95	10.2	33.9	0.05	6.66	1.72	10,152
2039	37.1	5.33	10.4	0.01	1.14	0.27	1,701
Daily - Winter (Max)	—	—	—	—	—	—	—
2025	4.12	37.6	33.4	0.06	7.82	4.52	6,994
2026	3.46	30.1	37.2	0.06	6.90	2.31	10,979
2027	2.76	15.2	35.6	0.05	6.86	1.92	10,804
2028	2.64	14.3	34.1	0.05	6.82	1.88	10,642
2029	2.36	13.7	32.9	0.05	6.79	1.86	10,475
2030	2.29	13.2	31.6	0.05	6.77	1.84	10,317
2031	2.20	12.6	30.4	0.05	6.76	1.83	10,165

2032	2.12	12.2	29.5	0.05	6.74	1.81	10,019
2033	2.06	11.8	28.6	0.05	6.71	1.79	9,887
2034	1.99	11.5	27.9	0.05	6.70	1.78	9,706
2035	1.97	11.1	26.9	0.05	6.69	1.76	9,594
2036	1.92	10.8	26.4	0.05	6.67	1.75	9,494
2037	1.86	10.4	25.8	0.05	6.64	1.74	9,398
2038	1.83	10.3	25.5	0.05	6.66	1.72	9,362
2039	37.0	5.33	10.1	0.01	1.14	0.27	1,674
2040	37.0	1.13	3.50	< 0.005	1.14	0.27	1,089
Average Daily	—	—	—	—	—	—	—
2025	2.76	25.0	22.9	0.04	4.29	2.42	4,606
2026	2.35	17.9	24.6	0.04	3.72	1.56	6,094
2027	2.04	10.6	29.1	0.03	4.86	1.36	7,982
2028	1.95	10.1	27.8	0.03	4.85	1.34	7,882
2029	1.88	9.56	26.6	0.03	4.82	1.32	7,734
2030	1.67	9.34	25.5	0.03	4.81	1.31	7,617
2031	1.61	8.94	24.5	0.03	4.79	1.30	7,503
2032	1.55	8.58	23.7	0.03	4.79	1.29	7,415
2033	1.50	8.34	22.9	0.03	4.76	1.27	7,259
2034	1.45	8.05	22.2	0.03	4.75	1.26	7,164
2035	1.43	7.87	21.5	0.03	4.74	1.25	7,080
2036	1.40	7.68	20.9	0.03	4.75	1.25	7,025
2037	1.36	7.41	20.3	0.03	4.71	1.24	6,935
2038	0.88	5.71	14.1	0.02	2.61	0.70	4,237
2039	16.7	1.93	4.58	< 0.005	0.59	0.16	968
2040	5.80	0.18	0.63	< 0.005	0.18	0.04	180
Annual	—	—	—	—	—	—	—

2025	0.50	4.55	4.18	0.01	0.78	0.44	763
2026	0.43	3.26	4.48	0.01	0.68	0.28	1,009
2027	0.37	1.94	5.31	0.01	0.89	0.25	1,321
2028	0.36	1.84	5.08	0.01	0.89	0.24	1,305
2029	0.34	1.74	4.85	0.01	0.88	0.24	1,281
2030	0.31	1.70	4.66	0.01	0.88	0.24	1,261
2031	0.29	1.63	4.46	0.01	0.87	0.24	1,242
2032	0.28	1.57	4.33	0.01	0.87	0.23	1,228
2033	0.27	1.52	4.18	0.01	0.87	0.23	1,202
2034	0.27	1.47	4.05	0.01	0.87	0.23	1,186
2035	0.26	1.44	3.93	0.01	0.87	0.23	1,172
2036	0.26	1.40	3.82	0.01	0.87	0.23	1,163
2037	0.25	1.35	3.71	0.01	0.86	0.23	1,148
2038	0.16	1.04	2.58	< 0.005	0.48	0.13	701
2039	3.04	0.35	0.84	< 0.005	0.11	0.03	160
2040	1.06	0.03	0.12	< 0.005	0.03	0.01	29.8

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	51.0	19.6	192	0.42	38.2	10.2	53,758
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	44.6	20.2	103	0.37	38.2	10.2	49,270
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	46.4	19.1	132	0.37	35.8	9.56	48,982
Annual (Max)	—	—	—	—	—	—	—

Unmit.	8.46	3.48	24.2	0.07	6.54	1.75	8,109
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	Yes

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	16.7	13.4	142	0.38	37.7	9.70	39,400
Area	34.0	0.44	47.6	< 0.005	0.02	0.02	127
Energy	0.34	5.73	2.44	0.04	0.46	0.46	12,226
Water	—	—	—	—	—	—	680
Waste	—	—	—	—	—	—	1,315
Refrig.	—	—	—	—	—	—	9.26
Total	51.0	19.6	192	0.42	38.2	10.2	53,758
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	14.4	14.5	101	0.34	37.7	9.70	35,039
Area	29.9	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.34	5.73	2.44	0.04	0.46	0.46	12,226

Water	—	—	—	—	—	—	680
Waste	—	—	—	—	—	—	1,315
Refrig.	—	—	—	—	—	—	9.26
Total	44.6	20.2	103	0.37	38.2	10.2	49,270
Average Daily	—	—	—	—	—	—	—
Mobile	14.1	13.1	106	0.33	35.4	9.09	34,688
Area	31.9	0.22	23.5	< 0.005	0.01	0.01	62.6
Energy	0.34	5.73	2.44	0.04	0.46	0.46	12,226
Water	—	—	—	—	—	—	680
Waste	—	—	—	—	—	—	1,315
Refrig.	—	—	—	—	—	—	9.26
Total	46.4	19.1	132	0.37	35.8	9.56	48,982
Annual	—	—	—	—	—	—	—
Mobile	2.58	2.39	19.4	0.06	6.45	1.66	5,743
Area	5.82	0.04	4.28	< 0.005	< 0.005	< 0.005	10.4
Energy	0.06	1.05	0.44	0.01	0.08	0.08	2,024
Water	—	—	—	—	—	—	113
Waste	—	—	—	—	—	—	218
Refrig.	—	—	—	—	—	—	1.53
Total	8.46	3.48	24.2	0.07	6.54	1.75	8,109

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	4.05	37.5	32.4	0.05	1.93	1.78	5,547
Dust From Material Movement	—	—	—	—	5.66	2.69	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	4.05	37.5	32.4	0.05	1.93	1.78	5,547
Dust From Material Movement	—	—	—	—	5.66	2.69	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.33	12.3	10.7	0.02	0.63	0.58	1,824
Dust From Material Movement	—	—	—	—	1.86	0.88	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.25	1.95	< 0.005	0.12	0.11	302
Dust From Material Movement	—	—	—	—	0.34	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.09	0.09	1.67	0.00	0.23	0.05	264
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.10	0.95	0.00	0.23	0.05	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Worker	0.02	0.03	0.39	0.00	0.07	0.02	78.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.01	< 0.005	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.57	32.6	29.4	0.06	1.52	1.40	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.57	32.6	29.4	0.06	1.52	1.40	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.38	12.6	11.3	0.02	0.59	0.54	2,598
Dust From Material Movement	—	—	—	—	1.03	0.38	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.29	2.07	< 0.005	0.11	0.10	430
Dust From Material Movement	—	—	—	—	0.19	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.11	0.10	1.91	0.00	0.26	0.06	301
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.11	1.08	0.00	0.26	0.06	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.03	0.04	0.52	0.00	0.10	0.02	106
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.02	< 0.005	17.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.39	30.0	28.7	0.06	1.38	1.27	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.39	30.0	28.7	0.06	1.38	1.27	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.57	13.9	13.3	0.03	0.64	0.59	3,125
Dust From Material Movement	—	—	—	—	1.24	0.45	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.54	2.43	0.01	0.12	0.11	517
Dust From Material Movement	—	—	—	—	0.23	0.08	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.09	0.10	1.77	0.00	0.26	0.06	295
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.10	1.00	0.00	0.26	0.06	251
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Worker	0.04	0.04	0.58	0.00	0.12	0.03	124
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.02	0.01	20.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.67	3.52	0.01	0.10	0.09	661
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.49	0.64	< 0.005	0.02	0.02	109
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—

Worker	1.98	2.08	38.6	0.00	5.69	1.33	6,418
Vendor	0.10	2.85	1.23	0.02	0.80	0.25	2,891
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.63	2.26	21.9	0.00	5.69	1.33	5,454
Vendor	0.10	3.07	1.28	0.02	0.80	0.25	2,887
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.43	0.52	6.84	0.00	1.41	0.33	1,460
Vendor	0.02	0.75	0.31	0.01	0.20	0.06	723
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.08	0.09	1.25	0.00	0.26	0.06	242
Vendor	< 0.005	0.14	0.06	< 0.005	0.04	0.01	120
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.11	10.2	14.0	0.03	0.36	0.34	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.11	10.2	14.0	0.03	0.36	0.34	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.79	7.27	10.0	0.02	0.26	0.24	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.33	1.83	< 0.005	0.05	0.04	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.87	1.89	35.9	0.00	5.69	1.33	6,283
Vendor	0.10	2.72	1.19	0.02	0.80	0.25	2,823
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.55	2.06	20.4	0.00	5.69	1.33	5,346
Vendor	0.09	2.92	1.21	0.02	0.80	0.25	2,819
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	1.17	1.33	18.2	0.00	4.03	0.95	4,083
Vendor	0.07	2.03	0.85	0.02	0.57	0.18	2,014
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.21	0.24	3.32	0.00	0.74	0.17	676
Vendor	0.01	0.37	0.15	< 0.005	0.10	0.03	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.66	14.0	0.03	0.33	0.30	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.66	14.0	0.03	0.33	0.30	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.92	10.1	0.02	0.23	0.21	1,890
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.26	1.83	< 0.005	0.04	0.04	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.79	1.69	33.5	0.00	5.69	1.33	6,164
Vendor	0.08	2.61	1.12	0.02	0.80	0.25	2,757
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.50	1.88	18.9	0.00	5.69	1.33	5,248
Vendor	0.07	2.81	1.16	0.02	0.80	0.25	2,755
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	1.13	1.20	17.0	0.00	4.05	0.95	4,018
Vendor	0.06	1.96	0.81	0.01	0.57	0.18	1,974
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.21	0.22	3.10	0.00	0.74	0.17	665

Vendor	0.01	0.36	0.15	< 0.005	0.10	0.03	327
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.04	9.28	14.0	0.03	0.30	0.28	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.04	9.28	14.0	0.03	0.30	0.28	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.63	10.00	0.02	0.21	0.20	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.21	1.82	< 0.005	0.04	0.04	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.70	1.50	31.2	0.00	5.69	1.33	6,053
Vendor	0.08	2.51	1.07	0.02	0.80	0.25	2,682
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.24	1.68	17.8	0.00	5.69	1.33	5,157
Vendor	0.07	2.70	1.12	0.02	0.80	0.25	2,680

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	1.08	1.06	15.8	0.00	4.03	0.95	3,936
Vendor	0.06	1.87	0.78	0.01	0.57	0.18	1,914
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.20	0.19	2.88	0.00	0.74	0.17	652
Vendor	0.01	0.34	0.14	< 0.005	0.10	0.03	317
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.02	9.07	14.0	0.03	0.28	0.26	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.02	9.07	14.0	0.03	0.28	0.26	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.73	6.48	9.99	0.02	0.20	0.19	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.18	1.82	< 0.005	0.04	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.43	1.31	29.3	0.00	5.69	1.33	5,949
Vendor	0.08	2.42	1.05	0.02	0.80	0.25	2,609
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.20	1.49	16.5	0.00	5.69	1.33	5,072
Vendor	0.07	2.61	1.07	0.02	0.80	0.25	2,606
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.89	1.05	14.8	0.00	4.03	0.95	3,870
Vendor	0.05	1.80	0.75	0.01	0.57	0.18	1,862
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.16	0.19	2.70	0.00	0.74	0.17	641
Vendor	0.01	0.33	0.14	< 0.005	0.10	0.03	308
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.77	13.9	0.03	0.26	0.24	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.77	13.9	0.03	0.26	0.24	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.27	9.95	0.02	0.19	0.17	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.14	1.82	< 0.005	0.03	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.36	1.30	27.3	0.00	5.69	1.33	5,854
Vendor	0.08	2.33	1.00	0.02	0.80	0.25	2,534
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.14	1.30	15.4	0.00	5.69	1.33	4,994
Vendor	0.07	2.51	1.05	0.02	0.80	0.25	2,532
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.85	0.92	13.8	0.00	4.03	0.95	3,810
Vendor	0.05	1.75	0.73	0.01	0.57	0.18	1,809
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.15	0.17	2.51	0.00	0.74	0.17	631
Vendor	0.01	0.32	0.13	< 0.005	0.10	0.03	300
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
----------	-----	-----	----	-----	-------	--------	------

Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.50	13.9	0.03	0.24	0.22	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.50	13.9	0.03	0.24	0.22	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.09	9.94	0.02	0.17	0.16	1,890
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.11	1.81	< 0.005	0.03	0.03	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.29	1.11	25.8	0.00	5.69	1.33	5,719
Vendor	0.08	2.28	0.98	0.02	0.80	0.25	2,456
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.08	1.29	14.6	0.00	5.69	1.33	4,926
Vendor	0.07	2.44	1.02	0.02	0.80	0.25	2,455
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.81	0.79	13.1	0.00	4.05	0.95	3,767
Vendor	0.05	1.71	0.72	0.01	0.57	0.18	1,758
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—

Worker	0.15	0.14	2.39	0.00	0.74	0.17	624
Vendor	0.01	0.31	0.13	< 0.005	0.10	0.03	291
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.95	8.27	13.9	0.03	0.22	0.20	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.95	8.27	13.9	0.03	0.22	0.20	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.68	5.91	9.90	0.02	0.16	0.15	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.08	1.81	< 0.005	0.03	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.22	0.92	24.2	0.00	5.69	1.33	5,640
Vendor	0.08	2.21	0.96	0.02	0.80	0.25	2,389
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.04	1.11	13.7	0.00	5.69	1.33	4,861

Vendor	0.07	2.37	1.00	0.02	0.80	0.25	2,388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.77	0.78	12.3	0.00	4.03	0.95	3,669
Vendor	0.05	1.65	0.70	0.01	0.57	0.18	1,705
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.14	0.14	2.25	0.00	0.74	0.17	607
Vendor	0.01	0.30	0.13	< 0.005	0.10	0.03	282
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.93	8.11	13.8	0.03	0.21	0.19	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.93	8.11	13.8	0.03	0.21	0.19	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.79	9.89	0.02	0.15	0.14	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.06	1.81	< 0.005	0.03	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.16	0.92	22.9	0.00	5.69	1.33	5,570
Vendor	0.08	2.16	0.93	0.02	0.80	0.25	2,318
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.98	1.10	13.0	0.00	5.69	1.33	4,750
Vendor	0.07	2.33	0.98	0.02	0.80	0.25	2,317
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.74	0.64	11.6	0.00	4.03	0.95	3,624
Vendor	0.05	1.62	0.68	0.01	0.57	0.18	1,655
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.13	0.12	2.12	0.00	0.74	0.17	600
Vendor	0.01	0.30	0.12	< 0.005	0.10	0.03	274
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.90	13.8	0.03	0.19	0.18	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.90	13.8	0.03	0.19	0.18	2,638

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.65	5.64	9.83	0.02	0.14	0.13	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.03	1.79	< 0.005	0.03	0.02	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.13	0.91	21.7	0.00	5.69	1.33	5,507
Vendor	0.08	2.11	0.91	0.02	0.80	0.25	2,257
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.98	0.91	12.2	0.00	5.69	1.33	4,698
Vendor	0.07	2.28	0.95	0.02	0.80	0.25	2,257
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.72	0.64	11.0	0.00	4.03	0.95	3,584
Vendor	0.05	1.58	0.66	0.01	0.57	0.18	1,612
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.13	0.12	2.01	0.00	0.74	0.17	593
Vendor	0.01	0.29	0.12	< 0.005	0.10	0.03	267
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.66	13.7	0.03	0.18	0.17	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.66	13.7	0.03	0.18	0.17	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.64	5.49	9.79	0.02	0.13	0.12	1,890
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.00	1.79	< 0.005	0.02	0.02	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.10	0.72	20.7	0.00	5.69	1.33	5,451
Vendor	0.08	2.09	0.91	0.02	0.80	0.25	2,203
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.95	0.90	11.7	0.00	5.69	1.33	4,652
Vendor	0.07	2.23	0.95	0.02	0.80	0.25	2,203
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.70	0.64	10.5	0.00	4.05	0.95	3,558
Vendor	0.05	1.56	0.66	0.01	0.57	0.18	1,577
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Worker	0.13	0.12	1.91	0.00	0.74	0.17	589
Vendor	0.01	0.28	0.12	< 0.005	0.10	0.03	261
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.51	13.5	0.03	0.17	0.16	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.51	13.5	0.03	0.17	0.16	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.36	9.68	0.02	0.12	0.11	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.98	1.77	< 0.005	0.02	0.02	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.03	0.72	19.9	0.00	5.69	1.33	5,401
Vendor	0.08	2.04	0.89	0.02	0.78	0.25	2,148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—

Worker	0.91	0.72	11.3	0.00	5.69	1.33	4,611
Vendor	0.07	2.20	0.93	0.02	0.78	0.25	2,149
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.68	0.51	10.0	0.00	4.03	0.95	3,516
Vendor	0.05	1.53	0.64	0.01	0.56	0.18	1,534
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.12	0.09	1.83	0.00	0.74	0.17	582
Vendor	0.01	0.28	0.12	< 0.005	0.10	0.03	254
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.41	13.5	0.03	0.16	0.15	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.41	13.5	0.03	0.16	0.15	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.33	2.81	5.13	0.01	0.06	0.06	1,002
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.51	0.94	< 0.005	0.01	0.01	166

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.00	0.71	19.5	0.00	5.69	1.33	5,403
Vendor	0.08	2.07	0.88	0.02	0.80	0.23	2,110
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.89	0.71	11.0	0.00	5.69	1.33	4,613
Vendor	0.07	2.22	0.92	0.02	0.80	0.23	2,111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.34	0.27	5.24	0.00	2.14	0.50	1,870
Vendor	0.03	0.82	0.34	0.01	0.30	0.09	801
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.06	0.05	0.96	0.00	0.39	0.09	310
Vendor	0.01	0.15	0.06	< 0.005	0.06	0.02	133
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Paving (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.50	5.38	9.76	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.50	5.38	9.76	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.80	3.27	< 0.005	0.04	0.03	507
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.33	0.60	< 0.005	0.01	0.01	84.0
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.67	0.00	0.20	0.05	186
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.38	0.00	0.20	0.05	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.16	0.00	0.07	0.02	56.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	9.40

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Paving (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.49	5.31	9.75	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.49	5.31	9.75	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.42	2.61	< 0.005	0.03	0.03	406
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.26	0.48	< 0.005	0.01	< 0.005	67.3
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.65	0.00	0.20	0.05	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.37	0.00	0.20	0.05	158
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.05	0.01	45.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005	7.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Architectural Coating (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.46	< 0.005	0.01	0.01	179
Architectural Coatings	36.8	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.46	< 0.005	0.01	0.01	179
Architectural Coatings	36.8	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.44	0.65	< 0.005	< 0.005	< 0.005	79.7
Architectural Coatings	16.4	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.12	< 0.005	< 0.005	< 0.005	13.2
Architectural Coatings	2.99	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.19	0.14	3.79	0.00	1.14	0.27	1,073
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.14	0.14	2.13	0.00	1.14	0.27	916
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.08	0.06	1.19	0.00	0.50	0.12	436
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.22	0.00	0.09	0.02	72.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Architectural Coating (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.46	< 0.005	0.01	< 0.005	179
Architectural Coatings	36.8	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.23	< 0.005	< 0.005	< 0.005	28.0
Architectural Coatings	5.76	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	4.63
Architectural Coatings	1.05	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.13	0.14	2.04	0.00	1.14	0.27	910
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.02	0.02	0.41	0.00	0.18	0.04	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.07	0.00	0.03	0.01	25.2

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	9.84	7.93	84.0	0.22	22.2	5.71	23,216
Apartments Low Rise	6.86	5.52	58.5	0.16	15.5	3.98	16,184
Total	16.7	13.4	142	0.38	37.7	9.70	39,400
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	8.49	8.55	59.5	0.20	22.2	5.72	20,646
Apartments Low Rise	5.92	5.96	41.5	0.14	15.5	3.98	14,393
Total	14.4	14.5	101	0.34	37.7	9.70	35,039
Annual	—	—	—	—	—	—	—
Single Family Housing	1.57	1.46	11.9	0.04	3.94	1.01	3,505
Apartments Low Rise	1.01	0.93	7.57	0.02	2.51	0.65	2,238
Total	2.58	2.39	19.4	0.06	6.45	1.66	5,743

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	3,086
Apartments Low Rise	—	—	—	—	—	—	1,849
Total	—	—	—	—	—	—	4,935
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	3,086
Apartments Low Rise	—	—	—	—	—	—	1,849
Total	—	—	—	—	—	—	4,935
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	511
Apartments Low Rise	—	—	—	—	—	—	306
Total	—	—	—	—	—	—	817

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	0.24	4.12	1.75	0.03	0.33	0.33	5,246
Apartments Low Rise	0.09	1.61	0.68	0.01	0.13	0.13	2,045
Total	0.34	5.73	2.44	0.04	0.46	0.46	7,291
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	0.24	4.12	1.75	0.03	0.33	0.33	5,246
Apartments Low Rise	0.09	1.61	0.68	0.01	0.13	0.13	2,045
Total	0.34	5.73	2.44	0.04	0.46	0.46	7,291
Annual	—	—	—	—	—	—	—
Single Family Housing	0.04	0.75	0.32	< 0.005	0.06	0.06	869

Apartments Low Rise	0.02	0.29	0.12	< 0.005	0.02	0.02	339
Total	0.06	1.05	0.44	0.01	0.08	0.08	1,207

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	27.7	—	—	—	—	—	—
Architectural Coatings	2.22	—	—	—	—	—	—
Landscape Equipment	4.11	0.44	47.6	< 0.005	0.02	0.02	127
Total	34.0	0.44	47.6	< 0.005	0.02	0.02	127
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	27.7	—	—	—	—	—	—
Architectural Coatings	2.22	—	—	—	—	—	—
Total	29.9	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	5.05	—	—	—	—	—	—
Architectural Coatings	0.40	—	—	—	—	—	—
Landscape Equipment	0.37	0.04	4.28	< 0.005	< 0.005	< 0.005	10.4
Total	5.82	0.04	4.28	< 0.005	< 0.005	< 0.005	10.4

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	466
Apartments Low Rise	—	—	—	—	—	—	214
Total	—	—	—	—	—	—	680
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	466
Apartments Low Rise	—	—	—	—	—	—	214
Total	—	—	—	—	—	—	680
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	77.2
Apartments Low Rise	—	—	—	—	—	—	35.4
Total	—	—	—	—	—	—	113

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	793
Apartments Low Rise	—	—	—	—	—	—	523
Total	—	—	—	—	—	—	1,315
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	793

Apartments Low Rise	—	—	—	—	—	—	523
Total	—	—	—	—	—	—	1,315
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	131
Apartments Low Rise	—	—	—	—	—	—	86.5
Total	—	—	—	—	—	—	218

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	6.41
Apartments Low Rise	—	—	—	—	—	—	2.85
Total	—	—	—	—	—	—	9.26
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	6.41
Apartments Low Rise	—	—	—	—	—	—	2.85
Total	—	—	—	—	—	—	9.26
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	1.06
Apartments Low Rise	—	—	—	—	—	—	0.47
Total	—	—	—	—	—	—	1.53

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
----------------	-----	-----	----	-----	-------	--------	------

Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2025	6/17/2025	5.00	120	—
Grading	Grading	6/18/2025	8/25/2026	5.00	310	—
Building Construction	Building Construction	8/26/2026	7/13/2038	5.00	3,100	—
Paving	Paving	7/14/2038	5/17/2039	5.00	220	—
Architectural Coating	Architectural Coating	5/18/2039	3/20/2040	5.00	220	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	435	18.5	LDA,LDT1,LDT2

Building Construction	Vendor	89.2	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	87.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	2,617,414	872,471	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
------------	---------------------------------	---------------------------------	----------------------	-------------------------------	---------------------

Site Preparation	0.00	0.00	420	0.00	—
Grading	0.00	0.00	1,240	0.00	—
Paving	0.00	0.00	0.00	0.00	5.06

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	5.06	0%
Apartments Low Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005
2027	0.00	346	0.03	< 0.005
2028	0.00	346	0.03	< 0.005
2029	0.00	346	0.03	< 0.005
2030	0.00	261	0.03	< 0.005
2031	0.00	261	0.03	< 0.005
2032	0.00	261	0.03	< 0.005
2033	0.00	261	0.03	< 0.005
2034	0.00	261	0.03	< 0.005

2035	0.00	261	0.03	< 0.005
2036	0.00	261	0.03	< 0.005
2037	0.00	261	0.03	< 0.005
2038	0.00	261	0.03	< 0.005
2039	0.00	261	0.03	< 0.005
2040	0.00	261	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	4,333	4,379	3,924	1,562,623	30,970	31,298	28,050	11,168,731
Apartments Low Rise	2,745	3,053	2,355	997,623	19,620	21,818	16,832	7,130,439

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	459

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	375
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2617413.75	872,471	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	4,286,713	261	0.0330	0.0040	16,324,020
Apartments Low Rise	2,567,546	261	0.0330	0.0040	6,363,834

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	18,669,263	107,502,683
Apartments Low Rise	15,252,666	15,804,521

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	420	—
Apartments Low Rise	277	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
----------------	-----------	----------------	---------------	----------------	------------	-------------

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
----------------	-----------

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	20.5	annual days of extreme heat
Extreme Precipitation	0.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.90	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	4.65
AQ-DPM	49.0
Drinking Water	45.4
Lead Risk Housing	10.5
Pesticides	14.1
Toxic Releases	5.78
Traffic	51.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	0.00

Solid Waste	0.00
Sensitive Population	—
Asthma	45.9
Cardio-vascular	65.4
Low Birth Weights	49.9
Socioeconomic Factor Indicators	—
Education	52.1
Housing	64.8
Linguistic	51.5
Poverty	70.0
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	46.43911202
Employed	37.66200436
Median HI	39.83061722
Education	—
Bachelor's or higher	38.31643783
High school enrollment	100
Preschool enrollment	81.75285513
Transportation	—
Auto Access	41.51161299
Active commuting	1.039394328
Social	—

2-parent households	52.93211857
Voting	37.67483639
Neighborhood	—
Alcohol availability	66.35442063
Park access	8.186834339
Retail density	7.686385218
Supermarket access	41.16514821
Tree canopy	0.744257667
Housing	—
Homeownership	59.50211728
Housing habitability	46.01565508
Low-inc homeowner severe housing cost burden	20.50558193
Low-inc renter severe housing cost burden	33.11946619
Uncrowded housing	40.60053895
Health Outcomes	—
Insured adults	27.75567817
Arthritis	0.0
Asthma ER Admissions	52.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	35.9
Cognitively Disabled	66.4
Physically Disabled	12.2

Heart Attack ER Admissions	33.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4
Elderly	42.6
English Speaking	74.6
Foreign-born	44.9
Outdoor Workers	55.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.3
Traffic Density	33.1
Traffic Access	23.0
Other Indices	—
Hardship	54.3
Other Decision Support	—
2016 Voting	54.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	29.0
Healthy Places Index Score for Project Location (b)	41.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Updated Lot Acreage to match project site plan, split landscaping between single family and multifamily.
Construction: Construction Phases	No demolition required as the project site is vacant.
Construction: Off-Road Equipment	Replaced Tractor/Loaders/Backhoes with Crawler Tractors for the Site Preparation and Grading Phases. Updated all equipment to operate 8hrs a day.
Operations: Hearths	No fireplaces proposed, Wood stoves not allowed due to SCAQMD rule 445.

Verano Residential Development Project Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
- 3. Construction Emissions Details
 - 3.1. Site Preparation (2025) - Unmitigated
 - 3.3. Grading (2025) - Unmitigated
 - 3.5. Grading (2026) - Unmitigated
 - 3.7. Building Construction (2026) - Unmitigated

- 3.9. Building Construction (2027) - Unmitigated
- 3.11. Building Construction (2028) - Unmitigated
- 3.13. Building Construction (2029) - Unmitigated
- 3.15. Building Construction (2030) - Unmitigated
- 3.17. Building Construction (2031) - Unmitigated
- 3.19. Building Construction (2032) - Unmitigated
- 3.21. Building Construction (2033) - Unmitigated
- 3.23. Building Construction (2034) - Unmitigated
- 3.25. Building Construction (2035) - Unmitigated
- 3.27. Building Construction (2036) - Unmitigated
- 3.29. Building Construction (2037) - Unmitigated
- 3.31. Building Construction (2038) - Unmitigated
- 3.33. Paving (2038) - Unmitigated
- 3.35. Paving (2039) - Unmitigated
- 3.37. Architectural Coating (2039) - Unmitigated
- 3.39. Architectural Coating (2040) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Verano Residential Development Project
Construction Start Date	1/1/2025
Operational Year	2040
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	11.2
Location	33.859065543543224, -116.4855266631483
County	Riverside-Salton Sea
City	Cathedral City
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5638
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
------------------	------	------	-------------	-----------------------	------------------------	--------------------------------	------------	-------------

Single Family Housing	459	Dwelling Unit	112	895,050	4,687,123	—	1,483	—
Apartments Low Rise	375	Dwelling Unit	16.4	397,500	689,078	—	1,211	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	37.1	37.6	53.9	0.06	7.82	4.52	11,948
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	37.0	37.6	37.2	0.06	7.82	4.52	10,979
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	16.7	25.0	29.1	0.04	4.86	2.42	7,982
Annual (Max)	—	—	—	—	—	—	—
Unmit.	3.04	4.55	5.31	0.01	0.89	0.44	1,321
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2025	4.14	37.6	34.1	0.06	7.82	4.52	7,040
2026	3.48	30.0	53.9	0.06	6.90	2.31	11,948
2027	3.09	14.8	51.1	0.05	6.86	1.92	11,745
2028	2.95	14.0	48.7	0.05	6.82	1.88	11,560
2029	2.82	13.3	46.3	0.05	6.79	1.86	11,373
2030	2.53	12.8	44.3	0.05	6.77	1.84	11,197
2031	2.43	12.4	42.3	0.05	6.76	1.83	11,027
2032	2.34	11.9	40.6	0.05	6.74	1.81	10,813
2033	2.25	11.4	39.1	0.05	6.71	1.79	10,667
2034	2.16	11.2	37.7	0.05	6.70	1.78	10,526
2035	2.12	10.9	36.4	0.05	6.69	1.76	10,402
2036	2.07	10.5	35.3	0.05	6.67	1.75	10,292
2037	1.99	10.3	34.4	0.05	6.64	1.74	10,188
2038	1.95	10.2	33.9	0.05	6.66	1.72	10,152
2039	37.1	5.33	10.4	0.01	1.14	0.27	1,701
Daily - Winter (Max)	—	—	—	—	—	—	—
2025	4.12	37.6	33.4	0.06	7.82	4.52	6,994
2026	3.46	30.1	37.2	0.06	6.90	2.31	10,979
2027	2.76	15.2	35.6	0.05	6.86	1.92	10,804
2028	2.64	14.3	34.1	0.05	6.82	1.88	10,642
2029	2.36	13.7	32.9	0.05	6.79	1.86	10,475
2030	2.29	13.2	31.6	0.05	6.77	1.84	10,317
2031	2.20	12.6	30.4	0.05	6.76	1.83	10,165

2032	2.12	12.2	29.5	0.05	6.74	1.81	10,019
2033	2.06	11.8	28.6	0.05	6.71	1.79	9,887
2034	1.99	11.5	27.9	0.05	6.70	1.78	9,706
2035	1.97	11.1	26.9	0.05	6.69	1.76	9,594
2036	1.92	10.8	26.4	0.05	6.67	1.75	9,494
2037	1.86	10.4	25.8	0.05	6.64	1.74	9,398
2038	1.83	10.3	25.5	0.05	6.66	1.72	9,362
2039	37.0	5.33	10.1	0.01	1.14	0.27	1,674
2040	37.0	1.13	3.50	< 0.005	1.14	0.27	1,089
Average Daily	—	—	—	—	—	—	—
2025	2.76	25.0	22.9	0.04	4.29	2.42	4,606
2026	2.35	17.9	24.6	0.04	3.72	1.56	6,094
2027	2.04	10.6	29.1	0.03	4.86	1.36	7,982
2028	1.95	10.1	27.8	0.03	4.85	1.34	7,882
2029	1.88	9.56	26.6	0.03	4.82	1.32	7,734
2030	1.67	9.34	25.5	0.03	4.81	1.31	7,617
2031	1.61	8.94	24.5	0.03	4.79	1.30	7,503
2032	1.55	8.58	23.7	0.03	4.79	1.29	7,415
2033	1.50	8.34	22.9	0.03	4.76	1.27	7,259
2034	1.45	8.05	22.2	0.03	4.75	1.26	7,164
2035	1.43	7.87	21.5	0.03	4.74	1.25	7,080
2036	1.40	7.68	20.9	0.03	4.75	1.25	7,025
2037	1.36	7.41	20.3	0.03	4.71	1.24	6,935
2038	0.88	5.71	14.1	0.02	2.61	0.70	4,237
2039	16.7	1.93	4.58	< 0.005	0.59	0.16	968
2040	5.80	0.18	0.63	< 0.005	0.18	0.04	180
Annual	—	—	—	—	—	—	—

2025	0.50	4.55	4.18	0.01	0.78	0.44	763
2026	0.43	3.26	4.48	0.01	0.68	0.28	1,009
2027	0.37	1.94	5.31	0.01	0.89	0.25	1,321
2028	0.36	1.84	5.08	0.01	0.89	0.24	1,305
2029	0.34	1.74	4.85	0.01	0.88	0.24	1,281
2030	0.31	1.70	4.66	0.01	0.88	0.24	1,261
2031	0.29	1.63	4.46	0.01	0.87	0.24	1,242
2032	0.28	1.57	4.33	0.01	0.87	0.23	1,228
2033	0.27	1.52	4.18	0.01	0.87	0.23	1,202
2034	0.27	1.47	4.05	0.01	0.87	0.23	1,186
2035	0.26	1.44	3.93	0.01	0.87	0.23	1,172
2036	0.26	1.40	3.82	0.01	0.87	0.23	1,163
2037	0.25	1.35	3.71	0.01	0.86	0.23	1,148
2038	0.16	1.04	2.58	< 0.005	0.48	0.13	701
2039	3.04	0.35	0.84	< 0.005	0.11	0.03	160
2040	1.06	0.03	0.12	< 0.005	0.03	0.01	29.8

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	51.0	19.6	192	0.42	38.2	10.2	53,758
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	44.6	20.2	103	0.37	38.2	10.2	49,270
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	46.4	19.1	132	0.37	35.8	9.56	48,982
Annual (Max)	—	—	—	—	—	—	—

Unmit.	8.46	3.48	24.2	0.07	6.54	1.75	8,109
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	Yes

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	16.7	13.4	142	0.38	37.7	9.70	39,400
Area	34.0	0.44	47.6	< 0.005	0.02	0.02	127
Energy	0.34	5.73	2.44	0.04	0.46	0.46	12,226
Water	—	—	—	—	—	—	680
Waste	—	—	—	—	—	—	1,315
Refrig.	—	—	—	—	—	—	9.26
Total	51.0	19.6	192	0.42	38.2	10.2	53,758
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	14.4	14.5	101	0.34	37.7	9.70	35,039
Area	29.9	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.34	5.73	2.44	0.04	0.46	0.46	12,226

Water	—	—	—	—	—	—	680
Waste	—	—	—	—	—	—	1,315
Refrig.	—	—	—	—	—	—	9.26
Total	44.6	20.2	103	0.37	38.2	10.2	49,270
Average Daily	—	—	—	—	—	—	—
Mobile	14.1	13.1	106	0.33	35.4	9.09	34,688
Area	31.9	0.22	23.5	< 0.005	0.01	0.01	62.6
Energy	0.34	5.73	2.44	0.04	0.46	0.46	12,226
Water	—	—	—	—	—	—	680
Waste	—	—	—	—	—	—	1,315
Refrig.	—	—	—	—	—	—	9.26
Total	46.4	19.1	132	0.37	35.8	9.56	48,982
Annual	—	—	—	—	—	—	—
Mobile	2.58	2.39	19.4	0.06	6.45	1.66	5,743
Area	5.82	0.04	4.28	< 0.005	< 0.005	< 0.005	10.4
Energy	0.06	1.05	0.44	0.01	0.08	0.08	2,024
Water	—	—	—	—	—	—	113
Waste	—	—	—	—	—	—	218
Refrig.	—	—	—	—	—	—	1.53
Total	8.46	3.48	24.2	0.07	6.54	1.75	8,109

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	4.05	37.5	32.4	0.05	1.93	1.78	5,547
Dust From Material Movement	—	—	—	—	5.66	2.69	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	4.05	37.5	32.4	0.05	1.93	1.78	5,547
Dust From Material Movement	—	—	—	—	5.66	2.69	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.33	12.3	10.7	0.02	0.63	0.58	1,824
Dust From Material Movement	—	—	—	—	1.86	0.88	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.25	1.95	< 0.005	0.12	0.11	302
Dust From Material Movement	—	—	—	—	0.34	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.09	0.09	1.67	0.00	0.23	0.05	264
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.10	0.95	0.00	0.23	0.05	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Worker	0.02	0.03	0.39	0.00	0.07	0.02	78.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.01	< 0.005	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.57	32.6	29.4	0.06	1.52	1.40	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.57	32.6	29.4	0.06	1.52	1.40	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.38	12.6	11.3	0.02	0.59	0.54	2,598
Dust From Material Movement	—	—	—	—	1.03	0.38	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.29	2.07	< 0.005	0.11	0.10	430
Dust From Material Movement	—	—	—	—	0.19	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.11	0.10	1.91	0.00	0.26	0.06	301
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.11	1.08	0.00	0.26	0.06	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.03	0.04	0.52	0.00	0.10	0.02	106
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.02	< 0.005	17.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.39	30.0	28.7	0.06	1.38	1.27	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.39	30.0	28.7	0.06	1.38	1.27	6,738
Dust From Material Movement	—	—	—	—	2.67	0.98	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.57	13.9	13.3	0.03	0.64	0.59	3,125
Dust From Material Movement	—	—	—	—	1.24	0.45	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.54	2.43	0.01	0.12	0.11	517
Dust From Material Movement	—	—	—	—	0.23	0.08	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.09	0.10	1.77	0.00	0.26	0.06	295
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.10	1.00	0.00	0.26	0.06	251
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Worker	0.04	0.04	0.58	0.00	0.12	0.03	124
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.02	0.01	20.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.67	3.52	0.01	0.10	0.09	661
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.49	0.64	< 0.005	0.02	0.02	109
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—

Worker	1.98	2.08	38.6	0.00	5.69	1.33	6,418
Vendor	0.10	2.85	1.23	0.02	0.80	0.25	2,891
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.63	2.26	21.9	0.00	5.69	1.33	5,454
Vendor	0.10	3.07	1.28	0.02	0.80	0.25	2,887
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.43	0.52	6.84	0.00	1.41	0.33	1,460
Vendor	0.02	0.75	0.31	0.01	0.20	0.06	723
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.08	0.09	1.25	0.00	0.26	0.06	242
Vendor	< 0.005	0.14	0.06	< 0.005	0.04	0.01	120
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.11	10.2	14.0	0.03	0.36	0.34	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.11	10.2	14.0	0.03	0.36	0.34	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.79	7.27	10.0	0.02	0.26	0.24	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.33	1.83	< 0.005	0.05	0.04	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.87	1.89	35.9	0.00	5.69	1.33	6,283
Vendor	0.10	2.72	1.19	0.02	0.80	0.25	2,823
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.55	2.06	20.4	0.00	5.69	1.33	5,346
Vendor	0.09	2.92	1.21	0.02	0.80	0.25	2,819
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	1.17	1.33	18.2	0.00	4.03	0.95	4,083
Vendor	0.07	2.03	0.85	0.02	0.57	0.18	2,014
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.21	0.24	3.32	0.00	0.74	0.17	676
Vendor	0.01	0.37	0.15	< 0.005	0.10	0.03	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.66	14.0	0.03	0.33	0.30	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.66	14.0	0.03	0.33	0.30	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.92	10.1	0.02	0.23	0.21	1,890
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.26	1.83	< 0.005	0.04	0.04	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.79	1.69	33.5	0.00	5.69	1.33	6,164
Vendor	0.08	2.61	1.12	0.02	0.80	0.25	2,757
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.50	1.88	18.9	0.00	5.69	1.33	5,248
Vendor	0.07	2.81	1.16	0.02	0.80	0.25	2,755
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	1.13	1.20	17.0	0.00	4.05	0.95	4,018
Vendor	0.06	1.96	0.81	0.01	0.57	0.18	1,974
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.21	0.22	3.10	0.00	0.74	0.17	665

Vendor	0.01	0.36	0.15	< 0.005	0.10	0.03	327
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.04	9.28	14.0	0.03	0.30	0.28	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.04	9.28	14.0	0.03	0.30	0.28	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.63	10.00	0.02	0.21	0.20	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.21	1.82	< 0.005	0.04	0.04	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.70	1.50	31.2	0.00	5.69	1.33	6,053
Vendor	0.08	2.51	1.07	0.02	0.80	0.25	2,682
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.24	1.68	17.8	0.00	5.69	1.33	5,157
Vendor	0.07	2.70	1.12	0.02	0.80	0.25	2,680

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	1.08	1.06	15.8	0.00	4.03	0.95	3,936
Vendor	0.06	1.87	0.78	0.01	0.57	0.18	1,914
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.20	0.19	2.88	0.00	0.74	0.17	652
Vendor	0.01	0.34	0.14	< 0.005	0.10	0.03	317
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.02	9.07	14.0	0.03	0.28	0.26	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.02	9.07	14.0	0.03	0.28	0.26	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.73	6.48	9.99	0.02	0.20	0.19	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.18	1.82	< 0.005	0.04	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.43	1.31	29.3	0.00	5.69	1.33	5,949
Vendor	0.08	2.42	1.05	0.02	0.80	0.25	2,609
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.20	1.49	16.5	0.00	5.69	1.33	5,072
Vendor	0.07	2.61	1.07	0.02	0.80	0.25	2,606
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.89	1.05	14.8	0.00	4.03	0.95	3,870
Vendor	0.05	1.80	0.75	0.01	0.57	0.18	1,862
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.16	0.19	2.70	0.00	0.74	0.17	641
Vendor	0.01	0.33	0.14	< 0.005	0.10	0.03	308
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.77	13.9	0.03	0.26	0.24	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.77	13.9	0.03	0.26	0.24	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.27	9.95	0.02	0.19	0.17	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.14	1.82	< 0.005	0.03	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.36	1.30	27.3	0.00	5.69	1.33	5,854
Vendor	0.08	2.33	1.00	0.02	0.80	0.25	2,534
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.14	1.30	15.4	0.00	5.69	1.33	4,994
Vendor	0.07	2.51	1.05	0.02	0.80	0.25	2,532
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.85	0.92	13.8	0.00	4.03	0.95	3,810
Vendor	0.05	1.75	0.73	0.01	0.57	0.18	1,809
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.15	0.17	2.51	0.00	0.74	0.17	631
Vendor	0.01	0.32	0.13	< 0.005	0.10	0.03	300
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
----------	-----	-----	----	-----	-------	--------	------

Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.50	13.9	0.03	0.24	0.22	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.50	13.9	0.03	0.24	0.22	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.09	9.94	0.02	0.17	0.16	1,890
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.11	1.81	< 0.005	0.03	0.03	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.29	1.11	25.8	0.00	5.69	1.33	5,719
Vendor	0.08	2.28	0.98	0.02	0.80	0.25	2,456
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.08	1.29	14.6	0.00	5.69	1.33	4,926
Vendor	0.07	2.44	1.02	0.02	0.80	0.25	2,455
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.81	0.79	13.1	0.00	4.05	0.95	3,767
Vendor	0.05	1.71	0.72	0.01	0.57	0.18	1,758
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—

Worker	0.15	0.14	2.39	0.00	0.74	0.17	624
Vendor	0.01	0.31	0.13	< 0.005	0.10	0.03	291
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.95	8.27	13.9	0.03	0.22	0.20	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.95	8.27	13.9	0.03	0.22	0.20	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.68	5.91	9.90	0.02	0.16	0.15	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.08	1.81	< 0.005	0.03	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.22	0.92	24.2	0.00	5.69	1.33	5,640
Vendor	0.08	2.21	0.96	0.02	0.80	0.25	2,389
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	1.04	1.11	13.7	0.00	5.69	1.33	4,861

Vendor	0.07	2.37	1.00	0.02	0.80	0.25	2,388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.77	0.78	12.3	0.00	4.03	0.95	3,669
Vendor	0.05	1.65	0.70	0.01	0.57	0.18	1,705
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.14	0.14	2.25	0.00	0.74	0.17	607
Vendor	0.01	0.30	0.13	< 0.005	0.10	0.03	282
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.93	8.11	13.8	0.03	0.21	0.19	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.93	8.11	13.8	0.03	0.21	0.19	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.79	9.89	0.02	0.15	0.14	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.06	1.81	< 0.005	0.03	0.03	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.16	0.92	22.9	0.00	5.69	1.33	5,570
Vendor	0.08	2.16	0.93	0.02	0.80	0.25	2,318
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.98	1.10	13.0	0.00	5.69	1.33	4,750
Vendor	0.07	2.33	0.98	0.02	0.80	0.25	2,317
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.74	0.64	11.6	0.00	4.03	0.95	3,624
Vendor	0.05	1.62	0.68	0.01	0.57	0.18	1,655
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.13	0.12	2.12	0.00	0.74	0.17	600
Vendor	0.01	0.30	0.12	< 0.005	0.10	0.03	274
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.90	13.8	0.03	0.19	0.18	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.90	13.8	0.03	0.19	0.18	2,638

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.65	5.64	9.83	0.02	0.14	0.13	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.03	1.79	< 0.005	0.03	0.02	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.13	0.91	21.7	0.00	5.69	1.33	5,507
Vendor	0.08	2.11	0.91	0.02	0.80	0.25	2,257
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.98	0.91	12.2	0.00	5.69	1.33	4,698
Vendor	0.07	2.28	0.95	0.02	0.80	0.25	2,257
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.72	0.64	11.0	0.00	4.03	0.95	3,584
Vendor	0.05	1.58	0.66	0.01	0.57	0.18	1,612
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.13	0.12	2.01	0.00	0.74	0.17	593
Vendor	0.01	0.29	0.12	< 0.005	0.10	0.03	267
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.66	13.7	0.03	0.18	0.17	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.66	13.7	0.03	0.18	0.17	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.64	5.49	9.79	0.02	0.13	0.12	1,890
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.00	1.79	< 0.005	0.02	0.02	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.10	0.72	20.7	0.00	5.69	1.33	5,451
Vendor	0.08	2.09	0.91	0.02	0.80	0.25	2,203
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.95	0.90	11.7	0.00	5.69	1.33	4,652
Vendor	0.07	2.23	0.95	0.02	0.80	0.25	2,203
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.70	0.64	10.5	0.00	4.05	0.95	3,558
Vendor	0.05	1.56	0.66	0.01	0.57	0.18	1,577
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Worker	0.13	0.12	1.91	0.00	0.74	0.17	589
Vendor	0.01	0.28	0.12	< 0.005	0.10	0.03	261
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.51	13.5	0.03	0.17	0.16	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.51	13.5	0.03	0.17	0.16	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.36	9.68	0.02	0.12	0.11	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.98	1.77	< 0.005	0.02	0.02	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.03	0.72	19.9	0.00	5.69	1.33	5,401
Vendor	0.08	2.04	0.89	0.02	0.78	0.25	2,148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—

Worker	0.91	0.72	11.3	0.00	5.69	1.33	4,611
Vendor	0.07	2.20	0.93	0.02	0.78	0.25	2,149
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.68	0.51	10.0	0.00	4.03	0.95	3,516
Vendor	0.05	1.53	0.64	0.01	0.56	0.18	1,534
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.12	0.09	1.83	0.00	0.74	0.17	582
Vendor	0.01	0.28	0.12	< 0.005	0.10	0.03	254
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.41	13.5	0.03	0.16	0.15	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.41	13.5	0.03	0.16	0.15	2,638
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.33	2.81	5.13	0.01	0.06	0.06	1,002
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.51	0.94	< 0.005	0.01	0.01	166

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	1.00	0.71	19.5	0.00	5.69	1.33	5,403
Vendor	0.08	2.07	0.88	0.02	0.80	0.23	2,110
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.89	0.71	11.0	0.00	5.69	1.33	4,613
Vendor	0.07	2.22	0.92	0.02	0.80	0.23	2,111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.34	0.27	5.24	0.00	2.14	0.50	1,870
Vendor	0.03	0.82	0.34	0.01	0.30	0.09	801
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.06	0.05	0.96	0.00	0.39	0.09	310
Vendor	0.01	0.15	0.06	< 0.005	0.06	0.02	133
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Paving (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.50	5.38	9.76	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.50	5.38	9.76	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.80	3.27	< 0.005	0.04	0.03	507
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.33	0.60	< 0.005	0.01	0.01	84.0
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.67	0.00	0.20	0.05	186
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.38	0.00	0.20	0.05	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.16	0.00	0.07	0.02	56.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	9.40

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Paving (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.49	5.31	9.75	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.49	5.31	9.75	0.01	0.11	0.10	1,516
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.42	2.61	< 0.005	0.03	0.03	406
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.26	0.48	< 0.005	0.01	< 0.005	67.3
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.65	0.00	0.20	0.05	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.37	0.00	0.20	0.05	158
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.05	0.01	45.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005	7.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Architectural Coating (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.46	< 0.005	0.01	0.01	179
Architectural Coatings	36.8	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.46	< 0.005	0.01	0.01	179
Architectural Coatings	36.8	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.44	0.65	< 0.005	< 0.005	< 0.005	79.7
Architectural Coatings	16.4	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.12	< 0.005	< 0.005	< 0.005	13.2
Architectural Coatings	2.99	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.19	0.14	3.79	0.00	1.14	0.27	1,073
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.14	0.14	2.13	0.00	1.14	0.27	916
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.08	0.06	1.19	0.00	0.50	0.12	436
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.22	0.00	0.09	0.02	72.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Architectural Coating (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.46	< 0.005	0.01	< 0.005	179
Architectural Coatings	36.8	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.23	< 0.005	< 0.005	< 0.005	28.0
Architectural Coatings	5.76	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	4.63
Architectural Coatings	1.05	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.13	0.14	2.04	0.00	1.14	0.27	910
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.02	0.02	0.41	0.00	0.18	0.04	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.07	0.00	0.03	0.01	25.2

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	9.84	7.93	84.0	0.22	22.2	5.71	23,216
Apartments Low Rise	6.86	5.52	58.5	0.16	15.5	3.98	16,184
Total	16.7	13.4	142	0.38	37.7	9.70	39,400
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	8.49	8.55	59.5	0.20	22.2	5.72	20,646
Apartments Low Rise	5.92	5.96	41.5	0.14	15.5	3.98	14,393
Total	14.4	14.5	101	0.34	37.7	9.70	35,039
Annual	—	—	—	—	—	—	—
Single Family Housing	1.57	1.46	11.9	0.04	3.94	1.01	3,505
Apartments Low Rise	1.01	0.93	7.57	0.02	2.51	0.65	2,238
Total	2.58	2.39	19.4	0.06	6.45	1.66	5,743

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	3,086
Apartments Low Rise	—	—	—	—	—	—	1,849
Total	—	—	—	—	—	—	4,935
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	3,086
Apartments Low Rise	—	—	—	—	—	—	1,849
Total	—	—	—	—	—	—	4,935
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	511
Apartments Low Rise	—	—	—	—	—	—	306
Total	—	—	—	—	—	—	817

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	0.24	4.12	1.75	0.03	0.33	0.33	5,246
Apartments Low Rise	0.09	1.61	0.68	0.01	0.13	0.13	2,045
Total	0.34	5.73	2.44	0.04	0.46	0.46	7,291
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	0.24	4.12	1.75	0.03	0.33	0.33	5,246
Apartments Low Rise	0.09	1.61	0.68	0.01	0.13	0.13	2,045
Total	0.34	5.73	2.44	0.04	0.46	0.46	7,291
Annual	—	—	—	—	—	—	—
Single Family Housing	0.04	0.75	0.32	< 0.005	0.06	0.06	869

Apartments Low Rise	0.02	0.29	0.12	< 0.005	0.02	0.02	339
Total	0.06	1.05	0.44	0.01	0.08	0.08	1,207

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	27.7	—	—	—	—	—	—
Architectural Coatings	2.22	—	—	—	—	—	—
Landscape Equipment	4.11	0.44	47.6	< 0.005	0.02	0.02	127
Total	34.0	0.44	47.6	< 0.005	0.02	0.02	127
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	27.7	—	—	—	—	—	—
Architectural Coatings	2.22	—	—	—	—	—	—
Total	29.9	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	5.05	—	—	—	—	—	—
Architectural Coatings	0.40	—	—	—	—	—	—
Landscape Equipment	0.37	0.04	4.28	< 0.005	< 0.005	< 0.005	10.4
Total	5.82	0.04	4.28	< 0.005	< 0.005	< 0.005	10.4

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	466
Apartments Low Rise	—	—	—	—	—	—	214
Total	—	—	—	—	—	—	680
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	466
Apartments Low Rise	—	—	—	—	—	—	214
Total	—	—	—	—	—	—	680
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	77.2
Apartments Low Rise	—	—	—	—	—	—	35.4
Total	—	—	—	—	—	—	113

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	793
Apartments Low Rise	—	—	—	—	—	—	523
Total	—	—	—	—	—	—	1,315
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	793

Apartments Low Rise	—	—	—	—	—	—	523
Total	—	—	—	—	—	—	1,315
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	131
Apartments Low Rise	—	—	—	—	—	—	86.5
Total	—	—	—	—	—	—	218

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	6.41
Apartments Low Rise	—	—	—	—	—	—	2.85
Total	—	—	—	—	—	—	9.26
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	6.41
Apartments Low Rise	—	—	—	—	—	—	2.85
Total	—	—	—	—	—	—	9.26
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	1.06
Apartments Low Rise	—	—	—	—	—	—	0.47
Total	—	—	—	—	—	—	1.53

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
----------------	-----	-----	----	-----	-------	--------	------

Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2025	6/17/2025	5.00	120	—
Grading	Grading	6/18/2025	8/25/2026	5.00	310	—
Building Construction	Building Construction	8/26/2026	7/13/2038	5.00	3,100	—
Paving	Paving	7/14/2038	5/17/2039	5.00	220	—
Architectural Coating	Architectural Coating	5/18/2039	3/20/2040	5.00	220	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	435	18.5	LDA,LDT1,LDT2

Building Construction	Vendor	89.2	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	87.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	2,617,414	872,471	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
------------	---------------------------------	---------------------------------	----------------------	-------------------------------	---------------------

Site Preparation	0.00	0.00	420	0.00	—
Grading	0.00	0.00	1,240	0.00	—
Paving	0.00	0.00	0.00	0.00	5.06

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	5.06	0%
Apartments Low Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005
2027	0.00	346	0.03	< 0.005
2028	0.00	346	0.03	< 0.005
2029	0.00	346	0.03	< 0.005
2030	0.00	261	0.03	< 0.005
2031	0.00	261	0.03	< 0.005
2032	0.00	261	0.03	< 0.005
2033	0.00	261	0.03	< 0.005
2034	0.00	261	0.03	< 0.005

2035	0.00	261	0.03	< 0.005
2036	0.00	261	0.03	< 0.005
2037	0.00	261	0.03	< 0.005
2038	0.00	261	0.03	< 0.005
2039	0.00	261	0.03	< 0.005
2040	0.00	261	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	4,333	4,379	3,924	1,562,623	30,970	31,298	28,050	11,168,731
Apartments Low Rise	2,745	3,053	2,355	997,623	19,620	21,818	16,832	7,130,439

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	459

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	375
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2617413.75	872,471	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	4,286,713	261	0.0330	0.0040	16,324,020
Apartments Low Rise	2,567,546	261	0.0330	0.0040	6,363,834

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	18,669,263	107,502,683
Apartments Low Rise	15,252,666	15,804,521

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	420	—
Apartments Low Rise	277	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
----------------	-----------	----------------	---------------	----------------	------------	-------------

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
----------------	-----------

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	20.5	annual days of extreme heat
Extreme Precipitation	0.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.90	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	4.65
AQ-DPM	49.0
Drinking Water	45.4
Lead Risk Housing	10.5
Pesticides	14.1
Toxic Releases	5.78
Traffic	51.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	0.00

Solid Waste	0.00
Sensitive Population	—
Asthma	45.9
Cardio-vascular	65.4
Low Birth Weights	49.9
Socioeconomic Factor Indicators	—
Education	52.1
Housing	64.8
Linguistic	51.5
Poverty	70.0
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	46.43911202
Employed	37.66200436
Median HI	39.83061722
Education	—
Bachelor's or higher	38.31643783
High school enrollment	100
Preschool enrollment	81.75285513
Transportation	—
Auto Access	41.51161299
Active commuting	1.039394328
Social	—

2-parent households	52.93211857
Voting	37.67483639
Neighborhood	—
Alcohol availability	66.35442063
Park access	8.186834339
Retail density	7.686385218
Supermarket access	41.16514821
Tree canopy	0.744257667
Housing	—
Homeownership	59.50211728
Housing habitability	46.01565508
Low-inc homeowner severe housing cost burden	20.50558193
Low-inc renter severe housing cost burden	33.11946619
Uncrowded housing	40.60053895
Health Outcomes	—
Insured adults	27.75567817
Arthritis	0.0
Asthma ER Admissions	52.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	35.9
Cognitively Disabled	66.4
Physically Disabled	12.2

Heart Attack ER Admissions	33.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4
Elderly	42.6
English Speaking	74.6
Foreign-born	44.9
Outdoor Workers	55.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.3
Traffic Density	33.1
Traffic Access	23.0
Other Indices	—
Hardship	54.3
Other Decision Support	—
2016 Voting	54.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	29.0
Healthy Places Index Score for Project Location (b)	41.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Updated Lot Acreage to match project site plan, split landscaping between single family and multifamily.
Construction: Construction Phases	No demolition required as the project site is vacant.
Construction: Off-Road Equipment	Replaced Tractor/Loaders/Backhoes with Crawler Tractors for the Site Preparation and Grading Phases. Updated all equipment to operate 8hrs a day.
Operations: Hearths	No fireplaces proposed, Wood stoves not allowed due to SCAQMD rule 445.

HEALTH RISK ASSESSMENT

**VERANO RESIDENTIAL PROJECT
CATHEDRAL CITY, CALIFORNIA**



February 2024

HEALTH RISK ASSESSMENT

VERANO RESIDENTIAL PROJECT CATHEDRAL CITY, CALIFORNIA

Submitted to:

EPD Solutions, Inc.
3333 Michelson Drive, Suite 500
Irvine, California 92612

Prepared by:

LSA
3210 El Camino Real, Ste. 100
Irvine, California 92602
(949) 553-0666

Project No. ESL2201.80



February 2024

TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF ABBREVIATIONS AND ACRONYMS	ii
INTRODUCTION	1
Project Location and Description	1
Existing Land Uses In The Project Area	1
BACKGROUND	4
California Air Resources Board Handbook and Technical Advisory	4
Office of Environmental Health and Hazard Assessment Guidelines	5
South Coast Air Quality Management District	5
SETTING	6
Regional Air Quality	6
THRESHOLDS OF SIGNIFICANCE	8
METHODOLOGY	9
General Information	9
HEALTH RISK IMPACTS	13
Carcinogenic and Chronic Impacts	13
Acute Emission Impact	13
Future Health Risk Impacts	14
Conclusion	15
 FIGURES	
Figure 1: Project Location	2
Figure 2: Site Plan	3
Figure 3: Project Area Wind Patterns	6
 TABLES	
Table A: Health Risks from Train Activity to Future Receptors – 2024 Activity	13
Table B: Health Risks from Train Activity to Future Receptors – 2040 Activity	14
 APPENDICES	
A: EMISSION FACTORS FOR TRAINS AND HEALTH RISK ASSESSMENT EMISSION RATES	
B: HRA MODEL SNAPSHOTS	

LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
Basin	Salton Sea Air Basin
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CARB Handbook	<i>Air Quality and Land Use Handbook: A Community Health Perspective</i>
CEQA	California Environmental Quality Act
City	City of Cathedral City
DERA	Diesel Emissions Reduction Act
DPM	diesel particulate matter
EPA	United States Environmental Protection Agency
HARP	Hotspots Analysis and Reporting Program
HI	Hazard Index
hp	horsepower
HRA	Health Risk Assessment
I-10	Interstate 10
IARC	International Agency for Research on Cancer
MEI	maximally exposed individual
MICR	maximum individual cancer risk
mph	miles per hour
OEHHA	Office of Environmental Health Hazard Assessment
project	Verano Residential Project
REL	Acute Reference Exposure Level
RMP	Risk Management Policy
SCAQMD	South Coast Air Quality Management District
SCAQMD Guidelines	<i>AB 2588 and Rule 1402 Supplemental Guidelines</i>
TACs	toxic air contaminants
URF	unit risk factor

INTRODUCTION

LSA has prepared a Health Risk Assessment (HRA) for the proposed Verano Residential Project (project) in Cathedral City, California. An HRA is a process used to estimate the increased health risk levels for people living and/or working near a project that emits toxic air contaminants (TACs). An HRA combines the results of studies on the health effects of various animal and human exposure to TACs with the results of studies that estimate the exposure levels at different distances from the source of pollutants. The purpose of the HRA is to document the increased cancer and noncancer health risk levels from the adjacent Union Pacific Railroad line to the proposed residences.

The City of Cathedral City (City) recommends the preparation of an HRA in accordance with policies and procedures of the Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District (SCAQMD). This HRA evaluates risk consistent with these documents and in compliance with all applicable requirements.

PROJECT LOCATION AND DESCRIPTION

The proposed project is located north of Verona Road and west of Landau Boulevard in Cathedral City, California.

The project consists of 459 single-family detached units and 375 attached and detached multi-family condominium units on an approximately 129-acre site. The site is currently vacant. The project site is surrounded by existing single-family homes to the south and east, vacant land to the west, south, and north, and the existing Union Pacific Railroad line to the northeast. Further northeast of the project site is Interstate 10 (I-10). An existing berm and masonry block wall run parallel to a portion of the site's northeastern boundary. Figures 1 and 2 show the project location and site plan, respectively.

EXISTING LAND USES IN THE PROJECT AREA

The project site is irregularly shaped and surrounded primarily by residential uses and vacant parcels. The areas adjacent to the project site include the following uses:

- **North:** Existing vacant land;
- **Northeast:** Existing Union Pacific Railroad followed by I-10;
- **East:** Existing single-family residences followed by vacant land;
- **South:** Existing single-family residences; and
- **West:** Existing vacant land.

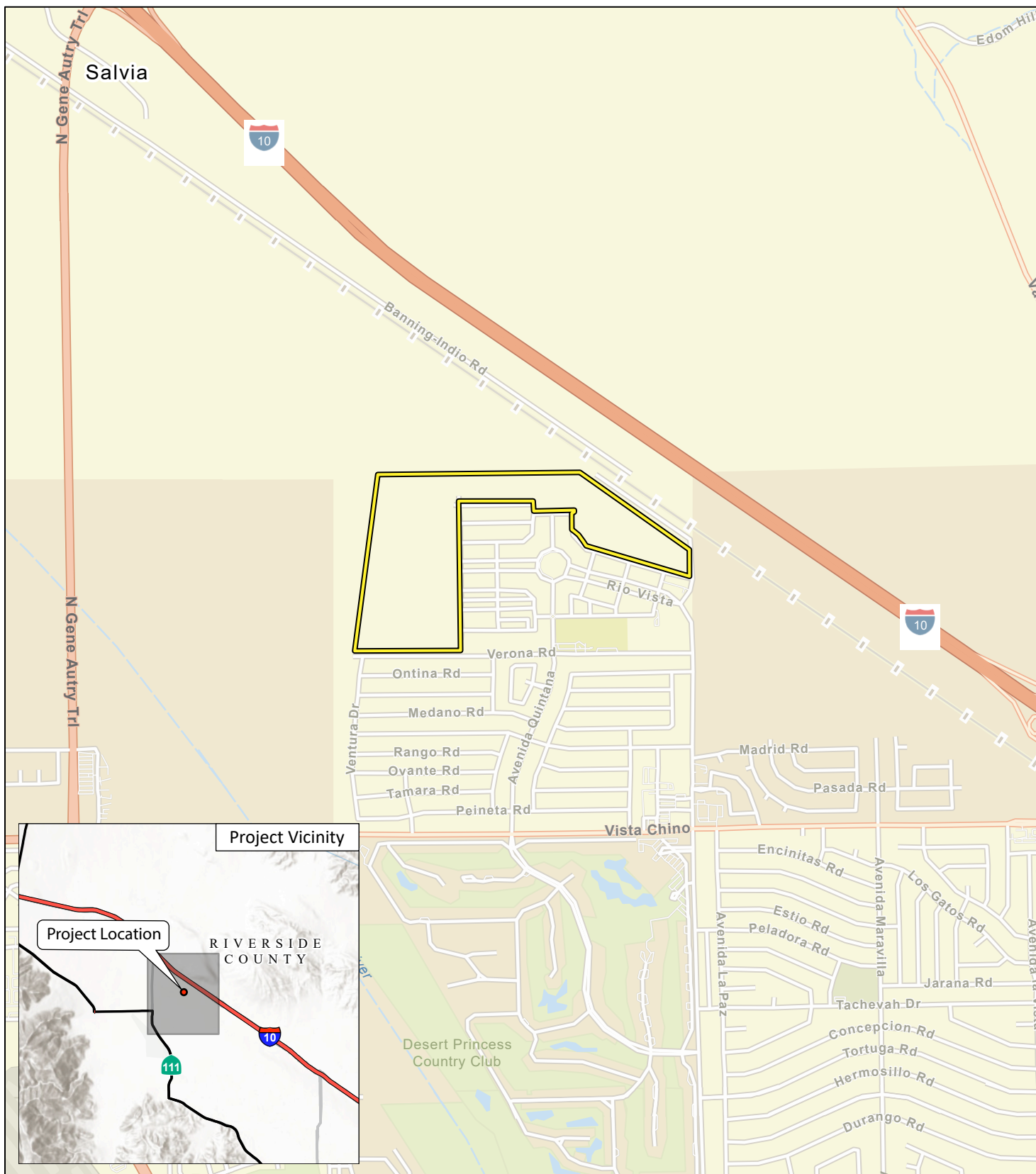
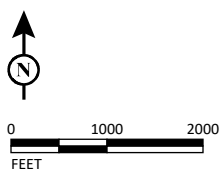


FIGURE 1

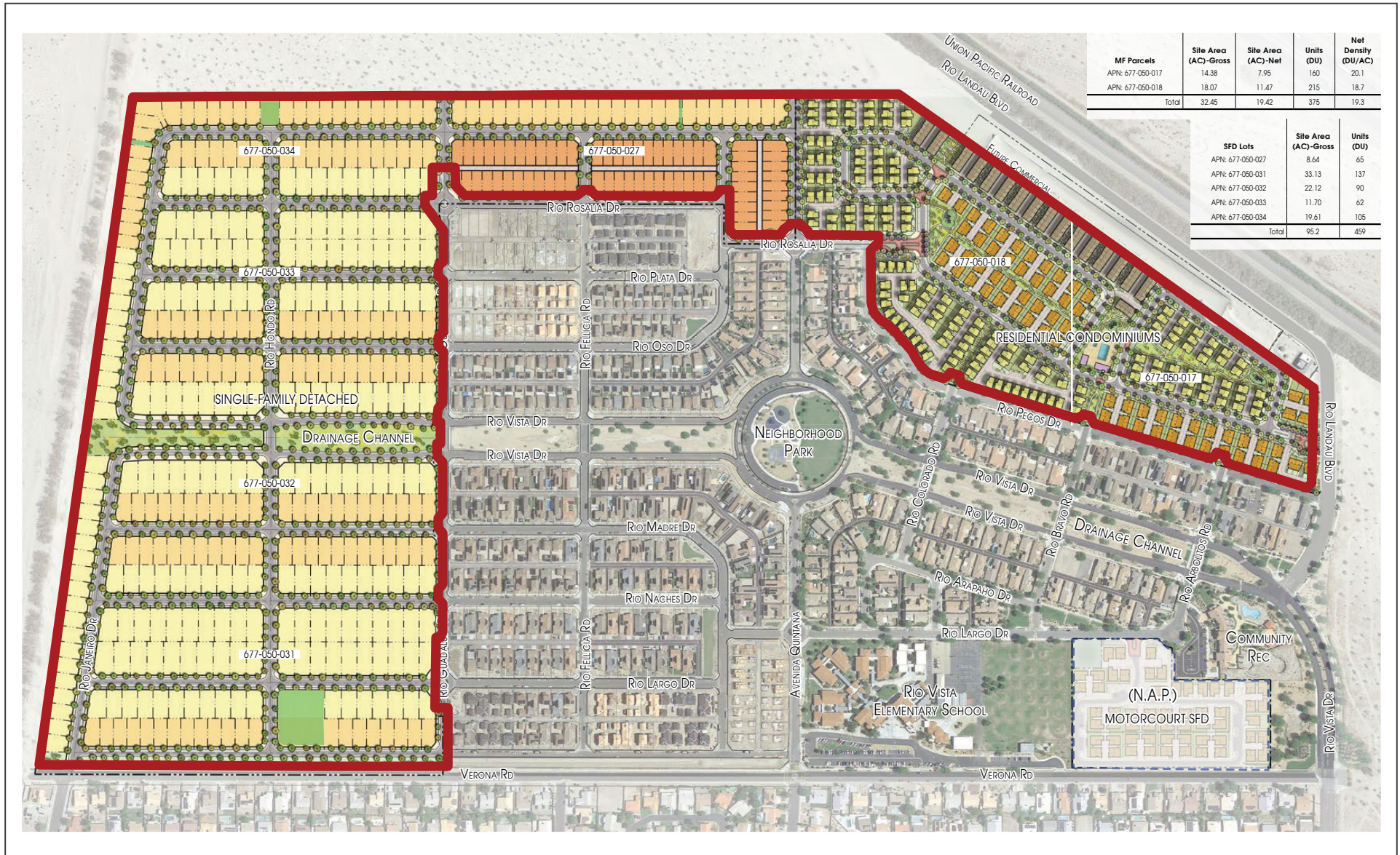
LSA



SOURCE: ESRI Street Map, 2023

I:\ESL2201.67\G\Location.ai (8/18/2023)

Verona Residential
Project Location



BACKGROUND

This section provides a discussion of regulatory guidance from the California Air Resources Board (CARB), OEHHA, California Air Pollution Control Officers Association (CAPCOA), and SCAQMD.

CALIFORNIA AIR RESOURCES BOARD HANDBOOK AND TECHNICAL ADVISORY

CARB has developed an *Air Quality and Land Use Handbook* (CARB Handbook);¹ and a supplement, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*,² which are intended to serve as general reference guides for evaluating and reducing air pollution impacts associated with new projects that are part of the land use decision-making process. According to the CARB Handbook, recent air pollution studies have shown an association between both respiratory and other noncancer health effects and proximity to high-traffic roadways and other land uses associated with high volume truck traffic. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California.

Land uses that can produce air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet); and
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this

¹ California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Website: www.arb.ca.gov/ch/handbook.pdf (accessed January 2024).

² CARB. 2017. *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*. April. Website: www.arb.ca.gov/ch/rd_technical_analysis_fact_sheet.pdf (accessed January 2024).

guidance is to help land use agencies determine when to further examine project sites for actual health risk associated with the location of new sensitive land uses.

OFFICE OF ENVIRONMENTAL HEALTH AND HAZARD ASSESSMENT GUIDELINES

The OEHHA developed the *Air Toxics Hot Spots Program Guidance Manual*³ in conjunction with the CARB for use in implementing the Air Toxics Hot Spots Program (Health and Safety Code Section 44360). The manual describes health effect values, exposure pathway variates (e.g., breathing rates), and a tiered approach for performing HRAs based on current science and policy assessment. The intent of the guidance manual is to incorporate children's health concerns, update risk assessment practices, and provide consistent risk assessment procedures.

California Air Pollution Control Officers Association

In 2009, the CAPCOA published guidance⁴ on assessing the health risk impacts from and to proposed land use projects subject to the California Environmental Quality Act (CEQA), focusing on the acute, chronic, and cancer impacts. The document recommends procedures to identify when a project should undergo further risk evaluation, procedures for conducting an HRA, guidelines to engage the public, presentation guidelines for results from the HRA, and mitigation measures that may be appropriate for various land use projects.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The SCAQMD has risk assessment guidelines, *AB 2588 and Rule 1402 Supplemental Guidelines* (SCAQMD Guidelines).⁵ These guidelines incorporate the OEHHA guidance and the options to be used when using the CARB's Hotspots Analysis and Reporting Program Version 2 (HARP) program for risk assessment calculations.⁶

³ California Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program Guidance Manual*. March. Website: oehha.ca.gov/air/cnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0 (accessed January 2024).

⁴ California Air Pollution Control Officers Association (CAPCOA). 2009. *Health Risk Assessments for Proposed Land Use Projects*. July. Website: https://ww2.valleyair.org/media/glsdzpx3/capcoa_hra_lu_guidelines_8-6-09.pdf (accessed January 2024).

⁵ South Coast Air Quality Management District (SCAQMD). 2018. *AB 2588 and Rule 1402 Supplemental Guidelines*. July. Website: www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-supplementalguidelines.pdf (accessed January 2024).

⁶ CARB. n.d. Hot Spots Analysis & Reporting Program. Website: www.arb.ca.gov/toxics/harp/harp.htm (accessed January 2024).

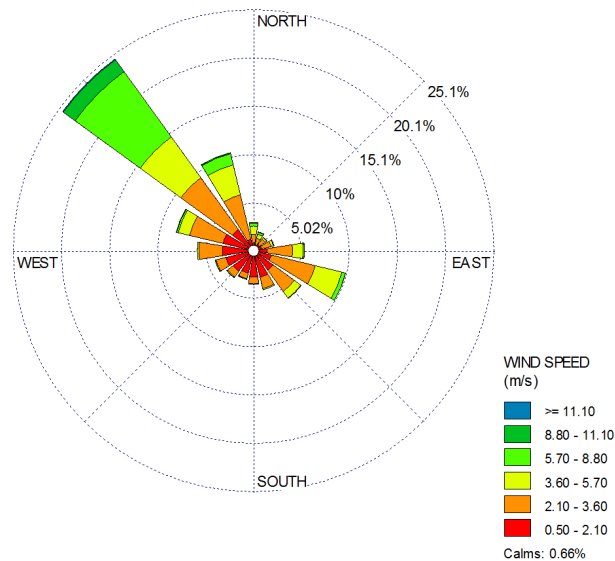
SETTING

REGIONAL AIR QUALITY

The project site is in Cathedral City, California, which is part of the Salton Sea Air Basin (Basin) and is under the jurisdiction of the SCAQMD.

Climate/Meteorology

Air quality in the planning area is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The nearest representative meteorological station that provides the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) ready meteorological data is the Palm Springs Airport Meteorological Station, approximately 2 miles southwest of the project site. Figure 3, Project Area Wind Patterns, shows the windrose⁷ from data measured at this station and the wind patterns for the project area.



Source: SCAQMD Meteorological Data for AERMOD. Website: www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod (accessed January 2024).

Figure 3: Project Area Wind Patterns

⁷ A windrose provides a succinct view of how wind speed and direction are typically distributed at a particular location. Presented in a circular format, the windrose shows the frequency of winds blowing from particular directions.

Toxic Air Contaminants

The public's exposure to TACs is a significant environmental health issue in the State of California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the Federal Act (42 United States Code Section 7412) is a TAC. Under State law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (the Tanner Air Toxics Act), AB 2588 (the Air Toxics "Hot Spot" Information and Assessment Act of 1987), and Senate Bill 25 (the Children's Environmental Health Protection Act). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

Air toxics from stationary sources are also regulated in California under AB 2588. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the designated air quality management district or air pollution control district. High-priority facilities are required to perform an HRA and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

To date, CARB has designated nearly 200 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel particulate matter or DPM).

THRESHOLDS OF SIGNIFICANCE

Both the State and federal governments have established health-based ambient air quality standards for seven air pollutants. For other air pollutants without defined significance standards, the definition of substantial pollutant concentrations varies. For TACs, “substantial” is taken to mean that the individual health risk exceeds a threshold considered to be a prudent risk management level.

The following limits for maximum individual cancer risk (MICR) and noncancer acute and chronic Hazard Index (HI) from project emissions of TACs are considered appropriate for use in determining the health risk for projects in the Basin:

- **MICR:** MICR is the estimated probability of a maximally exposed individual (MEI) contracting cancer as a result of exposure to TACs over a period of 30 years for adults and 9 years for children in residential locations and over a period of 25 years for workers. The MICR calculations include multipathway consideration, when applicable.

The cumulative increase in MICR that is the sum of the calculated MICR values for all TACs would be considered significant if it would result in an increased MICR greater than 10 in 1 million (1×10^{-5}) at any receptor location.

- **Chronic HI:** Chronic HI is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multipathway consideration, when applicable.

The project would be considered significant if the cumulative increase in total chronic HI for any target organ system would exceed 1.0 at any receptor location.

- **Acute HI:** Acute HI is the ratio of the estimated maximum 1-hour concentration of a TAC for a potential MEI to its acute reference exposure level.

The project would be considered significant if the cumulative increase in total acute HI for any target organ system would exceed 1.0 at any receptor location.

The SCAQMD *CEQA Air Quality Handbook*⁸ states that emissions of TACs are considered significant if an HRA shows an increased risk of greater than 10 in 1 million. Based on guidance from SCAQMD in the document *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*,⁹ for the purposes of this analysis, the threshold of 10 in 1 million was used as the cancer risk threshold for the proposed project.

⁸ SCAQMD. 1993. *CEQA Air Quality Handbook* (currently under revision).

⁹ SCAQMD. 2003. *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. August.

METHODOLOGY

This HRA focuses on the potential health risks to the future residents of the project following the CARB Handbook and Supplement and OEHHA, CAPCOA, and SCAQMD guidance and recommendations. As identified in the Background section above, the CARB Handbook recommends an evaluation of sensitive land uses within 500 feet of a freeway or within 1,000 feet of major rail. The project site is located approximately 800 feet from I-10 and is located adjacent to the Union Pacific Railroad line. Since the project site is located over 500 feet of I-10 and within 1,000 feet of the Union Pacific Railroad line, this HRA focuses the short-term and long-term potential health effects from emissions of TACs associated with trains operating on the adjacent tracks.

GENERAL INFORMATION

For the purposes of an HRA, short-term emissions are of concern for analyzing acute health impacts, and long-term emissions are of concern for analyzing chronic and carcinogenic health impacts. A screening-level multipathway assessment has been conducted. This technique was chosen as recommended in the OEHHA's *Air Toxic Hot Spots Program Risk Assessment Guidelines*.¹⁰

This HRA has been conducted using three models:

- United States Environmental Protection Agency's (EPA) train emission factors
- EPA's AERMOD to determine how the TACs would move through the atmosphere after release from sources near the project site
- CARB HARP model to translate the pollutant concentrations from AERMOD into individual health risks to future residents of the project

This HRA includes analyzing the inhalation, dermal soil, mother's milk, and homegrown produce pathways. This technique was chosen as prescribed in SCAQMD's *AB 2588 and Rule 1402 Supplemental Guidelines*.¹¹

The OEHHA has determined that long-term exposure to diesel exhaust particulates poses the highest cancer risk of any TAC it has evaluated. Exposure to diesel exhaust can also have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles (also known as DPM) made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. For risk assessment procedures, the OEHHA specifies that the surrogate for whole diesel exhaust is DPM.

¹⁰ OEHHA. 2015. op cit.

¹¹ SCAQMD. 2018. op. cit.

This HRA is considered to be conservative due primarily to the following three factors:

1. The CARB-adopted diesel exhaust unit risk factor (URF) of 300 in 1 million per microgram per cubic meter is based on the upper 95th percentile of estimated risk for each of the epidemiological studies used to develop the URF. Therefore, the risk factor is already representative of the conservative risk posed by DPM.
2. The risk estimates assume sensitive residence receptors would be subject to DPM for 24 hours per day, 350 days per year, and worker receptors for 8 hours per day, 350 days per year. As a conservative measure, SCAQMD does not recognize indoor adjustments for residents or workers. However, typical people spend the majority of their time indoors versus remaining outdoors for 24 hours per day, 350 days per year.¹² Therefore, the actual exposure any person would experience would be less than considered in this analysis. This results in much lower actual health risk levels than presented in this analysis.
3. The exposure to DPM is assumed to be constant for the given period analyzed (i.e., 30 years). However, emissions from DPM are expected to substantially decrease in the future with the implementation of standard regulatory requirements and technological advancement to reduce DPM. Therefore, the health risk levels from future trains would be less than presented in this analysis.

Improvements over the last 40 years to diesel fuel and diesel engines have resulted in lower emissions of some of these TACs.¹³ These improvements resulted in a 75 percent reduction in particle emissions from diesel-powered trucks and other equipment in 2010 and an 85 percent reduction by 2020 compared to 2000 levels.¹⁴ These improvements are anticipated to continue into the foreseeable future. Electric trains are also on the horizon and, once in use, would eliminate the emissions of DPM.

Emission Sources

The Union Pacific Railroad line is located immediately northeast of the project site. Based on data from the City of Cathedral City General Plan Environmental Impact Report,¹⁵ in 2018, railroad traffic was approximately 40 trains per day, with an assumed speed of 70 miles per hour (mph), an average of 80 cars per train, and a train length of 5,200 feet. By 2040, traffic on the Union Pacific Railroad line could reach approximately 70 trains per day. Therefore, to be conservative, this analysis

¹² In May 1991, the CARB Research Division, in association with the University of California, Berkeley, published research findings titled *Activity Patterns of California Residents*. The findings of that study indicate that, on average, adults and adolescents in California spent almost 15 hours per day inside their homes and 6 hours in other indoor locations, for a total of 21 hours (87 percent of the day). About 2 hours per day were spent in transit, and just over 1 hour per day was spent in outdoor locations.

¹³ United States Environmental Protection Agency (EPA). n.d. *Learn About Impacts of Diesel Exhaust and the Diesel Emissions Reduction Act (DERA)*. Website: www.epa.gov/dera/learn-about-impacts-diesel-exhaust-and-diesel-emissions-reduction-act-dera (accessed January 2024).

¹⁴ OEHHA. 2001. *Health Effects of Diesel Exhaust*. May 21. Website: oehha.ca.gov/air/health-effects-diesel-exhaust (accessed January 2024).

¹⁵ City of Cathedral City. 2019. *City of Cathedral City General Plan Draft Environmental Impact Report*. July 15.

assumes that there would be 70 trains per day. Additionally, as the emissions from freight trains are greater than those from passenger trains, it was assumed for this analysis that all 70 trains are freight trains.

United States emission standards for railway locomotives apply to newly manufactured as well as remanufactured railroad locomotives and locomotive engines fueled by diesel and by other fuels (e.g., natural gas). The standards have been adopted by the EPA in two major regulatory steps:

- **Tier 0-2 Standards:** The first emissions regulation for railroad locomotives was adopted in December 1997. The rulemaking, which became effective from 2000, applied to locomotives originally manufactured from 1973 any time they were manufactured or remanufactured.
- **Tier 3-4 Standards:** A regulation signed in March 2008 introduced more stringent emissions requirements. Tier 3 standards became effective from 2011–2012. Tier 4 standards, which were originally intended to require exhaust gas aftertreatment technologies, became effective from 2015. The 2008 regulation also includes more stringent emissions standards for remanufactured Tier 0-2 locomotives.

There is no information available describing the tier level of the trains passing the project site. For this analysis, it was assumed that no trains would be Tier 0 or 1, 75 percent of the trains would be Tier 2, no trains would be Tier 3, and 25 percent of the trains would be Tier 4. This is considered a reasonable mix of older and newer engines. It was also assumed the train engines would average 1,064 horsepower (hp) with a speed of 70 mph.

Toxic Air Contaminant Air Dispersion Modeling

In order to assess the impact of TAC emissions on residents who would live at the proposed project, air dispersion modeling was performed using AERMOD. The model is provided by the EPA to estimate the pollutant concentrations associated with emissions sources in simple and complex terrain. The model was used to calculate the annual average and short-duration (e.g., 1-hour) TAC concentrations associated with emissions sources surrounding the project. Details of these inputs are shown in Appendix A.

A series of volume sources were used to represent passing trains. Vertical (σ_z) dispersion parameters were developed by approximating mixing zone residence time and quantifying the initial vertical term as described in the EPA guidance.

The model requires additional input parameters, including local meteorology. Due to the model's sensitivity to individual parameters (e.g., wind speed, temperature, and direction), the EPA recommends meteorological data used as input into dispersion models be selected on the basis of relative spatial and temporal conditions that exist in the area of concern. As such, 5 years of meteorological data from SCAQMD's Palm Springs Airport Monitoring Station (the nearest available station) was used to represent local weather conditions and prevailing winds. Figure 3 above shows the graphical representation of the wind patterns.

Hotspots Analysis and Reporting Program Modeling

CARB's HARP2 model is a tool that assists with the programmatic requirements of the Air Toxics "Hot Spots" Program (AB 2588). HARP2 was used to translate the TAC concentrations from AERMOD into long-term carcinogenic and chronic, and short-term acute health risk levels following the guidance in the SCAQMD and OEHHA risk assessment guidelines. These guidelines specify a minimum set of TAC pathways and HARP2 modeling options for the carcinogenic assessment. To estimate chronic noncancer risks at residential receptors, the "RMP-(Risk Management Policy) Derived Method" risk-calculation option was used. Following the OEHHA guidance, an 8-hour chronic noncancer risk was calculated for residential receptors because the project would operate more than 8 hours per day and 5 days per week.

The dose-response relationship for a specific pollutant describes the association between exposure and the observed response (health effect). In other words, the relationship estimates how different levels of exposure to a pollutant change the likelihood and severity of health effects. The dose-response relationship (the response occurring with increasing doses) varies with each pollutant, individual sensitivity, and type of health effect. Combining the results of the emission characterization and dispersion modeling described above with the dose-response assessment gives an estimate of the increased health risk for an individual exposed to the maximum predicted long-term concentrations of TACs.

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were default rates as presented in the OEHHA guidance document entitled *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*¹⁶ and guidance from SCAQMD.

¹⁶ OEHHA. 2015. op cit.

HEALTH RISK IMPACTS

The following section describes the potential impacts on future sensitive receptors living at the project site from trains on the adjacent Union Pacific Railroad line. The HRA analysis and results are presented in Table A below. Data outputs are included in Appendix A and model snapshots are included in Appendix B.

Table A: Health Risks from Train Activity to Future Receptors – 2024 Activity

Location	Carcinogenic Inhalation Health Risk in 1 Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index
Maximally Exposed Resident	9.30	0.003	0.000
SCAQMD Significance Threshold	10.0 in 1 million	1.0	1.0
Significant?	No	No	No

Source: Compiled by LSA (February 2024).

SCAQMD = South Coast Air Quality Management District

CARCINOGENIC AND CHRONIC IMPACTS

Exposure to TACs from train exhaust can result in immediate health effects. According to the EPA's *Learn About Impacts of Diesel Exhaust and the Diesel Emissions Reduction Act (DERA)* website¹⁷, exposure to diesel exhaust can lead to serious health conditions like asthma and respiratory illnesses and can worsen existing heart and lung disease, especially in children and the elderly. According to the CARB's *Overview: Diesel Exhaust & Health* website¹⁸, in 2012, additional studies on the cancer-causing potential of diesel exhaust published since CARB's determination led the International Agency for Research on Cancer (IARC, a division of the World Health Organization) to list diesel engine exhaust as "carcinogenic to humans".

The results for carcinogenic and chronic impacts are shown in Table A. The resident carcinogenic risk shown applies to a resident living at the project site for 30 years. Results of the analysis indicate that the MEI inhalation cancer risk from train activity would be 9.30, which would be less than the threshold of 10 in 1 million.

The maximum chronic hazard index would be 0.003, which is also below the threshold of 1.0.

ACUTE EMISSION IMPACT

The acute hazard index is the ratio of the average short-term (generally 1-hour) ambient concentration of an acutely toxic substance(s) divided by the acute reference exposure level set by the OEHHA. This ratio is repeated for every acutely toxic substance, and all are summed to derive

¹⁷ United States Environmental Protection Agency (EPA). n.d. *Learn About Impacts of Diesel Exhaust and the Diesel Emissions Reduction Act (DERA)*. Website: www.epa.gov/dera/learn-about-impacts-diesel-exhaust-and-diesel-emissions-reduction-act-dera (accessed January 2024).

¹⁸ California Air Resources Board (CARB). n.d.-e. *Overview: Diesel Exhaust & Health*. Website: www.arb.ca.gov/resources/overview-diesel-exhaust-and-health (accessed January 2024).

the overall acute hazard index. If this acute hazard index is above 1, then adverse health effects may occur. Using the modeling methods described above for the project, Table A shows the maximum acute health risks to future residents of the proposed project.

As shown in Table A, for future residents of the project site, the maximum acute HI would be nominal (0.000), below the threshold of 1.0 since diesel exhaust does not have an Acute Reference Exposure Level (REL). Therefore, the potential for acute exposure would not be significant.

FUTURE HEALTH RISK IMPACTS

As stated in the Methodology section above, improvements over the last 40 years to diesel fuel and diesel engines have resulted in lower emissions of some of these TACs.¹⁹ These improvements resulted in a 75 percent reduction in particle emissions from diesel-powered trucks and other equipment in 2010 and an 85 percent reduction by 2020 compared to 2000 levels.²⁰ These improvements are anticipated to continue into the foreseeable future. As such, Table B shows the results of the analysis assuming EPA train emission factors in 2040. As shown in Table B, by 2040, health risks to the future residents would be lower.

Table B: Health Risks from Train Activity to Future Receptors – 2040 Activity

Location	Carcinogenic Inhalation Health Risk in 1 Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index
Maximally Exposed Resident	2.19	0.001	0.000
SCAQMD Significance Threshold	10.0 in 1 million	1.0	1.0
Significant?	No	No	No

Source: Compiled by LSA (February 2024).

SCAQMD = South Coast Air Quality Management District

As shown in Table B, the maximum inhalation cancer risk would be 2.19 in 1 million, which would be below the SCAQMD risk threshold of 10 in 1 million. The total chronic hazard index would be 0.001, which would not exceed the SCAQMD threshold of 1.0. In addition, the total acute hazard index would be nominal (0.000), which would also not exceed the SCAQMD threshold of 1.0.

¹⁹ United States Environmental Protection Agency (EPA). n.d. *Learn About Impacts of Diesel Exhaust and the Diesel Emissions Reduction Act (DERA)*. Website: www.epa.gov/dera/learn-about-impacts-diesel-exhaust-and-diesel-emissions-reduction-act-dera (accessed January 2024).

²⁰ OEHHA. 2001. *Health Effects of Diesel Exhaust*. May 21. Website: oehha.ca.gov/air/health-effects-diesel-exhaust (accessed January 2024).

CONCLUSION

The HRA results estimate a risk that does not exceed the SCAQMD criteria for cancer or acute health risks. As noted in the Methodology section, this analysis assumes the resident would be outdoors for the 30-year exposure period. Actual health risk would be much lower with time spent indoors, as standard heating, ventilation, and air conditioning (HVAC) systems would remove approximately 80 percent of the pollutants when the system is running and windows are closed, resulting in a similar reduction in risk. Therefore, future residents of the project site would not be exposed to substantial pollutant concentrations that would cause harmful effects. As such, future residents of the proposed project would not be exposed to any significant health risk level.

APPENDIX A

EMISSION FACTORS FOR TRAINS AND HEALTH RISK ASSESSMENT EMISSION RATES

2024 Activity (70/Day)

Operational Sensitive Receptor			
Parameter	HARP Rec #	X & Y Coordinate	Result
30 Yr Cancer Risk (in a Million) - 2024	3569	548252.01	9.30
		3746491.5	
Chronic HI	3569	548252.01	3.14E-03
		3746491.5	
Acute HI	0	0	0.00E+00
		0	
PM 2.5	3569	548252.01	0.0157
		3746491.5	

2040 Activity (70/Day)

Operational Sensitive Receptor			
Parameter	HARP Rec #	X & Y Coordinate	Result
30 Yr Cancer Risk (in a Million) - 2040	3569	548252.01	2.19
		3746491.5	
Chronic HI	3569	548252.01	7.40E-04
		3746491.5	
Acute HI	0	0	0.00E+00
		0	
PM 2.5	3569	548252.01	0.0037
		3746491.5	

General AERMOD Input Parameters			
Project Boundary			
Based on site plan			
Project Elevation Data			
	Source	Lakes Environmental	
	Link	http://www.webgis.com/terraindata.html	
	Evel Data Descr.	7.5 min	
Project Receptor Grid			
	Telescoping Grid	Spacing (m)	Distance (m)
	Grid 1	10	ALL
	Grid 2		
	Grid 3		
	Grid 4		
	Comments	Receptors on roads or parking lot areas have been removed.	
Meteorological Dataset			
	Location	Palm Springs Arpt.	
	Provided By	South Coast AQMD	
	Years	2012 - 2016	
	Elevation (m)	125	
	Link	https://www.aqmd.gov/docs/default-source/air-quality/meteorological-data/aermod-ready-meteorological-data/table-1-meteorological-sites/2017/PalmSpringsAirportADJU.zip?sfvrsn=7	
Operational Modeling Specific Inputs			
AERMOD Input Options			
	Regulatory Options	Default	
	Pollutant Type	Other	
	Averaging Period	Period / Hourly	
	Dispersion Coefficient	Rural	
	Urban Grouping / Pop	N	0
	# Worker Receptors	0	
	# Sensitive Receptors	5151	
	# of School Receptors	0	
Train Travel Parameters			
	Source Type	Line Volume	
	Initial Vertical (m)	1.42	
	Initial Lateral (m)	2.84	
	Release Ht (m)	Surface	
	Volume Length (m)	Rail Segment Specific	

General HARP Input Parameters		
Construction		
Sensitive Receptors		
Sensitive Scenario Parameters		
	Starting Age	3 rd Trimester
	Age Range	30 year
	Receptor Type	Individual Resident
	Assessment Type	Cancer / Chronic / Acute
	Exposure Duration	1
	Intake Rate	RMP using the Derived Method
	Comments	
Sensitive Pathway Parameters		
	Pathways	SCAQMD Mandatory Minimum Pathways
	Deposition Rate	0.02
	TAH < 16 yrs	Y
	TAH ≥ 16 yrs	Y

Specific Train Data									
Line Haul Engine TIER	Engine Horse Power	Speed	Distance Traveled (m)	Time / Trip (Hrs)	Trains / Day	Days / Week	Weeks/Year	Times / Week	Emissions (lbs / Year)
Uncontrolled	0	70	1609	0.014	40	7	52	280	0.00
tier 0	0	70	1609	0.014	40	7	52	280	0.00
tier 0+	0	70	1609	0.014	40	7	52	280	0.00
tier 1	0	70	1609	0.014	40	7	52	280	0.00
tier 1+	0	70	1609	0.014	40	7	52	280	0.00
tier2	0	70	1609	0.014	40	7	52	280	0.00
tier 2+ & tier 3	0	70	1609	0.014	40	7	52	280	0.00
tier 4	0	70	1609	0.014	40	7	52	280	0.00

Year	EF g/bhp-hr	Engine Horse Power	Speed	Distance Traveled (m)	Time / Trip (Hrs)	Trains / Day	Days / Week	Weeks / Year	Times / Week	Model Adjustment	Emissions (lbs / Year)
2024											
Large Line Haul	0.08	1064	70	2465	0.022	70	7	52	490	0.5	53.45
Large Switch	0.23	0	70	1609	0.014	0	0	52	0	0	0.00
Small Railroads	0.29	0	70	1609	0.014	0	0	52	0	0	0.00
Passenger/ Commuter	0.07	686	70	2465	0.022	0	7	52	0	0	0.00
Overall Average	0.17	0	70	1609	0.014	0	0	52	0	0	0.00

0.5 53.45 47.92252 1.115442 9.30 10.36926

Year	EF g/bhp-hr	Engine Horse Power	Speed	Distance Traveled (m)	Time / Trip (Hrs)	Trains / Day	Days / Week	Weeks / Year	Times / Week	Model Adjustment	Emissions (lbs / Year)
2040											
Large Line Haul	0.02	1064	70	2465	0.022	70	7	52	490	0.5	12.58
Large Switch	0.08	0	70	1609	0.014	0	0	52	0	0	0.00
Small Railroads	0.23	0	70	1609	0.014	0	0	52	0	0	0.00
Passenger/ Commuter	0.01	686	70	2465	0.022	0	7	52	0	0	0.00
Overall Average	0.09	0	70	1609	0.014	0	0	52	0	0	0.00

0.5 12.58

Table 1 - Line-Haul Emission Factors (g/bhp-hr)		g/Gal			Table 3 Conversion Factors (bhp-hr/gal)		Table 6 – PM10 Emission Factors (g/gal)						(g/bhp-hr)				
	PM10 (g/bhp-hr)	large line-Haul and Passenger	small line-Haul	switching	locomotive application	Conversion Factor (bhp-hr/gal)	Calendar Year	Large Line Haul	Large Switch	Small Railroads	Passenger/Commuter	Overall Average	Large Line Haul	Large Switch	Small Railroads	Passenger/Commuter	Overall Average
Uncontrolled	0.32	6.656	5.824	4.864	large line-Haul and Passenger	20.8	2006	6.4	6.5	6.5	6.5	6.4	0.31	0.43	0.36	0.31	0.35
tier 0	0.32	6.656	5.824	4.864	small line-Haul	18.2	2007	6.3	6.5	6.5	6.4	6.3	0.30	0.43	0.36	0.31	0.35
tier 0+	0.2	4.16	3.64	3.04	switching	15.2	2008	5.1	5.5	5.7	5.1	5.1	0.25	0.36	0.31	0.25	0.29
tier 1	0.32	6.656	5.824	4.864			2009	4.9	5.5	5.7	5	4.9	0.24	0.36	0.31	0.24	0.29
tier 1+	0.2	4.16	3.64	3.04			2010	4.7	5.4	5.7	4.8	4.7	0.23	0.36	0.31	0.23	0.28
tier2	0.18	3.744	3.276	2.736			2011	4.4	5.3	5.7	4.5	4.5	0.21	0.35	0.31	0.22	0.27
tier 2+ & tier 3	0.08	1.664	1.456	1.216			2012	4.1	5.1	5.7	4.2	4.2	0.20	0.34	0.31	0.20	0.26
tier 4	0.015	0.312	0.273	0.228			2013	3.8	5	5.6	3.9	3.9	0.18	0.33	0.31	0.19	0.25
							2014	3.6	4.8	5.6	3.6	3.7	0.17	0.32	0.31	0.17	0.24
							2015	3.4	4.8	5.5	3.4	3.5	0.16	0.32	0.30	0.16	0.24
							2016	3.1	4.6	5.5	3.1	3.3	0.15	0.30	0.30	0.15	0.23
							2017	2.9	4.5	5.4	2.8	3	0.14	0.30	0.30	0.13	0.22
							2018	2.7	4.4	5.4	2.6	2.8	0.13	0.29	0.30	0.13	0.21
							2019	2.5	4.4	5.4	2.3	2.6	0.12	0.29	0.30	0.11	0.20
							2020	2.3	4.1	5.3	2.1	2.5	0.11	0.27	0.29	0.10	0.19
							2021	2.2	4	5.3	2	2.4	0.11	0.26	0.29	0.10	0.19
							2022	2	3.9	5.3	1.8	2.2	0.10	0.26	0.29	0.09	0.18
							2023	1.9	3.7	5.2	1.7	2.1	0.09	0.24	0.29	0.08	0.18
							2024	1.7	3.5	5.2	1.5	1.9	0.08	0.23	0.29	0.07	0.17
							2025	1.6	3.2	5.1	1.4	1.8	0.08	0.21	0.28	0.07	0.16
							2026	1.5	3.1	5.1	1.2	1.6	0.07	0.20	0.28	0.06	0.15
							2027	1.4	3	5.1	1.1	1.5	0.07	0.20	0.28	0.05	0.15
							2028	1.3	2.8	5	1	1.4	0.06	0.18	0.27	0.05	0.14
							2029	1.1	2.7	5	0.9	1.3	0.05	0.18	0.27	0.04	0.14
							2030	1	2.5	4.9	0.8	1.2	0.05	0.16	0.27	0.04	0.13
							2031	1	2.4	4.8	0.7	1.1	0.05	0.16	0.26	0.03	0.13
							2032	0.9	2.2	4.8	0.7	1	0.04	0.14	0.26	0.03	0.12
							2033	0.8	2.1	4.7	0.6	0.9	0.04	0.14	0.26	0.03	0.12
							2034	0.7	1.9	4.6	0.6	0.9	0.03	0.13	0.25	0.03	0.11
							2035	0.7	1.7	4.6	0.5	0.8	0.03	0.11	0.25	0.02	0.11
							2036	0.6	1.6	4.5	0.5	0.7	0.03	0.11	0.25	0.02	0.10
							2037	0.6	1.5	4.4	0.4	0.7	0.03	0.10	0.24	0.02	0.10
							2038	0.5	1.4	4.4	0.4	0.6	0.02	0.09	0.24	0.02	0.09
							2039	0.5	1.3	4.3	0.4	0.6	0.02	0.09	0.24	0.02	0.09
							2040	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2041	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2042	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2043	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2044	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2045	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2046	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2047	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2048	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2049	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2050	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2051	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2052	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2053	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2054	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2055	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2056	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2057	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2058	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2059	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2060	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2061	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2062	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2063	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2064	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2065	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2066	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2067	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2068	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2069	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2070	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2071	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2072	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2073	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2074	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2075	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2076	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2077	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2078	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2079	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2080	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09
							2081	0.4	1.2	4.2	0.3	0.5	0.02	0.08	0.23	0.01	0.09

APPENDIX B

HRA MODEL SNAPSHOTS

[illegible]

Receptor Grid



Cancer Risk – 2024



[illegible]

Chronic Hazard Index – 2040

