

**Initial Study and Notice of Intent to Adopt a Mitigated Negative Declaration
for
Tower Energy
Avenue 50 and Calhoun Street**



Lead Agency:

City of Coachella

Development Services Department

1515 Sixth Street

Coachella, CA 92236

Applicant:

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May 16, 2016

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Acronyms Used in the Initial Study

| | |
|--------------------|--|
| AQMP | Air Quality Management Plan |
| BMPs | Best Management Practices |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| CARB | California Air Resources Board |
| CCAA | California Clean Air Act |
| CEQA | California Environmental Quality Act |
| CH ₄ | Methane |
| CMP | Congestion Management Plan |
| CNEL | Community Noise Equivalent Level |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO ₂ EQ | carbon dioxide equivalent |
| dBA | A-weighted decibel |
| DPM | Diesel Particulate Matter |
| GHG | Greenhouse Gasses |
| EPA | Environmental Protection Agency |
| GWP | Global Warming Potential |
| HAPs | Hazardous Air Pollutants |
| HCR | hydrofluorocarbons |
| H ₂ S | Hydrogen Sulfide |
| IRC | International Residential Code (IRC) |
| LCFS | Low Carbon Fuel Standard |
| LOS | Level of Service |
| LST | Localized Significance Threshold |

| | |
|-------------------|--|
| Mgd | million gallons per day |
| MMT | million metric tons |
| MND | Mitigated Negative Declaration |
| MRZ | Mineral Resources Zone |
| MS4 | Municipal Separate Storm Sewer Systems |
| msl | mean sea level |
| N ₂ O | nitrous oxides |
| NAAQS | National ambient air quality standards |
| NAASQ | National Ambient Air Quality Standards |
| NO _x | nitrogen oxides |
| NOI | Notice of Intent |
| NPDES | National Pollutant Discharge Elimination System |
| OAQPS | EPA Office of Air Quality Planning and Standards |
| O ₃ | ozone |
| Pb | lead |
| PFC | perfluorocarbons |
| PM _{2.5} | particulate matter equal to or less than 2.5 microns in diameter |
| PM ₁₀ | particulate matter equal to or less than 10 microns in diameter |
| RAQS | Regional Air Quality Strategy |
| RCPG | Regional Comprehensive Plan and Guide |
| RHNA | Regional Housing Allocation Needs |
| ROG | Reactive Organic Gasses |
| RWQCB | Regional Water Quality Control Board |
| SCAG | Southern California Association of Governments |
| SCAQMD | Southern California Air Quality Management District |
| SF ₆ | sulfuR hexafluoride |
| SIP | State Implementation Plan |
| SO _x | Sulfur oxides |

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| SPA | Specific Plan Area |
| SSAB | Salton Sea Air Basin |
| SWPPP | Stormwater Pollution Prevention Plan |
| TACs | Toxic Air Contaminants |
| $\mu\text{g}/\text{m}^3$ | micrograms per cubic meter |
| USEPA | US Environmental Protection Agency |
| VMT | Vehicle Miles Traveled |
| VOC | Volatile Organic Compounds |
| WQMP | Water Quality Management Plan |

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Chapter 1 Introduction

1.1 Overview

Tower Energy is proposing to subdivide an approximately 20-acre parcel (net 19.57 acres) into four lots consisting of three commercial lots totaling approximately five acres and one lot for the development of 115 dwelling units on approximately 14.50 acres. The project site (APN 612-280-018) is located at the northwest corner of Avenue 50 and Calhoun Street in the City of Coachella, in Riverside County.

The project site is a vacant former agricultural site surrounded by residential development with intermittent vacant parcels zoned for residential use. Over time, the site has been sparsely revegetated with some ruderal (weed) vegetation.

Tower Energy is requesting approval of the following procedural entitlements with the City of Coachella:

- Tentative Tract Map 37088 to subdivide the property into 4 parcels and furthermore to subdivide Parcel 4 into 115 residential lots.
- Change of Zone from R-S to C-N-PD for the commercial portion of the site
- Change of Zone from R-S to R-M-PD (Residential Medium Planned Development) for the residential portion of the site
- Conditional Use Permit 267 for Service Station in the C-N-PD.
- Conditional Use Permit 268 for Residential Planned Development Overlay Zone
- Mitigated Negative Declaration for the project

1.1.1 Project Site History

The project site has been the subject of three separate proposals including the current Tower Energy proposal. The following is a brief overview:

- Historically the site was utilized as agricultural land. Agricultural use on the site declined in the 1990s and by 2004, there was no longer any evidence of agricultural growth (Appendix E, *Environmental Site Assessment*). The lot has remained vacant.
- In 2013, Tower Energy Group proposed to build a 240-unit apartment complex and a mini-mart/service station on-site that required a general plan amendment and a change of zone. At the time, the project was withdrawn because the City planned for the site to be community commercial space and did not want residential development onsite.
- The project was sold to LADCO in 2013, and in 2015, LADCO proposed a general plan amendment, change of zone, and Tentative Tract Map (TTM No. 36680) to develop a 115-lot residential

subdivision and commercial site. The residential component was to include courtyard-style homes, community landscaped areas, a community park, and a clubhouse with a pool. The applicant opted to sell the project site and associated entitlements to Tower Energy Group (the current land owner).

- Tower Energy Group submitted the above referenced applications to develop the 115-lot residential development and a 5-acre commercial site that are being analyzed in this Initial Study.

1.2 Authority

The City of Coachella is the lead agency for the proposed Tower Energy project. Because the aforementioned entitlements are all discretionary actions, the project is subject to the California Environmental Quality Act (CEQA). This Initial Study has been prepared in accordance with CEQA (Statute) and the State’s Guidelines for Implementation of CEQA (Guidelines) (as amended, 2015); and the City of Coachella’s CEQA Guidelines for preparation of an Initial Study. This Initial Study, when combined with the Notice of Intent to Adopt a Mitigated Negative Declaration serves as the environmental document for the proposed project pursuant to the provisions of CEQA (Public Resources Code 21000 et seq.) and the CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Other agencies may also issue permits including the State Water Resources Control Board for the issuance of a Waste Discharge Identification Number (WDID) for the Stormwater Pollution Prevention Plan (SWPPP) for each phase of the project. A summary of discretionary actions is included in Chapter 2, *Project Description*.

1.3 Scope of Environmental Review

The Initial Study evaluates the proposed project’s potential environmental effects on the following topics:

| | |
|-------------------------------|-----------------------------|
| • Aesthetics | • Land Use/Planning |
| • Agricultural Resources | • Mineral Resources |
| • Air Quality | • Noise |
| • Biological Resources | • Population/Housing |
| • Cultural Resources | • Public Services |
| • Geology and Soils | • Recreation |
| • Greenhouse Gas Emissions | • Transportation/Traffic |
| • Hazards/Hazardous Materials | • Utilities/Service Systems |
| • Hydrology/Water Quality | |

1.4 Impact Assessment Terminology

The Environmental Checklist identifies impacts using four levels of significance as follows:

- No Impact. A finding of no impact is made when it is clear from the analysis that the project would not affect the environment.
- Less than significant. A finding of less than significant is made when it is clear from the analysis that a project would cause no substantial adverse change in the environment and no mitigation is required.
- Less than significant with mitigation incorporated. A finding of less than significant with mitigation incorporated is made when it is clear from the analysis that a project would cause no substantial adverse change in the environment when mitigation measures are successfully implemented by the project proponent.
- Potentially Significant. A finding of potentially significant is made when the analysis concludes that the proposed project could have a substantially adverse impact on the environment related to one or more of the topics listed in the previous section, *Scope of the Initial Study*.

1.5 Organization of the Initial Study

The content and format of the Initial Study meet the requirements of CEQA. The Initial Study contains the following sections:

- Chapter 1 Introduction. This chapter provides a brief summary of the proposed project, identifies the lead agency, summarizes the purpose and scope of the Initial Study, and provides a discussion of the impact terminology used to assess potential environmental impacts of the proposed project.
- Chapter 2 Project Description. This chapter provides a project overview including a description of the regional location and project vicinity, including exhibits; summarizes Tower Energy's decision to move forward with the proposed project; and provides a description of the project elements, i.e. dimensions of the project, area of disturbance, schedule for completion, etc.
- Chapter 3 Environmental Evaluation. This chapter provides a copy of the City's Environmental Checklist, revised to include the latest amendments to the CEQA Guidelines Appendix G, and responses to each question posed in the checklist. This chapter also provides a brief description of existing conditions for each topic and an analysis of potential environmental impacts. Mitigation measures are also identified where necessary.
- Chapter 4 Report Preparers. This chapter lists all reports used, websites accessed, and persons consulted to prepare the Initial Study.
- Chapter 5 References. This chapter identifies City of Coachella staff, consultants, and other individuals who were responsible for the preparation of the IS and implementation of the project.

1.6 Documents Incorporated by Reference

As allowed by CEQA Guidelines Section 15150, a Mitigated Negative Declaration may incorporate by reference all or portions of another document that is generally available to the public. The document used must be available for public review for interested parties to access during public review of the Initial Study and Notice of Intent to Adopt a Mitigated Negative Declaration for this proposed project. The City of Coachella's General Plan and the City's Municipal Code were used in the evaluation of the proposed project. These documents are available at the Development Services Department, located at 1515 Sixth Street. Public hours are between 7:00 am and 6:00 pm, Monday through Thursday.

The findings of the Initial Study were also based on field observations and reports prepared for the proposed project. These reports are included in the Appendices to the Initial Study.

Chapter 2 Project Description

2.1 Project Location

The City of Coachella is located on the easterly end of the Coachella Valley in Riverside County. Exhibit 1, *Regional Location*, shows the location of project within the larger Coachella Valley. As shown in Exhibit 2, *Project Site and Vicinity*, the project site is located at the northwest corner of Avenue 50 and Calhoun Street within a largely residential area. Exhibit 3, *Photo Locations*, provides an aerial view of the project site and vicinity; photos taken from these locations follow Exhibit 3. As seen in the aerial photo and project photos, the site is a vacant disturbed site.

The project site (APN 612-280-018) is a vacant former agricultural site located on the northwest corner of Avenue 50 and Calhoun Street and is surrounded by residential development with intermittent vacant parcels zoned for residential use. Over time, the site has been sparsely revegetated with some ruderal (weed) vegetation.

The 20-acre project site is located at northwest corner of Avenue 50 and Calhoun Street, addressed as 82266 Avenue 50. After required street dedications on Calhoun Street and Avenue 50, the site will be 19.57 acres. The project site is further defined as a portion of the southwest quarter of Section 36, Township 5 South, Range 7 East of the Indio 7.5 minute quad. Finally, the site is located at approximately Latitude 33°41' 11.40" North and Longitude 116° 12' 35.54" West at the approximate geographic center of the site.

2.2 General Plan and Zoning Designation

The current General Plan designation is Neighborhood Center. The existing General Plan Designation is shown in Exhibit 4, *Existing General Plan Designations*. The Neighborhood Center designation allows for a concentration of commercial businesses and civic amenities, mixed with multi-family housing, within convenient walking distance of nearby neighborhoods.

The existing Zoning Designation for the site, shown in Exhibit 5, *Existing and Proposed Zoning Designations* is Residential Single Family (R-S). The applicant is proposing a change of zone to allow the proposed uses on the project site.

2.3 Project Description

The applicant, Tower Energy, is seeking a number of entitlements in order to develop an approximately 20-acre site into two separate projects, an approximately 5-acre commercial plaza at the northeast

corner of Avenue 50 and Calhoun Street, and an approximately 15-acre residential subdivision. Exhibit 6, *Site Plan* shows the layout of the proposed residential and commercial elements.

Tentative Tract Map 37088

Tentative Tract Map (TTM) 37088 would create four lots. Lots 1 through 3 would contain a 5-acre commercial site to be located in the southeast portion of the project site at the corner of Avenue 50 and Calhoun Street. Lot 4 is the residential element of the project as shown in Exhibit 6. Exhibit 7, *Landscape Plan* shows the proposed landscape theme for the project.

Change of Zone

Commercial Area

The applicant is pursuing a Change of Zone from R-S (Residential Single Family) ~~from~~ to Neighborhood Commercial-Planned Development (C-N-PD) to accommodate development of three commercial lots, the Tower Energy Market and Fueling Station (Lot 1) and two additional commercial pads (Lots 2 and 3). The commercial portion of the project is illustrated in relation to the residential portion of the project in Exhibit 6. The Commercial portion will include the following:

- Lot 1 is a 1.37-acre lot containing a 5,200 square foot market, a 5,076 square foot fuel station area with a canopy structure, and 23 parking spaces in front of the market.
- Lot 2 is a 1.12-acre lot containing a 9,750 square foot commercial building on the southwest side of the property and 42 parking spaces around the east and north sides of the building.
- Lot 3 is a 2.58-acre lot containing a 20,000 square foot building on the north side of the commercial property to be used as a professional office and/or retail, and 94 parking spaces around the south and west side of the building.

Exhibit 8, *Market Elevations*, Exhibit 9, *North Commercial Elevations*, and Exhibit 10, *West Commercial Elevations*, show the architecture of the proposed commercial elements. Access to the commercial site will be from Avenue 50 and Calhoun Street and will be separate from the access drives into the residential neighborhood.

Residential Area

Lot 4 will require a Change of Zone from R-S to R-M-PD (Residential Medium-Planned Development) establishing a Planned Development Overlay Zone to allow the development of 115 dwelling units and related uses (roads, 4 retention basins, open space, and a park site). Existing and proposed zoning designations are shown in Exhibit 5. The maximum residential lot size within Lot 4 will be 3,789 square feet and the minimum lot size will be 2,373; with an average lot size of 2,668.

2. PROJECT DESCRIPTION

The interior roads will be developed at 40 feet along the main road, and 32 feet wide for other interior roads. Residences will include parking spaces in garages/driveways. A total of 89 guest parking spaces will be available on both sides of the 40-foot wide streets, on one side of the 32-foot wide streets, 6 parking spaces along the north side of the retention basin referred to as Lot AB, and 10 parking spaces along the north side Lot 3 (north commercial site). Exhibit 11, *Typical Housing Mix*, Exhibit 12, *A Residence Elevations* and Exhibit 13, *B Residence Elevations* show the architecture of the proposed residential elements.

Access to the residential portion of the site will be from one entrance on Avenue 50, west of the commercial site, and a second entrance on Calhoun Street, north of the commercial site. Access to the residential area will not be gated.

Conditional Use Permits

Both the residential and commercial components require a Conditional Use Permit (CUP). CUP 267 would allow a Service Station use within the R-M-PD zoning area. CUP 268 would allow residential uses in the R-M-PD zoning area.

Surrounding Land uses and setting:

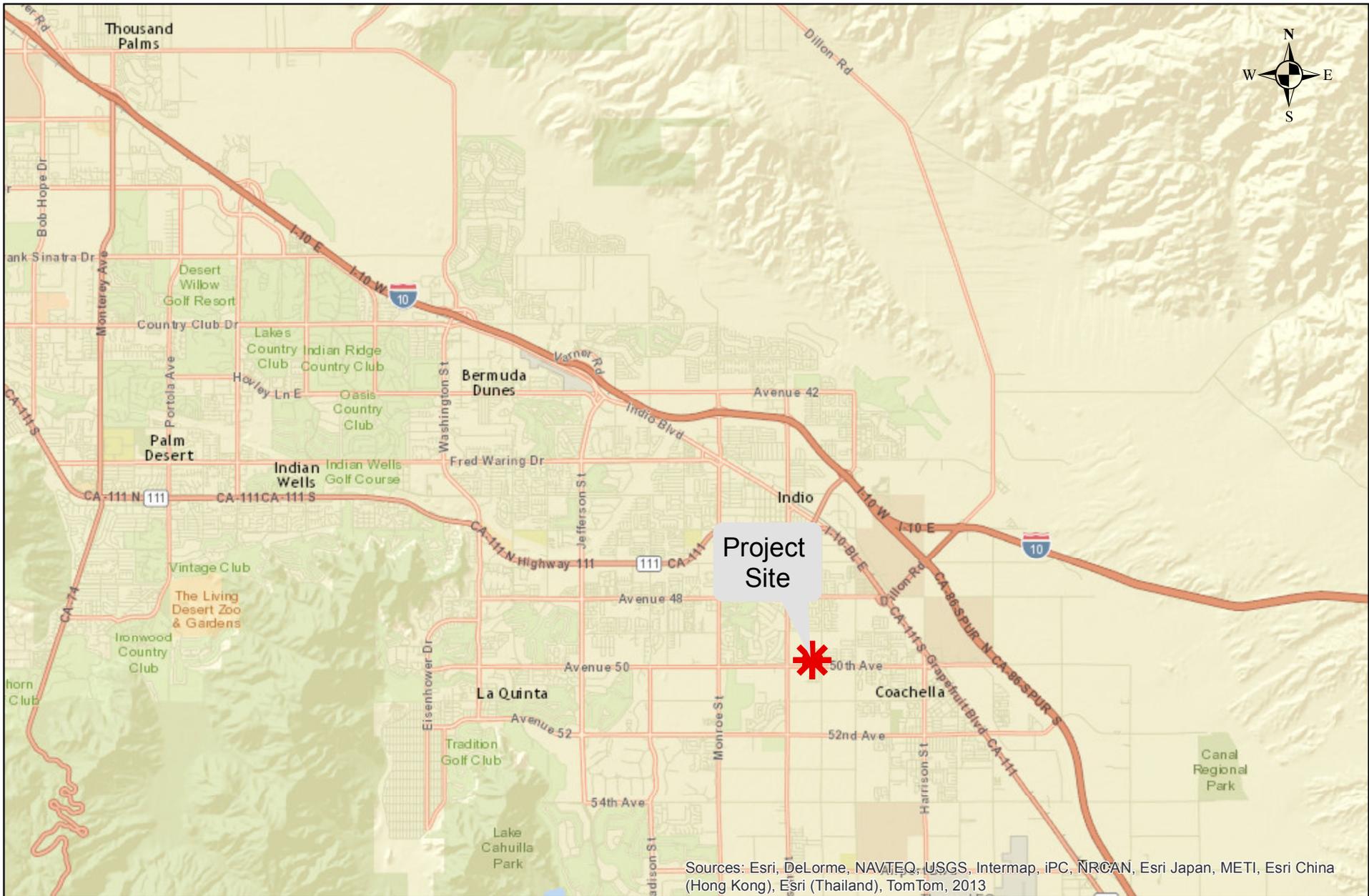
| | |
|---------------|--|
| North of site | Las Plumas (Residential Single Family) |
| South of site | La Colonia (Residential Single Family); vacant land zoned R-M |
| East of site | Bella Canto (Residential Single Family) |
| West of site | Church on Medium Density Residential land in the City of Indio |

Other public agencies whose approval is required:

| Agency | Permit/Approval Required |
|--|---|
| FEDERAL | |
| No Federal Agency identified | |
| STATE | |
| State Water Resources Control Board | Construction Stormwater General Permit Notice of Intent to Comply with Section 402 of the Clean Water Act Construction Stormwater Pollution Prevention Plan (SWPPP) |
| REGIONAL | |
| South Coast Air Quality Management District (SCAQMD) | Permit to Construct and Permit to Operate a Fuel Storage and Dispensing Station PM-10 Plan for compliance with Rule 403.1, Dust Control in the Coachella Valley |
| Regional Water Quality Control Board | Water Quality Management Plan |

2. PROJECT DESCRIPTION

| | |
|--|---|
| Coachella Valley Association of Governments (CVAG) | Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) (Payment of fees); Transportation Uniform Mitigation Fee (TUMF) |
| LOCAL | |
| County of Riverside Fire Department | Approval of a Hazardous Materials Business Plan Permit to Construct/Operate underground storage tanks |



1 inch = 2 miles



Regional Location Tower Energy Project Initial Study

Exhibit
1

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1 inch = 1,200 feet



Project Site and Vicinity Tower Energy Project Initial Study

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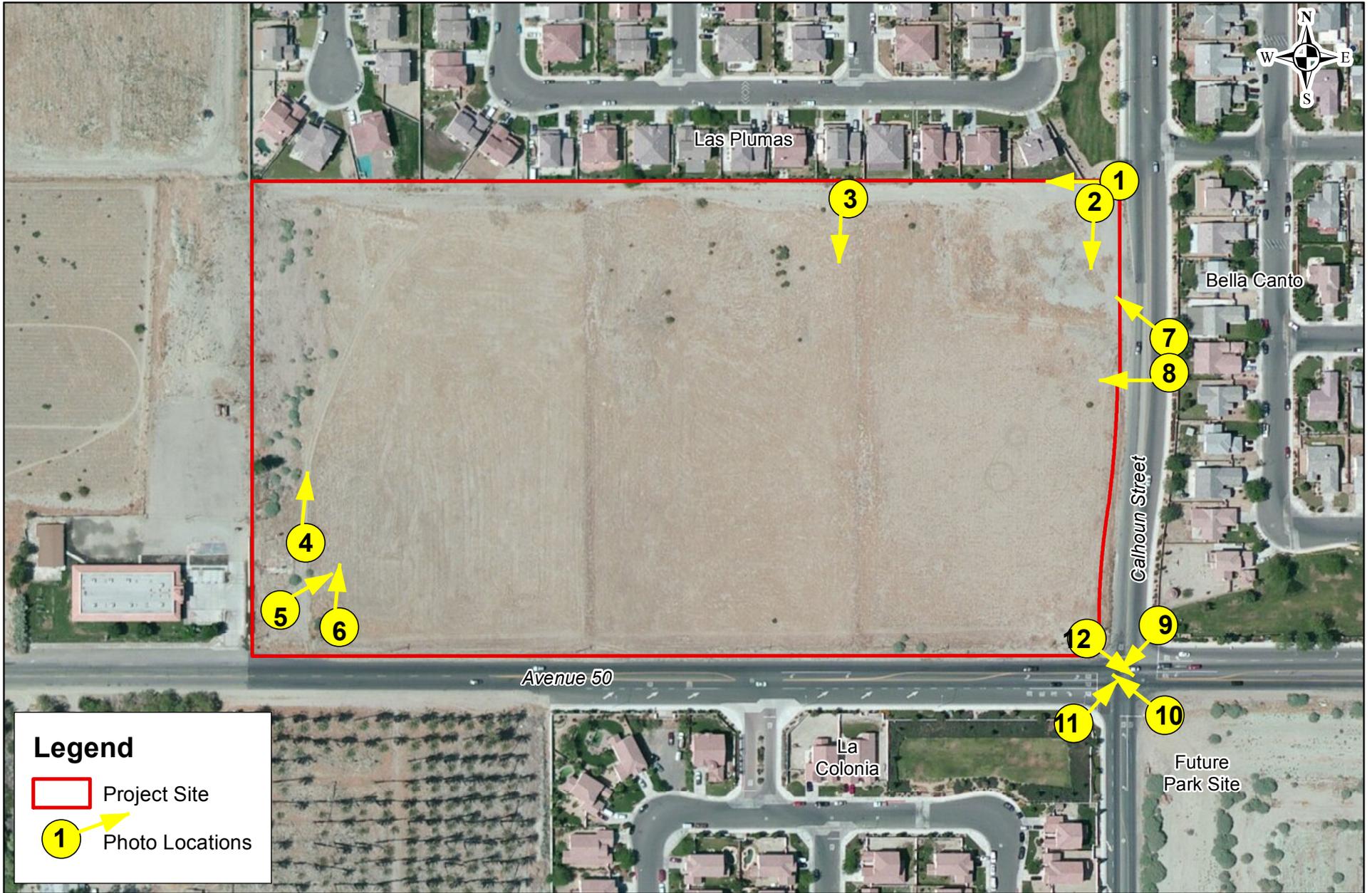


Photo Locations
Tower Energy Project Initial Study

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Photo 1:
View to
the west
along
the northern
boundary
of the
project site



Photo 2:
View to the
south along
the eastern
boundary
of the
project site



Photo 3:
View of the
project site
facing south



Photo 4:
View of the
project site
facing north
along the
western
property
boundary



Source: Site Visit, 2015

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Photo 5:
View of the
project site
facing
northeast



Photo 6:
View to the
north
along the
western
boundary of
the project
site



Photo 7:
View of the
project site
facing west



Photo 8:
Homes in the
Las Plumas
community
to the
north of the
project site



Source: Site Visit, 2015



Site Photos

Tower Energy Project Initial Study

Photos
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Photo 9:
View of the
La Colonia
community
south of
Avenue 50
south of the
project site



Photo 10:
View of the
project site
facing
northwest



Photo 11:
View of the
Bella Canto
community
east of the
project site



Photo 12:
View of
vacant land
southeast of
the project
site



Source: Site Visit, 2015

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48th Ave.

50th Ave.

52nd Ave.

54th Ave.

Project Site

10

111

1

2

3

4

1

Legend

-  Coachella City Limits
-  Tribal Land
-  Sphere of Influence
-  General Plan Planning Area

Land Use Designation

- | | | |
|--|---|---|
|  Downtown Center |  Industrial District |  Open Space |
|  Urban Employment Center |  Urban Neighborhood |  School |
|  Neighborhood Center |  General Neighborhood |  Public Facilities |
|  Regional Retail District |  Suburban Neighborhood | |
|  Suburban Retail District | | |

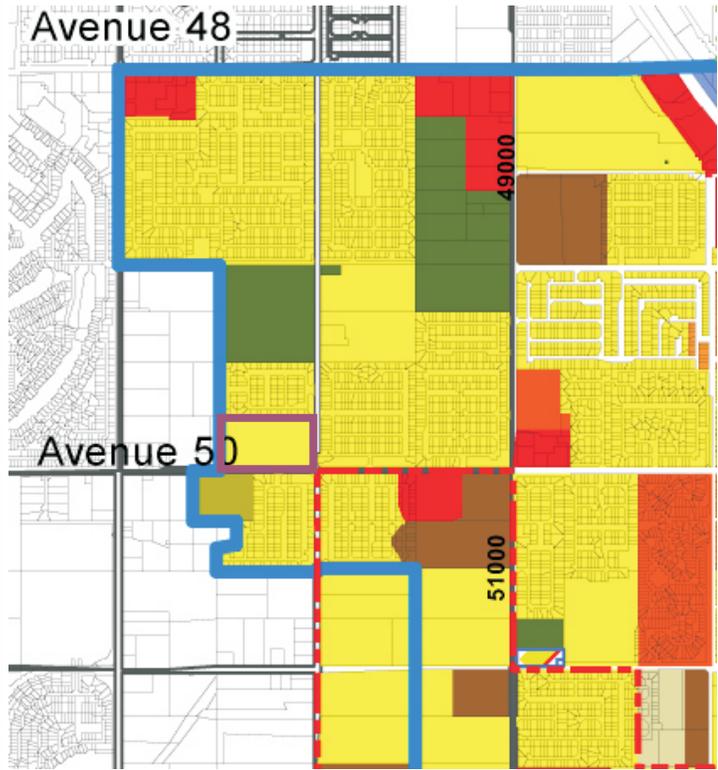
Sources: City of Coachella General Plan Update 2035



General Plan Designations Tower Energy Project Initial Study

Exhibit
4

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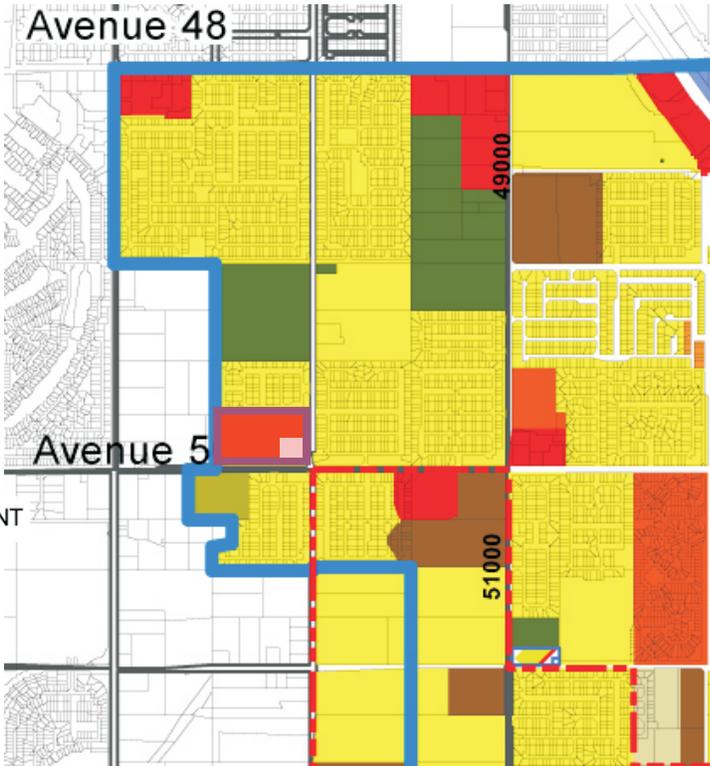


Existing Zoning Designations

- A-T, AGRICULTURAL TRANSITION
- C-G, GENERAL COMMERCIAL
- R-E, RESIDENTIAL ESTATE
- R-S, RESIDENTIAL SINGLE FAMILY
- R-M, RESIDENTIAL MULTIPLE FAMILY
- R-M-4300, RESIDENTIAL MULTIPLE FAMILY, 4300
- R-O-6000, RESIDENTIAL OVERLAY 6000
- R-PUD, RESIDENTIAL PLANNED UNIT DEVELOPMENT
- Specific Plan Boundary
- City Boundary
- Project Site



- Proposed Zoning Designations
- A-T, AGRICULTURAL TRANSITION
 - C-G, GENERAL COMMERCIAL
 - C-N, NEIGHBORHOOD COMMERCIAL
 - R-E, RESIDENTIAL ESTATE
 - R-S, RESIDENTIAL SINGLE FAMILY
 - R-M, RESIDENTIAL MULTIPLE FAMILY
 - R-M-4300, RESIDENTIAL MULTIPLE FAMILY, 4300
 - R-O-6000, RESIDENTIAL OVERLAY 6000
 - R-PUD, RESIDENTIAL PLANNED UNIT DEVELOPMENT
 - Specific Plan Boundary
 - City Boundary
 - Project Site



Sources: City of Coachella Zoning Map, 2013



Existing and Proposed Zoning Designations
Tower Energy Project Initial Study

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Source: Fullerton Architects, 2016

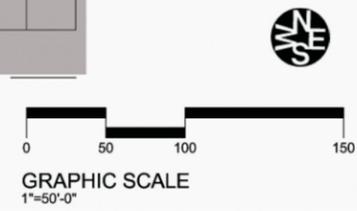


Site Plan
Tower Energy Project Initial Study

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PLANT MATERIAL LEGEND

| TREES AND PALMS | | | LARGE SHRUBS | | | MEDIUM SHRUBS | | | GROUND COVERS | | | ACCENTS | | | AGAVES AND YUCCAS | | | INERT MATERIALS | | | |
|-----------------|---------------------------|---------|-------------------------------|------|-------------------------------|---------------|--|------|-------------------------------|--------|---|-------------------------------------|--------|------|-------------------------|---------|------|-------------------------------|---------|-------------|---|
| SYM. | NAME | SIZE | COMMENTS | SYM. | NAME | SIZE | | SYM. | NAME | SIZE | | SYM. | NAME | SIZE | | SYM. | NAME | SIZE | SYM. | DESCRIPTION | |
| ● | Acacia salicina | 24" Box | Standard | ● | Cassia nemophylla | 5 gal. | | ● | Leucophyllum laevigatum | 5 gal. | ● | Coriaria grandiflora 'Green Carpet' | 5 gal. | ● | Agave americana | 15 gal. | ● | Agave americana | 15 gal. | ● | BOULDERS TO BE 'CRESTA' |
| ● | Acacia aneraia | 24" Box | Multi-Branching Specimen Tree | ● | Desert Cassia | 5 gal. | | ● | Gilifloshan Sage | 5 gal. | ● | Green Carpet Notol Plum | 5 gal. | ● | Agave attenuata | 5 gal. | ● | Agave attenuata | 5 gal. | ● | ALL PLANTER AREAS TO RECEIVE 'DESERT GOLD' DECOMPOSED GRANITE (DG) 3/8" MINUS WITH 1/8" FINES MAXIMUM. DG TO BE COMPACTED TO A 2" DEPTH AFTER BEING THOROUGHLY WETTED AND EITHER ROLLED OR TAMPED. |
| ● | Cercidium 'Desert Museum' | 24" Box | Standard | ● | Nerium Oleander 'Petite Pink' | 5 gal. | | ● | Russelia equisetiformis | 5 gal. | ● | Diosia capitata Sierra Gold | 5 gal. | ● | Forsytia | 15 gal. | ● | Agave american var. marginata | 15 gal. | ● | ROUND COBBLE TO BE 4"-6" 'SANTA FE COBBLE' TO MATCH DG. COBBLE TO BE HAND BROADCASTED OVER DG AS DIRECTED BY LANDSCAPE ARCHITECT. |
| ● | Prosopis glandulosa | 24" Box | Standard | ● | Dwarf Oleander | 5 gal. | | ● | Corall Fountain | 5 gal. | ● | Gold Daisies | 5 gal. | ● | Verigated Century Plant | 5 gal. | ● | Agave Colorado | 5 gal. | ● | IRRIGATION SYSTEM: THE IRRIGATION SYSTEM SHALL BE FULLY AUTOMATIC AND CONTROLLED BY A EVAPOTRANSPIRATION (ET) BASED CONTROLLER WITH A RAIN SENSING OVERSRIE DEVICE. ALL SHRUBS WILL IRRIGATED WITH WATER EFFICIENT DRIP EMITTERS AND ALL TREE HEADS WILL HAVE AUTOMATIC CHECK VALVES TO PREVENT WATER RUN-OFF. |
| ● | Quercus virginiana | 24" Box | Standard | ● | Tecoma stans angustata | 5 gal. | | ● | Ruellia pentularis | 5 gal. | ● | Trailing Purple' | 5 gal. | ● | Mescal Cactus | 5 gal. | ● | Agave desertiana | 5 gal. | ● | |
| ● | Parkinsonia aculeata | 24" Box | Standard | ● | Yellow Bells | 5 gal. | | ● | Purple Ruella | 5 gal. | ● | Trailing Lantana | 5 gal. | ● | Agave | 5 gal. | ● | Agave | 5 gal. | ● | |
| ● | Rhus lancea | 24" Box | Standard | | | | | ● | Salvia greggii 'Sierra Linda' | 5 gal. | ● | Lantana montevidensis 'New Gold' | 5 gal. | ● | Agave | 5 gal. | ● | Agave | 5 gal. | ● | |
| ● | Washingtonia Hybrid | 20" BTH | | | | | | ● | Sierra Linda Sage | 5 gal. | ● | Gold Mound Lantana | 5 gal. | ● | Agave | 5 gal. | ● | Agave | 5 gal. | ● | |
| ● | Phoenix Dactylifera | 20" BTH | | | | | | ● | Mexican Bush Sage | 5 gal. | ● | | | ● | Yucca recurvifolia | 5 gal. | ● | Yucca | 5 gal. | ● | |
| | | | | | | | | | | | | | | ● | Pendulous Yucca | 5 gal. | ● | | | | |



Source: Fullerton Architects, 2016



Landscape Plan
Tower Energy Project Initial Study

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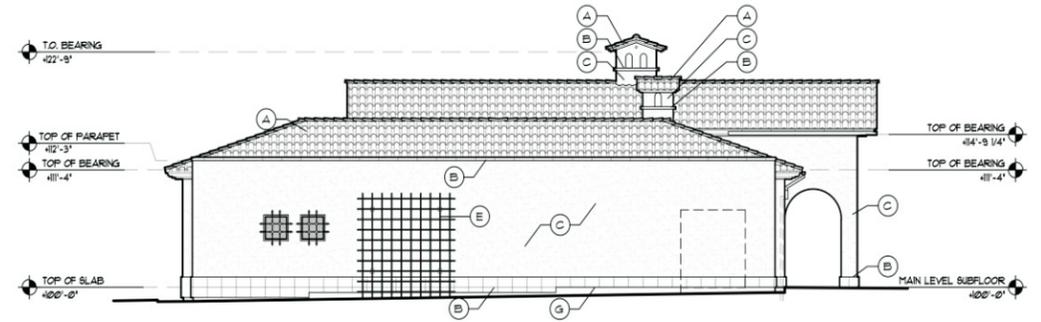
CHARACTER SKETCH



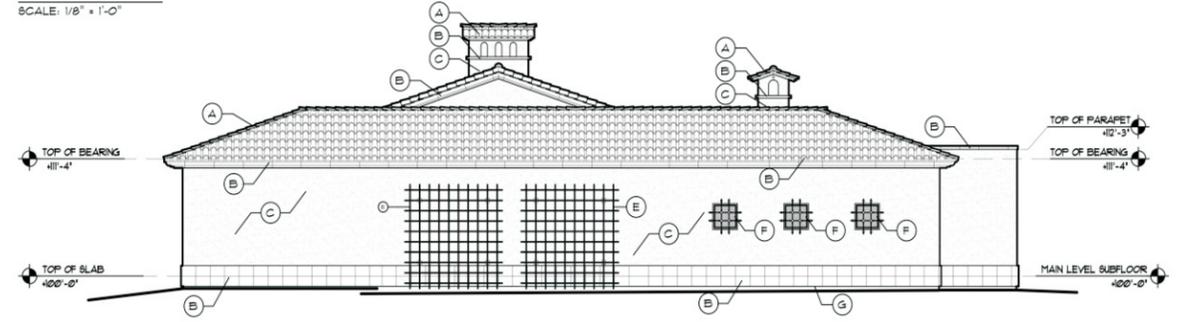
FLOOR PLAN
SCALE: 1/8" = 1'-0"

Source: Fullerton Architects, 2016

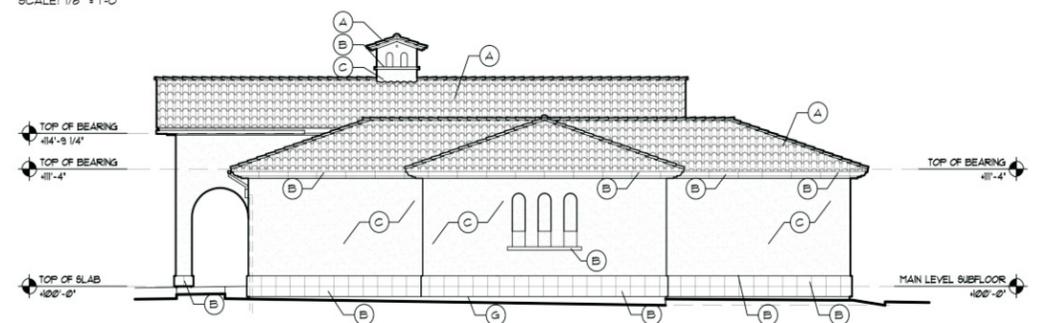
| EXTERIOR FINISH SCHEDULE | |
|--------------------------|--|
| (A) | REDLAND, TWO-PIECE CLAY, FOUR COLOR BLEND - COLOR SANDCAST, MEDIUM MORTAR, 20% BOOST RANDOM SET HORIZONTAL AS WELL AS VERTICAL |
| (B) | PRE-CAST COLORED CONCRETE |
| (C) | PAINTED EXTERIOR 3 COAT CEMENT PLASTER |
| (D) | HOLLOW METAL DOOR PAINTED TO MATCH WALL |
| (E) | METAL TRELLIS |
| (F) | HAMMERED IRON WORK |
| (G) | 26-GAUGE MINIMUM GALVANIZED UEEP SCREED |



NORTH ELEVATION
SCALE: 1/8" = 1'-0"



EAST ELEVATION
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



WEST ELEVATION
SCALE: 1/8" = 1'-0"

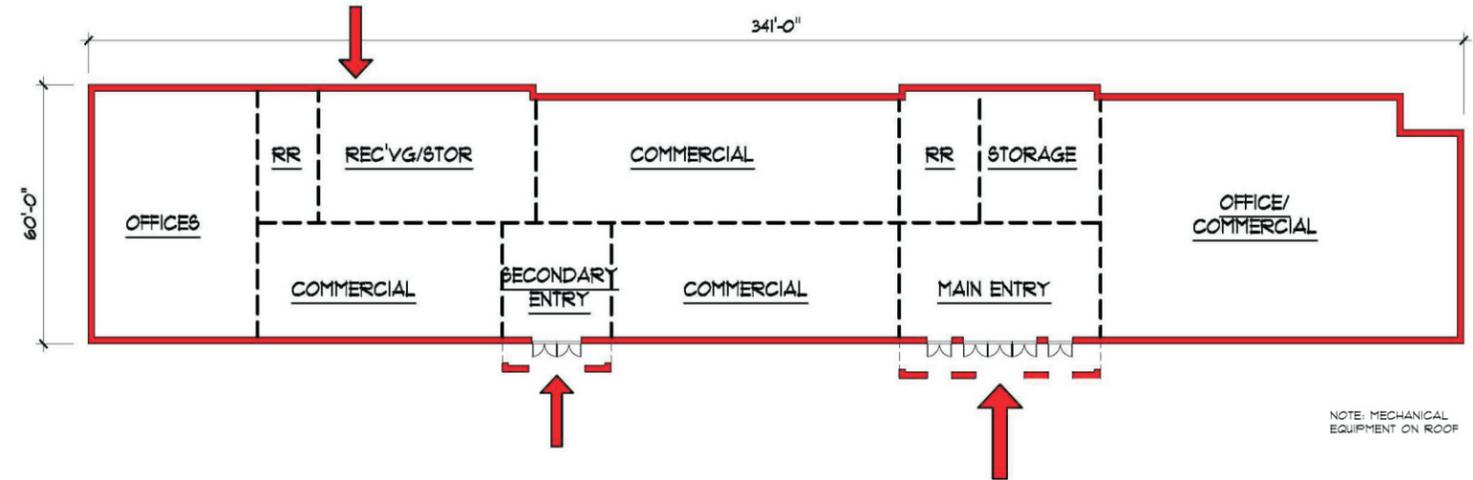


Market Elevations Tower Energy Project Initial Study

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CHARACTER SKETCH



FLOOR PLAN
SCALE: 1" = 20'



CHARACTER SKETCH



NORTH ELEVATION
SCALE: 1" = 20'



EAST ELEVATION
SCALE: 1" = 20'



WEST ELEVATION
SCALE: 1" = 20'



SOUTH ELEVATION
SCALE: 1" = 20'

Source: Fullerton Architects, 2016



North Commercial Elevations
Tower Energy Project Initial Study

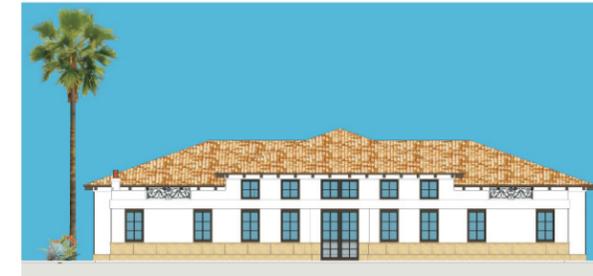
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CHARACTER SKETCH



NORTH ELEVATION
SCALE: 1/16" = 1'-0"



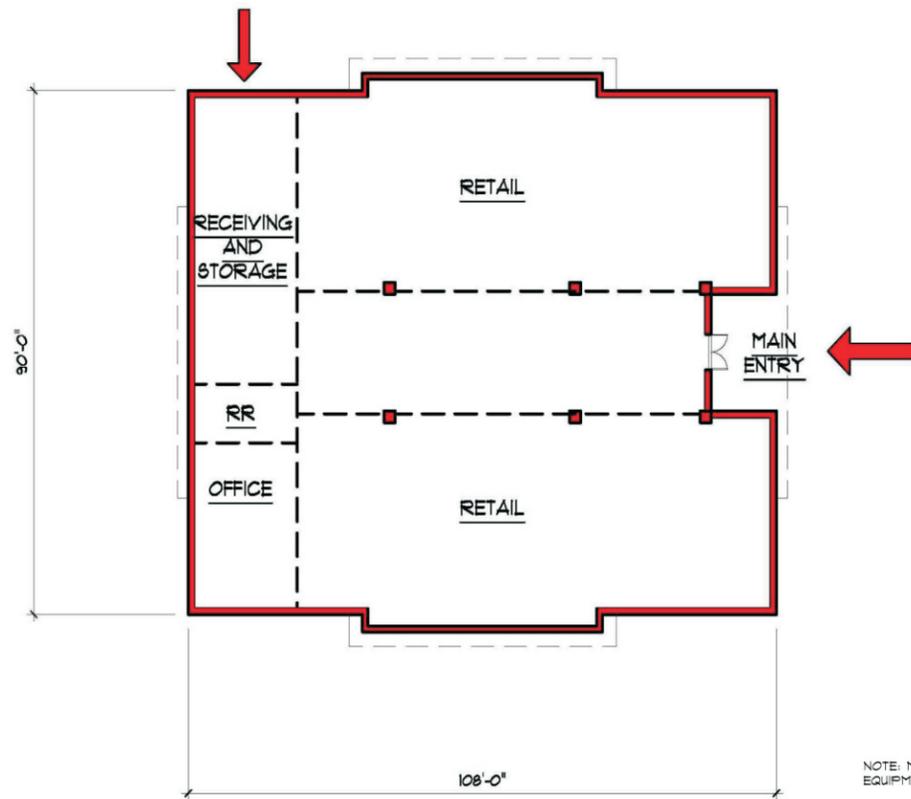
EAST ELEVATION
SCALE: 1/16" = 1'-0"



SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



WEST ELEVATION
SCALE: 1/16" = 1'-0"



FLOOR PLAN
SCALE: 1/16" = 1'-0"

NOTE: MECHANICAL EQUIPMENT ON ROOF

Source: Fullerton Architects, 2016



West Commercial Elevations
Tower Energy Project Initial Study

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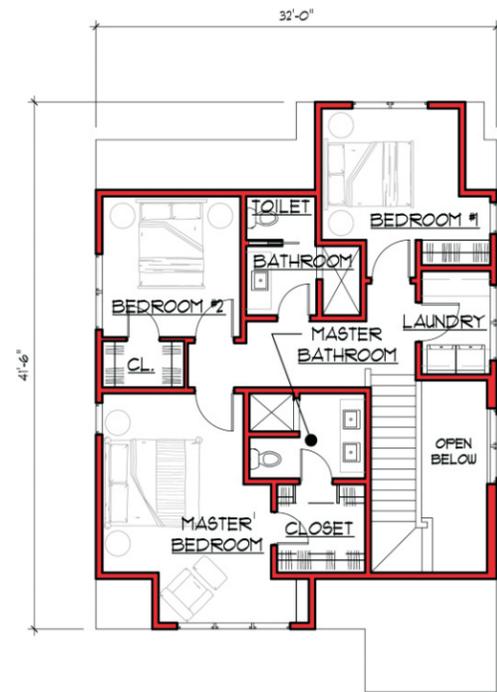


Source: Fullerton Architects, 2016

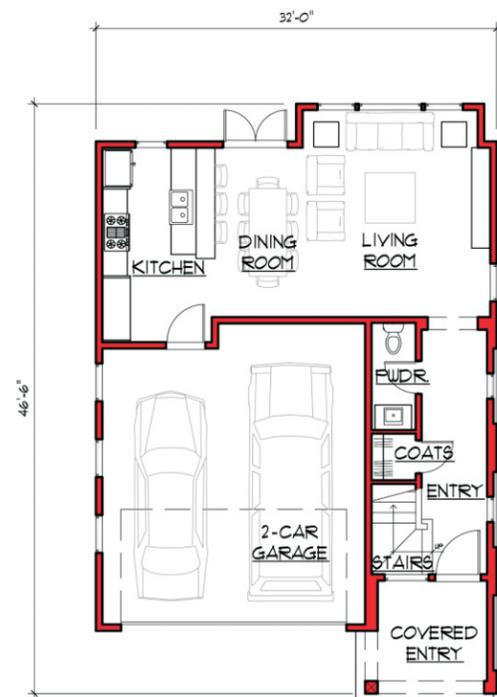


Typical Housing Mix
Tower Energy Project Initial Study

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A RESIDENCE UPPER FLOOR
SCALE: 1/8" = 1'-0"



A RESIDENCE MAIN FLOOR
SCALE: 1/8" = 1'-0"



A RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"



A RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"



A RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"



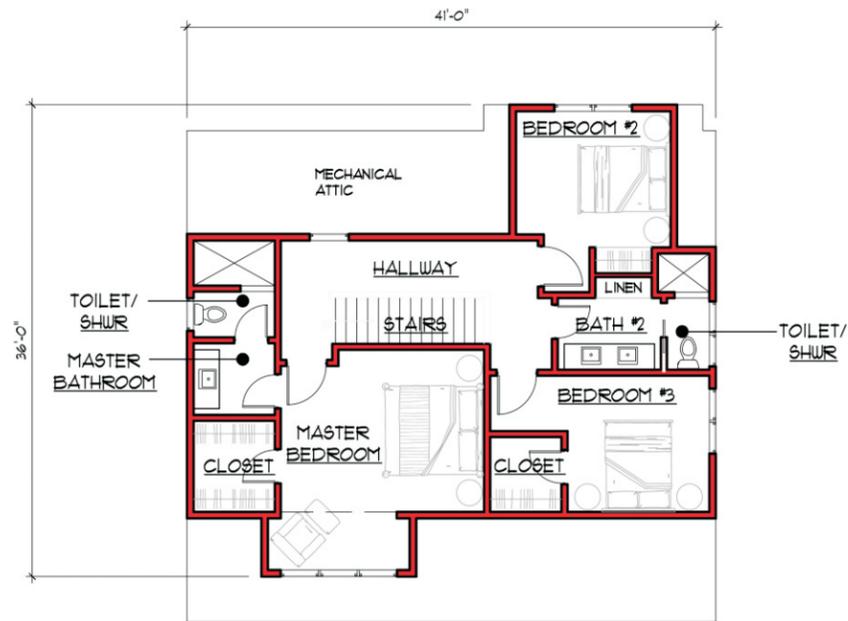
A RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"

Source: Fullerton Architects, 2016



A Residence Elevations
Tower Energy Project Initial Study

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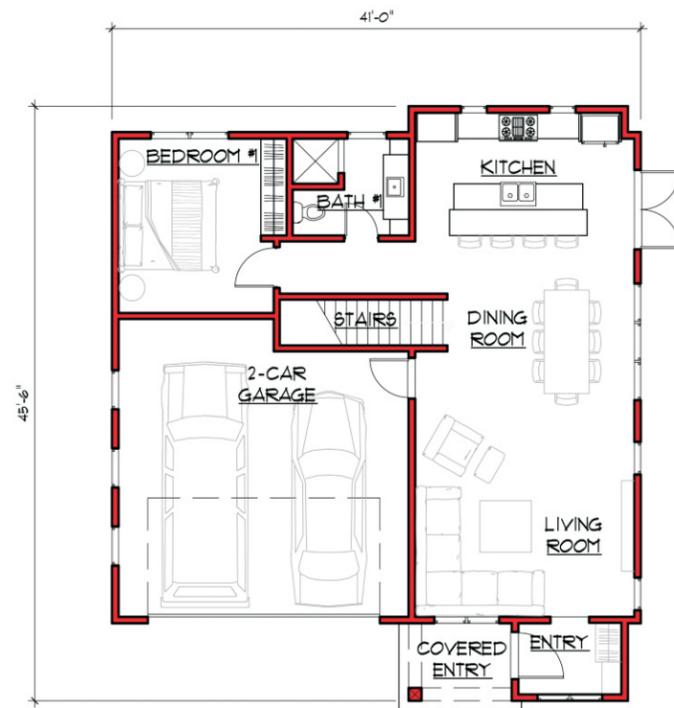
B RESIDENCE UPPER FLOOR
SCALE: 1/8" = 1'-0"



B RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"



B RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"



B RESIDENCE MAIN FLOOR
SCALE: 1/8" = 1'-0"



B RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"



B RESIDENCE ELEVATION
SCALE: 1/8" = 1'-0"

Source: Fullerton Architects, 2016



B Residence Elevations
Tower Energy Project Initial Study

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Chapter 3 Environmental Evaluation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as describe on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

3.1 Aesthetics

3.1.1 Sources

The following sources were utilized to support the conclusions made in this section:

- City of Coachella General Plan Update Existing Conditions Report, January 2015.

3.1.2 Environmental Setting

The project site is located in an area that is mostly developed with residential uses and is not located in an area with identified scenic resources or trees, rock outcroppings, or historic buildings and is not within a state scenic highway viewshed.

3.1.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| AESTHETICS – Would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-b) **Less Than Significant Impact.** The applicant is proposing to build a residential neighborhood with 115 lots, and a commercial plaza with a gas station, a market, and two additional commercial buildings on the northwest corner of Calhoun and Avenue 50. The residential project is similar to the surrounding residential neighborhoods in that it will be two stories (maximum 30 feet in height) in a residential area of one- and two-story homes. The project would serve many nearby residents with commercial uses.

3. ENVIRONMENTAL EVALUATION

Since there are no identified scenic resources in the area of the project, the proposed apartment complex and mini-mart does not have the potential to impact these resources. In addition, there are no identified scenic vistas or scenic highways in the area of the project. The commercial part of the project consists of a convenience store with fuel pumps to serve an existing residential area with no similar uses nearby. This use will not exceed 30 feet in height.

- c) **Less Than Significant Impact.** The existing visual character of the site itself is of a vacant site; there are no structures on site, the site is relatively flat, and there are no distinguishing features such as rock outcroppings or vegetation. The previously disturbed land is clear of natural resources that could be considered aesthetically pleasing. The surrounding areas are being utilized primarily for residential neighborhoods. The adjacent property to the west is developed with a church and parking lot, and other vacant land is nearby to the west located in the City of Indio. The proposed project is consistent and complementary with existing nearby uses in that the project will add new dwelling units and a commercial component where currently commercial uses are not available, but nevertheless it will change the existing visual character of the site. However, the change in the character of the site would be less than significant because the new residential development will provide landscaping and open space throughout the site to provide recreation uses for residents and break up the bulk of the project. In addition, the commercial uses are appropriate ancillary uses to residential uses especially in this neighborhood where no similar uses are located.

Regarding views from the existing neighborhood to the east, views of the mountains to the west from most of the residences are blocked by the existing row of 14 two story residences along the westerly boundary of that neighborhood. These residences, in turn have views of the mountains in the distance from second story windows that would be partially blocked by the proposed new residential neighborhood. Exhibit 14, *Typical Housing Site Section*, shows the relationship between existing and proposed residences. The views would be partially blocked because, although the new residences would also be two stories, the configuration of the lots includes driveways that would provide view corridors (see Exhibit 6). Exhibit 7 shows that the open space lots between residences would be landscaped to provide green space for the new residents but also provide a break between the new residences so existing residents to the east would have alternating views between residences and vegetation. However because some of the landscaping will be trees, views through the new neighborhood to the mountains would not be ensured. Because the proposed neighborhood would be of similar character as the existing neighborhood to the east, maintain some intermittent views of the mountains in the distance, and because the evaluation of views under CEQA is limited to public views of scenic resources from designated open space areas, roads, or parks this impact would be less than significant.

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3. ENVIRONMENTAL EVALUATION

- d) **Less Than Significant Impact.** The proposed project would introduce new sources of light and glare to the area. There will be safety lighting that will be utilized for the residential buildings and nighttime lighting will be installed for commercial area. It is important to note that the area surrounding the proposed project is mostly developed with residential uses that provide existing sources of light and glare. The proposed project will incrementally add to this existing light and glare on a small scale. The placement of the market and service station, and other future retail or small office space is proposed for the corner of the intersection of Calhoun and Avenue 50 in an area where street lighting already exists. It also is separated from the residential portion of the site by new dwelling units and a retention basin. This will isolate this source of light from the existing residential areas. The applicant will submit a lighting plan with the building plans for review and approval by City staff to ensure that new light and glare will be controlled and would not adversely impact adjacent existing residential uses. Placement of new two story dwelling units proximate to existing two story dwelling units would have a less than significant impact on the existing residents because the proposed new units would be placed on lots with a 7-foot rear yard setback, similar to the existing homes on the north that have varying rear yard setbacks (10 to 20 feet). Therefore, this impact would be less than significant.

3.1.4 Mitigation Measures

The applicant will be required to submit a lighting plan with the submittal of building plans for each element of the project showing where lighting will be located and how lighting will not spill over onto adjacent property, therefore no mitigation measures are necessary.

3.1.5 Level of Significance After Mitigation

Impacts on Aesthetics would be less than significant.

3.2 Agriculture and Forestry Resources

3.2.1 Sources

The following sources were utilized to support the conclusions made in this section:

- Riverside County Important Farmland 2010 map. California Department of Conservation website <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>, accessed June 2012.
- Williamson Act Lands for Riverside County 2008 map. California Department of Conservation website <http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx>, accessed June 2012.
- City of Coachella 2010 Zoning and General Plan Maps. City of Coachella website <http://coachella.org/DocumentCenter/Index/38>, accessed June 2012 and November 2015.

3. ENVIRONMENTAL EVALUATION

3.2.2 Environmental Setting

The project site is located in an area that is mostly developed with residential uses, with an existing church/parking lot located on the adjacent property to the west. According to Riverside County Important Farmland 2010 map, the site is designated as Farmland of Local Importance. Lands in this category have the potential to have soils that would be classified as lands of prime and statewide importance but lack available irrigation water; are lands producing major crops for Riverside County but that are not listed as unique crops; are dairy lands including corrals, pasture, milking facilities, hay and manure storage; are lands identified by city or county ordinance as agricultural zones or contracts; or are lands planted to jojoba which are under cultivation and are of producing age. The site is vacant and not currently being used for any type of agriculture and is not zoned for agricultural use. The site is not under a Williamson Act Contract as shown on the 2008 Williamson Act Lands map for Riverside County.

3.2.3 Impacts

| | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| AGRICULTURAL AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526) or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3. ENVIRONMENTAL EVALUATION

| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

- a) **No Impact.** Although this land is designated as Farmland of Local Importance in the Riverside County Important Farmland Map from 2010, the land has been designated for residential use on the Coachella General Plan Land Use Map. The environmental impacts of a residential land use designation for the project site were previously evaluated in the City’s General Plan Environmental Impact Report (EIR). The EIR concluded that the use of the project site and surrounding sites in this portion of the City would have a less than significant impact to farming and farmland. In addition, because the site has not been designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, there is no impact from the project on these types of farmland.
- b) **No Impact.** The project would not conflict with any agricultural zoning or Williamson Act contracts since the site is not zoned for agricultural use and is not under Williamson Act contract.
- c-d) **No Impact.** There are no forest lands on or near the site; therefore the project would not impact any forest or timberlands.
- e) **Less Than Significant Impact.** The conversion of the site from vacant land to residential and commercial uses will permanently remove the potential for the land to be farmed in the future. However, this change is consistent with the land use planned for the site in the General Plan. Therefore there is no impact.

3.2.4 Mitigation Measures

No mitigation measures are required.

3.2.5 Level of Significance After Mitigation

The project would have no impact on Agricultural and Forestry Resources.

3.3 Air Quality

3.3.1 Sources

The following source was utilized to support the conclusions made in this section.

- Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting.

3. ENVIRONMENTAL EVALUATION

- Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California, April 17, 2015, Ldn Consulting.

3.3.2 Environmental Setting

The project site is located in the Coachella Valley Planning Area of the Salton Sea Air Basin (SSAB). The project site is in the hottest and driest parts of California, with a climate is characterized by hot, dry summers and relatively mild winters. Rainfall is scant in all seasons, so differences between the seasons are characterized principally by differences in temperature. Average annual precipitation in the SSAB ranges from 2 to 6 inches per year. Seasonal temperature differences in the SSAB are large, confirming the absence of marine influences due to the blocking action of the mountains to the west. Average monthly maximum temperatures in the project vicinity range from 108°F in July to 57°F in January. The average monthly minimal temperature range is from about 40°F in January to about 80°F in July.

During much of the year, California is covered by a moderately intense high-pressure system. The Pacific High is well developed to the west of California, and a thermal trough overlies the SSAB. The intensity and orientation of the trough varies from day to day. Although the rugged mountainous country prevents a normal circulation, the influence of this trough does permit some inter-basin exchange with coastal locations through the passes. Summer is also the season with occasional moisture influx from the Gulf of Mexico or California which causes isolated thundershowers and flash flooding (the summer "monsoon"). Fall is the transition period from the hot summer back to the season of frontal activity, but it is still very dry and temperatures are still mild.

Desert regions tend to be windy, since little friction is generated between the moving air and the low, sparse vegetation cover. In addition, the rapid daytime heating of the lower air over the desert leads to strong convection activity. This exchange of lower and upper air accelerates surface winds during the warm part of the day when convection is at a maximum. During winter, however, the rapid cooling in the surface layers at night retards this exchange of momentum, and the result is often a high frequency of nearly calm winds, especially at night.

During all seasons, the prevailing wind direction is predominantly from the west to east. The Banning Pass is an area where air is squeezed through a narrow opening with accelerated airflow that supports wind farms. The strong winds also occasionally lead to blowing sand that sandblasts painted surfaces and makes driving unsafe. As the west to east winds fan out into the Coachella Valley, they slow down quickly. By the time the onshore flow reaches the project site, it has again returned to its normal speed.

The mixing depth (i.e., the height available for dispersion of airborne pollutants emitted near the surface) is limited by the occurrence of temperature inversions. A temperature inversion is a layer of air in which the temperature increases with height. The temperature inversion conditions of the SSAB are quite different from those of the coastal regions of California. In coastal environments, warm, subsiding air aloft creates a lid above the shallow marine layer at the surface. The base of this subsidence inversion is

3. ENVIRONMENTAL EVALUATION

perhaps 1,500 feet above the surface in coastal portions of the Los Angeles Basin. When a subsidence inversion exists over the desert, the height of the inversion base lies some 6,000 to 8,000 feet above the surface. Nighttime surface inversions in the desert are common, especially during the cooler months. Mixing heights are predominantly 1,000 feet or less. These inversions are caused by nighttime radiation cooling of the land surface in contact with overlying air that cools more slowly. They tend to be destroyed early in the day in summer, due to intense solar radiation and heating of the land surface. In winter, however, these radiation inversions tend to persist until mid-morning, limiting mixing in the lower atmosphere to heights of 200 to 2000 feet above the surface. Nuisance air quality problems in the Coachella Valley, such as dust near mining operations or odors near feedlots or wastewater plants, occur mainly late at night or early in the morning when such radiation inversions are strongest.

Regional Air Quality

The project site is located in the Coachella Valley region of Riverside County and is part of the Salton Sea Air Basin (SSAB) which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

Federal Standards and Definitions

The federal Clean Air Act (CAA) provides the basis for the national air pollution control effort. An important element of the act includes the development of national ambient air quality standards (NAAQS) for major air pollutants. The CAA established two types of air quality standards otherwise known as primary and secondary standards. Primary standards set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. Secondary standards set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The US Environmental Protection Agency (USEPA) has set National Ambient Air Quality Standards (NAAQS) for principal pollutants, which are called "criteria" pollutants. These are defined as follows:

1. *Carbon Monoxide (CO)*: is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.
2. *Lead (Pb)*: is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming

3. ENVIRONMENTAL EVALUATION

systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.

3. *Nitrogen Dioxide (NO₂)*: is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO₂ is usually visible as a reddish-brown air layer over urban areas. NO₂ along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.
4. *Particulate Matter (PM₁₀ or PM_{2.5})*: is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM₁₀ particles are 10 microns (µm) or less and PM_{2.5} particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.
5. *Ozone (O₃)*: is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.
6. *Sulfur Dioxide (SO₂)*: is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO₂ is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO₂ exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO₂ results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.

3. ENVIRONMENTAL EVALUATION

State Standards and Definitions

The State of California Air Resources Board (CARB) sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS and also restrict four additional contaminants. Table 1, *Ambient Air Quality Standards* identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. *Visibility Reducing Particles*: Particles in the Air that obstruct the visibility.
2. *Sulfates*: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.
3. *Hydrogen Sulfide (H₂S)*: is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H₂S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H₂S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death.
4. *Vinyl Chloride*: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).

Agency Oversight

Environmental Protection Agency

The USEPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives.

State Implementation Plan

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas for criteria pollutants to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

CARB also administers CAAQS, the State standards, for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six criteria air pollutants – Ozone, Nitrogen dioxide (NO₂), Lead (Pb), PM₁₀, PM_{2.5}, and Sulfur dioxide (SO₂), as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

3. ENVIRONMENTAL EVALUATION

Attainment Status

The USEPA and CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the 3-year average of the annual average PM_{2.5} concentration is less than or equal to the standard. The current attainment designations for the Salton Sea Air Basin are shown below in Table 2, *Salton Sea Air Basin Attainment Status by Pollutant*.

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Table 1 Federal and State Ambient Air Quality Standards

| Ambient Air Quality Standards | | | | | | |
|--|----------------------------|---------------------------------------|---|--|--------------------------------------|--|
| Pollutant | Average Time | California Standards ¹ | | Federal Standards ² | | |
| | | Concentration ³ | Method ⁴ | Primary ^{3,5} | Secondary ^{3,6} | Method ⁷ |
| Ozone (O ₃) ⁸ | 1 Hour | 0.09 ppm (180 µg/m ³) | Ultraviolet Photometry | - | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m ³) | | 0.070 ppm (137 µg/m ³) | | |
| Respirable Particulate Matter (PM ₁₀) ⁹ | 24 Hour | 50 µg/m ³ | Gravimetric or Beta Attenuation | 150 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m ³ | | - | | |
| Fine Particulate Matter (PM _{2.5}) ⁹ | 24 Hour | No Separate State Standard | | 35 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m ³ | Gravimetric or Beta Attenuation | 12.0 µg/m ³ | 15 µg/m ³ | |
| Carbon Monoxide (CO) | 8 hour | 9.0 ppm (10mg/m ³) | Non-Dispersive Infrared Photometry (NDIR) | 9 ppm (10 mg/m ³) | - | Non-Dispersive Infrared Photometry |
| | 1 hour | 20 ppm (23 mg/m ³) | | 35 ppm (40 mg/m ³) | | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m ³) | | - | | |
| Nitrogen Dioxide (NO ₂) ¹⁰ | Annual Arithmetic Mean | 0.030 ppm (57 µg/m ³) | Gas Phase Chemiluminescence | 0.053 ppm (100 µg/m ³) ⁸ | Same as Primary Standard | Gas Phase Chemiluminescence |
| | 1 Hour | 0.18 ppm (339 µg/m ³) | | 0.100 ppm ⁸ (188/ µg/m ³) | - | |
| Sulfur Dioxide (SO ₂) ¹¹ | Annual Arithmetic Mean | - | Ultraviolet Fluorescence | 0.030 ppm ¹⁰ (for Certain Areas) | - | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) ⁹ |
| | 24 Hour | 0.04 ppm (105 µg/m ³) | | 0.14 ppm ¹⁰ (for Certain Areas) (See Footnote 9) | - | |
| | 3 Hour | - | | - | 0.5 ppm (1300 µg/m ³) | |
| | 1 Hour | 0.25 ppm (655 µg/m ³) | | 75 ppb (196 µg/m ³) | - | |
| Lead ^{12,13} | 30 Day Average | 1.5 µg/m ³ | Atomic Absorption | - | Same as Primary Standard | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | - | | 1.5 µg/m ³ | | |
| | Rolling 3-Month Average | - | | 0.15 µg/m ³ | | |
| Visibility Reducing Particles | 8 Hour | See footnote 13 | | | | |
| Sulfates | 24 Hour | 25 µg/m ³ | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m ³) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride ¹² | 24 Hour | 0.01 ppm (26 µg/m ³) | Gas Chromatography | | | |

Source: Ldn Consulting, *Air Quality Assessment Avenue 50 and Calhoun Street, City of Coachella*, January 11, 2016, **Table 2.1.** California Air Resources Board, (10/1/15).

3. ENVIRONMENTAL EVALUATION

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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As indicated in Table 2, the Coachella Valley-portion of the SSAB has been designated by the EPA as a non-attainment area for ozone (O₃) and suspended particulates (PM₁₀). Currently, the SSAB is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and particulate matter (PM_{2.5}).

Table 2 Salton Sea Air Basin Attainment Status by Pollutant

| Pollutant | Average Time | California Standards | Federal Standards |
|---|---------------------------|----------------------|-------------------------------|
| Ozone (O ₃) | 1 Hour | Non-attainment | No Federal Standard |
| | 8 Hour | | Basic Non-attainment |
| Respirable Particulate Matter (PM ₁₀) | Annual Arithmetic Mean | Non-attainment | No Federal Standard |
| | 24 Hour | Non-attainment | Unclassified ¹ |
| | Annual Arithmetic Mean | No State Standard | Unclassified ² |
| Fine Particulate Matter PM _{2.5} | 24 Hour | No State Standard | Attainment |
| | Annual Arithmetic Mean | Non-attainment | Attainment |
| Carbon Monoxide (CO) | 8 Hour | Attainment | Maintenance Area ³ |
| | 1 Hour | | |
| Nitrogen Dioxide (NO ₂) | Annual Arithmetic Mean | No State Standard | Attainment |
| | 1 Hour | Attainment | No Federal Standard |
| Sulfur Dioxide (SO ₂) | Annual Arithmetic Mean | No State Standard | Attainment |
| | 24 Hour | Attainment | Attainment |
| | 1 Hour | Attainment | No Federal Standard |
| Pollutant | Average Time | California Standards | Federal Standards |
| Lead | 30 Day Average | Attainment | No Federal Standard |
| | Calendar Quarter | No State Standard | Attainment |
| Visibility Reducing Particles | 8 Hour (10AM to 6PM, PST) | Unclassified | No Federal Standard |
| Sulfates | 24Hour | Attainment | No Federal Standard |
| Hydrogen Sulfide | 1 Hour | Unclassified | No Federal Standard |

Source: Ldn Consulting, *Air Quality Assessment Avenue 50 and Calhoun Street, City of Coachella*, January 11, 2016, Table 2.2.

Notes:

1. Data reflects status as the year 2009.
2. Unclassified; indicates data are not sufficient for determining attainment or nonattainment.
3. Maintenance Area (defined by U.S. Department of Transportation) is any geographic region of the United States previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended.

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South Coast Air Quality Management District

The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is responsible for controlling emissions primarily from stationary sources and maintaining air quality monitoring stations throughout the South Coast Air Basin and a portion of the Salton Sea Air Basin. SCAQMD is also responsible for developing, updating, and implementing the AQMP for the region, in coordination with SCAG. SCAQMD also has roles under CEQA.

2003 AQMP

One of the purposes of the 2003 AQMP is to lead the basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour ozone and PM₁₀ federal standards (SCAQMD 2003). One of the purposes of the 2007 AQMP is to lead the basin into compliance of the federal 8-hour ozone and PM_{2.5} standards.

The 2003 AQMP also replaced the 1997 attainment demonstration for the federal CO standard and provided a basis for a maintenance plan for CO for the future, and updated the maintenance plan for the federal nitrogen dioxide standard that the South Coast Air Basin has met since 1992.

The 2003 AQMP also incorporated new scientific data in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP used complex modeling to show that with the control measures, the basin would be in compliance with the federal and state standards for all pollutants by 2010, except for the state ozone and PM₁₀ standards and the state ozone and PM₁₀ standard after 2010 or by the earliest practicable date, as mandated by the California Health and Safety Code Section 40462. CARB approved the 2003 AQMP on August 1, 2003. The USEPA's adequacy finding on the emissions budgets for conformity determination in the basin was published in the Federal Register (69 FR 15325-15326).

2007 AQMP

The 2007 AQMP was adopted by the SCAQMD in June 2007 and forwarded it to CARB for its approval and subsequent submittal to the USEPA. In September 2007, CARB adopted the State Strategy for the 2007 State Implementation Plan and the 2007 AQMP as part of the SIP. In January 2009 the USEPA's regional administrator signed a final rule to approve in part and disapprove in part the SCAQMD 2003 1-hour ozone plan and the nitrogen dioxide maintenance plan. The parts of the plan that were approved strengthen the SIP. The Clean Air Act does not require the disapproved portions of the plan, and the disapprovals do not start sanctions clocks.

The 2007 AQMP outlines a detailed strategy for meeting the federal health-based standards for PM_{2.5} by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions will be from mobile sources,

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which are currently responsible for about 75 percent of all smog and particulate forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood burning fireplaces and restaurant charbroilers.

2012 AQMP

The 2012 AQMP was adopted in December 2012. The purpose of the 2012 AQMP is to set forth a comprehensive and integrated program that will lead the South Coast Air Basin into compliance with the federal 24-hour PM_{2.5} air quality standard, and to provide an update of the Basin's projections in meeting the federal 8-hour ozone standards. The 2012 AQMP will be submitted to the USEPA as the SIP once it is approved by the SCAQMD Governing Board and CARB. Specifically, the AQMP will serve as the official SIP submittal for the federal 2006 24-hour PM_{2.5} standard, for which USEPA has established a due date of December 14, 2012. In addition, the AQMP updates specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory and, 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP proposes Basin-wide PM_{2.5} measures that will be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high PM_{2.5} days), Section 182(e)(5) implementation measures (to maintain progress towards meeting the 2023, 8-hour ozone national standard), and transportation control measures. Most of the control measures focus on incentives, outreach, and education. Proposed PM_{2.5} reduction measures in the 2012 AQMP include the following:

- Further NO_x reductions from RECLAIM;
- Further reductions from residential wood burning devices;
- Further reductions from open burning;
- Emission reductions from under-fired charbroilers;
- Further ammonia reductions from livestock waste;
- Backstop measures for indirect sources of emissions from ports and port-related sources; and,
- Further criteria pollutant reductions from education, outreach and incentives.

There are multiple Volatile Organic Compounds (VOC) and NO_x reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, mold release products, consumer products. The 2012 AQMP also contains proposed mobile source implementation measures for the deployment of zero- and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There are measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

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The 2012 AQMP proposes the following mobile source implementation measures:

- On-road mobile sources:
 - Accelerated penetration of partial zero-emission and zero-emission vehicles and light heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles;
 - Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives; and,
 - Further emission reductions from heavy-duty vehicles serving near-dock railyards through a proposed control measure that calls for a requirement that any cargo container moved between the Ports of Los Angeles and Long Beach to the nearby railyards by with zero- emission technologies.
- Off-road mobile sources:
 - Extension of the Surplus Off-Road Opt-In for NOx (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment;
 - Further emission reductions from freight and passenger locomotives calls for an accelerated use of Tier 4 locomotives in the Basin;
 - Further emission reductions from ocean-going marine vessels while at berth; and,
 - Emission reductions from ocean-going marine vessels.

The 2012 AQMP also relies upon the Southern California Association of Governments regional transportation strategy, which is in its adopted 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program, which contains the following sections:

1. Linking regional transportation planning to air quality planning: making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.
2. Regional transportation strategy and transportation control measures: the RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation—biking and walking); transportation demand management; transportation system management; transit; passenger and high- speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.
3. Reasonably available control measure analysis.

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Coachella Valley State Implementation Plan

The Southern California Association of Governments (SCAG) and the Coachella Valley Association of Governments (CVAG) are key participants in local and regional air quality improvement efforts. CVAG has also been instrumental in initiating programs that address regional air quality issues and shortcomings. The 2003 Coachella Valley State Implementation Plan (2003 CVSIP) was prepared by SCAQMD, local Coachella Valley jurisdictions, agencies, and stakeholders. The CVSIP includes control measures and attainment demonstrations and an analysis of the most stringent measures. SCAQMD also employs a Coachella Valley PM₁₀ air quality inspector, who works closely with CVAG, local jurisdictions, and developers to implement effective, site-specific PM₁₀ mitigation measures.

SCAQMD Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. During construction and operation, the project must comply with applicable rules and regulations. The following are rules the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM₁₀ component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).

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- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 403.1 is supplemental to Rule 403 requirements and shall apply only to fugitive dust sources in the Coachella Valley. The general requirements for Rule 403.1 are as follows:

1. Any person who is responsible for any active operation, open storage pile, or disturbed surface area, and who seeks an exemption pursuant to Rule 403, paragraph (g)(2) shall be required to determine when wind speed conditions exceed 25 miles per hour. The wind speed determination shall be based on either District forecasts or through use of an on-site anemometer as described in subdivision (g).
2. Any person involved in active operations in the Coachella Valley Blowsand Zone shall stabilize new man-made deposits of bulk material within 24 hours of making such bulk material deposits. Stabilization procedures shall include one or more of the following: (A) Application of water to at least 70 percent of the surface area of any bulk material deposits at least 3 times for each day that there is evidence of wind driven fugitive dust; or (B) Application of chemical stabilizers in sufficient concentration so as to maintain a stabilized surface for a period of at least 6 months; or
 - a. (3) Installation of wind breaks of such design so as to reduce maximum wind gusts to less than 25 miles per hour in the area of the bulk material deposits. (3) Any person involved in active operations in the Coachella Valley Blowsand Zone shall stabilize new deposits of bulk material originating from off-site undisturbed natural desert areas within 72 hours.

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- i. Stabilization procedures shall include one or more of the following: (A) Application of water to at least 70 percent of the surface area of any bulk material deposits at least 3 times for each day that there is evidence of wind driven fugitive dust; or (B) Application of chemical stabilizers in sufficient concentration so as to maintain a stabilized surface for a period of at least six months.
3. A person who conducts or authorizes the conducting of an active operation shall implement at least one of the control actions specified in Rule 403, Table 2 for the source category "Inactive Disturbed Surface Areas" to minimize wind driven fugitive dust from disturbed surface areas at such time when active operations have ceased for a period of at least 20 days.
4. Any person involved in agricultural tilling or soil mulching activities shall cease such ties when wind speeds exceed 25 miles per hour. The wind speed determination shall be based on either District forecasts or through use of an on-site anemometer as described in subdivision (g).

In addition, Fugitive Dust Control Plan and other requirements for construction projects including earth moving activities are listed herein:

1. Any person who conducts or authorizes the conducting of an active operation with a disturbed surface area of more than 5,000 square feet shall not initiate any earth- moving activities unless a fugitive dust control plan is prepared and approved by the Executive Officer in accordance with the requirements of subdivision (f) and the Rule 403.1 Implementation Handbook. These provisions shall not apply to active operations exempted by paragraph (i)(4).
2. Any operator required to submit a fugitive dust control plan under paragraph (e)(1) shall maintain a complete copy of the approved fugitive dust control plan on-site in a conspicuous place at all times and the fugitive dust control plan must be provided upon request.
3. Any operator required to submit a fugitive dust control plan under paragraph (e)(1) shall install and maintain signage with project contact information that meets the minimum standards of the Rule 403.1 Implementation Handbook prior to initiating any type of earth-moving activities.
4. Any operator required to submit a fugitive dust control plan under paragraph (e)(1) for a project with a disturbed surface area of 50 or more acres shall have an Dust Control Supervisor that: (A) is employed by or contracted with the property owner or developer; and (B) is on-site or is available to be on-site within 30 minutes of initial contact; and (C) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 and 403.1 requirements; and (D) has completed the AQMD Coachella Valley Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class.

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5. Failure to comply with any of the provisions of an approved fugitive dust control plan shall be a violation of this rule.

SCAQMD Rule 445 prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

1. The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
 - Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
 - An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide

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sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM₁₀ among other pollutants.

SCAQMD Rule 1401, New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part- average.

City of Coachella General Plan 2035

The City of Coachella General Plan 2035 Sustainability and Natural Environment Element, *establishes the City's long-term goals and policies for managing and protecting its natural resources and open spaces.*

The following goals and policies found in this element are applicable to the project:

Goal 11 Air Quality. Healthy indoor and outdoor air quality through reduced, locally generated pollutant emissions.

Policies

- 11.1 Sources of Pollutants. Minimize the creation of new sources of air pollutants within the City.
- 11.2 Land use patterns. Promote compact, mixed-use, energy efficient and transit oriented development to reduce air pollutants associated energy and vehicular use.
- 11.4 Public transit. Ensure that, wherever feasible, public transit is a viable and attractive alternative to the use of single occupant motor vehicles.
- 11.6 Neighborhood electric vehicles. Encourage developments and street systems that support the use of Neighborhood Electric Vehicles (NEV).
- 11.7 Active transportation. Support infrastructure and programs that encourage children to safely walk or ride a bicycle to school.
- 11.8 Construction-related emissions. Require construction activities, including on-site building and the transport of materials, to limit emissions and dust.

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- 11.9 Project mitigation. The City shall utilize the CEQA process to identify and mitigate potentially significant air quality impacts associated with new development.
- 11.10 Traffic congestion. Design new intersections to function in a manner that reduces air pollutant emissions from stop and start and idling traffic conditions.
- 11.12 Indoor air quality. Require new development to meet the state's Green Building Code for indoor air quality performance.
- 11.14 Alternative energy sources. Promote the development of energy sources, such as solar, wind, and geothermal, that do not emit pollution which has an adverse impact on local air quality.
- 11.15 Transportation demand management. Encourage employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, work-at-home programs, employee education and preferential parking for carpools/vanpools.
- 11.16 Transportation management associations. Encourage commercial, retail and residential developments to create and participate in transportation management associations.
- 11.17 Deliveries. Encourage business owners to schedule deliveries at off-peak traffic periods.

Methodology and Analysis

Table 3, *Screening Threshold for Criteria Pollutants*, lists the thresholds for determining the significance of an air quality impact. Typical emission rates from construction activities were obtained from CalEEMod Version 2013.2.2 CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2011 computer program to calculate the emission rates specific for the eastern portion of Riverside County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2011 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions during each phase was calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

Table 3 Screening Threshold for Criteria Pollutants

| Pollutant | Total Emissions (Pounds per Day) |
|--|---|
| Construction Emissions | |
| Respirable Particulate Matter (PM10 and PM2.5) | 150 and 55 |
| Nitrogen Oxide (NOx) | 100 |
| Sulfur Oxide (SOx) | 150 |
| Carbon Monoxide (CO) | 550 |
| Volatile Organic Compounds (VOCs) | 75 |
| Operational Emissions | |
| Respirable Particulate Matter (PM10 and PM2.5) | 150 and 55 |
| Nitrogen Oxide (NOx) | 55 |
| Sulfur Oxide (SOx) | 150 |
| Carbon Monoxide (CO) | 550 |
| Lead and Lead Compounds | 3.2 |
| Volatile Organic Compounds (VOCs) | 55 |

Source: Ldn Consulting, Air Quality Assessment Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Table 2.3.

Local Air Quality

Measured data of criteria pollutants are continuously monitored in the SSAB by the SCAQMD at ten monitoring sites within the SSAB. The nearest SCAQMD-operated monitoring station in which criteria pollutant data was collected is the Jackson Street monitoring station in Indio and Palm Springs Fire Station. Table 4, *Three-Year Ambient Air Quality Summary near the Project Site*, shows monitoring data for a three-year period (2012 -2014

Project Construction Description

The project area totals 19.57 acres and involves two land uses that will be evaluated in this section. The residential portion of the project site is situated on 14.5 acres and would provide for the construction of single-family residential homes on 115 lots. The commercial component of the project carves out a 5-acre portion from the overall project area and is situated at the northwest corner of Avenue 50 and Calhoun Street. The commercial portion would provide for a 2,400 square-foot self-serve gas station and 5,200 square-foot market, a freestanding 9,750 square feet single-tenant commercial building, and a 20,000 square feet multiple-tenant retail/medical office building. Total vehicular trips generated for the residential development upon project completion would be approximately 1,095 trips per day and a total of 1,365 trips generated from commercial plaza. The overall total for both projects combined would be 2,460 trips per day.

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Table 4 Three-Year Ambient Air Quality Summary near the Project Site

| Pollutant | Ambient Monitoring Site | Averaging Time | CAAQS | NAAQS | 2012 | 2013 | 2014 |
|----------------------------|-------------------------|------------------------|----------------------|-----------------------|-------|-------|-------|
| O3 (ppm) | Indio | 1 Hour | 0.09 ppm | - | 0.102 | 0.105 | 0.095 |
| | Indio | 8 Hour | 0.070 ppm | 0.075 ppm | 0.089 | 0.087 | 0.091 |
| PM10 (µg/m ³) | Indio | 24 Hour | 50 µg/m ³ | 150 µg/m ³ | 270.6 | 255.2 | 322.3 |
| | Indio | Annual Arithmetic Mean | 20 µg/m ³ | - | 33.4 | 38.6 | 44.8 |
| PM2.5 (µg/m ³) | Indio | 24 Hour | - | 35 µg/m ³ | 18.4 | 25.8 | 26.5 |
| | Indio | Annual Arithmetic Mean | 12 µg/m ³ | 15 µg/m ³ | 7.6 | 8.3 | - |
| NO2 (ppm) | Palm Springs | Annual Arithmetic Mean | 0.030 ppm | 0.053 ppm | 0.007 | 0.007 | - |
| | Palm Springs | 1 Hour | 0.18 ppm | - | 0.045 | 0.052 | 0.046 |
| CO (ppm) | Palm Springs | 8 Hour | 9 ppm | 9 ppm | 0.45 | - | - |

Source: Ldn Consulting, Air Quality Assessment Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Table 2.4.

Notes: All ambient emissions reported are assumed to be taken by the district in compliance with both the NAAQS and CAAQS. Methodologies for those measurements are discussed in Table 1 Notes above.

3.3.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) **Less than Significant Impact With Mitigation Incorporated.**

Criterion 1: Increase the Frequency or Severity of Violations

SCAQMD considers a project to be consistent with the AQMP if it would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP. As shown in Section 3.3.3(b) below, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation when best available control (BAC) technology is implemented.

If a project's emissions exceed the SCAQMD regional thresholds for NO_x, VOC, PM₁₀, or PM_{2.5}, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the SSAB is in nonattainment (see Table 2, *Salton Sea Air Basin Attainment Status by Pollutant*, for status) at a monitoring station in the basin. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP, to achieve attainment of pollutants. As analyzed and discussed in Section 3.3.3(b) and 3.3.3(c) below, the project area would exceed the regional significance thresholds before mitigation measures are implemented in regard to NO_x emissions if both the residential and commercial components were constructed at the same time, but would not exceed regional thresholds for operational emissions. Construction emissions would be contained below regional significance thresholds as shown in Tables 5 and 6 below. Therefore, with implementation of Mitigation Measures outlined in Section 3.3.5 below, the project would meet Criterion 1 and by reducing impacts to less than significant.

Criterion 2: Exceed Assumptions in AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the

3. ENVIRONMENTAL EVALUATION

analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2012-2035 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2012, consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Coachella General 2035 Land Use Plan defines the assumptions that are represented in the AQMP. The project would be consistent with the applicable AQMP if it would not exceed the growth assumptions in the AQMP. The primary method of determining consistency with the AQMP growth assumptions is by determining the project's consistency with the General Plan land use designation.

Control Measures

The proposed project would also comply with all applicable rules and regulations of the AQMP. Because of the nature of the project, which includes earth-moving activity, SCAQMD 403 applies. Rule 403 governs emissions of fugitive dust during construction and operation activities. The rule requires that fugitive dust be controlled with best available control measures (BACMs) so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Compliance with this rule is achieved through application of standard Best Management Practices (BMPs), such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Compliance with SCAQMD Rules 403 and 403.1, as implemented through Mitigation Measure AQ-1, would result in a consistency with the applicable AQMP Best Available Control Measures (BACM). As such, emissions of fugitive dust during construction would be minimal. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, and the impact would be less than significant.

City of Coachella

Both proposed land uses would not increase population or vehicle miles traveled above that anticipated buildout of the General Plan 2035.

b) **Less than Significant Impact With Mitigation Incorporated.**

Short Term Construction Impacts

Construction-Related Regional Impacts

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rules 403 and 403.1 establish these procedures. Compliance with these rules is achieved through application of standard BMPs in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent and stabilizing ground cover on finished sites.

In addition, any operator applying for a grading permit, or a building permit for an activity with a disturbed surface area of more than 5,000 square feet, shall not initiate any earth-moving operations unless a Fugitive Dust Control Plan has been prepared pursuant to the provisions of the *Coachella Valley Fugitive Dust Control Handbook* and approved by the City. The applicant for each phase of the project will be required to prepare a Fugitive Dust Control Plan prior to issuance of grading plans.

SCAQMD's Rule 403 and 403.1 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rules 403 and 403.1 would require the use of water trucks during all phases where earth moving operations would occur.

The construction activities for both project components have been analyzed for: 1) site preparation, 2) grading, 3) building construction, 4) paving, and 5) application of architectural coatings.

Project Residential Construction Emissions

The construction dates for the project residential land use component were based on an estimated construction kickoff starting in August 2016. Site Preparation and Grading are expected to last just over two months and would include all utility installation. Once underground utilities are completed, paving would begin and is expected to last no longer than one month to complete. Finally building construction would begin just after paving and would be expected to last through February 2018. A summary of the construction emissions is shown in Table 5, *Estimated Daily Regional Construction Emissions Summary – Residential*.

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Table 5 Estimated Daily Regional Construction Emissions Summary – Residential

| Project Residential Component (Tract Map 37088) | | | | | | | | | | |
|---|-------|-------|-------|------|-------------|----------------|--------------|--------------|-----------------|---------------|
| Year | ROG | NOx | CO | SO2 | PM10 (Dust) | PM10 (Exhaust) | PM10 (Total) | PM2.5 (Dust) | PM2.5 (Exhaust) | PM2.5 (Total) |
| 2016 (lb/day) Unmitigated | 7.59 | 85.28 | 55.19 | 0.07 | 14.34 | 4.17 | 16.63 | 6.89 | 3.84 | 9.00 |
| Significance Threshold (lb/day) | 75 | 100 | 550 | 150 | - | - | 150 | - | - | 55 |
| Exceeds Screening Threshold | No | No | No | No | - | - | No | - | - | No |
| 2016 (lb/day) Mitigated | 7.59 | 85.28 | 55.19 | 0.07 | 6.52 | 4.17 | 8.81 | 3.12 | 3.84 | 5.40 |
| Exceeds Screening Threshold | No | No | No | No | - | - | No | - | - | No |
| 2017 (lb/day) Unmitigated | 68.91 | 35.74 | 29.21 | 0.05 | 0.47 | 2.40 | 2.87 | 0.13 | 2.29 | 2.42 |
| Exceeds Screening Threshold | No | No | No | No | - | - | No | - | - | No |
| 2017 (lb/day) Mitigated | 68.91 | 35.74 | 29.21 | 0.05 | 0.47 | 2.40 | 2.87 | 0.13 | 2.29 | 2.42 |
| Exceeds Screening Threshold | No | No | No | No | - | - | No | - | - | No |

Source: Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California. April 17, 2015, Ldn Consulting, Table 4.1.

Table 5 shows that emissions for the project residential land use component with mitigation implemented (AQ-1) would reduce PM₁₀ and PM_{2.5} emissions and would not exceed SCAQMD air quality standards during grading and construction.

Project Commercial Construction Emissions

The construction dates for the project commercial land use component were based on an estimated construction kickoff starting in August, 2016. Site Preparation and Grading are expected to last just over two months and would include all utility installation. Once underground utilities are completed, paving would begin and is expected to last no longer than one month to complete. Finally, building construction would begin just after paving and would be expected to last through August 2018. The first commercial project will be the Tower Market and Fueling Station followed by development of the other two commercial lots. A summary of

3. ENVIRONMENTAL EVALUATION

the construction emissions is shown in Table 6, *Estimated Daily Regional Construction Emissions Summary – Commercial*.

Table 6 Estimated Daily Regional Construction Emissions Summary – Commercial

| Project Commercial Component (n/w corner Avenue 50 and Calhoun Street) | | | | | | | | | | |
|--|------|-------|-------|------|-------------|----------------|--------------|--------------|-----------------|---------------|
| Year | ROG | NOx | CO | SO2 | PM10 (Dust) | PM10 (Exhaust) | PM10 (Total) | PM2.5 (Dust) | PM2.5 (Exhaust) | PM2.5 (Total) |
| 2016 (lb/day) <i>Unmitigated</i> | 2.39 | 22.55 | 17.12 | 0.02 | 4.78 | 1.35 | 6.14 | 2.53 | 1.27 | 3.80 |
| 2017 (lb/day) <i>Unmitigated</i> | 4.10 | 15.22 | 11.01 | 0.02 | 0.12 | 1.04 | 1.16 | 0.03 | 0.97 | 1.00 |
| Significance Threshold (lb/day) | 75 | 100 | 550 | 150 | - | - | 150 | - | - | 55 |
| Exceeds Screening Threshold | No | No | No | No | - | - | No | - | - | No |

Source: *Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 4.1.*

Table 6 shows that, emissions for the project commercial land use component with would not exceed SCAQMD air quality standards during grading and construction.

Construction Equipment Emissions

SCAQMD has published a Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2. The maximum number of acres disturbed on the peak day.
3. Any emission control devices added onto off-road equipment.
4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

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Table 7, *Expected Construction Equipment – Residential*, and 8, *Expected Construction Equipment – Commercial*, show typical equipment that would be used for each phase of the project and the projected construction schedule.

Table 7 Expected Construction Equipment – Residential

| Equipment Identification ¹ | Proposed Dates | Quantity |
|---------------------------------------|-------------------------|----------|
| <i>Site Preparation</i> | 08/01/2016 - 08/14/2016 | |
| <i>Rubber Tired Dozers</i> | | 2 |
| <i>Tractors/Loaders/Backhoes</i> | | 4 |
| <i>Mass Grading</i> | 08/15/2016 - 10/09/2016 | |
| <i>Excavators</i> | | 2 |
| <i>Graders</i> | | 2 |
| <i>Rubber Tired Dozers</i> | | 1 |
| <i>Scrapers</i> | | 2 |
| <i>Tractors/Loaders/Backhoes</i> | | 2 |
| <i>Paving</i> | 10/10/2016 - 11/06/2016 | |
| <i>Pavers</i> | | 2 |
| <i>Paving Equipment</i> | | 2 |
| <i>Rollers</i> | | 2 |
| <i>Tractors/Loaders/Backhoes</i> | | 2 |
| <i>Building Construction</i> | 11/09/2016 - 02/01/2018 | |
| <i>Cranes</i> | | 1 |
| <i>Forklifts</i> | | 2 |
| <i>Generator Sets</i> | | 2 |
| <i>Tractors/Loaders/Backhoes</i> | | 2 |
| <i>Welders</i> | | 2 |
| <i>Architectural Coating</i> | 8/10/2017 - 02/01/2018 | |
| <i>Air Compressors</i> | | 2 |

Source: *Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California. April 17, 2015, Ldn Consulting, Table 3.1.*

Notes:

- The equipment list is based upon equipment inventory within CALLEEMOD 2013.2.2. The quantity and types are based upon assumptions from Projects of similar size and scope.

Localized Significance Thresholds

Per the requirements of SCAQMDs LSTs methodology, emissions for gases in attainment such as NO₂ and CO are calculated by adding emission impacts from the project development to the peak background ambient NO₂ and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards. Also, according to SCAQMD Rule 403, emissions for non-attainment particulate matter such as PM 10 and PM 2.5 can produce no more than 10.4 µg/m³. The LSTs derived by SCAQMD differentiated by Source Receptor area for which the proposed project is would be represented by SRA #30 within the Coachella Valley area. Based on the lookup tables, thresholds are listed in Table 9, *5-Acre LST Emission Thresholds*.

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Table 8 Expected Construction Equipment – Commercial

| Equipment Identification | Proposed Dates | Quantity |
|---|----------------|----------|
| <i>Site Preparation</i> | 08/01/2016 | - |
| Graders | | 1 |
| Tractors/Loaders/Backhoes | | 1 |
| <i>Grading</i> | 08/16/2016 | - |
| Concrete/Industrial Saws | | 1 |
| Graders | | 1 |
| Rubber Tired Dozers | | 1 |
| Tractors/Loaders/Backhoes | | 2 |
| <i>Paving</i> | 010/01/2016 | - |
| Cement and Mortar Mixers | | 4 |
| Pavers | | 1 |
| Rollers | | 1 |
| Tractors/Loaders/Backhoes | | 1 |
| <i>Building Construction</i> | 10/21/2016 | - |
| Cranes | | 1 |
| Forklifts | | 2 |
| Tractors/Loaders/Backhoes | | 2 |
| <i>Architectural Coating</i> | 08/10/2018 | - |
| Air Compressors | | 1 |
| This equipment list is based upon equipment inventory within CALLEEMOD 2013.2.2. The quantity and types are based upon assumptions from Projects of similar size and scope. | | |

Source: Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 3.1.

Table 9 5-Acre LST Emission Thresholds

| Pollutant | LST @ 25 meters (lb/day) |
|--|--------------------------|
| CO | 2,292 |
| PM ₁₀ (Construction) | 14 |
| PM ₁₀ (Operation) | 4 |
| NO ₂ (Corrected utilizing NO ₂ /NO _x Ratio) Construction and Operation | 304 |

Source: Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 2.5.

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LST Construction – Residential

Based upon the CalEEMod air quality modeling as shown in CalEEMod annual outputs, worst-case CO, NO_x and PM₁₀ would cumulatively produce 5.86, 7.81 and 0.65 tons respectively over the construction duration of 389-days. The average rate for the respective emissions are 30.13, 40.15 and 3.34 lbs/day or 0.47, 0.63 and 0.05 grams per second for each pollutant during the construction day and is modeled as such within ISCST3.

Based on these calculations, it was found that PM₁₀ would marginally exceed ambient air quality thresholds at roughly 300 Meters from the project site and would therefore require mitigation to comply with LST methodology. It was found that these impacts could be fully mitigated through wetting the site twice daily during grading. Both the unmitigated and mitigated LST results for the project residential land use component are shown in Table 10, *LST Modeling Results during construction - Residential (Unmitigated)* and Table 11, *LST Modeling Results during construction - Residential (Mitigated)* respectively.

LST Construction – Commercial

SCAQMD also recommends using LST methodology which incorporates background ambient air quality data. However, based on the project size (5-acres) and the recommended methodologies utilized in the commercial land use component, mobile offsite emissions were excluded from the analysis. Table 12, *LST Modeling Results during construction – Commercial (Unmitigated)*, shows the modeled estimates for both construction and operations excluding offsite mobile emissions. Furthermore, the worst case LST is at 25 meters from the project centroid and will be utilized for this project. Based on the modeling results, no LST impacts are expected. However, even though without mitigation, construction emissions would be less than significant, the construction contractor for the commercial project will still be obligated to comply with SCAQMD Rules for dust control and utilize BMPs for dust control.

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Table 10 LST Modeling Results During Construction - Residential (Unmitigated)

| Pollutant | Averaging Time | Threshold | Worst Case Background Ambient Air Quality Data | | LST (µg/m3) | Project Contribution (µg/m3) | | | | | | Significant? |
|--|----------------|--------------------------------------|--|---------|-------------|------------------------------|------|-----|-----|-------|-------|--------------|
| | | | Data | (µg/m3) | | 100 | 300 | 500 | 800 | 1,000 | 2,000 | |
| CO | 8 Hour | 9 ppm (10,000) | 0.65 ppm | 722 | 9,278 | 80 | 151 | 118 | 83 | 70 | 36 | No |
| PM10 | 24 Hour | 10.4 µg/m3 | 106.0 µg/m3 | 106.0 | 10.4 | 5.7 | 11.4 | 7.5 | 5.4 | 2.9 | 2.3 | Yes |
| NO2 (Corrected utilizing NO2/NOx Ratio) | 1 Hour | 0.18 ppm (339 µg/m ³) | .050 ppm | 94 | 245 | 113 | 218 | 179 | 140 | 125 | 84 | No |

Source: Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California. April 17, 2015, Ldn Consulting, Table 4.2.

Table 11 LST Modeling Results During Construction – Residential (Mitigated)

| Pollutant | Averaging Time | Threshold | Worst Case Background Ambient Air Quality Data | | LST (µg/m3) | Project Contribution (µg/m3) | | | | | | Significant? |
|--|----------------|--------------------------------------|--|---------|-------------|------------------------------|---------|---------|---------|-----------|-----------|--------------|
| | | | Data | (µg/m3) | | 100 (m) | 300 (m) | 500 (m) | 800 (m) | 1,000 (m) | 2,000 (m) | |
| CO | 8 Hour | 9 ppm (10,000 µg/m ³) | 0.65 ppm | 722 | 9,278 | 80 | 151 | 118 | 83 | 70 | 36 | No |
| PM10 | 24 Hour | 10.4 µg/m3 | 106.0 µg/m3 | 106.0 | 10.4 | 5.7 | 9.7 | 7.5 | 5.4 | 2.9 | 2.3 | No |
| NO2 (Corrected utilizing NO2/NOx Ratio) | 1 Hour | 0.18 ppm (339 µg/m ³) | .050 ppm | 94 | 245 | 113 | 218 | 179 | 140 | 125 | 84 | No |

Source: Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California. April 17, 2015, Ldn Consulting, Table 4.3.

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Table 12 LST Modeling Results During Construction – Commercial (Unmitigated)

| Pollutant | Project without Offsite mobile emissions (lb/day) | LST SRA-26 5-Acre (lb/day) | Significant? |
|---------------------|---|----------------------------|--------------|
| CO (Construction) | 17.12 | 2,292 | No |
| CO (Operation) | 61.99 | 2,292 | No |
| PM10 (Construction) | 6.14 | 14 | No |
| PM10 (Operation) | 0.01 | 4 | No |
| NOx (Construction) | 22.55 | 304 | No |
| NOx (Operation) | 12.25 | 304 | No |

Source: Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 4.2.

Long Term Regional Operational Impacts

The on-going operation of both project land use components would result in a long-term increase in air quality emissions without mitigation. This increase would be due to emissions from the project generated vehicle trips and through operational emissions from the on-going use of the proposed project.

Long Term Regional Operational Impacts – Residential

Based on the project's *Traffic Impact Assessment* (Appendix H), the proposed residential phase could add as many as 1,095 daily trips once fully operational by the year 2018. The daily pollutants calculated in CalEEMod are shown in Table 13, *Regional Operational Pollutant Emissions - Residential*. Based on these calculations, there would be no significant ROG, NOx, CO and PM10 impacts expected to occur during the lifetime of the residential project and mitigation measures are required.

Long Term Regional Operational Impacts – Commercial

Based on the project's TIA the proposed project commercial land use component could add as many as 1,365 daily trips once the project is fully operational sometime in the year 2018. The daily pollutants calculated are shown in Table 14, *Regional Operational Pollutant Emissions – Commercial*. Based upon these calculations, there would be no significant ROG, NOx, CO and PM10 impacts would be expected and that no mitigation measures are necessary.

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Table 13 Regional Operational Pollutant Emissions – Residential

| | | | | ROG | NO _x | CO | SO _x | PM10 | PM2.5 |
|----------------------------------|--------|----------|-----------|-------|-----------------|-------|-----------------|------|-------|
| Summer Scenario | | | | | | | | | |
| Area | Source | Emission | Estimates | 14.97 | 0.33 | 26.26 | 0.03 | 2.69 | 2.69 |
| Energy Source Emissions (Lb/Day) | | | | 0.11 | 0.98 | 0.42 | 0.01 | 0.08 | 0.08 |
| Operational Vehicle Emissions | | | | 3.95 | 9.94 | 39.60 | 0.08 | 5.39 | 1.56 |
| Total (Lb/Day) | | | | 19.04 | 11.25 | 66.28 | 0.12 | 8.15 | 4.32 |
| SCAQMD Thresholds | | | | 55 | 55 | 550 | 150 | 150 | 55 |
| Significant? | | | | No | No | No | No | No | No |
| Winter Scenario | | | | | | | | | |
| Area | Source | Emission | Estimates | 14.97 | 0.33 | 26.26 | 0.03 | 2.69 | 2.69 |
| Energy Source Emissions (Lb/Day) | | | | 0.11 | 0.98 | 0.42 | 0.01 | 0.08 | 0.08 |
| Operational Vehicle Emissions | | | | 3.34 | 10.58 | 40.82 | 0.08 | 5.39 | 1.56 |
| Total (Lb/Day) | | | | 18.42 | 11.89 | 67.51 | 0.11 | 8.16 | 4.32 |
| SCAQMD Thresholds | | | | 55 | 55 | 550 | 150 | 150 | 55 |
| Significant? | | | | No | No | No | No | No | No |

Source: Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California. April 17, 2015, Ldn Consulting, Table 4.4.

Table 14 Regional Operational Pollutant Emissions – Commercial

| | | | | ROG | No _x | CO | Sox | PM10 | PM2.5 |
|---|--|--|--|------|-----------------|-------|------|------|-------|
| Summer Scenario | | | | | | | | | |
| Area Source Emission Estimates (Lb/Day) | | | | 0.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy Source Emissions (Lb/Day) | | | | 0.02 | 0.17 | 0.14 | 0.00 | 0.01 | 0.01 |
| Operational Vehicle Emissions (Lb/Day) | | | | 7.28 | 11.49 | 54.43 | 0.07 | 4.27 | 1.24 |
| Total (Lb/Day) | | | | 8.01 | 11.66 | 54.58 | 0.07 | 4.28 | 1.25 |
| SCAQMD Thresholds | | | | 55 | 55 | 550 | 150 | 150 | 55 |
| Significant? | | | | No | No | No | No | No | No |
| Winter Scenario | | | | | | | | | |
| Area Source Emission Estimates (Lb/Day) | | | | 0.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy Source Emissions (Lb/Day) | | | | 0.02 | 0.17 | 0.14 | 0.00 | 0.01 | 0.01 |
| Operational Vehicle Emissions (Lb/Day) | | | | 6.07 | 12.08 | 61.84 | 0.06 | 4.27 | 1.24 |
| Total (Lb/Day) | | | | 6.80 | 12.25 | 61.99 | 0.07 | 4.28 | 1.26 |
| SCAQMD Thresholds | | | | 55 | 55 | 550 | 150 | 150 | 55 |
| Significant? | | | | No | No | No | No | No | No |

Source: Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 4.3.

As shown in tables above, regional construction emissions and regional operational emissions for both project phases will not exceed SCAQMD regional significance thresholds. However, in

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regard to localized significance thresholds, only the project residential phase (Table 10), would exceed PM₁₀ LST emissions. Despite this exception, both project phases would be required to comply with SCAQMD Rules 403 and 403.1 in applying Best Available Control Measures (BACMs) to be incorporated and adjusted into a *PM-10 Dust Control Plan* in addressing all phases of construction and grading activities (Mitigation Measure AQ-1) and thereby reducing impacts to less than significant.

- c) **Less than Significant Impact with Mitigation Incorporated.** This impact is related to regional criteria pollutant impacts and the project's contribution to these impacts. As shown in Table 2 in Section 3.3.2 (Environmental Setting) above, the non-attainment regional pollutants of concern in the Coachella Valley portion of the SSAB are ozone and PM₁₀. Ozone is not emitted directly into the air but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, VOC and NO_x, react in the atmosphere in the presence of sunlight to form ozone. Therefore, SCAQMD does not have a recommended ozone threshold, but it does have thresholds of significance for VOC and NO_x.

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

As stated previously and shown in Table 2 in Section 3.3.2 above, the project area is in nonattainment for ozone and PM₁₀. Therefore, if the project exceeds the regional thresholds for PM₁₀, then it would contribute to a cumulatively considerable impact for those pollutants. If the project exceeds the regional threshold for NO_x or VOC, then it follows that the project would contribute to a cumulatively considerable impact for ozone. If the project exceeds the NO_x threshold, it could contribute cumulatively to nitrogen dioxide concentrations.

Regional emissions include those generated from all onsite and offsite activities. SCAQMD has established regional significance thresholds because emissions from projects in the area can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards.

The project's TIA identified twenty-one (21) cumulative projects which are generally located near to the project site. The two projects nearest to the proposed residential site are the proposed commercial site which is located directly adjacent to and southeast of the site at the corner of Avenue 50 and Calhoun Street and the proposed Villa Palmeras residential development located directly south of the site along the south side of Avenue 50. The two projects nearest to the proposed commercial site are the proposed residential site (TTM 37088) located directly adjacent

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to and northwest of the site and the Villa Palmeras residential development located directly southwest of the site along the south side of Avenue 50.

In order to reduce cumulative impacts, both proposed project phases would be conditioned so as not to conduct grading activities simultaneously, and as a result, have different scheduling as discussed in 3.3.3(b) above. However, this does not exclude the possibility of Villa Palmeras development (TTM 35523) in scheduling grading activities simultaneously with scheduled grading activities of one or both project land use components. Because such a scenario would create a cumulative construction impact to the immediate vicinity, a coordinated effort would have to be demonstrated between the City and the project grading contractors for both project land use components and the Villa Palmeras development in order to assure that grading schedules do not occur at the same time (Mitigation Measure AQ-2).

- d) **Less than Significant Impact With Mitigation Incorporated.** Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain onsite for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO_x and CO, commercial and/or industrial facilities would be considered sensitive receptors for those purposes. The closest sensitive receptors are the existing residences located directly along the project's northern boundary and on the east side of Calhoun Street directly across from the project site.

Localized Significance Threshold Analysis

The LST construction analysis uses thresholds that represent the maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. The thresholds are based on the ambient concentrations of that pollutant for each source receptor area and on the location of the sensitive receptors. If a project would result in emissions under the thresholds, it follows that the project would not cause or contribute to an exceedance of the standard. The standards are set to protect the health of sensitive individuals.

As shown in discussion 3.3.3(b) above, regional construction emissions and regional operational emissions from both project land use components will not exceed the SCAQMD regional significance thresholds. As discussed above, only the project residential land use component would exceed PM₁₀ LST emissions. Despite this exception, compliance with SCAQMD Rules 403 and 403.1 in applying Best Available Control Measures (BACMs) will be required for both project phases and

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during all phases of construction and grading activities (Mitigation Measure AQ-1). Therefore, both project land use components would not result in cumulatively considerable health impacts.

Toxic Air Pollutants - Onsite Workers

A variety of state and national programs protect workers from safety hazards, including high air pollutant concentrations. Onsite workers are not required to be addressed through this health risk assessment process. A document published by the California Air Pollution Control Officers Association (CAPCOA 2009), *Health Risk Assessments for Proposed Land Use Projects*, indicates that onsite receptors are included in risk assessments if they are persons not employed by the project. Persons not employed by the project would not remain onsite for any significant period. Therefore, a health risk assessment for onsite workers is not required or recommended.

Toxic Air Pollutants – Construction

The construction equipment would emit Diesel Particulate Matter (DPM), which is a carcinogen. However, the DPM emissions are short-term in nature. Determination of risk from DPM is considered over a 70-year exposure time. Guidance published by the CAPCOA (2009) *Health Risk Assessments for Proposed Land Use Projects* does not include guidance for health risks from construction projects addressed in CEQA; risks near construction projects are expected to be included later when the toxic emissions from construction activities are better understood. The distances between areas of project construction activity and the nearest relative sensitive receptors are existing residential homes to the north, south and east of both project land use component sites. Therefore, considering the dispersion of the emission and the short timeframe for both project land use components, exposure to DPM is anticipated to be less than significant.

- e) **Less Than Significant Impact.** Odor impacts from construction operations would be considered short-term events and would not be considered an impact. Long term operations will not create offensive odors and would not create any operational odor impacts to any sensitive receptors. Therefore, no odor impact would occur on or off-site.

3.3.4 Mitigation Measures

- AQ-1** Both commercial and residential elements of the project shall adhere to SCAQMD Rules 403 and 403.1 and follow and incorporate all Best Available Control Measures into a PM-10 Dust Control Plan and to be prepared for the both project land use component prior to commencement of site grading or other construction activity where soil disturbance or other fugitive dust may be generated. Sample BACMs that would be used during construction are included here.

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| Best Available Control Measure | Associated Measure in CalEEMod |
|---|--|
| <i>Clearing and Grubbing</i> | |
| 02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing. 02-2 Stabilize soil during clearing and grubbing activities. 02-3 Stabilize soil immediately after clearing and grubbing activities. | Water exposed surfaces three times per day Soil stabilizers for unpaved roads |
| <i>Earth Moving Activities</i> | |
| 08-1 Pre-apply water to depth of proposed cuts 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction 08-3 Stabilize soils once earth-moving activities are complete. | Pre-water to 12% |
| <i>Landscaping</i> | |
| 10-1 Stabilize soils, materials, slopes Guidance: Apply water to materials to stabilize; maintain materials in a crusted condition; maintain effective cover over materials; stabilize sloping surfaces using soil until vegetation or ground cover can effectively stabilize the slopes; hydroseed prior to rain season. | Replace ground cover in disturbed areas when unused for more than 10 days |

Sources: SCAQMD Rule 403 and CalEEMod Output (See Appendix A of the Air Quality Assessment).

AQ-2 A coordinated effort shall be demonstrated between the City and the project grading contractors for any grading projects in the vicinity in order to minimize PM-10 dust emissions. Level of Significance Compliance with an approved PM-10 Dust Control Plan that sets forth the required Best Available Control Measures to be utilized during all phases of grading/construction of Project would ensure that impacts associated with emissions of criteria pollutants would be less than significant.

3.3.5 Level of Significance After Mitigation

Compliance with SCAQMD, federal, and State regulations reduces the potential for emissions associated with construction and operation of the commercial and residential elements of the project to a less than significant impact.

3.4 Biological Resources

3.4.1 Sources

The following sources were utilized to support the conclusions made in this section:

- *City of Coachella General Plan 2035 Draft EIR, July 2014.*

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- *City of Coachella General Plan 2035*, adopted April 2015.
- Altum Group field visits November 10, 2012 and January 2016.

3.4.2 Environmental Setting

The project site is a vacant 20-acre parcel of land located on the northwest corner of Avenue 50 and Calhoun Street. There are no trees onsite and only sparse ruderal vegetation is present. The site has been heavily impacted by former agriculture land use. In addition, according to the Phase 1 Environmental Site Assessment (Appendix E), there are areas of the site where debris piles have been left, including an area with used tires. Finally, as shown in a recent aerial photograph (Exhibit 2), there appears to be site disturbance from off-road use.

A database search for plant and wildlife species was conducted as part of the General Plan update. A review of the data shows that it is unlikely that any listed plant species would occur on the project site, due to its disturbed condition as a former agricultural site. However, because, over time, the site has become partially revegetated with a variety of ruderal (weed) species, it likely provides habitat for common urban desert wildlife and avian species including a variety of insects as well as mice, rabbits, roadrunners and coyotes. Because the project site likely provides habitat for common species, it also may provide foraging habitat for a variety of avian species that may be listed including burrowing owl (*Athene cunicularia*), a State of California Species of Concern.

3.4.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| BIOLOGICAL RESOURCES – Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | | |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a) Less Than Significant Impact With Mitigation Incorporated.** The project site is a vacant parcel of land located on the northwest corner of Avenue 50 and Calhoun Street. There are no trees on the site and there is sparse ruderal vegetation that has on the site over time since the cessation of farming activities. Site photos included in Chapter 1, Introduction, show existing conditions on the site. Under existing conditions, the site likely provides habitat for a variety of urban desert wildlife, including insects, rodents, common birds such as ravens and roadrunners, as well as coyotes. The project site may provide foraging habitat for some avian species as well as foraging and nesting habitat for burrowing owl (*Athene cunicularia*), a State of California Species of Concern. Therefore, mitigation measures BIO-1 shall be implemented, requiring the applicant to conduct a biological survey prior to any site disturbance associated with grading or construction. If burrowing owls are encountered during the biological survey, mitigation measure BIO-2 shall be implemented.
- b) No Impact.** There is no riparian habitat on the site.
- c) No Impact.** There are no wetlands as defined by Section 404 of the Clean Water Act located on or near the project site.

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- d) **Less Than Significant Impact.** The project site is a vacant former agricultural site surrounded by residential development with intermittent vacant parcels zoned for residential use. Although there is a patchwork of intermittent contiguous and noncontiguous vacant parcels in the area that may allow movement for some wildlife species such as coyotes, there is no established corridor. Due to its degraded condition and location within a large urban area, it does not support native wildlife nursery sites. See discussion in Item 3.4.3(a) for potential burrowing owl to use the site.
- e-f) **Less Than Significant Impact.** The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) provides a comprehensive regional plan that balances growth projected in the Coachella Valley with the requirements of federal and state endangered species laws. The CVMSHCP area includes approximately 1.2 million acres in the Coachella Valley and the surrounding mountains and calls for the creation of an MSHCP Reserve System consisting of existing conservation areas and new additional conservation areas to provide habitat to protect 27 sensitive plant and animal species.

The CVMSHCP is divided into 21 Conservation Areas. The nearest Conservation Areas to the project site are the Santa Rosa and San Jacinto Mountains Conservation Area, southwest of the City. Although the City of Coachella is located within the MSHCP Plan Area it is not within a Conservation Area. The City, along with other cities in the Valley have agreed to adopt local development mitigation fees that apply to new construction to generate revenue to be used to acquire approximately 89,000 acres of land in the designated Conservation Areas. The City of Coachella has adopted its Local Development Mitigation Fee which is applicable to development projects such as the proposed residential development, market, gas station, and commercial buildings. For residential development, the fee is based on units per acre. If the development is 0-8 units per acre, the current fee is \$1301 per unit. For 8-14 units per acre, the current fee is \$541 per unit and for 14+ units per acre, the current fee is \$239 per unit. Commercial development is subject to the current fee in the amount of \$5,809 per acre. The applicant will be responsible for the payment of development fees based on the amounts listed above, or the most current CVMSHCP fee schedule. The fee schedule is updated at the beginning of each fiscal year. Therefore, this impact would be less than significant.

3.4.4 Mitigation Measures

BIO-1 Prior to any land disturbance, the applicant shall have a pre-construction survey conducted at the project site to determine presence/absence of burrowing owl. Results of the survey may determine whether focused surveys for the species must be conducted.

BIO-2 If the site survey determines the presence of burrowing owl, mitigation in accordance with the California Department of Fish and Wildlife (CDFW) shall be implemented as follows:

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- If burrowing owls are identified as being resident on-site outside the breeding season (February 1 through August 31) may be relocated to other sites by a permitted biologist (permitted by CDFG), as allowed in the CDFG *Staff Report on Burrowing Owl Mitigation* (March 2012).
- If an active burrow is found during the breeding season, the burrow shall be treated as a nest site and temporary fencing shall be installed at a distance of 550 yards from the active burrow to prevent disturbance during grading or construction. This is the maximum buffer distance recommended in the CDFW *Staff Report on Burrowing Owl Mitigation*. Installation and removal of the fencing shall be done with a biological monitor present.

3.4.5 Level of Significance After Mitigation

With implementation of the mitigation measures BIO-1 and BIO-2, the project would have a less than significant impact on biological resources

3.5 Cultural Resources

3.5.1 Sources

- *City of Coachella General Plan 2035 Draft EIR, July 2014*. Prepared by Raimi & Associates.
- *82266 Avenue 50 Cultural Resources Assessment, City of Coachella, Riverside County, California*. Prepared by Cogstone Resource Management, Inc., June 2012.
- *Paleontological Resources Assessment of 82266 Avenue 50 Project, City of Coachella, Riverside County, California, June 2012*. Prepared by Cogstone Resource Management, Inc., June 2012.

3.5.2 Environmental Setting

The Coachella Valley, now one of the hottest and driest places in North America, once contained an enormous freshwater lake teeming with fish and wildlife. Prior to dam construction on the Colorado River, the slower flow of the river meanderings resulted in the deposition of a great deal of sediment in the lower channels of the Colorado River delta. Accumulating silts raised the overall height of the delta and lowered stream channel margins to form an artificial dam. River channels near the delta crest occasionally broke through their natural levees and the full flow of the Colorado River poured down the steeper northern slope of the delta into the low-lying Salton Trough in eastern Riverside and Imperial Counties. During large flood events, extensive head cutting and enlargement of the channel prevented the Colorado River from reestablishing a route back through the newly reworked surface of the delta and an immense freshwater lake formed in the Salton Trough—Lake Cahuilla. There have been many fluctuations of the lake levels over time. Believed to have had at least five high stands in the past 2000 years, at its maximum, Lake Cahuilla was 110 miles long (roughly north-south), 32 miles wide (roughly

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east-west) and more than 300 feet deep at the center, three times the area and six times the depth of the present Salton Sea.

By the Late Prehistoric period, the Coachella Valley was home to affiliated peoples known as the Cahuilla. They occupied the San Gorgonio Pass, San Jacinto and Santa Rosa Mountains, and the Coachella Valley and the northern end of the Imperial Valley. The project site is located within the Cahuilla Territory.

In the past, the area was used for farming and the project site was farmed in the past. Beginning around the 1980's agricultural uses began to be supplanted by residential subdivisions including neighborhoods to the north and east of the project site.

3.5.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| CULTURAL RESOURCES – Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- a) **Less than Significant Impact with Mitigation Incorporated.** The project site is an undeveloped tract of land that has been highly disturbed over the years by agricultural pursuits that appear to have ceased operation in 2004. According to the project's *Phase 1 Environmental Site Assessment* (Appendix E), historic aerial photo inventory and historic USGS topo maps, the site was brought into agricultural production sometime between 1939 and 1953. The site had large rectangular building located near the southwest portion of the project site by 1953. By 2004, while nearby properties were being converted from agricultural to residential use, and farming

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also ceased at the project site. The building located at the southwest corner of the site was removed and by 2006 a storage yard was located along the northeast corner of the project site, which was later removed by 2009. The western boundary where most of the trees were formerly located appeared to have a lot of vehicle tracks, suggesting that this area had been flattened out. The site has been generally unchanged from 2009 to present with only one mature tree left along the project site's western boundary. Based on the chronological time-line information provided from project site aerial photographs, there are no historic resources located on the project site.

- b) **Less than Significant with Mitigation Incorporated.** A field survey of the project site was also completed as part of the cultural resources assessment. Sparse vegetation such as creosote and brittle bush, cholla cactus and non-Native introduced grasses were found on the site. Also found in the southwestern corner of the site were two small cement slabs, a stand pipe associated with the previous agricultural use, and widely scattered late 20th century refuse. There is no evidence of intact historical hollow features present at this location that might indicate the presence of potentially significant historical deposits. This location corresponds to a former structure location that is depicted on the 1960 and 1977 U.S.G.S. topographic map for the area. Based on surface observations of the historical structural remains and scattered refuse, these deposits do not appear to be significant deposits eligible for listing on the California Register of Historical Resources.
- c) **Less than Significant with Mitigation Incorporated.** The cultural resources assessment prepared for the project site included a search of archaeological and historical records encompassing a one-mile radius around the approximate 20-acre project site. The records search indicated that 55 cultural resources investigations have been completed within the one-mile radius of the site. No investigation was previously completed within the project boundaries until 2012. Results of these studies indicate that there are a total of 33 cultural resources sites known in the vicinity. Of these, two are immediately adjacent to the project site, seven are within a ¼-mile radius, nine are within a ½-mile radius and 15 have been documented within a ½ mile to one mile radius. Most of these resources are prehistoric in nature. Two sites containing Native American human cremations were also identified within a one-mile radius of the project site and there is a remote possibility that human cremations may be present in subsurface contexts within the project site. Based on the results of the records search, the project site is considered to be highly sensitive for prehistoric archaeological deposits in subsurface contexts. The potential for the project site to contain intact historical archaeological deposits is considered to be low-to-moderate. Therefore, mitigation is required and is listed in Section 3.5.4 below.
- d) **Less than Significant Impact with Mitigation Incorporated.** A paleontological records search was completed at the San Bernardino County Museum. The project area and a ten-mile radius

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were searched for resources. No fossil localities have been previously collected from the project area or within a one-mile radius of the target property.

The project is located within Holocene Lake Cahuilla beds that are considered to have a high paleontological sensitivity and has been confirmed by the SBCM. Paleontologically significant fossils dating from 6,000 to 1,000 years old have been previously recovered from nearby La Quinta. These fossils provided previously unknown information on the distribution and associations of fossil vertebrates in the Holocene. The maximum depth of those excavations was 13 feet.

Those sediments that are more than three feet deep are considered sensitive. Mini-mart gas tanks and potentially the proposed retention basin and utility lines, or any grading activities performing excavations greater than three feet will require paleontological monitoring. See the mitigation measures included in Section 3.5.4 below.

- e) **Less than Significant Impact with Mitigation Incorporated.** The discovery of human remains is always a possibility during ground disturbances. State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The Riverside County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. This requirement is also listed as a mitigation measure in order to ensure that it is included in the Mitigation Monitoring and Reporting Program.

3.5.4 Mitigation Measures

- CR-1** Because the project site is considered to be highly sensitive for containing prehistoric archaeological deposits in subsurface contexts and Native American human cremation have been found in the vicinity, a qualified archaeological monitor shall be present during all phases of construction grading and trenching activities related to project implementation. The amount of monitoring shall be determined by the archaeologist through the preparation of a monitoring plan to be prepared prior to commencement of grading.
- CR-2** A qualified vertebrate paleontologist shall be retained prior to the start of construction, but after final depths of impacts are known (grading plans), to develop a paleontological mitigation plan limited to the proposed deep impact areas (greater than 3 feet) of the project only. In particular, the plan shall (1) clearly define that test trenches that would be dug to the maximum depth of proposed impacts, (2) permit the use of heavy equipment to perform the trenching as all samples

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will be taken from sidewalls after a stratigraphic profile is developed, (3) require recording of each strata revealed, (4) require radiocarbon dates for each strata, (5) require samples of about 10 kilogram (kg) for each strata with collection of additional samples up to 100 kg for layers rich in vertebrate fossils, (6) require identification and analysis by recognized experts, (7) require an interpretive report, (8) require curation of significant specimens recovered and (9) encourage publication of results. The plan would identify the amount of monitoring required.

CR-3 In the event that human remains are uncovered, no further disturbance shall occur until the Riverside County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The Riverside County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

3.5.5 Level of Significance After Mitigation

With implementation of the mitigation measures listed above, the project would have a less than significant impact on cultural resources.

3.6 Geology/Soils

3.6.1 Sources

- *Geotechnical Investigation Proposed Residential Development Tentative Tract Map 36680 APN 612-280-018, Coachella California.* Prepared by Sladden Engineering, December 31, 2013.
- *Geotechnical Investigation, Proposed Apartment Complex and MiniMart.* Prepared by Sladden Engineering, February 12, 2012.
- *City of Coachella General Plan 2035 Draft EIR,* July 2014. Prepared by Raimi & Associates.

3.6.2 Environmental Setting

The project site is located within the Colorado Desert Physiographic Province (also referred to as the Salton Trough) that is characterized as a northwest-southeast trending structural depression extending from the Gulf of California to the Banning Pass. The Salton Trough is dominated by several northwest trending faults, most notably the San Andreas Fault system. The Salton Trough is bounded by the Santa Rosa-San Jacinto Mountains on the southwest, the San Bernardino Mountains on the north, the Little San Bernardino –Chocolate-Orocopia Mountains on the east, and extends through the Imperial Valley into the Gulf of California on the south.

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A relatively thick sequence (20,000 feet) of sediment have been deposited in the Coachella Valley portion of the Salton Trough from Miocene to present times. These sediments are predominately terrestrial in nature with some lacustrine (lake) and minor marine deposits. The major contributor of these sediments has been the Colorado River. The mountains surrounding the Coachella Valley are composed primarily of Precambrian metamorphic and Mesozoic “granitic” rock.

The site has been mapped and found to be immediately underlain by undifferentiated Quaternary-age lake deposits (Ql) and alluvium (Qal). The project site is located in the Coachella Valley, which is a seismically active area located in the northern part of the Salton Trough, a topographic depression formed from seismic activity along the San Andreas Fault. The project site is relatively flat at an elevation of approximately 28-36 feet below mean sea level.

The San Andreas Fault system is located to the north of the project site. The Coachella Valley is surrounded by the Little San Bernardino Mountains to the northeast, the foothills of the San Bernardino Mountains to the northwest, and the San Jacinto and Santa Rosa Mountains to the southwest.

Subsurface conditions were investigated by drilling five exploratory boreholes as part of project geology study between 21 and 51 feet in order to observe the subsurface soil conditions. The locations of these boreholes can be found in the Geotechnical Investigation in Appendix D. The native soils consist of primarily silty sand, sandy silt, and poorly graded sand. Groundwater was encountered at a depth of 48 feet.

There is potential for moderate to strong seismic shaking and it is likely to occur during the design life of the project. There are highly seismically active faults in the region but the site is not located within any State of California or County of Riverside designated fault zones.

3.6.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| GEOLOGY AND SOILS – Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |

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| | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| i) Rupture of a known fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a.i) **Less than Significant Impact.** Surface rupture can be expected to occur along preexisting, known active fault traces. However, there are no known faults in the area of or projecting towards the site. There are also no signs of active surface faulting on the site or in the vicinity of the site. Risks associated with surface rupture are low. Therefore, no impact is expected to occur.
- a.ii) **Less than Significant with Mitigation Incorporated.** The site has been subjected to ground shaking in the past due to the seismically active faults throughout the region. There is a potential for strong seismic shaking on the site during the design life of the project. Implementation of mitigation measure GS-1 requires that, structurally, the buildings shall be designed per seismic requirements in the California Building Code. This will reduce the impact to a less than significant level.

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- a.iii) **Less than Significant with Mitigation Incorporated.** Liquefaction, or the process in which loose, saturated granular soil loses strength and a result of cyclical loading, is likely to occur at the site during a seismic event. Mitigation Measure GS-2, including proper preparation of the building areas and proper compaction will ensure that the liquefaction potential is reduced to a less than significant level. See Section 3.6.4 below.
- a.iv) **No Impact.** Because the site is relatively flat and not immediately adjacent to any slopes or hillsides, there is no potential impact to future residents from landslides.
- b) **Less than Significant With Mitigation Incorporated.** No signs of flooding or erosion were observed by the geotechnical specialists during their site visit. There is a negligible risk of soil erosion or loss of topsoil with the proposed project once it is constructed as the site will be developed with residences and a commercial plaza with heights limited to 2 stories. As shown in Exhibit 6, the residential portion will provide 115 dwelling units, common open space areas, a small park and four retention basins, and up to 105 guest parking spaces. During construction, undeveloped areas of the site would be treated with soil stabilizing agents and BMPS (i.e., silt fencing, fiber rolls, sandbagging, etc.) to prevent wind and water erosion from leaving the site. These would all be included in the applicant's Stormwater Pollution Prevention Plan (SWPPP) described in detail in Section 2.9, Hydrology and Water Quality. During construction, mitigation measures for the control of fugitive dust (Section 2.3 Air Quality) and water erosion (Section 2.8 Hydrology and Water Quality) will be implemented to reduce the potential for erosion to occur.
- c) **Less than Significant Impact With Mitigation Incorporated.** There is evidence that the site could be exposed to risk of subsidence, liquefaction, and settlement due to the composition of the on-site soils. However, Mitigation Measure GS-2 as recommended in the Geotechnical Investigation for the grading process will reduce the risk by preparing the site properly for the building loads expected. These measures will reduce the impact to a less than significant level.
- d) **Less than Significant Impact.** Generally, the site soil consists of silty sand and sandy silt. Based on the results of the laboratory testing (EI=5), the materials underlying the site are considered to have a "very low" expansion potential and the risk of structural damage caused by volumetric changes in the subgrade soil is considered negligible.
- e) **No Impact.** The proposed project will be connected to a sanitary sewer system and no septic system or any alternative wastewater treatment is proposed.

3.6.4 Mitigation Measures

The following recommendations in the geotechnical investigation (Appendix D) will ensure there are less than significant impacts regarding geology and soils:

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GEO-1 structurally, the buildings shall be designed per seismic requirements in the California Building Code.

GEO-2 All earthwork including excavation, backfill and preparation of the subgrade soil, shall be performed in accordance with the geotechnical recommendations presented in *Geotechnical Investigation, Proposed Residential Development, Tentative Tract Map 36680, APN 612-280-018, Coachella California*, December 2013, prepared by Sladden Engineering, and portions of the local regulatory requirements, as applicable.

3.6.5 Level of Significance After Mitigation

With the implementation of the mitigation measures listed above, the project would have a less than significant impact regarding Geology and Soils.

3.7 Greenhouse Gas Emissions

3.7.1 Sources

- *Global Climate Change, Avenue 50 and Calhoun Street, City of Coachella, California*, January 11, 2016, Ldn Consulting.
- *Global Climate Change (TTM 36680), Residential Development, City of Coachella, California*, April 17, 2015, Ldn Consulting.
- *City of Coachella Climate Action Plan*, Adopted April 2015.

3.7.2 Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. The six most important greenhouse gases are carbon dioxide, methane, nitrous oxide (N₂O), sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs), followed by water vapor, ozone, and aerosols. Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Community-wide greenhouse gas emissions increased from 312,628 metric tons in 2005 to 355,956 metric tons in 2010. The City's intent is to establish long-term goals and policies for managing and protecting its natural resources and open spaces with the 2035 General Plan Update and maintain, implement, and update the Climate Action Plan.

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3.7.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| GREENHOUSE GAS EMISSIONS – Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a) **Less than Significant.** SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration (SCAQMD draft local agency threshold); however, the SCAQMD Board has not approved the thresholds as of the date of this analysis.

The current draft thresholds consist of the following tiered approach:

Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project’s construction emissions are averaged over 30 years and are added to a project’s operational emissions. If a project’s emissions are under one of the following screening thresholds, then the project is less than significant:

- All land use types: 3,000 MTCO₂e per year
- Based on land use type: residential: 3,500 MTCO₂e per year; commercial: 1,400 MTCO₂e per year; industrial: 10,000 MTCO₂e ; or mixed use: 3,000 MTCO₂e per year.

Tier 4 has the following options:

- a. Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined;
- b. Option 2: Early implementation of applicable AB 32 Scoping Plan measures;
- c. Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans; and,

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- d. Option 3: 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans.

Section 15064.4(b) of the CEQA Guideline amendments for greenhouse gas emissions state that a lead agency may take into account the following three considerations in assessing the significance of impacts from greenhouse gas emissions:

- Consideration #1: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Project Greenhouse Gas Inventory

This analysis is restricted to greenhouse gases identified by AB 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The project would generate a variety of greenhouse gases during construction and operation, including several defined by AB 32 such as carbon dioxide, methane, and nitrous oxide.

Certain greenhouse gases defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

Construction

Both project phases would emit greenhouse gases from upstream emission sources and direct sources (combustion of fuels from worker vehicles and construction equipment). The emissions modeling represents a conservative analysis, and was used to assess the projects' potential greenhouse gas impacts.

Residential

As shown below in Table 15, *Expected Annual Construction CO₂e Emissions Summary MT/Year*, construction equipment and worker vehicles for the project residential component are estimated

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to generate a total of approximately 514.42 MTCO₂e for year 2016 and 251.30 MTCO₂e for year 2017. The emissions are from grading and construction during this timeframe which total out at 765.72 MTCO₂e.

Table 15 Expected Annual Construction CO₂e Emissions Summary MT/Year - Residential

| Year | Bio-CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---------|----------|-----------|------|------|--------|
| 2016 | 0.00 | 511.97 | 511.97 | 0.12 | 0.00 | 514.42 |
| 2017 | 0.00 | 250.33 | 250.33 | 0.05 | 0.00 | 251.30 |
| Total | | | | | | 765.72 |
| Yearly Average Construction Emissions (MT/year over 30 years) | | | | | | 25.52 |

Source: *Global Climate Change (TTM 36680), Residential Development, City of Coachella, California, January 11, 2016, Ldn Consulting, Table 5.1.*

Notes:

Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 4.1 of the Report (Appendix G).

The estimate shown in Table 15 is lower than the projected SCAQMD threshold of 10,000 MTCO₂e; therefore impacts due to construction of the residential component would be less than significant.

Commercial

As shown below in Table 16, *Expected Annual Construction CO₂e Emissions Summary MT/Year*, construction equipment and worker vehicles for the project commercial component are estimated to generate a total of approximately 115.58 MTCO₂e for year 2016 and 87.57 MTCO₂e for year 2017. The emissions are from grading and construction during this timeframe which total out at 203.15 MTCO₂e.

Table 16 Expected Operational Emissions Summary MT/Year - Commercial

| Year | Bio-CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--|---------|----------|-----------|------|------|--------|
| 2016 | 0.00 | 114.96 | 114.96 | 0.03 | 0.00 | 115.58 |
| 2017 | 0.00 | 87.12 | 87.12 | 0.02 | 0.00 | 87.57 |
| Total | | | | | | 203.15 |
| Yearly Average Construction Emissions (MT/year over 30 years) | | | | | | 6.77 |
| Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 4.1 of the Study. | | | | | | |

Source: *Global Climate Change, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 5.1.*

The estimate shown in Table 15 is lower than the projected SCAQMD threshold of 10,000 MTCO₂e; therefore impacts due to construction of the commercial component would be less than significant.

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Operations

Operational or long-term emissions occur over the life of the projects. The operational emissions for the commercial and residential land use components are shown in Tables 16, *Expected Operational Emissions Summary MT/Year - Commercial* and 17, *Operational Greenhouse Gas Emissions - Residential*. Based on the estimates, both project land use components without mitigation would maintain emissions below the projected SCAQMD threshold and would result in a less than significant impact.

Table 17 Operational Greenhouse Gas Emissions -Residential

| Emissions Sources | Emissions (MTCO ₂ e / Year) |
|-------------------------|--|
| Area | 86.95 |
| Energy | 208.48 |
| Waste | 61.36 |
| Water | 9.29 |
| Mobile | 1,093.18 |
| Total Project Emissions | 1,459.27 |
| SCAQMD Threshold | 3,500 |
| Significant? | No |

Source: *Global Climate Change (TTM 36680), Residential Development, City of Coachella, California, January 11, 2016, Ldn Consulting, Table 5.2.*

Notes:

MTCO₂e=metric tons of carbon dioxide equivalent Source of emissions:
CalEEMod Output

Table 18 Operational Greenhouse Gas Emissions - Commercial

| Emissions Sources | Emissions (MTCO ₂ e / Year) |
|-------------------------|--|
| Area | 0.00 |
| Energy | 297.75 |
| Waste | 104.35 |
| Water | 48.40 |
| Mobile | 779.81 |
| Total Project Emissions | 1,230.32 |
| SCAQMD Threshold | 3,500 |
| Significant? | No |

Source: *Global Climate Change, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting, Table 5.2.*

Notes:

MTCO₂e=metric tons of carbon dioxide equivalent Source of emissions: CalEEMod Output

- b) **Less than Significant.** The City of Coachella Climate Action Plan (CAP) outlines the City's commitment in reducing greenhouse gas emissions. The Climate Action Plan's emission reduction goal of 15 percent below 2010 levels by 2020 is consistent with AB 32 reduction goals and CARB's

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Scoping Plan. Therefore, project consistency with the City's Climate Action Plan was utilized for this analysis. Consistency with the City's Climate Action Plan would also demonstrate consistency with the State's adopted Climate Change Scoping Plan. The project's 2010 and 2020 emissions were modeled using CalEEMod 2013.2.2 modeling results.

The City of Coachella CAP estimates that the Service Population GHG emission in 2010 was 8.2 MTCO_{2e}. Given that the Service Population emission for the project's commercial component upon generated build out will be 6.77 MTCO_{2e}, a 17.4 percent reduction over 2010 Service Population emissions would be expected. Lastly, given that the SP emission for the project's residential component upon generated build out will be 4.5 MTCO_{2e}, a 44.8 percent reduction over 2010 Service Population emissions would be expected. Therefore, both of the project elements, commercial and residential would be compatible with the City's Climate Action Plan.

One way the project would meet the City's intent to lower vehicle trips, and thus greenhouse gas emissions is to provide alternatives such as walking or biking by providing shopping opportunities near residential neighborhoods where new residents and those in existing adjacent neighborhoods can take advantage of the close proximity of new commercial center.

In addition, the project must comply with Title 24 of the California Building Code which requires energy efficient building materials and appliances to be used in all new residential and commercial projects.

3.7.4 Mitigation Measures

No mitigation measures are required.

3.7.5 Level of Significance After Mitigation

Both project land use elements would have a less than significant impact on greenhouse gas emissions.

3.8 Hazards and Hazardous Materials

3.8.1 Sources

The following sources were utilized to support the conclusions made in this section:

- *Report of Phase I Environmental Site Assessment with Pesticide Sampling APN 612-280-018 Northwest Corner Avenue 50 and Calhoun Street Coachella, Riverside County, California*, prepared by Earth Systems Southwest, November 15, 2011 (Appendix E).
- *State of California Hazardous Waste and Substances Site List*, www.envirostor.dtsc.ca.gov. Accessed April 2015.

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- *Riverside County Airport Land Use Compatibility Plan Policy Document, Jacqueline Cochran Regional Airport chapter*, Amended September 2006.
- CAL Fire Resources Wildland Hazard & Building Codes Riverside County (West) FHSZ Map http://frap.fire.ca.gov/webdata/maps/riverside_west/fhszl_map.60.jpg. Accessed April 2015.
- *City of Coachella General Plan Update Draft EIR 2035*, July 2014. Prepared by Raimi & Associates.

3.8.2 Environmental Setting

There are no schools located within 0.25 miles of the project site. The nearest school to the project site is the Jordan Christian Academy, a small, private school, located approximately 0.48 miles south of the site on Calhoun Street at Avenue 51.

The project site is not on the State of California Hazardous Waste and Substances Site List pursuant to Government Code Section 65962.5.

The project site is located near the Jacqueline Cochran Regional Airport; however, according to the Riverside County Airport Land Use Compatibility Plan, the project site is not within its Airport Influence Area Boundary. The site is also not in the vicinity of any private airstrips.

The Phase I Environmental Site Assessment (ESA) was conducted for the project site in November 2011. The following is a summary of existing site conditions.

- The site was observed to consist of vacant, formerly agricultural land. The site appeared to have been used for agriculture for several years. Dry, low grass covered the site. The vegetation showed normal signs of seasonal stress. Minor windblown trash was noted across the site.
- A dirt berm/slope was along the west boundary of the site.
- A dirt road was on-site parallel to a block wall along the northern boundary of the site.
- Tires and landscaping debris were along this road.
- Woody debris, wood chips, tires and minor solid trash were near the northwest corner of the site.
- Scattered gravel was near the northeast corner of the site.
- Concrete slabs were observed near the southwest corner of the site.
- Portions of the slabs were painted red.
- Irrigation junction boxes, vents and standpipes were located at the northwest and southwest corners of the site. What appeared to be a dismantled well was adjacent to the standpipe in the southwest corner.

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- A transformer was on a pole near the west boundary of the site, in proximity to the dismantled well. Staining was not noted in association with the transformer.
- A telecom cable paralleled Avenue 50 along the south boundary of the site.
- Evidence of the on-site manufacture, storage, or disposal of hazardous materials was not observed.

The ESA also identified the potential presence of pesticide residues as a recognized environmental condition (REC) for agricultural land.

The proposed project includes a vehicle fuel station with underground storage tanks. Construction and operation of a vehicle fueling station requires a number of permits from multiple agencies.

South Coast Air Quality Management District requires permits to construct and operate focused on Vapor Recovery Systems (per California Air Resources Board) during both fuel delivery into the ground storage tanks and fuel storage and vehicle fueling.

Riverside County Fire Department as the State Certified Unified Program Agency (CUPA) in the Coachella Valley is responsible for issuing its own permits to construct and operate a vehicle fueling station including review and approval of a site specific Hazardous Materials Business Plan (HMBP) that sets forth operational procedures, emergency contact information, emergency response plan for containment spills or release of vapors and other information required in HMBP.

3.8.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| HAZARDS AND HAZARDOUS MATERIALS – Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident condition involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas of where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a/b) **Less than Significant Impact with Mitigation Incorporated.** The project site was surveyed in 2011 for a previous project that was not developed. However, the findings of the Phase I ESA are still applicable to the proposed project because both projects proposed a residential neighborhood and a commercial plaza. Soil samples were taken to evaluate the potential for the presence of pesticide residues from historical farming activities. The samples were collected independently and before the ESA review of the property was completed. The sample locations could not be selected to evaluate suspect areas identified during the ESA. The sample locations are identified as SS1 through SS8, depicted in Exhibit 2 in Appendix A of the Phase I ESA (included in Appendix E).

The regulatory status of pesticide residues is dependent upon how the residue was formed. Pesticide residues that result from legal use of the product are not subject to hazardous waste regulations, even as the property is developed for other uses, because the material is present as

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a result of its intended use. Residues from spills are subject to hazardous waste regulations, because spills are not an intended use and that a spilled material is considered a “waste” if it can no longer be used. In addition, if a soil containing pesticide residues is disposed of, then the hazardous waste regulations apply because the soil has become a waste. Regardless of whether the hazardous waste regulations apply, adverse health effects can result from exposure to pesticide residues. Mitigation of the adverse health effects may be warranted, even if the material is not classified as a hazardous waste.

Residue from three pesticides were detected at the site: DDT; DDE (by-product of the breakdown of DDT); and Dieldrin. The concentrations of these pesticides in the soil were found to be below the State’s thresholds (values). The relatively uniform and low concentrations across the site suggest that these pesticides are present as a result of normal agricultural use. Based on the concentrations detected, pesticides do not appear to be a concern at the site.

Summary of Potential Recognized Environmental Conditions

The purpose of the ESA was to evaluate the site for the presence of Recognized Environmental Conditions [REC] related to the current or past use, handling, storage, or disposal of hazardous materials or petroleum products on or near the subject property. Although the presence of low concentrations of pesticide residue was found in the soil samples and therefore is not considered to be a REC, the ESA did identify a number of potential RECs in connection with this property as follows:

- The northern portion of the western site boundary contains debris and tree remnants. A stand of trees was present along that boundary of the site for many years and was removed between 2006 and 2009. Vehicle tracks in that area suggest that this area was flattened in the last few years (berms of wind-blown sand often build up under trees), and it is possible that debris observed in historical photos from onsite or the adjacent site is buried in that area. Debris by itself is not considered a hazardous material (though it can increase development costs), but the debris may contain hazardous materials. The potential presence of buried debris in the northwest corner of the site is considered an REC.
- Concrete slabs were observed near the southwest corner of the site. The slabs are located where a small building was located prior to 1974. Rural residences and farms often have on-site fuel storage tanks, either above-ground or underground (ASTs and USTs, respectively). Evidence of these features was not observed during the site visit. The concern with USTs is that a release can occur and not be noticed until the UST is removed. USTs are commonly found abandoned in place on older farm properties. The potential presence of USTs is an REC.

3. ENVIRONMENTAL EVALUATION

- What appears to be a dismantled well is located in proximity to the concrete slabs. An electric power pole is adjacent to the feature. If the feature is a former well, then it was likely powered electrically and the presence of a UST to power the well is less likely. Wells no longer in active use are required to be properly abandoned according to applicable State and County regulations. This potential well is an REC for the site.
- Building areas formerly used to store pesticides can contain pesticide residues at elevated concentrations due to spillage during mixing and loading activities. The presence of pesticides in the field areas indicates that pesticides were used on the site, and they may have been stored in the building formerly located in the southwest corner of the site. The potential presence of pesticide residues in the vicinity of the former building is an REC for the site.

Vehicle Fueling Station

Regarding the proposed vehicle fueling station, as outlined in Section 3.8.2, Environmental Setting, the applicant will be required to apply for permits to construct and operate the facility and will be subject to ongoing oversight by SCAQMD and Riverside County Fire Department throughout the life of the project (vehicle fueling station).

- c) **No Impact.** There are no schools located within 0.25 miles of the project site. The nearest school to the project site is the Jordan Christian Academy, a small, private school, located approximately 0.4 miles south of the site on Calhoun Street at Avenue 51. As such, the project would result in no impact to schools due to hazardous materials handling or emissions.
- d) **No Impact.** The project site is not located on the State of California Hazardous Waste and Substances Site List pursuant to Government Code Section 65962.5, according to the State Department of Toxic Substances Control Envirostor website (www.envirostor.dtsc.ca.gov/), accessed April 23, 2015. The project would have no impact in this regard.
- e - f) **No Impact.** The project site is located four miles northwest of Jacqueline Cochran Regional Airport and is not within its Airport Influence Area Boundary. The site is also not in the vicinity of any private airstrips. The project would not result in safety hazards from proximity to airports for people living in the project area.
- g) **Less than Significant.** The project would not interfere with any emergency response or evacuation plans. The residential and commercial components of the project will be designed with adequate ingress/egress in compliance with City of Coachella Fire Department requirements.
- h) **No Impact.** The project area is not near any wildlands and is not susceptible to wildland fires; therefore, the project would not expose people or structures to significant injury, loss or death due to wildfires.

3.8.4 Mitigation Measures

RECs were identified for the project site that require remediation prior to commencement of grading and construction of the project.

- HAZ-1** Further investigation of the vicinity of the slabs in the southwest corner of the site is recommended to evaluate the potential for USTs and pesticide residues. This would include a geophysical survey to look for buried objects and the collection of soil samples to test for pesticide residues.
- HAZ-2** Abandon the existing well on site in accordance with applicable regulations.
- HAZ-3** The potential exists for buried hazardous materials to be present in the northern portion of the western boundary of the site. Prior to commencement of grading, a geophysical survey shall be conducted to look for buried metallic objects, and a backhoe shall be used to dig into the debris field at representative locations to evaluate how much debris is present (if any) and whether hazardous materials appear to be present. If suspect materials are observed, soil samples should be collected and analyzed to evaluate whether hazardous materials are actually present.
- HAZ-4** Prior to Certificate of Occupancy of the Vehicle Fueling Station, the applicant shall apply for and show proof of permits to construct and operate, including an approved HMBP.

3.8.5 Level of Significance After Mitigation

Adherence to existing State regulations regarding RECs, and the remediation of the site in accordance with the mitigation measures identified in the Phase I ESA would ensure that potential impacts would be less than significant levels.

3.9 Hydrology and Water Quality

3.9.1 Sources

The following sources were utilized to support the conclusions made in this section:

- Flood Insurance Rate Maps (FIRM), panel 06065C2262G retrieved from FEMA Map Service Center Website accessed April 2015.
- *Preliminary Hydrology Report (Ravella NWC Avenue 50 and Calhoun Street) Located in the City of Coachella, County of Riverside, California*, Prepared by RCE Consultants, Inc., February 2016.
- *Project Specific Preliminary Water Quality Management Plan for Tract No. 36680, Coachella, California*, Prepared by HEITEC, February 20, 2015.

3. ENVIRONMENTAL EVALUATION

3.9.2 Environmental Setting

The project site is relatively flat with no vegetation on the site aside from a few bushes near the northern boundary of the site. FIRM Panel 06065C2262G shows that the project site is located within Zone X, areas of 0.2 percent annual chance flood, areas of one percent annual chance flood with average depths of one foot, or with drainage areas less than one square mile, and areas protected by levees from one percent annual chance flood.

3.9.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| HYDROLOGY AND WATER QUALITY – Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantially additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3. ENVIRONMENTAL EVALUATION

| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a) **Less than Significant Impact.** Construction activities could expose soils to erosion from rainfall, runoff, and wind. Wind erosion could result in the generation of fugitive dust which is addressed in Section 3.3 Air Quality. Erosion from rainfall and runoff is more problematic because pollutants from heavy equipment or construction related materials, such as diesel, gasoline, oils, grease, solvents, lubricants, or other petroleum products could mix with the water and run offsite.

Prior to site disturbance, the applicant for both the residential and commercial components of the site must apply to the State Water Resources Control Board for coverage under the Construction General Permit (Order No. 99-08-DWQ) (CAS000002), which applies to all stormwater discharges from projects where clearing, grading, and excavation result in soil disturbance of at least one acre or more. The proposed project includes the disturbance of the approximately 20.4-acre site. The Construction General Permit requires an applicant to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP includes a list of the BMPs that would be implemented to prevent soil erosion and the discharge of construction-related pollutants that could contaminate nearby water resources. The SWPPP may include, but is not limited to, the following BMPs:

- *Temporary Soil Stabilization:* sandbag barriers, straw bale barriers, sediment traps, and fiber rolls;
- *Temporary Sediment Control:* hydraulic mulch and geotextiles;
- *Wind Erosion Control:* water of the construction site, straw mulch;
- *Tracking Control:* staging/storage area and street sweeping;
- *Non-stormwater Management:* clear water diversion and dewatering; and

3. ENVIRONMENTAL EVALUATION

- *Waste Management and Materials Pollution Control:* vehicle and equipment cleaning, concrete waste management, and contaminated soil management.

The proposed project must also prepare and implement a Water Quality Management Plan (WQMP) for both the residential and commercial components of the site that includes Best Management Practices (BMPs) to be implemented during post construction operations at the project site to ensure compliance with Regional Water Quality Control Board (RWCQB) water quality standards. Because the two components are different land uses, the WQMP for each site will include site specific BMPs. Such WQMP BMP protocol applicable to the project would include the following:

- Education for Property Owners, Operators, Tenants, Occupants, or Employees;
- Activity Restrictions;
- Irrigation System and Landscape Maintenance;
- Street Sweeping Private Streets and Parking Lots; and
- Drainage Facility Inspection and Maintenance

A WQMP must also include Structural Source Control BMPs specific towards landscape and Irrigation system design, MS4 stenciling and signage and protection of slopes and channels. Finally, the proposed residential portion of the project includes four stormwater basins located (see Exhibit 6) that will be developed with structural BMPs to capture and control pollutants that runoff the site into the basin prior to being released into the storm drain system. The basins will be designed to be five feet deep with an average 4h:1v (horizontal:verticle) slope. The commercial element of the project includes a retention basin on the north side of the Tower Market site, five feet deep with an average 4:1 slope. Therefore, with the project's compliance with SWPPP and WQMP requirements, impacts will be less than significant.

- b) **Less than Significant Impact.** The project consists of a 14.5-acre residential component and a 5-acre commercial component on the site which will increase water demand and potentially increase demand on groundwater. Various conservation methods such as low flow toilets and other fixtures are state mandated and will help lower the demand from the project. Additionally, Coachella Valley Water District (CVWD) maintains groundwater recharge programs in the Valley which have been successful in helping to offset overpumping of groundwater. Therefore, adherence to said conservation methods will reduce impacts to less than significant.
- c) **No Impact.** The project would not alter any streams or rivers but could alter the drainage pattern of the area by introducing impervious surfaces to the site. This could result in erosion offsite as well as increase the rate of runoff from the site. A SWPPP, including Best Management Practices (BMPs) would be implemented, retention system, etc.

3. ENVIRONMENTAL EVALUATION

- d) **No Impact.** See response to “3.9.3 (c) above.
- e) **No Impact.** Runoff water from the site is not expected to exceed the capacity of stormwater drainage systems as the residential component includes four retention basins, and the future commercial site would also be required to treat and retain stormwater onsite. A SWPPP and WQMP containing BMPs applicable to the project development would be implemented to reduce the potential for polluted runoff.
- f) **Less than Significant Impact.** See response to 3.9.3 (a) above.
- g) **Less than Significant Impact.** The Federal Emergency Management Agency (FEMA) produces maps (Flood Insurance Rate Map) that identify areas that are located in flood zones. The map that addresses this portion of the City of Coachella is FIRM Panel 06065C2262G which shows that the project site is located within Zone X. This zone designates areas of 0.2 percent annual chance flood, areas of one percent annual chance flood with average depths of one foot or with drainage areas less than one square mile, and areas protected by levees from one percent annual chance flood.

To protect the site from potential flooding during storm events, the site will be graded so that it drains to four (4) on-site water quality (retention) basins located within the parks developed throughout the residential portion of the site (Refer to Exhibit 4). The commercial site would also be required to treat and retain stormwater onsite. Therefore, with installation of said retention basins, impacts in this regard are considered less than significant.
- h) **No Impact.** See response to 3.9.3 (g) above.
- i) **No Impact.** There are no levees or dams near the site.
- j) **No Impact.** The project site is located too far inland to be inundated by a tsunami. Additionally, the project site is not near any bodies of water and is not near any substantial slopes; therefore the project site would not be inundated by seiche or mudflow.

3.9.4 Mitigation Measures

With implementation and compliance to standard operating procedures of the SWPPP and WQMP no mitigation measures are required.

3.9.5 Level of Significance After Mitigation

Impacts on hydrology and water quality would be less than significant.

3.10 Land Use and Planning

3.10.1 Sources

The following sources were utilized to support the conclusions made in this section:

3. ENVIRONMENTAL EVALUATION

- 2010 City of Coachella Zoning Map
- 2009 City of Indio Zoning Map; 2004 City of Indio General Plan Map
- 2011 Riverside County Progress Report for Coachella prepared by the Riverside County Center for Demographic Research <http://www.rctlma.org/rcd/content/progress.aspx>, accessed April 2015.
- Land Use Element p. 17, City of Coachella General Plan 2035

3.10.2 Environmental Setting

The project site is located in an area that is mainly developed with residential uses. The current General Plan and Zoning designations for the site are as follows:

General Plan: Current designation is Neighborhood Center (C-N).

Zoning: Current designation is Residential Single Family (R-S).

The project site (APN 612-280-018) is a vacant former agricultural site located at the northwest corner of Avenue 50 and Calhoun Street and is surrounded by residential neighborhoods to the north, east and south, and by vacant land and a church site to the west; vacant parcels in the vicinity are also designated for residential uses.

3.10.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| LAND USE AND PLANNING – Would the project: | | | | |
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3. ENVIRONMENTAL EVALUATION

- a) **No Impact.** The proposed project would not physically divide an established community. The project site is currently vacant and surrounded by residential neighborhoods. Each neighborhood is self-contained behind perimeter walls with access from public streets. Exhibit 2 in Chapter 2, *Project Description*, shows the communities near the project site.
- b) **Less than Significant Impact.** The applicant is seeking a number of entitlements in order to develop an approximately 20-acre site into two separate projects, an approximately 5-acre commercial plaza at the northeast corner of Avenue 50 and Calhoun Street, and an approximately 14.5-acre residential subdivision.

Tentative Tract Map 37088

Tentative Tract Map (TTM) 37088 would create four parcels. Parcels 1 through 3 would contain a 5-acre commercial plaza to be located in the southeast portion of the project site at the corner of Avenue 50 and Calhoun Street and Parcel 4 would contain the proposed 115 residential dwelling units and associated infrastructure.

Change of Zone

Commercial Area

The applicant is pursuing a Change of Zone from R-S to Neighborhood Commercial (C-N NC-PD) to accommodate development of three commercial lots, the Tower Energy Market and Fueling Station (Lot 1) and two additional commercial pads (Lots 2 and 3). The commercial element of the project is illustrated in relation to the residential element of the project in Exhibit 6. The Commercial element will include the following:

- Lot 1 is a 1.37-acre lot containing a 5,200 square foot market, a 5,076 square foot fuel station area with a canopy structure, and 23 parking spaces in front of the market.
- Lot 2 is a 1.12-acre lot containing a 9,750 square foot commercial building on the southwest side of the property and 42 parking spaces around the east and north sides of the building.
- Lot 3 is a 2.58-acre lot containing a 20,000 square foot building on the north side of the commercial property to be used as a professional office and/or retail, and 94 parking spaces around the south and west side of the building.

Access to the commercial site will be from Avenue 50 and Calhoun Street and will be separate from the access drives into the residential neighborhood.

3. ENVIRONMENTAL EVALUATION

Residential Area

Lot 4 will require a Change of Zone from R-S to R-M-PD (Residential Medium-Planned Development), establishing a Planned Development Overlay Zone to allow the development of 115 dwelling units and related uses (roads, 4 retention basins, open space, and a park site). Existing and proposed zoning designations are shown in Exhibit 6. The maximum residential lot size within Lot 4 will be 3,789 square feet and the minimum lot size will be 2,373; with an average lot size of 2,668.

The interior roads will be developed at 40 feet along the main road, and 32 feet wide for other interior roads. The residences will all include garages and driveways for resident parking. A total of 105 guest parking spaces will be available on both sides of the 40-foot wide streets, on one side of the 32-foot wide streets, and 6 parking spaces along the north side of the Lot AB (retention basin), and 10 spaces along the north side of Lot 3 (commercial site).

Access to the residential portion of the site will be from one entrance on Avenue 50, west of the commercial site, and a second entrance on Calhoun Street, north of the commercial site. Access to the residential area will not be gated.

Conditional Use Permits

Both the residential and commercial components require a Conditional Use Permit (CUP). CUP 267 would allow a Service Station use within the C-N-PD zoned area. CUP 268 would allow residential uses in the R-M-PD zoned area.

The residential component would assist in the demand for housing during present economic conditions. The area is currently developed with only single-family neighborhoods. The applicant proposes to develop homes on smaller lot sizes than other neighborhoods in the area. The project would still be compatible with these neighborhoods by providing single-family lots and would meet the goals of the General Plan to provide for a diversity of residential densities and housing types for Coachella residents.

Additionally, there are few commercial amenities in the immediate vicinity, aside from CVS Pharmacy at Van Buren Street and Avenue 50 and the Desert Store in Indio at Jackson Street and Avenue 50. The nearest gas station to this area is nearly two miles to the east, either at the Food For Less Shopping Center or at the intersection of Avenue 48 and Grapefruit Boulevard, but the commercial component of the project will develop a market and gas station adjacent to the residential development at the corner of Avenue 50 and Calhoun Street. Having a 5-acre neighborhood commercial site at this intersection would serve the residents of the existing residential in this area, as well as serve future residential developments proposed for this area.

3. ENVIRONMENTAL EVALUATION

Upon approval of the entitlements, TTM, Zone Change and CUPs, the project would be consistent with the City’s Zoning and General Plan and no land use impacts would occur.

- c) **No Impact.** The project is not located within any conservation areas of the CVMSHCP and would not conflict with this plan. The applicant will be responsible for the payment of the local development mitigation fee for the CVMSHCP. For residential development, the fee is based on units per acre. If the development is 0-8 units per acre, the current fee is \$1301 per unit. For 8-14 units per acre, the current fee is \$541 per unit and for 14+ units per acre, the current fee is \$239 per unit. Commercial development is subject to the current fee in the amount of \$5,809 per acre. These are the most current CVMSHCP fees. The fee schedule is updated at the beginning of each fiscal year.

3.10.4 Mitigation Measures

No mitigation measures are required.

3.10.5 Level of Significance After Mitigation

The project would have a less than significant impact on land use.

3.11 Mineral Resources

3.11.1 Sources

The following sources were utilized to support the conclusions made in this section:

- City of Coachella General Plan 2020

3.11.2 Environmental Setting

The project is located in the MRZ-1 zone, as shown in the City’s General Plan, which includes areas where adequate information indicates that no significant aggregate deposits are present or where it is judged that little likelihood exists for their presence.

3.11.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| MINERAL RESOURCES – Would the project: | | | | |

3. ENVIRONMENTAL EVALUATION

| | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a-b) **No Impact.** Since the project is located in the MRZ-1 zone, it would not result in the loss of availability of known mineral resources or locally-important mineral resource recovery sites.

3.11.4 Mitigation Measures

No mitigation measures are required.

3.11.5 Level of Significance After Mitigation

The project would not impact mineral resources.

3.12 Noise

3.12.1 Sources

The following sources were utilized to support the conclusions made in this section:

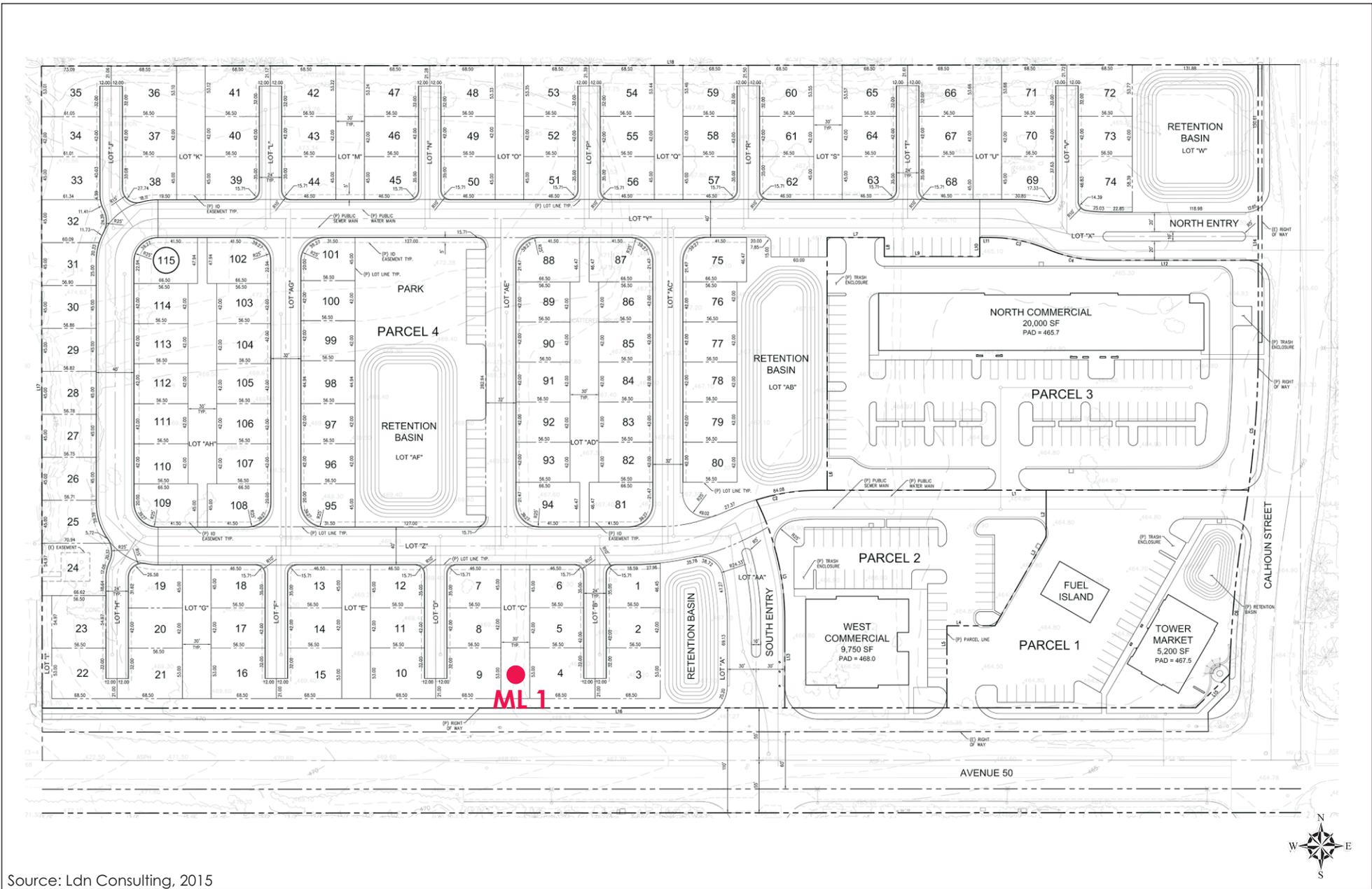
- City of Coachella Noise Control Ordinance, Chapter 7.04 of the City of Coachella Municipal Code, <http://library.municode.com/index.aspx?clientId=16080>, accessed Nov 2012.
- *Noise Study, Avenue 50 and Calhoun Street, City of Coachella*, Prepared by Ldn Consulting, Inc., January 12, 2016. See Appendix G-1
- *Noise Study Ravella (TTM 36680) Residential Development City of Coachella*. Prepared by Ldn Consulting Inc. April 17, 2015. See Appendix G-2

3.12.2 Environmental Setting

The project site is located in an area that is mainly developed with single family residential uses. There are single family communities to the north, south and east of the site. The project site itself is currently vacant and a vacant parcel is located southeast of the site, on the southeast corner of Calhoun Street and Avenue 50. The main noise sources in the area would be associated with traffic along Calhoun Street and Avenue 50 and noise associated with residences, such as air conditioning units and various maintenance activities including landscaping or home improvement. The project is a mixed-use project that proposes to develop 20 acres with a 115-lot residential subdivision and a commercial plaza.

3. ENVIRONMENTAL EVALUATION

Noise Studies were performed by Ldn Consulting for the residential and commercial portions of the project. See Appendix G-1. The ambient measurements were conducted on March 6, 2015. Exhibit 15, *Noise Measurement Location-Residential*, and Exhibit 16, *Noise Measurement Location- Commercial*, show the locations where noise measurements were taken. Noise levels associated with the residential site are shown in Table 19, *Ambient Noise Levels-Residential*, and noise levels associated with the commercial plaza are shown in Table 20, *Ambient Noise Levels- Commercial*. Due to proximity to the roadway, the overall sound level for both sites was found to be 58.1 dBA under existing conditions.



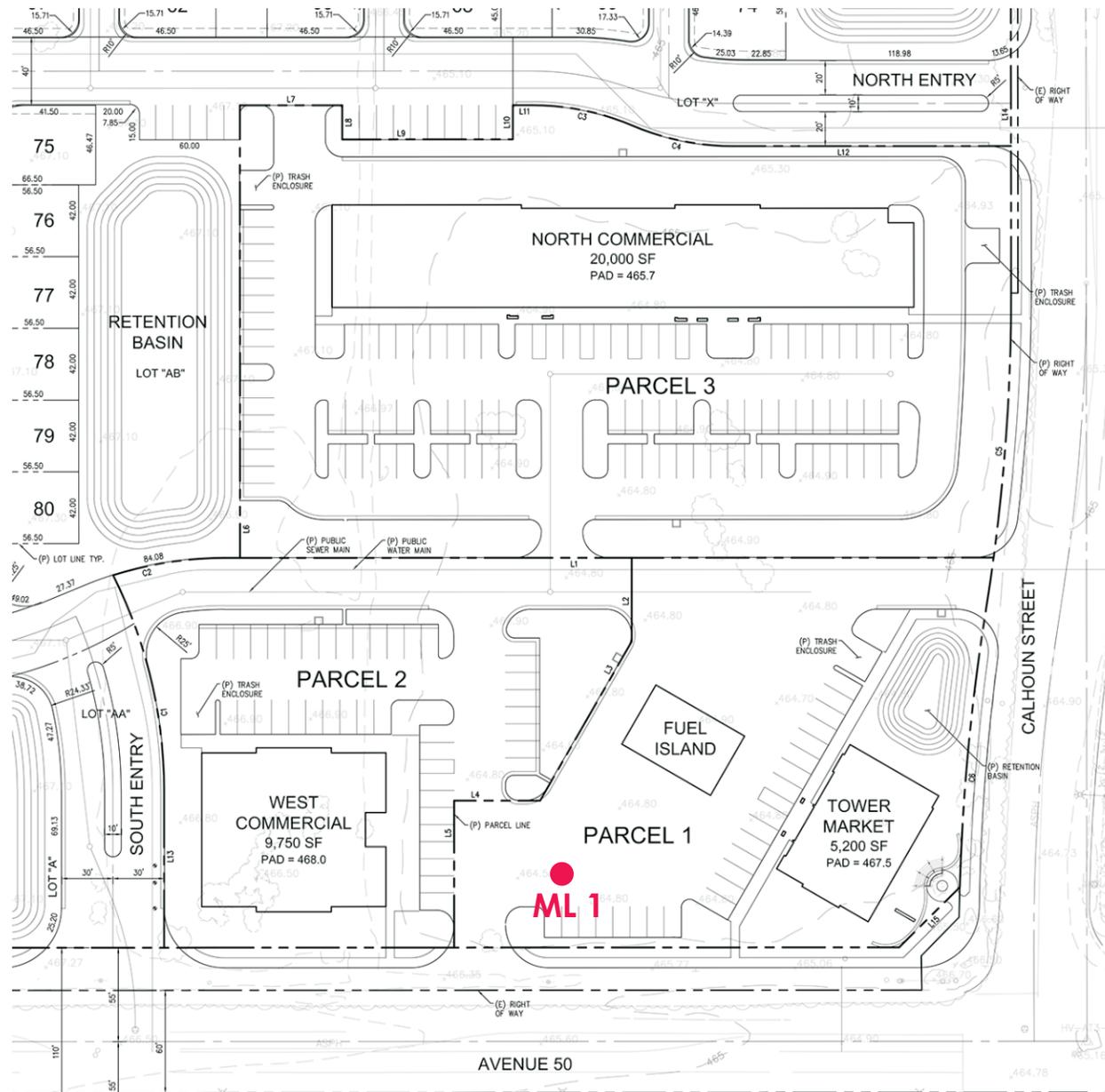
Source: Ldn Consulting, 2015

Noise Measurement Location - Residential Tower Energy Project Initial Study

Exhibit
15



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Source: Ldn Consulting, 2015



Noise Measurement Location - Commercial Tower Energy Project Initial Study

Exhibit
16

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3. ENVIRONMENTAL EVALUATION

Table 19 Ambient Noise Levels - Residential

| Name | Source | Time | Noise Levels (dBA) | | | | | |
|------|-----------|-------------------|--------------------|------|------|------|------|------|
| | | | Leq | Lmax | Lmin | L10 | L50 | L90 |
| ML1 | Avenue 50 | 2:30 PM - 3:00 PM | 58.1 | 71.4 | 45.4 | 56.4 | 55.6 | 50.8 |

Source: Table 4-1, Noise Study, Avenue 50 and Calhoun Street, City of Coachella, Ldn Consulting, Inc. January 12, 2016.

Table 20 Ambient Noise Levels - Commercial

| Name | Source | Time | Noise Levels (dBA) | | | | | |
|------|-----------|-------------------|--------------------|------|------|------|------|------|
| | | | Leq | Lmax | Lmin | L10 | L50 | L90 |
| ML1 | Avenue 50 | 2:30 PM - 3:00 PM | 58.1 | 71.4 | 45.4 | 56.4 | 55.6 | 50.8 |

Source: Table 4-1, Noise Study, Ravella (TTM 36680) Residential Development, Ldn Consulting, Inc. April 13, 2015.

Noise Terminology

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs, and when the noise occurs.

Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level adequately describes the instantaneous noise whereas the equivalent sound level depicted as Leq represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval.

The Community Noise Equivalent Level (CNEL) is the 24-hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of 5 decibels to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of 10 decibels to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

A vehicle's noise level is a combination of the noise produced by a vehicle's engine, exhaust, and tires. The cumulative traffic noise levels along a roadway segment are based on three primary factors: the amount of traffic, the travel speed of the traffic, and the vehicle mix ratio or number of medium and heavy trucks.

3. ENVIRONMENTAL EVALUATION

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of 3 dBA. Therefore the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA. Mobile noise levels radiate in an almost oblique fashion from the source and drop off at a rate of 3 dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt, and hard pack dirt while soft site conditions exist in areas having slight grade changes, landscaped areas, and vegetation. Alternately, fixed/point sources radiate outward uniformly as it travels away from the source. Their sound levels attenuate or drop off at a rate of 6 dBA for each doubling of distance.

Noise Standards

State Standards

California Code of Regulations, Title 24

California Noise Insulation Standards established an interior noise standard of 45 dBA for single unit, multiple unit and hotel/motel structures. Acoustical studies must be prepared for single unit residential structures that are proposed to be located within the Community Noise Equivalent Level (CNEL) noise contours of 60 dBA or greater. The study must demonstrate that the building is designed to reduce interior noise to 45 dBA or lower (CNEL).

Local Standards

City of Coachella General Plan

Table 22, *Land Use - Noise Compatibility Guidelines*, provides a land use compatibility matrix for community noise from the City of Coachella General Plan for evaluating land use noise compatibility when reviewing proposed land use development projects. A “clearly compatible” land use indicates that standard construction methods will attenuate exterior noise to an acceptable indoor noise level and people can carry out outdoor activities with minimal noise interference. Evaluation of land use that falls into the “normally compatible” or “normally incompatible” noise environment should have an acoustical study prepared. The acoustical study should include, with consideration of the type of noise source, the sensitivity of the noise receptor, and the degree to which the noise source may interfere with speech, sleep, or other activities characteristic of the land use. For land uses indicated as “normally compatible” or “normally incompatible”, structures must be capable of attenuating exterior noise to the indoor noise level as shown in Table 22, land uses indicated as “clearly incompatible”, new construction should generally not be undertaken.

City of Coachella Municipal Code

A noise ordinance is designed to control unnecessary, excessive and annoying sounds from stationary (non-transportation) noise sources. Noise ordinance standards typically apply to industrial and

3. ENVIRONMENTAL EVALUATION

commercial noise sources impacting residential areas. They are also applicable to noise generated at parks and schools impacting residential areas and residential uses impacting other residential uses. Noise ordinance requirements cannot be applied to mobile noise sources such as heavy trucks when traveling on public roadways. Federal and State laws preempt control of mobile noise sources on public roads. City of Coachella Municipal Ordinances applicable to the evaluation of the proposed project in this analysis are presented below.

Chapter 7.04.030 (A)

It shall be unlawful for any person to make, continue, or cause to be made or continued, within the city limits any disturbing excessive or offensive noise or vibration which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area or that is plainly audible at a distance greater than fifty (50) feet from the sources point for any purpose. Table 21, Noise Decibel Limits, lists the ten-minute average sound level limits, unless otherwise specifically indicated, shall apply as indicated in the following table as it relates to a fixed noise source or leaf blowers pursuant to Section 7.04.075.

Table 21 Noise Decibel Limits

| Zone | Time | Applicable Ten-Minute Average Decibel Limit (A-weighted) |
|-----------------------|-------------------------|---|
| All residential zones | 6:00 a.m. to 10:00 p.m. | 55 |
| | 10:00 p.m. to 6:00 a.m. | 45 |
| All commercial zones | 6:00 a.m. to 10:00 p.m. | 65 |
| | 10:00 p.m. to 6:00 a.m. | 55 |

Source: Section 7.04.075, Coachella Municipal Code.

Chapter 7.04.070

No person shall perform, nor shall any person be employed, nor shall any person cause any other person to be employed to work for which a building permit is required by the city in any work of construction, erection, demolition, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty except between the hours as set forth as follows:

October 1st through April 30th

Monday—Friday: 6:00 a.m. to 5:30 p.m.

Saturday: 8:00 a.m. to 5:00 p.m.

Sunday: 8:00 a.m. to 5:00 p.m.

Holidays: 8:00 a.m. to 5:00 p.m.

May 1st through September 30th

Monday—Friday: 5:00 a.m. to 7:00 p.m.

Saturday: 8:00 a.m. to 5:00 p.m.

Sunday: 8:00 a.m. to 5:00 p.m.
Holidays: 8:00 a.m. to 5:00 p.m.

Chapter 7.04.075(A)

Noise sources associated with property maintenance activity and all portable blowers, lawnmowers, edgers or similar devices shall be prohibited except during the following hours:

October 1st through April 30th

Monday—Sunday: 9:00 a.m. to 5:30 p.m.

Holidays: Not allowed.

May 1st through September 30th

Monday—Friday: 8:00 a.m. to 5:30 p.m.

Saturday and Sunday: 9:00 a.m. to 5:30 p.m.

Holidays: Not allowed.”

Significance Threshold

In accordance with CEQA, a project should not have a noticeable adverse impact on the surrounding environment. Noise level changes greater than 3 dBA, or a doubling of the acoustic energy, are often identified as audible and considered potentially significant, while changes less than 1 dBA are not discernible. In the range of 1 to 3 dBA, humans who are very sensitive to noise may perceive a slight change. For the purposes for this analysis, a direct and cumulative roadway noise impact would be considered significant if the project increases noise levels at a noise sensitive land use 3 dBA CNEL and if the noise level increases above an unacceptable noise level per the City’s General Plan.

3. ENVIRONMENTAL EVALUATION

Table 22 Land Use- Noise Compatibility Guidelines¹

| LAND USE CATEGORIES | | CNEL | | | | | |
|--|---|--------|--------|--------|--------|--------|--------|
| CATEGORIES | USES | 55 | 60 | 65 | 70 | 75 | 80 |
| RESIDENTIAL | Single Family, Duplex, Multiple Family | Green | Green | Yellow | Yellow | Orange | Red |
| RESIDENTIAL | Mobile Homes | Green | Green | Yellow | Orange | Orange | Red |
| COMMERCIAL - Regional, District | Hotel, Motel, Transient Lodging | Green | Green | Yellow | Yellow | Orange | Red |
| COMMERCIAL - Regional, Village District, Special | Commercial Retail, Bank, Restaurant, Movie Theater | Green | Green | Green | Green | Yellow | Yellow |
| COMMERCIAL INDUSTRIAL | Office Building, Research and Development, Professional Offices, City Office Building | Green | Green | Green | Yellow | Yellow | Red |
| COMMERCIAL - Recreation INSTITUTIONAL - Civic Center | Amphitheater, Concert Hall Auditorium, Meeting Hall | Yellow | Yellow | Orange | Orange | Red | Red |
| COMMERCIAL - Recreation | Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club | Green | Green | Green | Yellow | Yellow | Red |
| COMMERCIAL - General, Special INDUSTRIAL, INSTITUTIONAL | Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities | Green | Green | Green | Green | Yellow | Yellow |
| INSTITUTIONAL - General | Hospital, Church, Library, School Classroom | Green | Green | Yellow | Orange | Orange | Red |
| OPEN SPACE | Parks | Green | Green | Green | Yellow | Orange | Red |
| OPEN SPACE | Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat | Green | Green | Green | Green | Yellow | Orange |
| AGRICULTURE | Agriculture | Green | Green | Green | Green | Green | Green |

INTERPRETATION

**ZONE A (GREEN)
CLEARLY COMPATIBLE** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

**ZONE B (YELLOW)
NORMALLY COMPATIBLE** New construction or development should be undertaken only after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning will normally suffice.

**ZONE C (ORANGE)
NORMALLY INCOMPATIBLE** New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

**ZONE D (RED)
CLEARLY INCOMPATIBLE** New construction or development should generally not be undertaken.

* Construction of new residential uses will not be allowed within the 65 dBA CNEL contour for airport noise.

Source: Table 4-1, Noise Study, Avenue 50 and Calhoun Street, City of Coachella, Ldn Consulting, Inc. January 12, 2016.

Notes:

1. City of Coachella Noise Element (2014).

3. ENVIRONMENTAL EVALUATION

3.12.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| NOISE – Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a/d) **Less Than Significant Impact.** The two project elements (residential and commercial land uses) potential to generate excessive noise due to construction and operation. The Noise Studies prepared by Ldn Consulting evaluated potential impacts from construction as well as operational traffic noise that the project could have on sensitive receptors within the vicinity.

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Operational Noise Impacts

Both project phases will be required to comply with the Noise Control Ordinance for the City of Coachella, which gives sound level limits for fixed noise sources (Refer to Chapter 7.04.030 of the City's Municipal Code) Table 23, *Noise Decibel Limits*, lists these levels.

Table 23 Noise Decibel Limits

| Zone | Time | Applicable Ten-Minute Average Decibel Limit (A-weighted) |
|-----------------------|-------------------------|---|
| All residential zones | 6:00 a.m. to 10:00 p.m. | 55 |
| | 10:00 p.m. to 6:00 a.m. | 45 |
| All commercial zones | 6:00 a.m. to 10:00 p.m. | 65 |
| | 10:00 p.m. to 6:00 a.m. | 55 |

Source: Section 7.04.030, Coachella Municipal Code.

Additionally, "Noise sources associated with property maintenance activity and all portable blowers, lawnmowers, edgers or similar devices shall be prohibited except during the following hours:

October 1st through April 30th

Monday—Sunday: 9:00 a.m. to 5:30 p.m.

Holidays: Not allowed.

May 1st through September 30th

Monday—Friday: 8:00 a.m. to 5:30 p.m.

Saturday and Sunday: 9:00 a.m. to 5:30 p.m.

Holidays: Not allowed."

The Noise Ordinance also requires installation of new air conditioning, refrigeration and pool equipment to be certified and to be within the provisions of the ordinance for night and day operation noise levels as shown in Table 23 above.

Since the project is required to comply with the City's Noise Ordinance, the project would have a less than significant impact.

Commercial Site Analysis

A review of the proposed project indicates that noise sources such as deliveries, parking lot activities and mechanical ventilation system (HVAC) are the primary sources of stationary noise sources for non-residential projects. This section provides a detailed description of the reference noise level measurement results. It is important to note that the following projected noise levels assume the worst-case noise environment with roof-top mounted mechanical

3. ENVIRONMENTAL EVALUATION

ventilation (HVAC) all occurring at the same time. In reality, these noise levels will vary throughout the day. The mechanical ventilation may operate during nighttime hours and the operational hours of the deliveries and parking lot activities may be limited.

Deliveries

The proposed project includes professional office uses plus a small market and fueling station that would involve occasional truck deliveries. Typically, trucks used to make deliveries can generate a maximum noise level of 70-75 dBA at a distance of 50 feet depending on the size of the truck. The proposed project is not anticipated to require a significant number of truck deliveries or the need for larger trucks with the exception of the fuel transport trucks, the deliveries for the proposed project would consist of smaller deliveries in smaller trucks and/or step side vans and would be somewhat infrequent. The noise associated with one large truck delivery and smaller truck would not result in a significant number of truck trips to significantly increase noise within the project area. Therefore, truck deliveries would not be intrusive or result in substantially greater noise levels than currently exist and impacts would be less than significant.

Parking Lots

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale. However, the instantaneous sound levels generated by a car door slamming and engine starting up may be an annoyance to adjacent sensitive receptors. The estimated maximum noise levels associated with parking lot activities typically range from 60-65 dBA and are short term. It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time resulting from parking lot activities would be far lower. Therefore, the proposed parking would not result in substantially greater noise levels than currently exist at the project site and impacts would be less than significant.

Construction Noise Impacts

Construction activities could cause short-term impacts to adjacent land uses. Grading activities typically represent one of the highest potential sources of noise impacts, with anticipated equipment including: dozers, scrapers, graders, pavers, a roll compactor, loaders, and a water truck.

Residential Site Analysis

Due to physical constraints and normal site preparation operations, most of the construction equipment will be spread out over the site from distances adjacent to occupied property lines to distances of 600 feet or more away. Estimating an average distance of 140 feet from the property line, the point source from the construction activities is 75 dBA or below. Table 24, *Construction Noise Levels- Residential*, shows the anticipated noise levels from construction equipment onsite.

3. ENVIRONMENTAL EVALUATION

The City does not have a specific construction noise level threshold, but Table 23 lists the applicable operational noise levels. Because noise levels would be short term and intermittent during construction, the impact would be less than significant.

Table 24 Construction Noise Levels- Residential

| Construction Equipment | Quantity | Source Level @ 50-Feet (dBA)* | Duty Cycle (Hours/Day) | Cumulative Noise Level @ Property |
|--|----------|-------------------------------|------------------------|-----------------------------------|
| Scrapers | 2 | 75 | 8 | 78. |
| Dozer | 2 | 74 | 8 | 77. |
| Grader | 2 | 73 | 8 | 76. |
| Roller Compactor | 1 | 74 | 8 | 74. |
| Water Truck | 2 | 70 | 8 | 70. |
| Blade | 2 | 75 | 8 | 78. |
| Cumulative Noise Levels @ 50-Feet (dBA) | | | | 84.0 |
| Average Distance (Feet) | | | | 140 |
| Anticipated Property Line Noise Level (dBA) | | | | 75.1 |

Source: Table 4-1, Noise Study, Ravella (TTM 36680) Residential Development, Ldn Consulting, Inc. April 13, 2015.

Commercial Site Analysis

Due to physical constraints and normal site preparation operations, most of the construction equipment will be spread out over the site from distances adjacent to occupied property lines to distances of 600 feet or more away. Estimating an average distance of 140 feet from the property line, the point source from the construction activities is 75 dBA. Table 25, *Construction Noise Levels - Commercial*, shows the anticipated noise levels from construction equipment onsite. The City does not have a specific construction noise level threshold, and as a result, no impacts are anticipated.

- b) **Less Than Significant Impact.** During construction, nearby residents may experience some groundborne vibration due to the use of various construction equipment. However, construction hours are limited to daytime hours and construction would last only a few months. Impacts would be less than significant.

Table 25 Construction Noise Levels- Commercial

| Construction Equipment | Quantity | Source Level @ 50-Feet (dBA)* | Duty Cycle (Hours/Day) | Cumulative Noise Level @ Property |
|--|----------|-------------------------------|------------------------|-----------------------------------|
| Dozer | 1 | 74 | 8 | 74 |
| Grader | 1 | 73 | 8 | 73 |
| Roller Compactor | 1 | 74 | 8 | 74 |
| Water Truck | 1 | 70 | 8 | 70 |
| Blade | 1 | 75 | 8 | 75 |
| Cumulative Noise Levels @ 50-Feet (dBA) | | | | 81 |
| Average Distance (Feet) | | | | 100 |
| Anticipated Property Line Noise Level (dBA) | | | | 75 |

Source: Table 4-1, Noise Study, Avenue 50 and Calhoun Street, City of Coachella, Ldn Consulting, Inc. January 12, 2016.

- c) **Less Than Significant impact With Mitigation Incorporated.** During the life of the project, noise associated with traffic in the area would be the main source of noise associated with the project.

Residential Noise Analysis

Onsite Traffic Noise

A total of ten modeled receptor locations were performed along the perimeter of the residential portion of the project. Exhibit 17, *Modeled Receptor Locations*, shows the receptor locations onsite. The four locations along Avenue 50 (Receptors 4-7) exceeded the City of Coachella 65 dBA CNEL exterior noise level standards, with a maximum noise level of 68 dBA CNEL as shown in Table 26, *Future Exterior Noise Levels*. The applicant is proposing to construct a six-foot high noise barrier (wall) along Avenue 50 in front of the residential element of the project. This has been reviewed by the project’s Noise Specialist and found to be adequate for sound attenuation for rear yards. The barrier shall be constructed of a non-gapping material consisting of masonry, ½-inch thick glass, earthen berm or any combination of these materials. Furthermore, as a result of facades noise levels exceeding the 60 dBA CNEL threshold (see Table 26), Mitigation Measure N-2 will require a final noise study be prepared prior to the issuance of the first building permit for all lots, to ensure a 45 dBA CNEL interior noise level per the City of Coachella noise guidelines.

Off-Site Traffic Noise

To determine if direct offsite noise level increases associated with the development of the project will create noise impacts, the noise levels for the existing conditions were compared with the noise levels once the project is built. Table 27, *Existing and Existing Plus Project Noise Levels*, shows the direct noise level comparison. The overall roadway segment noise levels are expected to increase by 0.2 dBA CNEL with the development of the project.

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Table 26 Future Exterior Noise Levels

| Receptor Number/Lot # | Unmitigated Noise Level (dBA CNEL) | Barrier Heights (Feet) | Mitigated Noise Level (dBA CNEL)* | Second Floor Noise Level (dBA CNEL)* |
|-----------------------|------------------------------------|------------------------|-----------------------------------|--------------------------------------|
| 1 | 58 | 0 | 5 | 5 |
| 2 | 60 | 0 | 6 | 6 |
| 3 | 63 | 0 | 6 | 6 |
| 4 | 68 | 4 | 6 | 6 |
| 5 | 68 | 4 | 6 | 6 |
| 6 | 68 | 4 | 6 | 6 |
| 7 | 68 | 4 | 6 | 6 |
| 8 | 62 | 0 | 6 | 6 |
| 9 | 62 | 0 | 6 | 6 |
| 10 | 60 | 0 | 60 | 60 |

* Interior Noise Assessment required if façade noise level is above 60 dBA CNEL.

Source: Table 5-2, Noise Study, Ravella (TTM 36680) Residential Development, Ldn Consulting, Inc. April 13, 2015.

Table 27 Existing and Existing Plus Project Noise Levels

| Roadway Segment | Existing Noise Level @ 50-feet (dBA CNEL) | Existing + Project Noise Level @ 50-feet (dBA CNEL) | Difference (dBA CNEL) |
|---------------------------|---|---|-----------------------|
| Avenue 50 | | | |
| Between Jackson & Colonia | 68.1 | 68.4 | 0.2 |
| Between Colonia & Calhoun | 68.3 | 68.4 | 0.1 |
| Calhoun Street | | | |
| North of Avenue 50 | 68.4 | 68.6 | 0.2 |

Source: Table 5-5, Noise Study, Ravella (TTM 36680) Residential Development, Ldn Consulting, Inc. April 13, 2015.

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8 Modeled Outdoor Receptors

Source: Ldn Consulting, 2015



Modeled Receptor Locations Tower Energy Project Initial Study

Exhibit
17

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To determine if cumulative offsite noise level increases associated with the development of the project and other planned or permitted projects in the vicinity will create noise impacts, the noise levels for the near-term Project Buildout and other planned and permitted projects were compared with existing conditions. Table 28, *Existing Plus Near-Term Plus Project plus Cumulative Noise Levels*, shows the cumulative noise level comparison. The overall roadway segment noise levels will increase by a maximum of 2.0 dBA CNEL with the development of the project and other planned/permitted projects.

Table 28 Existing Plus Near-Term Plus Project Plus Cumulative Noise Levels

| Roadway Segment | Existing Noise Level @ 50-feet (dBA CNEL) | Existing + Project Noise Level @ 50-feet (dBA CNEL) | Difference (dBA CNEL) |
|---------------------------|---|---|-----------------------|
| Avenue 50 | | | |
| Between Jackson & Colonia | 68.1 | 70.1 | 2.0 |
| Between Colonia & Calhoun | 68.3 | 70.2 | 1.9 |
| Calhoun Street | | | |
| North of Avenue 50 | 68.4 | 69.8 | 1.3 |

Source: Table 5-7, Noise Study, Ravella (TTM 36680) Residential Development, Ldn Consulting, Inc. April 13, 2015.

Since the project does not create a direct or cumulative noise increase of more than 3 dBA CNEL on any roadway segments, off-site roadway noise increases will not cause any significant effects.

Commercial Noise Analysis

Traffic Noise

To determine if direct or cumulative off-site noise level increases associated with the development of the proposed project would create noise impacts, the traffic volumes for the existing conditions were compared to the traffic volume increase of existing plus project conditions. The proposed project site generates 1,365 daily trips with a worst case peak hour volume of 134 trips. The existing average daily traffic (ADT) volumes are 8,295 to 10,432 along adjacent roadway segments. If the project caused traffic volumes to double, then the project would have a direct impact of 3 dBA CNEL or more, causing significant impacts. According to Traffic models analyzed in Section 2.16, Transportation/Traffic, the project would only increase traffic volume on adjacent roadways by less than 20%, and therefore, increased project-related traffic noise would be minimal and there would be no significant impact.

- e-f) **No Impact.** The project site is not located within any airport land use plans or near any private airstrips; therefore, residents or workers would not be exposed to excessive airport noise levels.

3.12.4 Mitigation Measures

- N-1** The project's Noise Study evaluated a four-foot high barrier on top of a manufactured berm. However in redesigning the site, the applicant is proposing a six-foot high barrier (wall) to be constructed along Avenue 50 in front of the residential component of the project. This has been reviewed by the project's Noise Specialist and found to be adequate for sound attenuation for rear yards. The barrier shall be constructed of a non-gapping material consisting of masonry, ½-inch thick glass, earthen berm or any combination of these materials.
- N-2** Prior to issuance of the first building permit for the residential element of the project, a final noise study shall be prepared to ensure a 45 dBA CNEL interior noise level in the locations where noise levels are above 60 dBA CNEL, at the locations indicated in Exhibit 5-1 *Modeled Receptor Locations* and Table 5-3 *Future Exterior Noise Levels* in Appendix G.

3.12.5 Level of Significance After Mitigation

The project would have a less than a significant impact on noise level with implementation of Mitigation Measures N-1 and N-2.

3.13 Population and Housing

3.13.1 Sources

The following sources were utilized to support the conclusions made in this section:

- Report E-5 City/County Population and Housing Estimates 1/1/2014, retrieved from California Department of Finance Website, <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>, accessed April 2015.
- Report E-1 Estimates for Cities, Counties, and the State, January 1, 2013 and 2014 <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>, accessed April 2015.
- *Monthly Labor Force Data for Cities and Census Designated Place (CDP) September 2014 – Preliminary Data Not Seasonally Adjusted*, October 17, 2014, <http://www.labormarketinfo.edd.ca.gov>, State of California Employment Development Department, Labor Market Information Division. Accessed April 2015.
- *Building Area Per Employee by Business Type*, United States Green Building Council Website. <http://www.usgbc.org/Docs/Archive/General/Docs4111.pdf>. Accessed April 2015.

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3.13.2 Environmental Setting

The estimated population of Coachella for 2014 is 43,633 and has an estimated 4.63 persons per household (California Department of Finance Report E-5, 2014) and a vacancy rate of 9.1 percent. Although the County unemployment rate is 6.9 percent, Coachella’s is above the county average at 10.7 percent.

3.13.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| POPULATION AND HOUSING – Would the project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a) **Less than Significant Impact.** The project consists of the construction of a 115-lot residential neighborhood on approximately 14.57 acres, which would potentially result in the addition of approximately 526 new residents to the City. Under the current zoning designation (R-S), 4.6 dwelling units per acre are allowed. At this density, approximately 72 dwelling units could be developed on the 14.57-acre site. This would result in the addition of approximately 329 new residents. The Change of Zone to R-M-PD and a Conditional Use Permit, would net an additional 43 dwelling units and could introduce approximately 200 more residents to the City than if the project were developed under the R-S zone. This represents a maximum residential density for the 14.57-acre site. Under the proposed project, the site will include a 5-acre commercial site that will provide employment. The commercial element will include a market (5,200 square feet) with eight gas pumps (Lot 1), a 20,000 square feet medical/retail office (Lot 3), and a 9,750 square foot commercial building (Lot 2). It is anticipated that most employees would come from the

3. ENVIRONMENTAL EVALUATION

local population so that the commercial component of the project would not generate a substantial increase in the City's population. Therefore, this impact would be less than significant.

b-c) **No Impact.** The project is proposed to be located on a vacant parcel within the City; therefore, development of the project would not displace any homes or persons.

3.13.4 Mitigation Measures

No mitigation measures are required.

3.13.5 Level of Significance After Mitigation

The proposed project would not have an impact on population or housing.

3.14 Public Services

3.14.1 Sources

The following sources were utilized to support the conclusions made in this section:

- Coachella General Plan 2035 Draft EIR, (Pending Adoption as of April 2015).
- City of Coachella Municipal Code Section 4.45
- Riverside County Fire Department website, <http://www.rvcfire.org/stationsAndFunctions/Pages/default.aspx>, accessed March 2015.
- Riverside County Fire Department Annual Report, 2013.
- Riverside County Sheriff's Department website, <http://www.riversidesheriff.org/stations/thermal.asp>, accessed March 2015.
- Coachella Police Department website, <http://www.coachella.org/departments/police-department/patrol>, accessed March 2015.
- Coachella Valley Unified School District Facilities Department website, http://www.coachella.k12.ca.us/district/business_services/facilities, accessed March 2015.
- Riverside County Library website, <http://rivlib.info/coachella-library/>, accessed March 2015.

3.14.2 Environmental Setting

3.14.2.1 Fire Protection

The City of Coachella contracts with the Riverside County Fire Department (RCFD) to provide a full range of fire protection services to the citizens of Coachella. The contract includes fire suppression, fire

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prevention, emergency medical response, hazardous materials response team, urban search and rescue response team, and all other related public services.

The City of Coachella has one Fire Station, Battalion 6 Coachella Fire Station No. 79, located at 1377 Sixth Street in the City of Coachella, which serves the incorporated portions of the City. Surrounding areas outside the City limits are served by RCFD stations located in the City of Indio, La Quinta, and Thermal as part of a Regional Fire and Emergency Medical Response plan.

Station No. 79 is staffed by 18 full time personnel (with a minimum of six firefighters on duty at all times), 10 volunteer firefighters, and 10 explorer cadets. Station No. 79 is a full service Fire Department Station, with an apparatus of two Type 1 fire engines that provide 24-hour, year round service. Fire engine staffing includes three persons per engine per day, which includes a Company Officer/Operator, one firefighter and one firefighter/paramedic. The common national standard for fire service is one firefighter staff person per 1,000 City residents. Coachella currently has a ratio of 0.4 firefighter people per 1,000 residents. During the year 2013, the department responded to 2,271 calls for service in the City, which represents a 1.52% increase from 2012.

3.14.2.2 Police Protection

The City of Coachella contracts with the Riverside County Sheriff's Department for law enforcement services. The Coachella Police Department operates out of the Thermal Sheriff's station located at 86625 Airport Boulevard in Thermal. The Coachella Police Department Contract consists of 36 sworn officer positions. Twenty four (24) of these positions are dedicated to the patrol division with the remaining officers dedicated to special assignments such as the Community Action Team (C.A.T.), School Resource Officers, along with Gang and Narcotics Enforcement.

3.14.2.3 Schools

The project is located within the Coachella Valley Unified School District. The District currently charges School/Developer Fees, to mitigate for influx of students from new developments, in the amounts of \$3.36 per square foot for residential development and \$0.54 per square foot for commercial development.

3.14.2.4 Parks

See Section 3.15 for discussion on parks.

3.14.2.5 Other Public Facilities

The Riverside County Library System provides library services to the City of Coachella. Participation in the Riverside County Library System enables library users to access all libraries within the system, which includes 35 libraries and two bookmobiles including one serving Coachella. The Coachella Library branch is the only library within the City limits and is located at 1538 Seventh Street.

3. ENVIRONMENTAL EVALUATION

3.14.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| PUBLIC SERVICES | | | | |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| Fire Protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Police Protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.14.3.1 Fire Protection

Less than Significant Impact. The project would have an impact on the Fire Department’s ability to provide fire protection services to the project site as the site is currently vacant. Applicable local regulations related to fire protection for the City is contained in the City’s Municipal Code Chapter 8.28, which addresses storage of flammable hazardous and potentially flammable materials and Chapter 4.45, which requires Development Impact Fees for Public safety capital improvement facilities. Compliance with the City’s Municipal Code would result in less than significant impacts to fire protection services. In addition, the Fire Department will review and comment on the site plans, at such time as an application for the development of the residential and commercial components of the project are submitted. At this time, the Fire Department would require conditions of approval regarding adequate emergency access, street widths/turning radii, etc. IN addition, the fueling station component of the project will require additional scrutiny from the Fire Department which is the Certified Unified Program Agency for Hazardous Materials, including the operation of fueling stations. The applicant must prepare and implement a Hazardous Materials Business Plan (HBMP) which includes an Emergency

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Response Plan. The HBMP is subject to review and approval by the Fire Department. (Also, see discussion in Section 3.8 Hazards and Hazardous Materials). Therefore, with compliance of the Fire Department's requirements for the development of the residential and commercial components the impact would be less than significant.

3.14.3.2 Police Protection

Less than Significant Impact. The project design or location does not present any special security problems. The residential component of the project will be a gated community with a wall around the perimeter of the site, and to points of entry, one on Avenue 50 and one on Calhoun Street. The commercial center will be developed with a mix of restaurant, retail and office uses and will also have two points of access, one on each street. The project would be required to pay Development Impact Fees according to Municipal Code Section 4.45, which requires developer fees for Public safety capital improvement facilities. Compliance with the City's Municipal Code would result in less than significant impacts to police protection services. In addition, the Police Department will review and comment on the site plans submitted with the application for the development of the residential and commercial components of the project. At this time, the Police Department would require conditions of approval regarding adequate emergency access, lighting and landscaping, etc. Therefore, with compliance of the Police Department's requirements for the development of the residential and commercial components the impact would be less than significant.

3.14.3.3 Schools

Less than Significant Impact. The project is located within the Coachella Valley Unified School District. Student Generation Rates broken down by housing type are found in the District's latest *School Facilities Needs Analysis*. Based on these rates, the project could generate 226 students in the District. These students may or may not be totally new to the District; families may relocate to the proposed development from other parts of the District, merely shifting the student population from other areas of the District. Additionally, the District currently charges Level I School/Developer Fees, to mitigate for influx of students from new developments, in the amounts of \$3.36 per square foot for residential development and \$0.54 per square foot for commercial development. Development fees would be paid to the District prior to occupancy of the project; therefore, this impact would be less than significant.

3.14.3.4 Parks

Less than Significant Impact. See Section 3.15 for discussion on parks.

3.14.3.5 Other Public Facilities

Less than Significant Impact. Section 4.45 of the City's Municipal Code sets forth development impact fees to accommodate the need for public facilities and mitigate the financial and

3. ENVIRONMENTAL EVALUATION

physical impacts for all development projects within the City (Municipal Code Section 4.45.030). Currently, for library services, fees are \$298 per dwelling unit for residential developments. The project would be required to pay the library fee for its residential component. The project would have a less than significant impact upon payment of the required development impact fees.

3.14.4 Mitigation Measures

No mitigation measures are required.

3.14.5 Level of Significance After Mitigation

The project would have a less than significant impact on public services.

3.15 Recreation

3.15.1 Sources

The following sources were utilized to support the conclusions made in this section:

- *List of Parks*, City of Coachella website <http://coachella.org/departments/public-works/parks-maintenance/list-of-parks>, accessed March 2015.

3.15.2 Environmental Setting

The City operates eight public parks around the City. The nearest park to the site is Ye've'vichem Park, located approximately 0.5 miles north of the site within the Tierra Del Sol community. This park is an open grass area, approximately 0.6 acres, with benches. The City's largest park is Bagdouma Park, located approximately 1.5 miles southeast of the site, which consists of 34 acres and has the following amenities; baseball/softball fields, tennis courts, a swimming pool, restrooms, a pavilion and playground, tables and benches, bleachers, parking, open grass, soccer/football fields, basketball courts, and drinking fountains. The City also operates a skate park at the southwest corner of Bagdad Avenue and Shady Lane, approximately 3 miles southeast of the site.

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3.15.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| RECREATION | | | | |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-b) **No Impact.** The residential component of the project consists of a 115 single-family units, which would increase the amount of residents in the area by approximately 526 people. This may increase the use of existing neighborhood and regional parks or other recreational facilities; however, the residential component itself includes a small park within the neighborhood, along with an additional 1.63 acres in four on-site retention basins that could be used for passive recreation. Finally, because the relatively small neighborhood is in close proximity to future commercial uses on the adjacent site, residents will be encouraged to walk rather than drive. The construction of these facilities would have a less than significant effect on the environment. In addition, the project would be required to pay development impact fees for park improvements within the City in the amount of \$3,541 per dwelling unit. The project would have a less than significant impact on parks and recreational facilities.

3.15.4 Mitigation Measures

No mitigation measures are required.

3.15.5 Level of Significance After Mitigation

The project would have a less than significant impact on parks and recreational facilities.

3.16 Traffic and Transportation

3.16.1 Sources

The following sources were utilized to support the conclusions made in this section:

- TJW Engineering Inc., *Avenue 50 and Calhoun Street Project Traffic Impact Analysis*, November 13, 2015. (Appendix H)

3.16.2 Environmental Setting

The project site is a 19.57-acre site located north of Avenue 50 and west of Calhoun Street in the City of Coachella. Currently the site is bounded by a residential subdivision to the north, Calhoun Street to the East, Avenue 50 to the south, and an existing church building and vacant land to the west. The project consists of two components: a residential development and a commercial plaza. Exhibit 18, *Study Area Intersections*, shows the area studied in the *Traffic Impact Analyses*.

The residential component consists of 115 dwelling units covering 14.5 acres of the site. Site access for the proposed project will include one full ingress/egress on Calhoun Street and one full access ingress/egress on Avenue 50 aligned with Colonia Drive to the south. The residential component of the project is expected to generate a net total of 1,095 daily trips with approximately 86 AM peak trips and 115 PM peak trips.

The commercial component covers five acres of the site, consisting of a market at the corner of Avenue 50 and Calhoun Street accompanied by an 8-pump gas filling station with a canopy structure, a 20,000 square feet retail/medical office, a 9,750 square foot commercial building and 144 parking spaces for commercial use. The commercial component of the project is expected to generate 2,133 daily trips with approximately 144 AM peak hour trips and 194 PM peak hour trips.

Analysis Methodology

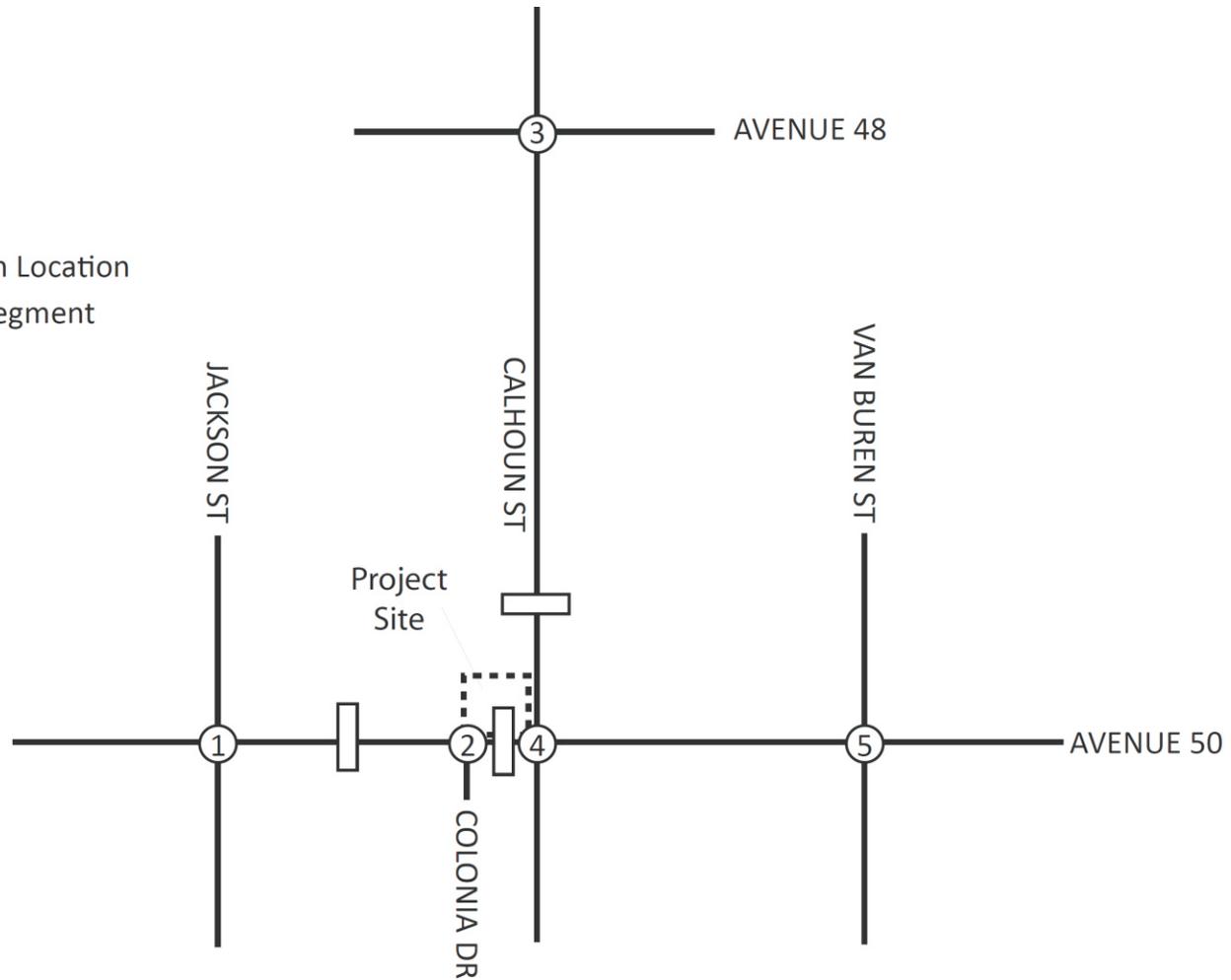
The analysis of impacts from the proposed project was based on an evaluation of the existing and forecast traffic conditions in the vicinity of the site “with” and “without” the project. The following analyses are considered in this report:

- Existing Conditions
- Existing Plus Ambient (2017) Growth Plus Project Conditions
- Existing Plus Ambient (2017) Growth Plus Project Cumulative Conditions



Legend:

- Project Site
- ⊗ Study Intersection Location
- ▭ Study Roadway Segment



Source: TJW Engineering, 2015



Study Area Intersections Tower Energy Project Initial Study

Exhibit
18

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The roadway elements analyzed were dependent on both the analysis year and project generated trips. The identification of the study area, and the intersections requiring analysis were based on an estimate of the two-way traffic volumes on the roadway segments near the project site.

Thresholds of Significance

The City of Coachella General Plan Circulation Element states that the City will maintain a minimum citywide LOS D at all City intersection and roadways. Portions of the study lie within the City of Indio. The City of Indio General Plan states that the City will maintain a minimum citywide LOS D at intersection. Therefore, for all study intersections in this analysis, LOS D or better is considered an acceptable LOS, while LOS E or F is considered unacceptable. Table 28, *HCM-LOS and Delay Ranges Signalized Intersections*, shows the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

Table 29 HCM-LOS and Delay Ranges – Signalized Intersections

| Level of Service | Description | Delay (In Seconds) |
|-------------------------|--|---------------------------|
| A | Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths. | 0 - 10.00 |
| B | Good progression, short cycle lengths. More vehicles stop than for LOS A. | 10.01 – 20.00 |
| C | Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping. | 20.01 – 35.00 |
| D | Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious. | 35.01 – 55.00 |
| E | Severe congestion with some long standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent. | 55.01 – 80.00 |
| F | Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection. | > 80.01 |

Source: Table 1, TJW Engineering, Ravella Project (TTM 36680) Traffic Impact Analysis, March 27, 2015.

Existing Roadway and Traffic Conditions

The existing roadways and traffic conditions are based on the Intersection Delay and level of Service (LOS) for intersections in the vicinity of the project area as shown in Table 25, *Existing Intersection Delay and Level of Service*. The County of riverside traffic study guidelines requires signalized intersection operations to be analyzed utilizing the HCM 2010 methodology. Intersection LOS for signalized

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intersections is based on the intersections average control delay for all movements at the intersection during the peak hour.

Table 29, *Intersection Analysis- Existing Conditions* shows that existing study area intersections are currently operating at acceptable Levels of Service during the peak hours for Existing Traffic Conditions (without the project) except for the following study area intersections operating at unacceptable Levels of Service during the AM and PM peak hours:

- Jackson Street (NS) at Avenue 50 (EW)
- Calhoun Street (NS) at Avenue 50 (EW)

Traffic signal warrants for Existing Conditions were prepared based on existing peak hour intersection volumes at all unsignalized study intersections. Currently, a traffic signal is warranted at the following study area intersection for Existing Traffic Conditions (without the project):

- Jackson Street (NS) at Avenue 50 (EW)
- Calhoun Street (NS) at Avenue 50 (EW)

Table 30 Intersection Analysis – Existing Conditions

| Intersection | Control Type | AM Peak Hour | PM Peak Hour |
|--|--------------|--------------|--------------|
| | | Delay - LOS | Delay - LOS |
| Jackson Street/Avenue 50 | AWSC | 47.5 – E | 57.1 – F |
| Colonia Drive/Avenue 50 Overall Intersection Westbound Left-Turn Northbound Right/Left-turn | TWSC | 1.6 – A | 0.8 – A |
| | | 7.9 – A | 8.4 – A |
| | | 14.8 - B | 13.7 – B |
| Calhoun Street/Avenue 48 | Signal | 15.5 – B | 16.0 – B |
| Calhoun Street/Avenue 50 | AWSC | 55.9 – F | 63.8 – F |
| Van Buren Street/Avenue 48 | Signal | 23.1 – C | 26.8 – C |

Source: Table 4, TJW Engineering, Ravella Project (TTM 36680) Traffic Impact Analysis, March 27, 2015.

Note: AWSC = All-Way Stop-Control, TWSC = One-or-Two-Way Stop-Control, Delay shown in seconds per vehicle

Table 31 *Roadway Segment Analysis – Existing Conditions* summarizes the existing conditions for the roadway segment analysis and is based on the LOS D capacities provided in the City of Coachella General Plan Traffic Impact Study Final Report. As shown in Table 30, the study area roadway segments are currently operating at an acceptable LOS (LOS D or better) for existing conditions.

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Table 31 Roadway Segment Analysis – Existing Conditions

| Roadway Segment | Existing Cross Section | LOS D Capacity | Existing | | |
|--|------------------------|----------------|----------|------|-----|
| | | | ADT | V/C | LOS |
| Avenue 50 between Jackson and Colonia | 2U | 12,000 | 10,044 | 0.75 | C |
| Avenue 50 between Colonia and Calhoun | 2U | 12,000 | 10,432 | 0.78 | C |
| Calhoun between Avenue 49 and Project Drwy | 2U | 12,000 | 8,295 | 0.62 | B |
| Calhoun between Project Drwy and Avenue 50 | 2U | 12,000 | 8,295 | 0.62 | B |

Source: Table 5 Roadway Segment Analysis – Existing Conditions; TJW Engineering Inc., 2015.

Notes: 2U = two-lane undivided roadway. V/C = volume to capacity ratio.

Existing Transit Service

The City of Coachella is served by the Sunline Transit Agency which provides bus service to the desert cities. There are no Sunline Transit routes directly serving the project site. The closest bus stop is for Route 90 at the intersection of Avenue 50 and Van Buren Street approximately 0.5 miles east of the proposed project site. Bus route 90 provides service between the City of Coachella and the Highway 111 and Flower transit center with headways of 25-35 minutes in weekdays and 35 minutes on weekends and holidays.

3.16.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| TRANSPORTATION/TRAFFIC – Would the project: | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| standards established by the county congestion management agency for designated roads or highways? | | | | |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

a-b) Less Than Significant With Mitigation Incorporated. Traffic impacts from the proposed Tower Energy residential and commercial development and the assessment determination of the required mitigation measures were based on the Traffic Impact Analyses' evaluation of the existing and forecast traffic conditions in the vicinity of the site with, and without the project.

Existing Plus Ambient Growth Plus Project (EAP) Conditions

Table 31, *Intersection Analysis - Existing Plus Ambient Plus Project Conditions-Commercial*, and Table 32, *Intersection Analysis - Existing Plus Ambient Plus Project Conditions-Residential*, provides data on the Study Area intersections during peak hours for Existing Conditions With Ambient Growth Included for the project's opening year, 2017, and the project. Under this scenario, Study Area intersections are projected to operate within acceptable Levels of Service (LOS D or better) during peak hours for both residential and commercial phases, except for the following Study Area intersections that are projected to operate at unacceptable Levels of Service during peak hours without improvements:

- Jackson Street (NS) at Avenue 50 (EW)
- Calhoun Street (NS) at Avenue 50 (EW)

Traffic signal warrants for EAP conditions have been prepared based on existing peak hour intersection volumes at all unsignalized study intersections. A traffic signal is warranted at the following study area intersection for EAP traffic conditions and TJW Engineering recommends the improvements in the Traffic Impact Analysis for both residential and commercial components without improvements:

- Jackson Street (NS) at Avenue 50 (EW)

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- Calhoun Street (NS) at Avenue 50 (EW)

Table 32 Intersection Analysis Existing Plus Ambient Plus Project Conditions – Commercial

| Intersection | Control Type ¹ | Existing (2015) | | | | EAP (2017) | | | |
|----------------------------|---------------------------|--------------------|------|-----|----|--------------------|------|-----|----|
| | | Delay ² | | LOS | | Delay ² | | LOS | |
| | | AM | PM | AM | PM | AM | PM | AM | PM |
| Jackson Street/Avenue 50 | AWSC | 47.5 | 57.1 | E | F | 49.2 | 61.9 | E | F |
| Colonia Drive/Avenue 50 | TWSC | 14.8 | 13.7 | B | B | 18.4 | 18.6 | C | C |
| Calhoun Street/Avenue 48 | Signal | 15.5 | 16.0 | B | B | 15.8 | 17.4 | B | B |
| Calhoun Street/Avenue 50 | AWSC | 55.9 | 63.8 | F | F | 59.1 | 67.5 | F | F |
| Van Buren Street/Avenue 48 | Signal | 23.1 | 26.8 | C | C | 24.1 | 28.4 | C | C |
| Driveway 1/Avenue 50 | TWSC | Not Applicable | | | | 11.2 | 11.3 | B | B |
| Calhoun Street/Driveway 2 | TWSC | Not Applicable | | | | 14.3 | 14.6 | B | B |

Source: Table 9, TJW Engineering, Avenue 50 and Calhoun Street Project Traffic Impact Analysis, March 27, 2015.

Note:

1. AWSC = All-Way Stop-Control, TWSC = One-or-Two-Way Stop-Control, Delay shown in seconds per vehicle, 1 = Per the 2010 Highway Capacity Manual, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections.
2. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Table 33 Intersection Analysis Existing Plus Ambient Plus Project Conditions - Residential

| Intersection | Control Type ¹ | Existing (2015) | | | | EAP (2017) | | | |
|----------------------------|---------------------------|--------------------|------|-----|----|--------------------|------|-----|----|
| | | Delay ² | | LOS | | Delay ² | | LOS | |
| | | AM | PM | AM | PM | AM | PM | AM | PM |
| Jackson Street/Avenue 50 | AWSC | 47.5 | 57.1 | E | F | 49.1 | 61.9 | E | F |
| Colonia Drive/Avenue 50 | TWSC | 14.8 | 13.7 | B | B | 19.0 | 19.4 | C | C |
| Calhoun Street/Avenue 48 | Signal | 15.5 | 16.0 | B | B | 15.8 | 17.4 | B | B |
| Calhoun Street/Avenue 50 | AWSC | 55.9 | 63.8 | F | F | 59.8 | 67.4 | F | F |
| Van Buren Street/Avenue 48 | Signal | 23.1 | 26.8 | C | C | 24.3 | 28.0 | C | C |
| Calhoun Street/Driveway 2 | TWSC | Not Applicable | | | | 14.1 | 14.2 | B | B |

Source: Table 10, TJW Engineering, Ravella Project (TTM 36680) Traffic Impact Analysis, March 27, 2015.

Note:

1. AWSC = All-Way Stop-Control, TWSC = One-or-Two-Way Stop-Control, Delay shown in seconds per vehicle, 1 = Per the 2010 Highway Capacity Manual, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections.
2. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Table 34, *Intersection Analysis- EAP Conditions with Improvements*, shows the intersection LOS with and without improvements. With recommended improvements to add a traffic signal at

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the Jackson Street/Avenue 50 intersection and the Calhoun Street/Avenue 50 intersection, impacts on these intersections would be reduced to less than significant impacts. Transportation improvements, including intersection signalization, are funded through a combination of direct project mitigation, fair share contributions or development impact fee programs such as the City’s adoption of the Transportation Uniform Mitigation Fee (TUMF) program and the City’s Development Impact Fee (DIF) program. The proposed project is subject to both the TUMF and the City’s DIF. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

Table 34 Intersection Analysis – EAP Conditions with Improvements

| Intersection | Control Type ¹ | EAP (2017) | | | |
|---|---------------------------|--------------------|------|-----|----|
| | | Delay ² | | LOS | |
| | | AM | PM | AM | PM |
| Jackson Street/Avenue 50 Without Improvement | AWSC | 49.2 | 61.9 | E | F |
| With Improvement | Signal | 10.8 | 13.2 | B | B |
| Calhoun Street/Avenue 50 Without Improvement | AWSC | 59.1 | 67.5 | F | F |
| With Improvement | Signal | 11.9 | 15.9 | B | B |

Source: Table 12, TJW Engineering, Avenue 50 and Calhoun Street Project Traffic Impact Analysis, March 27, 2015.

Notes:

1. AWSC = All-Way Stop-Control, Delay shown in seconds per vehicle.
2. Per the 2010 Highway Capacity Manual, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Existing Plus Ambient Growth Plus Project Plus Cumulative (EAPC) Conditions

Table 35, *Intersection Analysis - Existing Plus Ambient Plus Project Plus Cumulative Conditions Commercial*, and Table 36, *Intersection Analysis - Existing Plus Ambient Plus Project Plus Cumulative Conditions – Residential*, provide the study area intersection during peak hours for existing conditions with ambient growth included for the project’s opening year, 2017, the project, and projects in the study area that are either approved or currently being processed. Under this scenario, study area intersections are projected to operate within acceptable levels of service (LOS D or better) during peak hours, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during AM peak hours without improvements for the residential component:

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- Calhoun Street (NS) and Avenue 50 (EW)
- Colonia Drive (NS) and Avenue 50 (EW)

Table 35 Intersection Analysis – Existing Plus Ambient Plus Project Plus Cumulative Conditions - Commercial

| Intersection | Control Type ¹ | EAPC (2017) | | | |
|----------------------------|---------------------------|--------------------|------|-----|----|
| | | Delay ² | | LOS | |
| | | AM | PM | AM | PM |
| Jackson Street/Avenue 50 | Signal | 13.9 | 21.6 | B | C |
| Colonia Drive/Avenue 50 | TWSC | 29.5 | 25.8 | D | D |
| Calhoun Street/Avenue 48 | Signal | 16.6 | 19.5 | B | B |
| Calhoun Street/Avenue 50 | Signal | 11.3 | 16.1 | B | B |
| Van Buren Street/Avenue 48 | Signal | 30.9 | 47.7 | C | D |
| Driveway 1/Avenue 50 | TWSC | 12.0 | 12.9 | B | B |
| Calhoun Street/Driveway 2 | TWSC | 15.9 | 17.3 | C | C |

Source: Table 13, TJW Engineering, Avenue 50 and Calhoun Street Project Traffic Impact Analysis, March 27, 2015.

Notes:

1. AWSC = All-Way Stop-Control, TWSC = One-or-Two-Way Stop-Control, Delay shown in seconds per vehicle
2. Per the 2010 Highway Capacity Manual, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

The signal warrant analysis showed that a signal was not warranted at the Colonia Drive/Avenue 50 intersection, based on the thresholds of significance for EAPC conditions. Based on the more recent traffic study for the commercial component a traffic signal is warranted at the Calhoun/Avenue 50 intersection and the Jackson/Avenue 50 intersection. With the addition of traffic signals at the Calhoun Street/Avenue 50 and Jackson Street/Avenue 50 intersections, platooning of vehicles on Avenue 50 will result in adequate gaps being available from Colonia Drive onto Avenue 50, and cumulative impacts will be less than significant. Furthermore, implementation of Mitigation Measure TIA-3 involving installation of stop control improvements would assist in providing safe entry and merging of vehicles onto Avenue 50 from Colonia Drive.

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Table 36 Intersection Analysis – Existing Plus Ambient Plus Project Plus Cumulative Conditions - Residential

| Intersection | Control Type ¹ | EAPC (2017) | | | |
|----------------------------|---------------------------|--------------------|------|-----|----|
| | | Delay ² | | LOS | |
| | | AM | PM | AM | PM |
| Jackson Street/Avenue 50 | Signal | 16.8 | 29.8 | B | C |
| Colonia Drive/Avenue 50 | TWSC | 48.8 | 34.8 | E | D |
| Calhoun Street/Avenue 48 | Signal | 16.9 | 20.0 | B | B |
| Calhoun Street/Avenue 50 | AWSC | 71.6 | 66.6 | F | F |
| Van Buren Street/Avenue 48 | Signal | 35.8 | 54.2 | D | D |
| Calhoun Street/Driveway 2 | TWSC | 16.5 | 17.6 | C | C |

Source: Table 14, TJW Engineering, Avenue 50 and Calhoun Street Project Traffic Impact Analysis, March 27, 2015.

Notes:

1. AWSC = All-Way Stop-Control, TWSC = One-or-Two-Way Stop-Control, Delay shown in seconds per vehicle
2. Per the 2010 Highway Capacity Manual, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Roadway Segment Analysis

Table 37, Roadway Segment Analysis – Existing Plus Ambient Plus Project Conditions- Residential and Table 38, Roadway Segment Analysis – Existing Plus Ambient Plus Project Conditions- Commercial, summarizes EAP conditions for the roadway segment analysis based on the LOS D capacities provided in the Coachella General Plan Traffic Impact Study Final Report.

As shown in Tables 36 and 37, the study roadway segments are projected to operate at an acceptable LOS (LOS D or better) for EAP conditions.

Table 37 Roadway Segment Analysis – Existing Plus Ambient Plus Project Conditions-Residential

| Roadway Segment | EAP Cross Section ¹ | LOS D Capacity | EAP | | |
|--|--------------------------------|----------------|--------|------------------|-----|
| | | | ADT | V/C ² | LOS |
| Avenue 50 between Jackson and Colonia | 4D | 28,900 | 10,998 | 0.34 | A |
| Avenue 50 between Colonia and Calhoun | 4D | 28,900 | 11,182 | 0.35 | A |
| Calhoun between Avenue 49 and Project Driveway | 4D | 28,900 | 8,959 | 0.28 | A |
| Calhoun between Project Driveway and Avenue 50 | 4D | 28,900 | 8,959 | 0.28 | A |

Source: Table 11, TJW Engineering, Ravella Project (TTM 36680) Traffic Impact Analysis, March 27, 2015.

Notes:

1. 4D = four-lane divided roadway.
2. V/C = volume to capacity ratio.

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Table 38 Roadway Segment Analysis – Existing Plus Ambient Plus Project Conditions- Commercial

| Roadway Segment | EAP Cross Section | LOS D Capacity | EAP | | |
|--|-------------------|----------------|--------|------------------|-----|
| | | | ADT | V/C ¹ | LOS |
| Avenue 50 between Jackson and Colonia | 4D | 28,900 | 11,133 | 0.35 | A |
| Avenue 50 between Colonia and Calhoun | 4D | 28,900 | 11,263 | 0.35 | A |
| Calhoun between Avenue 49 and Project Driveway | 4D | 28,900 | 9,040 | 0.28 | A |
| Calhoun between Project Driveway and Avenue 50 | 4D | 28,900 | 9,040 | 0.28 | A |

Source: Table 10, TJW Engineering, Avenue 50 and Calhoun Street Project Traffic Impact Analysis, March 27, 2015.

Notes:

1. V/C = volume to capacity ratio.

Table 39, Roadway Segment Analysis – Existing Plus Ambient Plus Project Plus Cumulative Conditions- Residential and Table 39, Roadway Segment Analysis – Existing Plus Ambient Plus Project Plus Cumulative Conditions- Commercial, summarizes EAPC conditions roadway segment analysis based on the LOS D capacities provided in the Coachella General Plan Traffic Impact Study Final Report.

Table 39 Roadway Segment Analysis – Existing Plus Ambient Plus Project Plus Cumulative Conditions - Residential

| Roadway Segment | EAPC Cross Section | LOS D Capacity | EAP | | |
|--|--------------------|----------------|--------|------|-----|
| | | | ADT | V/C | LOS |
| Avenue 50 between Jackson and Colonia | 4D | 28,900 | 15,998 | 0.50 | D |
| Avenue 50 between Colonia and Calhoun | 4D | 28,900 | 16,182 | 0.50 | D |
| Calhoun between Avenue 49 and Project Driveway | 4D | 28,900 | 11,259 | 0.35 | D |
| Calhoun between Project Driveway and Avenue 50 | 4D | 28,900 | 11,259 | 0.35 | D |

Source: Table 11, TJW Engineering, Ravella Project (TTM 36680) Traffic Impact Analysis, March 27, 2015.

Notes:

- 4D = four-lane divided roadway.

As shown in Tables 38 and 39, the study roadway segments are projected to operate at an acceptable LOS (LOS D or better) for EAPC conditions for both components of the project and there will be no significant impacts to roadway level of service in the project area.

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**Table 40 Roadway Segment Analysis –
Existing Plus Ambient Plus Project Plus Cumulative Conditions – Commercial**

| Roadway Segment | EAPC Cross Section | LOS D Capacity | EAP | | |
|--|--------------------------|-------------------|--------|------------------|-----|
| | | | ADT | V/C ¹ | LOS |
| Avenue 50 between Jackson and Colonia | 4D | 28,900 | 14,138 | 0.44 | A |
| Avenue 50 between Colonia and Calhoun | 4D | 28,900 | 13,948 | 0.43 | A |
| Calhoun between Avenue 49 and Project Driveway | 4D | 28,900 | 10,520 | 0.33 | A |
| Calhoun between Project Driveway and Avenue 50 | 4D | 28,900 | 10,520 | 0.33 | A |

Source: Table 14, TJW Engineering, Avenue 50 and Calhoun Street Project Traffic Impact Analysis, March 27, 2015.

Note:

V/C = volume to capacity ratio.

c) **No Impact.** The proposed project is for a 115-lot residential development with a commercial plaza covering five acres at the corner of Avenue 50 and Calhoun Street. The project is located approximately four miles northwest of Jacqueline Cochran Regional Airport and will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d-e) **Less than Significant Impact With Mitigation Incorporated.** The project will not increase hazards due to a roadway design feature. Wherever necessary, roadways adjacent to a proposed project site along with project site access points shall be constructed in compliance with roadway classifications and respective cross-sections as adopted in the Coachella 2035 General Plan Circulation Element.

The project’s Tentative Map (Tract Map No. 37088) is bordered by Avenue 50 and Calhoun Street. The applicant is required to provide half-street improvements on both streets to be designed per City engineering standards and Fire code standards for safe accessibility. Therefore, as recommended in the Traffic Impact Analysis and as incorporated through Mitigation Measures TIA-2 through TIA-4, impacts with regard to increased hazards due to design features and inadequate emergency access will be reduced to less than significant.

f) **Less Than Significant Impact With Mitigation Incorporated.** The existing Sunline Transit Agency routes are within close proximity to the project site and could potentially serve future residents within the project. As described below, implementation of Mitigation Measure TIA-2 will provide ultimate half section improvements to Avenue 50 and Calhoun Street, which will include installation of sidewalks for bicycle and pedestrian access along the project site exterior. Therefore, impacts regarding access to public transit and availability for bike or pedestrian facilities will be less than significant.

3.16.4 Mitigation Measures

TIA-1 The project applicant shall pay a fair share of the cost to signalize the following intersections recommended for *EAP* conditions to reduce peak hour delay and improve intersection and roadway segment LOS to LOS D or better:

- Install a traffic signal at Jackson Street/Avenue 50
- Install a traffic signal at Calhoun Street/Avenue 50

TIA-2 The applicant shall construct the north side of Avenue 50 along the project's frontage to its ultimate half section width as a Major Arterial with Bicycle Facility (118-foot cross section) in compliance with applicable City standards. The applicant shall also construct the west side of Calhoun Street along the project's frontage to its ultimate half section width as a Collector with Bicycle Facility (90-foot cross section) in compliance with applicable City standards.

TIA-3 *Driveway 1/Colonia Drive and Avenue 50* – The Project shall install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through-right turn lane.
- Southbound Approach: One shared left-through-right turn lane.
- Eastbound Approach: One left turn lane (within painted median), two through lanes and one defacto right-turn lane.
- Westbound Approach: One left turn lane, one through lane and one shared through-right turn lane.

Calhoun Street and Driveway 2 – The Project shall install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One left-turn lane and one through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.

TIA-4 Prior to the issuance of building permits for each component of the project, the applicant shall pay applicable City of Coachella Development Impact Fees (DIF) and County of Riverside Transportation Uniform Mitigation Fees (TUMF) in effect at that time.

3.16.5 Level of Significance After Mitigation

With the implementation of the aforementioned mitigation measures, project-specific and cumulative impacts on Traffic and Circulation will be less than significant.

3.17 Utilities and Service Systems

3.17.1 Sources

The following sources were utilized to support the conclusions made in this section:

- *City of Coachella Urban Water Management Plan*, prepared by TKE Engineering and Planning, July 13, 2011, retrieved from City of Coachella website, <http://www.coachella.org/services/document-central/-folder-109>, accessed March 2015
- Burrtec Waste and Recycling Services website <http://www.burrtec.com/coachella>, accessed March 2015.
- Jurisdiction Landfill tonnage reports, Riverside County Waste Management Department website <http://www.rivcowm.org/opencms/ab939/ab939.html>, accessed April 2015.

3.17.2 Environmental Setting

Water

The Coachella Water Authority (CWA) serves the incorporated area with potable water. The CWA operates a water supply, storage, and delivery system consisting of wells, reservoirs, booster stations, and distribution lines. Currently, groundwater wells supply the City with all of the potable water. The City's wells draw from the Coachella Valley Groundwater Basin. The six groundwater wells that currently supply water to the City are capable of providing 1,200 to 2,500 gallons per minute (gpm) each. The well water production reports recorded 7,330 acre-feet pumped in 2010, or approximately 11 million gallons per day (mgd) on average.

Wastewater

The Valley Sanitary District (VSD) provides wastewater service to areas within the project site. The VSD maintains approximately 340,000 linear feet of wastewater conveyance pipeline, powered by two pump stations. The VSD also operates a Wastewater Treatment Plant located on Avenue 54, east of Polk Street in Coachella. In 2008, the City upgraded the capacity of the Coachella Water Reclamation Facility to 4.5 MGD and current average daily discharge is 2.7 MGD. The plant remains a full secondary treatment facility with oxidation ditches for denitrification. The immediate service area encompasses approximately a 32-square mile City boundary and an approximate 64-square mile sphere of influence. The VSD currently serves 6,500 Equivalent Dwelling Units (EDUs) and approximately 3,500 customers via its wastewater conveyance network.

Solid Waste Disposal

Burrtec provides the City with solid waste collection services. Burrtec provides curbside pickup for regular trash, green waste and recyclables and offers bulky Item Pick-up, Christmas Tree Recycling, Electronic Waste, and Used Motor Oil Collection upon request. Solid waste that is collected from the

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City is routed to the Coachella Transfer Station, operated by Burrtec, located north of Interstate 10 and east of Dillon Road on Landfill Road. Waste is then routed to one of the County’s six landfills which are operated by the Riverside County Waste Management Department.

3.17.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| UTILITIES AND SERVICE SYSTEMS – Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Comply with federal, state, and local statutes, and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a) **Less than Significant Impact.** The project would be served by the VSD for wastewater treatment (sewer). The project would add wastewater from additional residences and a commercial area to the City’s existing wastewater system. Water conservation features, such as low flow plumbing, would direct less wastewater into the system. Additionally, VSD is required to comply

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with the applicable Regional Water Quality Control Board requirements. The project would have a less than significant impact regarding wastewater treatment requirements.

With regard to stormwater runoff, the proposed project includes implementation of a SWPPP (see Section 3.9, *Hydrology and Water Quality*) for the evaluation of construction and operations impacts. Prior to site disturbance, the applicant must apply to the State Water Resources Control Board for coverage under the Construction General Permit (Order No. 99-08-DWQ) (CAS000002), which applies to all stormwater discharges from projects where clearing, grading, and excavation result in soil disturbance of at least one acre or more. Likewise, during operation of both the residential and commercial components of the project, the operator(s) must comply with an approved WQMP that sets forth the requirements for capturing, retaining and treating stormwater and nuisance water from the site.

- b) **Less than Significant Impact.** The project will require the construction of new water and wastewater lines in order to serve the residences and commercial area with water and wastewater service. These lines will tie into the City's existing water and wastewater lines. The City has planned for the long term development of a variety of future residential and commercial uses.
- c) **Less than Significant Impact.** To protect the site from potential flooding during storm events, the residential component of the site will be graded so that runoff drains into three on-site water quality (retention) basins to be situated around the site. Exhibit 6, *Site Plan*, in the project description shows where the park and retention basins will be placed. The basins will be designed to retain a 100-year flood event. See Section 3.9, *Hydrology and Water Quality* for additional discussion of this issue. The applicant for the commercial component will also be required to grade the site so that storm flows are retained on site to the satisfaction of the City Engineer. The central retention basin on Lot AB of the TTM (Exhibit 6) will be designed to accept flows from both the commercial and residential phases. Therefore, this impact would be less than significant.
- d) **Less than Significant Impact.** (See a and b) The project is currently served by Coachella Valley Water Authority (CWA) for water services. The project's residential and commercial uses are projected to use an average of 679,000 gallons per month over a 12 month period. This amount, however, is considered non-substantial and would not necessitate the need for new or expanded water services or entitlements, as such uses are assumed on the CWA Urban Water Management Plan, based on the General Plan. The project would have a less than significant impact.
- e) **Less than Significant Impact.** See response 3.18.3 (a).
- f) **Less than Significant Impact.** The proposed project would generate solid waste such as cardboard, food waste, and other materials associated with packaging as well as construction and demolition waste. Most solid waste construction materials can be recycled, composted or

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otherwise diverted out of landfills. Trash, recyclables, and construction and demolition waste will be sent to the Coachella Valley Transfer Station (CVTS) for sorting and processing. Some of this material such as dimensional lumber and wall board can be diverted to the Coachella Valley Compost (CVC) facility, near the CVTS, for composting. During operation of the residential and commercial components of the project, solid waste and recyclables will be collected and hauled to CVTS, where they will be transferred to a Material Recovery Facility or Landfill. Greenwaste from the residential component of the project, in the form of lawn clippings, palm fronds, tree trimming, etc., would be transported to the CVC, along with food waste and grease trap liquids that may be generated at future restaurants in the commercial component of the project. These feedstock materials are all used to produce soil amendment products, including compost that can be used in the community.

According to *Jurisdiction Landfill Tonnage Reports* from Riverside County Waste Management Department, 5,441.76 total tons of solid waste was hauled to County landfills from Coachella. Jurisdictions from all over the State contribute 777,473.51 tons of solid waste to County landfills. Coachella contributes approximately 0.7 percent of solid waste to this total. The proposed project would not significantly increase this amount and a less than significant impact is expected.

- g) **Less than Significant Impact.** The project is required to comply with the State mandates regarding solid waste and recycling and will comply therefore there would be a less than significant impact.

3.17.4 Mitigation Measures

No mitigation measures are required.

3.17.5 Level of Significance After Mitigation

The project would have a less than significant impact on utilities and service systems.

3.18 Mandatory Findings of Significance

3.18.1 Sources

All sources previously listed were used to support the conclusion made in this sections.

3.18.2 Environmental Setting

The environment setting for the project site is summarized within Section 3.1 through 3.17 of the Initial Study for each environmental issue.

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3.18.3 Impacts

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| MANDATORY FINDINGS OF SIGNIFICANCE | | | | |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

a) **Less than Significant Impact with Mitigation Incorporated.** *Biological Resources and Habitat.* The project site is a vacant parcel of land located on the northwest corner of Calhoun Street and Avenue 50. Although generally void of vegetation, the project does contain one mature tree located near the western boundary and could be suitable for nesting birds. Furthermore, the project site may also provide foraging habitat for some avian species as well as foraging and nesting habitat for burrowing owl, a State of California Species of Concern. Therefore, with implementation of Mitigation Measures BIO-1 and BIO-2, impacts in regard to project having the potential to degrade the environment will be reduced to less than significant.

Cultural Resources. The cultural resources assessment prepared for the project site included a search of archaeological and historical records encompassing a one-mile radius around the approximate 20-acre project site. Results of these studies indicate that there are a total of 33

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cultural resources known in the vicinity with fifteen (15) sites that have been documented within a ½ mile to 1 mile radius. Most of these resources are prehistoric in nature. Two sites containing Native American human cremations were also identified within a one-mile radius of the project site and therefore may pose a remote possibility that human cremations may be present in subsurface contexts within the project site.

Additionally and based on the results of the records search, the project site is considered to be highly sensitive for containing prehistoric archaeological deposits in subsurface contexts. The potential for the project site to contain intact historical archaeological deposits is considered to be low-to-moderate. Therefore, to reduce potential impacts to Cultural Resources, Mitigation Measures CR-1 through CR-3 shall be implemented prior to any site disturbance associated with grading or construction.

- b) **Less than Significant Impact.** The proposed project would result in a number of potentially significant impacts on the environment that can be mitigated to less than significant levels with the implementation of mitigation measures. When reviewed along with other related projects in the area, the project would not result in impacts that are cumulatively considerable. This is because the project site is located in an area of the City that is designated for residential development and the City has planned for such development in its General Plan. When considered in conjunction with other planned residential developments in the City of Coachella and neighboring City of Indio as well as the County of Riverside, the net increase of 115 dwelling units is considered negligible.
- c) **Less than Significant Impact with Mitigation Incorporated.** The proposed project could result in both direct and indirect environmental effects on humans. However, with compliance with regulatory requirements (air quality, water quality, etc.) and implementation of mitigation measures identified herein, the effects will be able to be reduced to less than significant levels.

3.18.4 Mitigation Measures

AQ-1 Both Project land use components shall adhere to SCAQMD Rules 403 and 403.1 and follow and incorporate all Best Available Control Measures into a PM-10 Dust Control Plan and to be prepared for the both project land use component prior to commencement of site grading or other construction activity where soil disturbance or other fugitive dust may be generated.

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| Best Available Control Measure | Associated Measure in CalEEMod |
|---|--|
| <i>Clearing and Grubbing</i> | |
| 02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing. 02-2 Stabilize soil during clearing and grubbing activities. 02-3 Stabilize soil immediately after clearing and grubbing activities. | Water exposed surfaces three times per day Soil stabilizers for unpaved roads |
| <i>Earth Moving Activities</i> | |
| 08-1 Pre-apply water to depth of proposed cuts 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction 08-3 Stabilize soils once earth-moving activities are complete. | Pre-water to 12% |
| <i>Landscaping</i> | |
| 10-1 Stabilize soils, materials, slopes Guidance: Apply water to materials to stabilize; maintain materials in a crusted condition; maintain effective cover over materials; stabilize sloping surfaces using soil until vegetation or ground cover can effectively stabilize the slopes; hydroseed prior to rain season. | Replace ground cover in disturbed areas when unused for more than 10 days |
| <i>Sources: SCAQMD Rule 403 and CalEEMod Output (See Appendix A of the Air Quality Assessment).</i> | |

AQ-2 A coordinated effort shall be demonstrated between the City and the project grading contractors for both project land use components and the Villa Palmeras development (TTM 35523) in order to assure that grading schedules will not occur at the same time, which may result in short-term construction impacts on Air Quality. Level of Significance Compliance with an approved PM-10 Dust Control Plan that sets forth the required Best Available Control Measures to be utilized during all phases of grading/construction of Project would ensure that impacts associated with emissions of criteria pollutants would be less than significant.

BIO-1 Prior to any land disturbance, the applicant shall have a biological survey conducted at the project site to determine presence/absence of listed species. Results of the survey may determine whether focused surveys for listed species must be conducted. Of particular interest is the presence/absence of burrowing owl.

BIO-2 If the site survey determines the presence of burrowing owl, mitigation in accordance with the California Department of Fish and Wildlife (CDFW) shall be implemented as follows:

- If burrowing owls are identified as being resident on-site outside the breeding season (February 1 through August 31) may be relocated to other sites by a permitted biologist (permitted by CDFG), as allowed in the CDFG *Staff Report on Burrowing Owl Mitigation* (March 2012).

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- If an active burrow is found during the breeding season, the burrow shall be treated as a nest site and temporary fencing shall be installed at a distance of 550 yards from the active burrow to prevent disturbance during grading or construction. This is the maximum buffer distance recommended in the CDFW *Staff Report on Burrowing Owl Mitigation*. Installation and removal of the fencing shall be done with a biological monitor present.

CR-1 Because the project site is considered to be highly sensitive for containing prehistoric archaeological deposits in subsurface contexts and Native American human cremation have been found in the vicinity, a qualified archaeological monitor shall be present during all phases of construction grading and trenching activities related to project implementation. The amount of monitoring shall be determined by the archaeologist through the preparation of a monitoring plan to be prepared prior to commencement of grading.

CR-2 A qualified vertebrate paleontologist shall be retained prior to the start of construction, but after final depths of impacts are known (grading plans), to develop a paleontological mitigation plan limited to the proposed deep impact areas (greater than 3 feet) of the project only. In particular, the plan shall (1) clearly define that test trenches that would be dug to the maximum depth of proposed impacts, (2) permit the use of heavy equipment to perform the trenching as all samples will be taken from sidewalls after a stratigraphic profile is developed, (3) require recording of each strata revealed, (4) require radiocarbon dates for each strata, (5) require samples of about 10 kilogram (kg) for each strata with collection of additional samples up to 100 kg for layers rich in vertebrate fossils, (6) require identification and analysis by recognized experts, (7) require an interpretive report, (8) require curation of significant specimens recovered and (9) encourage publication of results. The plan would identify the amount of monitoring required.

CR-3 In the event that human remains are uncovered, no further disturbance shall occur until the Riverside County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The Riverside County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

GEO-1 Structurally, the buildings shall be designed per seismic requirements in the California Building Code.

GEO-2 All earthwork including excavation, backfill and preparation of the subgrade soil, shall be performed in accordance with the geotechnical recommendations presented in *Geotechnical Investigation, Proposed Residential Development, Tentative Tract Map 36680, APN 612-280-018, Coachella California*, December 2013, prepared by Sladden Engineering, and portions of the local regulatory requirements, as applicable.

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- HAZ-1** Further investigation of the vicinity of the slabs in the southwest corner of the site is recommended to evaluate the potential for USTs and pesticide residues. This would include a geophysical survey to look for buried objects and the collection of soil samples to test for pesticide residues.
- HAZ-2** Abandon the existing well on site in accordance with applicable regulations.
- HAZ-3** The potential exists for buried hazardous materials to be present in the northern portion of the western boundary of the site. A geophysical survey shall be conducted to look for buried metallic objects, and a backhoe shall be used to dig into the debris field at representative locations to evaluate how much debris is present (if any) and whether hazardous materials appear to be present. If suspect materials are observed, soil samples should be collected and analyzed to evaluate whether hazardous materials are actually present.
- HAZ-4** Prior to Certificate of Occupancy of the Vehicle Fueling Station, the applicant shall apply for and show proof of permits to construct and operate, including an approved HMBP.
- N-1** The Project's Noise Study evaluated a four-foot high barrier on top of a manufactured berm. However in redesigning the site, the applicant is proposing a six-foot high barrier to be constructed along Avenue 50 in front of the residential component of the project. This has been reviewed by the Noise Specialist and found to be adequate for sound attenuation for rear yards. Said barrier shall be constructed of a non-gapping material consisting of masonry, ½-inch thick glass, earthen berm or any combination of these materials.
- N-2** Prior to issuance of the first building permit for all residential lots, a final noise study shall be prepared to ensure a 45 dBA CNEL interior noise level in the locations where noise levels are above 60 dBA CNEL, at the locations indicated in Exhibit 5-1 *Modeled Receptor Locations* and Table 5-3 *Future Exterior Noise Levels* in Appendix G.
- TIA-1** The project applicant shall pay a fair share of the cost to signalize the following intersections recommended for *EAP* conditions to reduce peak hour delay and improve intersection and roadway segment LOS to LOS D or better:
- Install a traffic signal at Jackson Street/Avenue 50
 - Install a traffic signal at Calhoun Street/Avenue 50
- TIA-2** The applicant shall construct the north side of Avenue 50 along the project's frontage to its ultimate half section width as a Major Arterial With Bicycle Facility (118-foot cross section) in compliance with applicable City standards. The applicant shall also construct the west side of Calhoun Street along the project's frontage to its ultimate half section width as a Collector With Bicycle Facility (90-foot cross section) in compliance with applicable City standards.

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TIA-3 *Driveway 1/Colonia Drive and Avenue 50* – The Project shall install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through-right turn lane.
- Southbound Approach: One shared left-through-right turn lane.
- Eastbound Approach: One left turn lane (within painted median), two through lanes and one defacto right-turn lane.
- Westbound Approach: One left turn lane, one through lane and one shared through-right turn lane.

Calhoun Street and Driveway 2 – The Project shall install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One left-turn lane and one through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.

TIA-4 Prior to the issuance of building permits for each component of the project, the applicant shall pay applicable City of Coachella Development Impact Fees (DIF) and County of Riverside Transportation Uniform Mitigation Fees (TUMF) in effect at that time.

3.18.5 Level of Significance After Mitigation

The project would result in a less than significant impact with mitigation measures incorporated.

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Traffic Impact Analysis

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Chapter 5 References

Aesthetics

City of Coachella General Plan Update Draft EIR 2035, July 2014. Prepared by Raimi & Associates.
Site Visit October 22, 2014.

Agriculture and Forestry

Riverside County Important Farmland 2010 map. California Department of Conservation website <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>, accessed June 2012.

Williamson Act Lands for Riverside County 2008 map. California Department of Conservation website <http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx>, accessed June 2012.

City of Coachella 2010 Zoning and General Plan Maps. City of Coachella website <http://coachella.org/DocumentCenter/Index/38>, accessed June 2012.

Air Quality

Air Quality Assessment (TTM 36680), Residential Development, City of Coachella, California, April 17, 2015, Ldn Consulting. (Appendix A-1)

Air Quality Assessment, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting. (Appendix A-2)

Biological Resources

City of Coachella Draft General Plan 2012 EIR Existing Conditions, website <http://cityofcoachellageneralplanupdate.weebly.com/existing-conditions.html>, accessed Nov 2012

Field visit November 10, 2012

Cultural Resources

City of Coachella General Plan 2035 Draft EIR, July 2014. Prepared by Raimi & Associates.
Pending approval as of October 2014.

82266 Avenue 50 Cultural Resources Assessment, City of Coachella, Riverside County, California. Prepared by Cogstone Resource Management, Inc., June 2012. (Appendix B-1)

5 REFERENCES

Paleontological Resources Assessment of 82266 Avenue 50 Project, City of Coachella, Riverside County, California, June 2012. Prepared by Cogstone Resource Management, Inc., June 2012. (Appendix B-2)

Geology/Soils

Geotechnical Investigation Proposed Residential Development Tentative Tract Map 36680 APN 612-280-018, Coachella California. Prepared by Sladden Engineering, December 31, 2013. (Appendix C-1)

Geotechnical Investigation, Proposed Apartment Complex and MiniMart. Prepared by Sladden Engineering, February 12, 2012. (Appendix C-2)

City of Coachella General Plan 2035 Draft EIR, July 2014. Prepared by Raimi & Associates. Pending approval as of October 2014.

Greenhouse Gas Emissions

Global Climate Change, Avenue 50 and Calhoun Street, City of Coachella, January 11, 2016, Ldn Consulting. (Appendix C-1)

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Hazards and Hazardous Materials

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