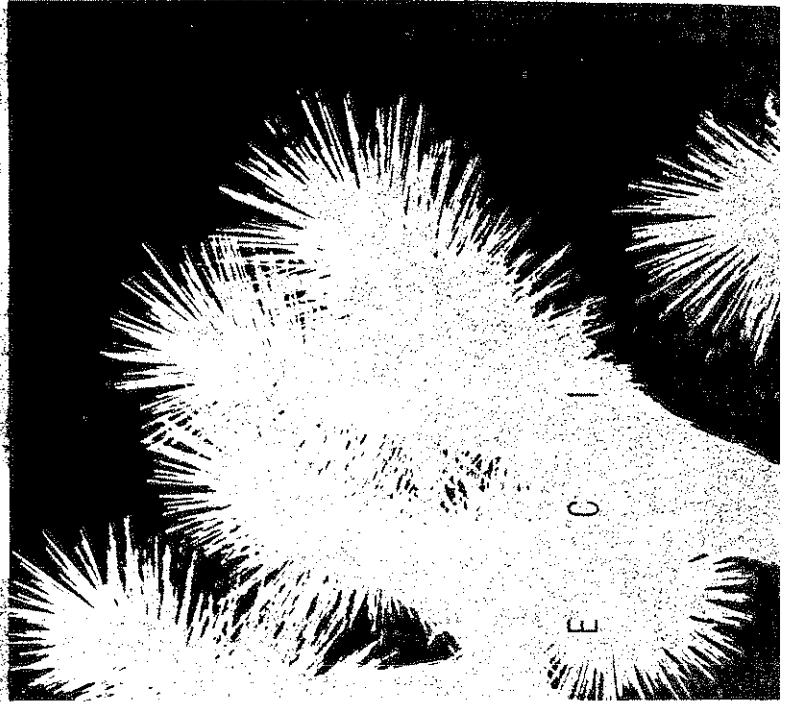
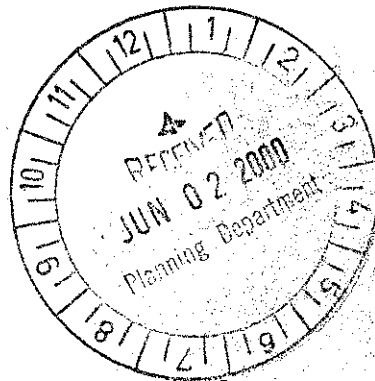


**VISTA VERDE  
SPECIFIC PLAN**



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SPA-2-91(A-9)

This Amended Document is Dated: June 6, 2000

# VISTA VERDE SPECIFIC PLAN

## For A Multi-Use Master Plan

■ **Prepared For:**

City of Victorville  
(760) 955-5135

■ **Submitted:** August 13, 1991

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GPA No.: GPA 4-91(D)  
Approved: April 28, 1992

Resolution No.: 91-193

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ZC No.: ZC-18-91  
Approved: April 28, 1992

Ordinance No.: 1549

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Specific Plan 2-91:  
Approved: August 4, 1992

Ordinance No.: 1589

■ **Amended:**

Specific Plan Amendment SPA-2-91(A)  
Approved: July 6, 1993

Ordinance No.: 1652

Specific Plan Amendment SPA-2-91(A-2)  
Approved: April 18, 1995

Ordinance No.: 1738

Specific Plan Amendment SPA-2-91(A-3)  
Approved: February 20, 1996

Ordinance No.: 1777

Specific Plan Amendment SPA-2-91(A-4)  
Approved: September 19, 1996

Ordinance No.: 1798, 1799, 1805

Specific Plan Amendment SPA-2-91(A-5)  
Approved: December 2, 1997

Ordinance No.: 1866

Specific Plan Amendment SPA-2-91(A-6)  
Approved: February 19, 1998

Ordinance No.: 1868

Specific Plan Amendment SPA-2-91(A-7)  
Approved: May 25, 1998

Ordinance No.: 1878

Specific Plan Amendment SPA-2-91(A-8)  
Approved: July 16, 1998

Ordinance No.: 1884

General Plan Amendment No.: GPA-1-00 (A)  
Approved: June 20, 2000

Resolution No.: 00-45

Specific Plan Amendment SPA-2-91 (A-9)  
Approved: July 11, 2000

Ordinance No.: 1920

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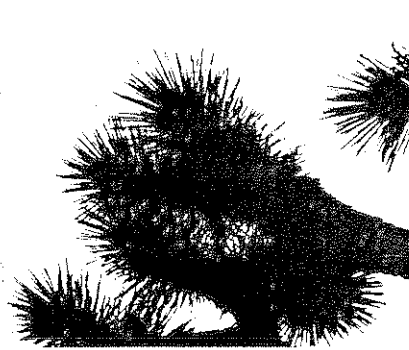
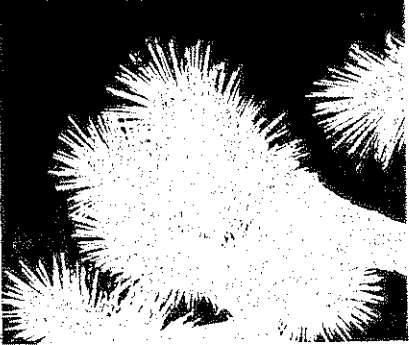
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I N T E R O D U C T I O N

# I N T R O D U C T I O N

## ■ Background

### *Introduction*

This document describes the Vista Verde Specific Plan as amended. The Plan regulates the location and configuration of future land uses in an area of approximately 519 acres located west of Highway 395, within the Baldy Mesa Planning area.

The Vista Verde Specific Plan is intended to provide a high-quality development of multiple uses, including commercial, single family residential, and the possibility for a joint use park/elementary school (Snowline Joint USD). By ongoing cohesive design, the Vista Verde Specific Plan will provide a desirable community environment, as well as a desirable living area (neighborhoods) for future residents.

### *Purpose and Intent*

The Specific Plan gives detailed information on land uses, as well as supporting goals, policies, and procedures to implement the Land Use Plan. It also provides information about controlling regulations, circulation standards, infrastructure, and suggested municipal financing mechanisms. Environmental impact documentation and mitigation measures are included to assist the environmental assessment and review process.

Most important, the Specific Plan lists requirements to implement the goals and policies of the City of Victorville General Plan. It provides the means for meeting the overall goals and policies of the General Plan and includes details for implementing its Land Use Element.

The City's General Plan provides goals and policies that are the basis of the Specific Plan. The Specific Plan meets its goals and policies, but with the proposed Specific Plan Amendment SPA-2-91 (A9), the General Plan will need an amendment to its Land Use Element, Circulation Element and Noise Element, as well as other affected elements.

Upon adoption of the amended Specific Plan, a development agreement can be entered into if requested by the landowner/builder with the City on approval by the legislative body if the agreement is consistent with the General Plan and Specific Plans and if it is in the best interest of the City of Victorville. (Refer to Chapter 18.59 in Title 18 of the Victorville Municipal Code, titled "Zoning.")

---

The Specific Plan also provides environmental resource information which provides the standards and environmental documentation for the project area so future development applications consistent with the Specific Plan can proceed without the requirement of new documentation.

The Specific Plan and necessary General Plan Amendment was initiated by the Forecast Group (Victorville Development LLC) and the City of Victorville. The following are listed as objectives based on the goals and policies of the City's General Plan, which form the guidelines for the Specific Plan. These are as follows:

- Create new public places and features to meet the needs of Victorville as it grows and individual lifestyle choices by providing a complimentary mix of residential housing types.
- Provide adequate environmental documentation to protect important natural features and reduce the scope of environmental review for individual development applications that are consistent with the Specific Plan.
- Provide additional development regulations and standards to ensure that future development will be compatible with surrounding uses.
- Utilize enhanced desert (i.e., ornamental and native planting) landscape features within rights-of-way containing esplanades, and within individual neighborhoods to promote water conservation.
- Provide major infrastructure concepts and multiple street connections and direct pedestrian routes to reduce reliance on collectors and arterials and to minimize traffic on any local neighborhood street.
- Establish a reasonable basis for subdivision review so individual project applications consistent with the Specific Plan can be processed in a timely manner.
- Recommend programs for implementing capital improvements, district assessment financing, and public service additions for the area.

#### *Jurisdiction and Boundaries*

The project is in the western portion of the City of Victorville, which is located in the Victor Valley and is part of the High Desert area of Southern California (See Exhibits 1 and 2). Victor Valley includes the communities of Adelanto, Apple Valley, Victorville, Hesperia, Lucerne Valley, Silver Lakes, Helendale, and Phelan. The project site is located approximately 1/4 mile north of the logical extension of Olivine Road, approximately 1/4 mile south of Palmdale Road, east of and/or abutting the logical extension of Bellflower Street and west of and/or abutting Highway 395.

---

*Contents* The Specific Plan, when adopted as an ordinance will regulate the development of the project. It is organized into the following sections:

**Introduction**

The introduction describes the project and gives the authority and scope in accordance with State Planning, Zoning and Development law. It also includes a discussion of the Specific Plan's relationship to the goals and policies of the current City of Victorville's General Plan.

**Environmental Resources**

This section provides a description of the existing conditions and environmental resource documentation (based on State CEQA guidelines) associated with the project site and surrounding area.

**Development Plan**

A discussion of the Land Use Plan and development program are included in this section. It also describes the administrative and regulatory provision needed to implement the Land Use Plan.

**Infrastructure Plan**

A description of the planned major circulation network including public works (water, sewer and drainage) improvements that support the Land Use Plan is provided.

**Implementation Measures**

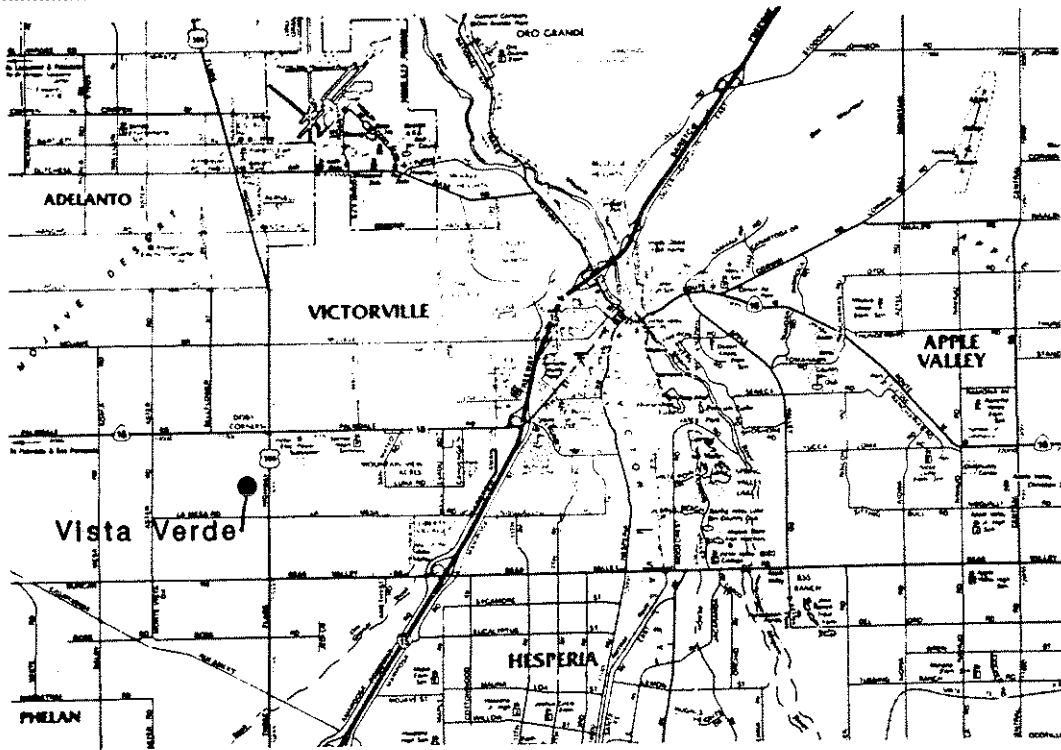
Potential implementation measures, such as capital improvement programs, assessment district financing, etc., are covered in this section.

This Specific Plan establishes the overall development patterns for the project. It includes regulatory provisions extracted and/or amended from applicable sections of the City of Victorville Municipal Code Zoning Ordinance (Title 18) and Subdivision Ordinance (Title 17).

*Authority and Scope* Specific plans are authorized by Article 8, Specific Plan of the Planning, Zoning and Development Law of the California Government Code following state and local guidelines. This code authorizes counties and cities to prepare, adopt, and administer Specific Plans for portions of their jurisdictions as a means to implement their General Plan.

*Application* Specific plans are one of many policy or regulatory tools used by local governments to implement community development. The Specific Plan applies only to that property within the City of Victorville (portions of Sections 23, 33, and 21) and known as "Vista Verde". The boundary of the project site is shown on Exhibit 2, Site Location.

*Specific Plan Adoption* The process for the adoption of a Specific Plan or its amendment includes a public hearing by the Planning Commission. Upon a recommendation by the Planning Commission, the City Council may adopt the Specific Plan by ordinance. The adoption is by ordinance when the existing zoning ordinance and/or other municipal codes are amended. Once the Specific Plan is adopted, the City Council shall deny approval of any use, tentative map or a parcel map if inconsistent with the Specific Plan.

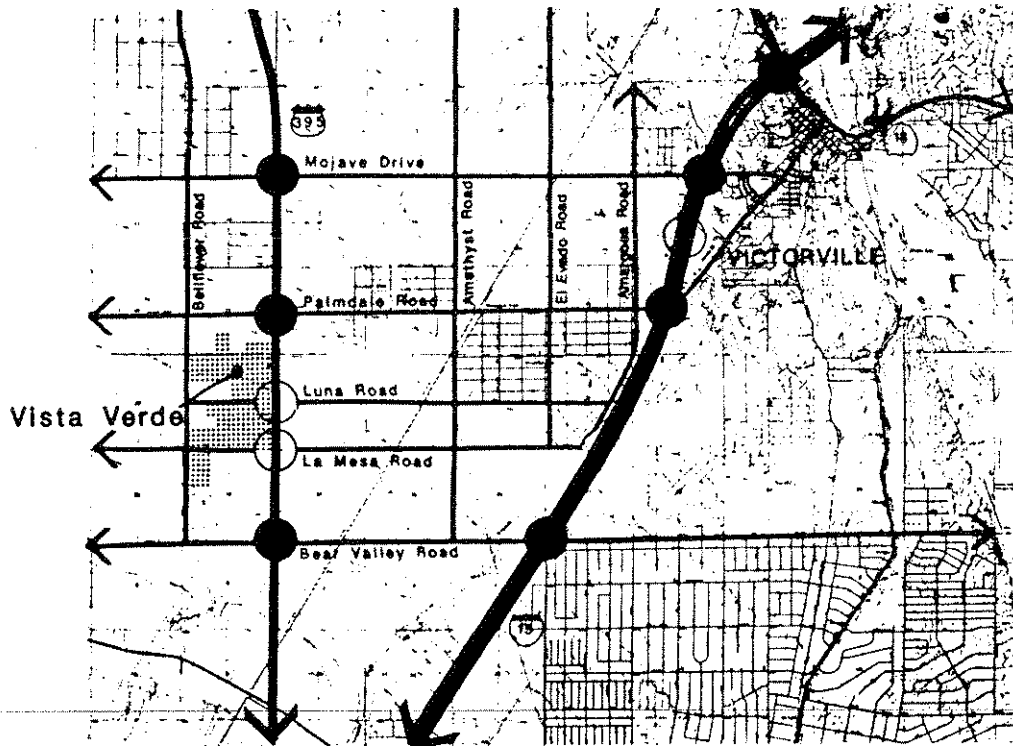


■ COMMUNITY SETTING

North ▲ Not to Scale

■ SITE LOCATION

North ▲ Not to Scale



**■ TABLE 1: SUMMARY DATA**

Planning Area Location

- Northern boundary is approximately 1/4 mile south of Palmdale Road, west of Highway 395 (SR 395) and approximately 4-1/2 miles north of the interchange at Interstate Route 15 and Highway 395 (SR 395).

Planning Area Size

- Total Specific Plan area 519 acres;

Governmental, Service Jurisdictions and territories;

- City of Victorville
- Victorville Park and Recreation District
- Fire: City of Victorville
- Police: San Bernardino County Sheriff
- Sewer: Victor Valley Wastewater Reclamation Authority
- Refuse Disposal: City of Victorville Sanitation Department
- Water: Baldy Mesa Water District
- Electric: Southern California Edison
- Gas: Southwest Gas
- School: Snowline Joint Unified School District
- Telephone: GTE California
- Cable Television: Charter Communications

---

*Specific Plan Land Use*

Land Use	Gross Acres <sup>1</sup>	Total Homes
<b>Residential:</b>		
• Very Low SFD Residential	68.4	281
• Low Density SFD Residential	117.5	554
• Medium-Low Density SFD Residential	175.1	948
• Medium Density SFD Residential	98.4	547
<b>Non-Residential:</b>		
• Commercial	10.2	
• Highway Commercial	12.0	
• Office/Administrative (with Very Low Residential Overlay)	14.0	60
• Joint Park & Elementary School Site (with Medium Residential Overlay)	23.4	140

<sup>1</sup> Does not include major roads, (based on aerial control and boundary survey). - Ludwig Engineering

---

## ■ General Plan Relationship

*Introduction* This Specific Plan was prepared to be consistent with the goals and policies of the General Plan, thus, meeting state law.

The Specific Plan is an elaboration and refinement of the General Plan. It has been formulated to be consistent with goals and policies as outlined in the General Plan; but amendment to the General Plan will be required to accommodate the Specific Plan. The following is a summary discussion of the relationship of this Specific Plan to the various elements of the City's General Plan. The discussion is organized as follows:

- Land Use Element
- Housing Element
- Circulation Element
- Safety Element
- Resource Element
- Noise Element

*Physical Setting* The physical setting includes twelve factors that include: geology, seismic hazards, soils/liquefaction, mass wasting, flood protection, water quality, agriculture, open space, biotic communities, fire, noise, and land suitability for urbanization.

A thorough search and evaluation of available data and a detailed site study was made to determine and analyze the physical setting of the project area and surrounding environs.

**LAND USE ELEMENT:** The Land Use Element includes general land use goals and policy guidelines for the City of Victorville. Thirteen categories are utilized in the General Plan to designate land use throughout the City. The proposed Specific Plan Land Use Plan reflects land use patterns within the broad categories in the General Plan.

Consistency with the overall goals in the City's General Plan is achieved by the proposed multiple use, planned community, which creates an identity with a balanced variety of retail and service commercial including residential housing products within a broad price range. In addition, the project site is located in an area identified as suitable for urbanization. The project will be phased over many years.

**Land Use Regulations:** The Specific Plan is intended to utilize and amplify existing jurisdictional implementation processes with specific district regulation geared to the project area. These regulations either will utilize existing adopted regulations and/or replace those currently established for the Specific Plan boundary. Section 3 of this document contains applicable Land Use Regulations for the Specific Plan area.

---

**HOUSING ELEMENT:** The goals that are included in the City's Housing Element are generally oriented toward developing a balanced residential environment. The several residential product concepts provided for the Specific Plan are consistent with such goals.

Proposed residential development for the Specific Plan area will provide new housing opportunities. Through a diverse range of product types, densities, and price ranges, the project will offer an alternative to families and individuals seeking to locate close to an expanding employment base in the Victorville area.

**CIRCULATION ELEMENT:** The Circulation Element includes the Master Circulation Plan. The Circulation Element describes the goals and policies for planning, developing, and maintaining, on a city-wide basis, an integrated system of surface transportation necessary to service the existing and planned land uses within the City.

The Element also graphically depicts the general location and classification of an integrated system consisting of transportation corridors, freeways, arterials, and collectors. The Specific Plan includes the following to facilitate the intent of the Circulation Plan:

- Development within the Specific Plan shall be responsible for roadway improvements shown on the Master Circulation Plan and within the Specific Plan boundaries.
- Implement the arterial and collector system to the required roadway standards as defined by the City of Victorville Master Circulation Plan, as modified by the Specific Plan.
- Design a local roadway system that serves the community and provides linkages to neighborhood and transit facilities.
- Increase opportunities for pedestrians and bicyclists.

**SAFETY ELEMENT:** The Safety Element incorporates goals and policies pertaining to seismic and geologic hazards materials as well as flooding and wild land and urban fires. The fundamental goal of the Safety Element is to provide a safe living environment consistent with available resources required to identify and control natural and other hazards.

Geology/Seismic Hazards: The geotechnical analysis shows that no active or potential faults are known to exist within the project area. Therefore, it is concluded that the project area is safe for development, subject to applicable building and mechanical codes. Prior to issuance of building permits, however, detailed geotechnical investigations shall be conducted and appropriate construction practices implemented.

Mass Wasting: The project site is relatively flat and is not subject to landslides. Grading and earthwork activity will be performed in accordance with and conform to applicable city ordinances and permit requirements.

Flood Protection: Preliminary hydraulic investigations have been conducted within the project site and concluded that it is safe for development. A drainage concept plan for the proposed development provides for flood protection. The project area is located outside of the 100- and 500-year flood plain.

Hazardous Materials: The project site is not located near the Interstate 15 corridor or the Atchison, Topeka, and Santa Fe main line railroad.

---

Fire: All proposed fire protection facilities and procedures for the project site will be reviewed. In addition, stated requirements of the City of Victorville Fire Department shall be met.

The water system shall have sufficient capacity and pressure to meet fire flow requirements.

**RESOURCE ELEMENT:** The Resource Element is concerned with the preservation of natural resources and the maintenance of open space resources including cultural and historical resources.

The Conservation Plan/Geological Resources: A review of the United States Geological Survey and California State Division of Mines and Geology Geotechnical Studies was conducted as a part of the development program. A 1980 Bureau of Land Management (BLM) study identified the Victorville area as having a good potential for leasable oil and gas deposits. The BLM study also shows a potential for locatable mineral resources in the project area. The development program for the project site proposes only commercial, industrial, and residential land uses. No mining activities are proposed.

Soils: The soils associated with the project are identified by the United States Department of Agriculture, Soil Conservation Service (SCS), as being suitable for development. All soils related to the project site are subject to the hazard of soil blowing.

Air Quality: New development can utilize measures designed to conserve energy resources in their construction. However, most of the airborne pollutants are transported from urbanized areas in the South Coast Air Basin through nearby passes.

Water: The Soil Conservation Service (SCS) identifies soil permeability associated with the project site as moderately slow to rapid. Water drawn from wells has retained a consistently high quality through many years of testing. Consequently, development to date in the Victorville area has had no apparent effect on water quality or the water resources contained in the underground aquifers. Additional water quality standards for the proposed development will include proposals for erosion control measures during construction phasing.

Biological Resources: The proposed right-of-way areas with esplanades within the project site may consist of enhanced or transitional desert. This area can be revegetated to provide a transition between natural areas and private landscape areas. Minimal irrigation (xeriscape) in the right-of-way areas can allow high desert species to flourish. Some plant species found on the project site (i.e., Joshua Trees) may be transplanted within the right-of-way or development areas.

The proposed development may emphasize desert landscaping methods. Where possible, the native vegetation can be enhanced and supplemented with drought-tolerant plants that require minimal irrigation. Non-native trees and flowers can be interspersed with natives. Most yuccas, including the Joshua Tree, are protected under the native plant law. Special permits will be obtained prior to their removal or transplanting, as necessary. Joshua Trees are protected by City Ordinance No. 1224 and the City's Joshua Tree Site Review Procedures.

In addition, development efforts will be required to be directed toward the retention of (sensitive and/or unique habitat) species (i.e., Joshua Trees), as well as endangered species (if any) living within the project area (i.e., desert tortoise).

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Paleontological/Archaeological: The project site falls within the fossiliferous strata identified in the current General Plan. Because paleontological resources may be unearthed during construction, implementation of the plan may require museum curation.

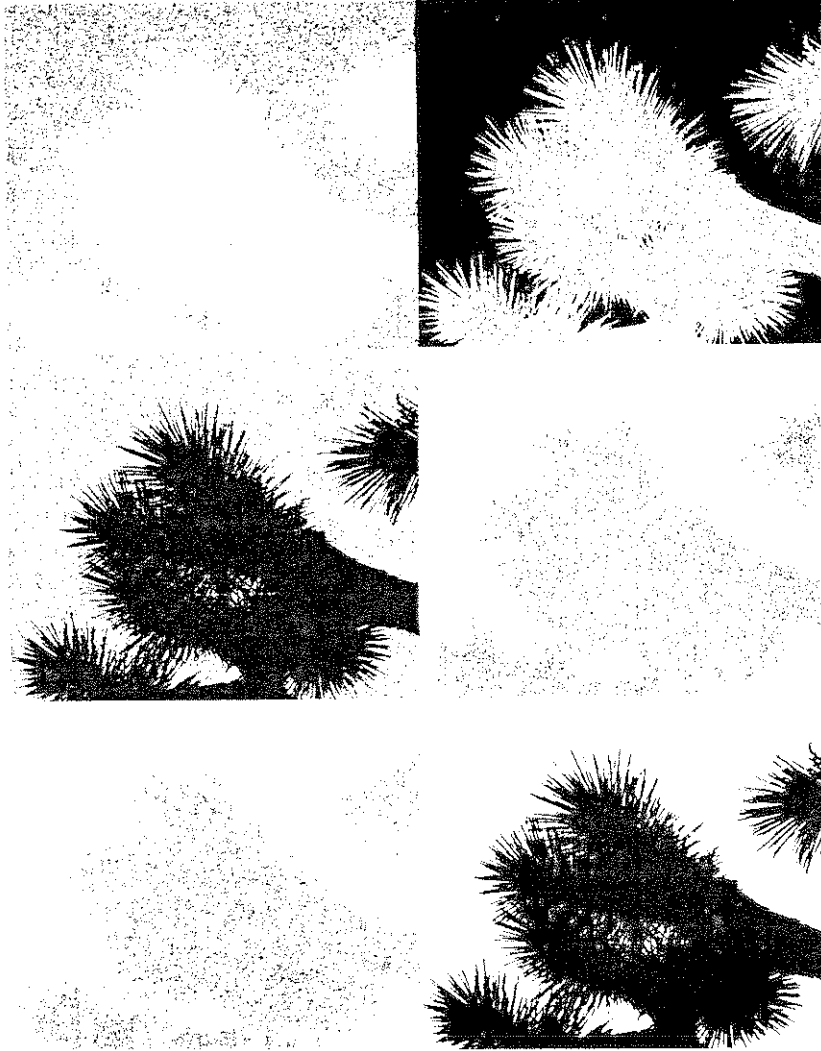
Open Space Plan: The Open Space Plan identifies recreational facilities of local and city-wide significance including specialized facilities. All city-required requirements will be met.

Cultural/Historical Resources: The Historic Resources identifies historical sites through cultural, economic, historic personages or events, and distinguished architecture or other notable works. Historic preservation is not applicable to the vacant project site.

Solid Waste Management: The community will be served by several public and quasi-public agencies. The agencies servicing the project site for solid waste are the County of San Bernardino Solid Waste Management District and Victorville Disposal, Inc.

The Solid Waste Management was developed to facilitate the state approval of establishing a city-owned landfill. This would alleviate the need for the City to contract with San Bernardino County to dispose of its solid waste into the County landfill.

Noise Element: Major noise sources may be associated with existing and/or new roadways. Consistent with city policies, all new residential buildings may be required to comply with noise attenuation standards. New development within the Specific Plan area will comply with the intent and purpose of the Noise Element.



E N V I R O N M E N T A L R E S O U R C E S

# E N V I R O N M E N T A L R E S O U R C E S

## ■ Introduction

The environmental resource provided a baseline framework upon which the Specific Plan was developed. The issues and conditions provided certain opportunities and constraints, which were considered in the development of the Land Use Plan and Development Program. An analysis of specific items within the natural and man-made environment suggested a range of development alternatives which were consistent with the current General Plan Goals and Policies and its supporting documents.

Implementation of the Land Use Plan will change the undeveloped site to urban uses. The character of the site will then become a major focal point for the western area since the intensity in the use of the land will increase over the existing vacant condition.

The site development will be phased over an extended period. Commercial and residential uses will follow as market demand, economic conditions and public services permit.

Commercial and residential uses allowed in the Land Use Plan and Development Program are consistent with adjacent off-site uses as well as the development trend established in the western addition area.

*Region* The major area-wide physical feature is the Mojave River located approximately 8-1/2 miles from the project site. Another prominent regional feature is Quartzite Mountain (4,532 ASL) located to the northeast of the City of Victorville.

*Topography* The project site is located on a gently sloping alluvial plain which has slightly rugged and eroded features, along its western boundary. Few land forms are present to give the site unusual or unique topographic character. The only defined drainage course in the area begins southwest of the project site and slopes northerly toward Palmdale Road (State Route 18). On-site topography is relatively flat with a gradual elevation ranging from 3,168 to 3,263 feet above sea level (ASL). Slopes range from 0-5% across the site. Gullies exist due to the natural drainage tending to concentrate as it traverses the project site in a northeasterly direction. Generally, the surrounding undeveloped area has similar landform features as those contained on the project site.

*Geologic Units* The project area is underlaid by a sequence of a basement complex of Pre-Cambrian granites and gneisses. Sedimentary rocks, dating from the Paleozoic age, are made up of limestone, sandstone, quartz and mudstone. They are formed by the deposition of sediments transported by streams, oceans, ice, and/or wind.

Surficial geology on-site includes Older Alluvium undifferentiated and Old Lake deposit. The Mojave Desert consists of a large alluvial plain and heavy erosion deposition. The San Gabriel and San Bernardino Mountains south of the site are the primary source for the alluvium. Older Alluvium consists of well-bedded silts, clays and sand that are interbedded with freshwater limestones. Any excavation on these soils can be accomplished with conventional earthmoving equipment, and no unstable slope conditions should be encountered utilizing standard grading procedures.

*Geologic Structure*

Although no known or suspected fault tracks traverse the project site, several fault systems are located in the Victor Valley region. (Refer to Exhibit 3, Regional Seismicity.)

The predominant geologic structure of the region consists of the Helendale Fault, located northeast of the site. This fault does not have a significant earthquake potential as compared to more distant active faults.

The nearest active faults include:

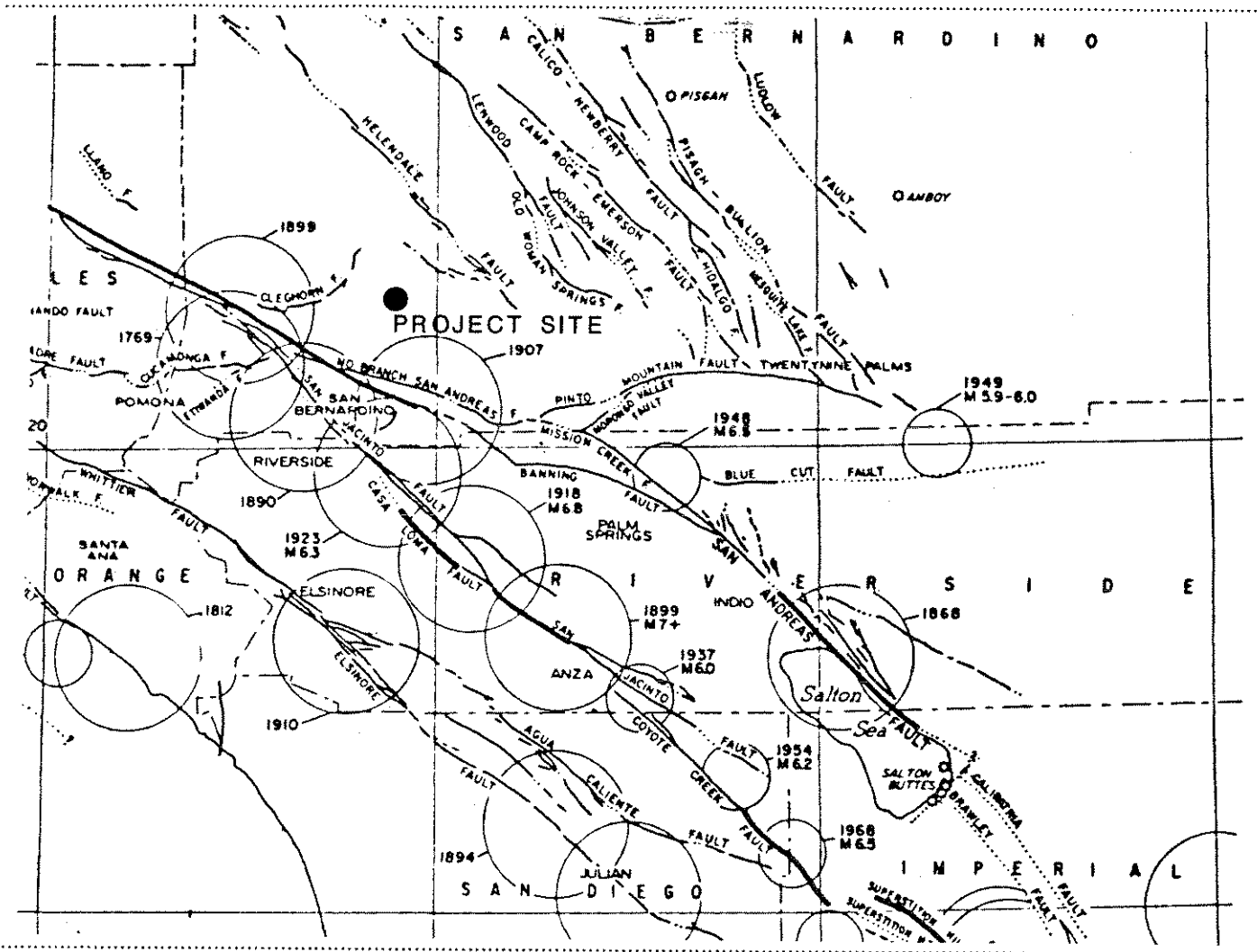
<u>Fault</u>	<u>Distance from Project Site</u>	<u>Richter Magnitude Event</u>
Helendale	10 miles northeast	6.5
San Andreas	15 miles southwest	8.2
San Jacinto	18 miles southwest	7.5

The location of these faults relative to the site are illustrated on Exhibit 3, Regional Seismicity. Based on California State Division of Mines and Geology information, the project site is not located near any seismically active fault zones and, consequently, is not exposed to any unusually seismic-related hazards. However, the project is within an area which can expect moderate ground shaking intensity. In the event of a major earthquake along one of these nearby faults, in particular the San Andreas, the Victorville area may sustain property damage, possibly resulting in injury and loss of life. The degree of impact on the Victorville area depends on: a) the distance from the quake epicenter; b) the magnitude of the quake; and c) the characteristics of soils and subsurface geology of the area. Maximum probable earthquakes of 7 and 8 on the Richter Scale could produce maximum expected ground accelerations of 0.2g to 0.4g.

*Soil Characteristics*

The soils, mapped by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS), are representative of the Mojave Desert alluvial plain physiographic area. Soil units identified within the project site consist primarily of the Cajon Series. Project soils are delineated on Table 2 (Soil Survey) and Exhibit 4, (Soils).

The Cajon Series (112-117) consist of very deep, somewhat excessively drained soils on old alluvial fans and river terraces. Most areas are dissected by long, shallow intermittent drainage ways. These soils formed in alluvium derived dominantly from granitic material.



CALIFORNIA DIVISIONS OF MINES AND GEOLOGY

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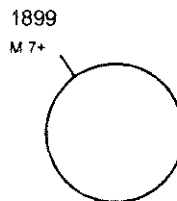
■ REGIONAL SEISMICITY  
Major Earthquakes and Recently Active Faults  
in the Southern California Region

ACTIVE FAULTS

Total length of fault zone that breaks Holocene deposits or that has had seismic activity.

Fault segment with surface rupture during an historic earthquake, or with aseismic fault creep.

● Holocene volcanic activity  
(Amboy, Pisgah, Cerro Prieto and Salton Buttes)



EARTHQUAKE LOCATIONS

Approximate epicentral area of earthquakes that occurred 1769-1933. Magnitudes not recorded by instruments prior to 1906 were estimated from damage reports assigned on Intensity VII (Modified Mercalli scale) or greater, this is roughly equivalent to Richter M 6.0. 31 moderate earthquakes, 7 major, and one great earthquake (1857) were reported in the 164-year period 1769 - 1933.

Earthquake epicenters since 1933, plotted from improved instruments. 29 moderate and three major earthquakes were recorded in the 40-year period 1933-1973.

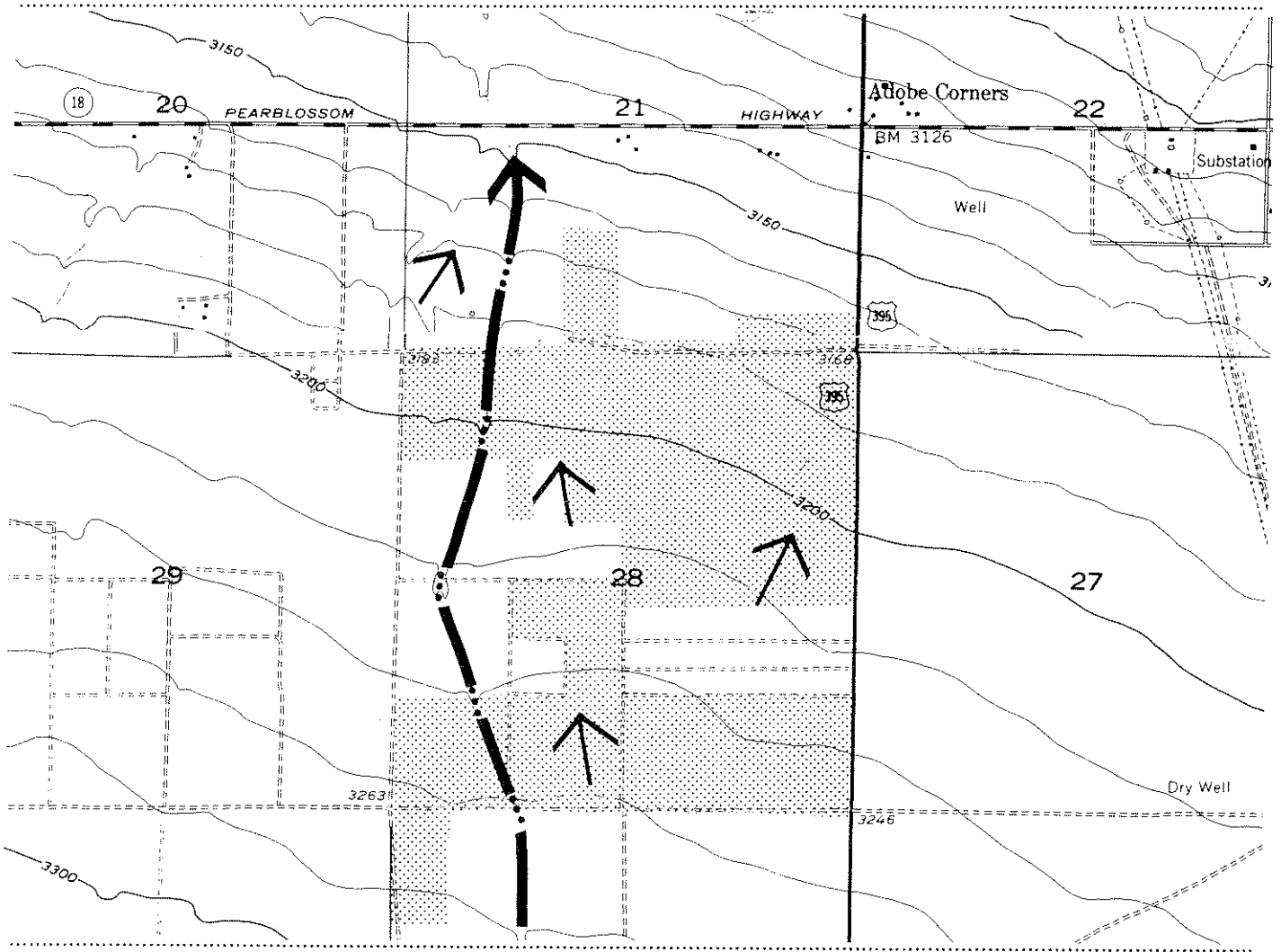


CONSERVATION SERVICE

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■ SOILS  
Soils Series/Map Unit

112 Cajon Sand



COUNTY OF SAN BERNARDINO

North ▲ Not to Scale

■ HYDROLOGY  
Existing Flow Pattern

▬ Defined Swale

↗ Sheet Flow Condition

■ **TABLE 2: Soil Survey San Bernardino County, California  
Mojave River Area Series**

Map Unit	Bedrock	Table	Water Fill	Road Pan	Swell	Shrink Slope	Wind
<b>Cajon Series</b>							
Cajon/112 Sand	>60	Deep	Good	---	Low <3%	0-2%	Extremely Erodible

*Hydrology/Surface Water*

The Mojave River drainage area consists of about 4,700 square miles. Near Victorville, the average discharge per year is 51,440 acre-feet and the average monthly flow is 71.0 cubic feet per second. The project site is not located in the Mojave River flood plain, which runs east of the site.

The project area is elevated approximately 400 feet above the flood plain of the Mojave River, which is located 7 miles east of the project site. There is a defined swale, which runs from the southern boundary northeast to the northern boundary of the project site. Drainage patterns on-site (refer to Exhibit 5, Hydrology), like the flood plain, follow a northeasterly direction.

*Groundwater*

Subsurface water is indicated to be greater than 6 feet based on soil interpretation records. Subsurface flows have been measured and are shown to vary from approximately 20 feet below the surface near the Mojave River to approximately 50 feet within downtown Victorville. In the vicinity of the project site, subsurface flows are approximately 150 feet deep. A review of the Housing and Urban Development (HUD) Flood Hazard Boundary Maps illustrates that the proposed project site is included in Zone C, which is designated outside of the 500-year flood plain.

The project area is located within the Mojave River water basin (Victor Valley). The Baldy Mesa Water District (BMWWD), which serves the project site, obtains its water supply from this basin, as well as other local water districts and private wells.

The Mojave Water Agency, which monitors the basin's water supply, has noted that the basin is currently being overdrafted on a regional basis. The water table has been falling over the past several years. Current studies on the overdrafting of the Mojave River Basin have thus far been inconclusive on the supply of ground water available and the amount of overdrafting occurring.

The agency also has entitlement to a specified water allocation from the California Aqueduct; however, none of the entitlement has been used. The water allocation is presently considered as a back-up supply.

*Water Quality*

The domestic (potable) water supply is of very high water quality. Water drawn from wells and examined for mineral content and other constituents has retained consistent high quality through many years of testing. Consequently, development of urban uses in the Victor Valley currently has had little apparent effect on water quality for the water resources contained in underground aquifers.

Water in the high desert is a rare and valuable commodity. With the exception of well and supplemental water from the aqueduct, no other sources currently exist. Water is a precious resource in Victor Valley and must be protected so that it can continue to serve the community's needs into the future.

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*Biota* Native Flora: The project site contains no significant vegetation concentrations. Generally, the site contains the desert-type habitat that is characteristic of the region.

Several predominate plant communities occur in the Victor Valley region. These include Joshua Tree Woodland, Creosote Bush Scrub, Salt Bush Scrub, and Riparian Forest. Joshua Tree Woodland, Creosote Bush Scrub, and Salt Bush Scrub communities consist primarily of drought-resistant and deep-rooted plants, which maximize moisture intake and provide an anchor against the frequent wind.

The dominant species identified for the project site area include Joshua Tree (*Yucca brevifolia*), creosote bush (*Larrea divaricata*), and Mormon tea (*Ephedra californica*). Major forage species are Indian rice grass, desert needle grass, and filaree. An assessment of the project site was the result of a review of existing soil survey information relating to vegetation and aerial photographic interpretation. No rare, threatened, or endangered species or habitat are known to exist on site. Most yuccas, including the Joshua tree (*Yucca brevifolia*), and all cacti are protected under the State Native Plant Law. The Joshua Tree is also protected under the City of Victorville Municipal Code Section 13.32.

Clearing or any disturbance destroying the soil structure and vegetation may result in increased soil blowing. In some cases, historical clearing has influenced an increase of Indian rice grass.

Planting windbreaks will help reduce soil blowing. Among the trees most suitable for windbreaks are Aleppo Pine, Paloverde, and Athel or Evergreen Tamarisk.

Native Fauna: The majority of animal life in the Victor Valley region is found in the high desert outside of the urban influence. Fauna within the project site is minimal due to the lack of suitable habitat and the proximity of human habitation and intrusion. Animal life expected to occur within the Victorville area includes three species of kangaroo rat (panamint, desert, and merriam kangaroo rat), desert mouse and pocket mouse, zebra-tailed and whiptail lizards, gecko and desert night lizards, jack rabbits, and occasional snakes. The coyote, badger, and kit fox are the most common predators in the area. Also, the spotted skunk, desert tortoise, and several species of squirrels are known to live in the Mojave Desert in the Victorville area. Many of these mammals are nocturnal. It is anticipated that the majority of these species will relocate and migrate to surrounding vacant areas as development occurs. The desert tortoise (*Gopherus agassizii*) is currently listed as a threatened species. The Endangered Species Act provides for the issuance of Section 10(a) permits to authorize "incidental taking" in connection with otherwise lawful private activities. The City of Victorville will require an on-site field survey prior to any site grubbing and/or grading. No other rare, threatened, endangered species are known to exist in the area.

Birds are usually sparsely distributed in the area and are expected to occur only as transients to the site, depending on food availability and cover.

*Climate and Air Quality*

Climate: The project area is located within the Mojave Desert Air Basin (MDAB). The climate of the Victor Valley area is generally dominated by the semi-permanent high-pressure center over the Pacific Ocean and the San Gabriel and San Bernardino Mountains to the south that restrict almost all marine influence from the nearby ocean. The climate is therefore mainly a continental climate with hot summers, cool winters, low humidity, infrequent rainfall, and clear skies.

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Winds are mainly from the south through Cajon Pass and can carry pollutants from highly urbanized areas into the Victorville area.

Winds and the temperature of the layers of air within the air basin generally determine the localized rate of dispersion of air pollutants near a new source as well as governing the regional transport of air pollution into and out of a given area. In Victorville, winds are either out of the south, originating in the polluted environments of western Riverside and San Bernardino Counties, or from the west where air from the San Fernando Valley entered the Antelope Valley through Soledad Canyon. In winter, especially at night, winds may become calm and allow for localized pollution stagnation; but summer daytime winds are strong from the south and transport air into the Victor Valley from other airsheds.

Temperature inversions, which control the vertical spread of air pollutants, are not as prevalent in the Mojave Desert Air Basin (MDAB) as in the South Coast Air Basin. Because Victorville is near one of the outflows of the South Coast Air Basin, it receives a fairly concentrated sample of air from the south. However, without the inversion to trap this inflowing coastal air mass, the pollutants quickly become diluted.

In winter, the pooling of cool air in lower elevations creates numerous radiation (localized) inversions. These shallow inversions, in conjunction with nearby calm air, could cause localized pollution "hot spots" if there were large concentrations of industrial or vehicular sources. These inversions cause high pollution levels at night in winter in Las Vegas or Phoenix, but the Victorville area is not developed to the extent that these inversions (which burn off after sunrise) could cause significant air quality problems.

Air Quality: State and Federal agencies have set ambient air quality standards for certain pollutants. The National Ambient Air Quality Standards (NAAQS) have been established for ozone, inhalable particulate matter, carbon monoxide, sulfur dioxide, nitrogen dioxide and lead. The State standards are generally more restrictive than the corresponding Federal standards. A review of the State and Federal air quality standards and attainment standards reveal that existing air quality in Victorville is generally very good in contrast to the urban area of the South Coast Air Basin.

The Air Resources Board (ARB) regulates mobile emission sources and oversees the activities of County Air Pollution Control Districts (APCD) and Regional Air Quality Management Districts (AQMD).

The South Coast Air Quality Management District (SCAQMD), under a contractual arrangement with the Mojave Desert Air Quality Management District (MDAQMD) operates an ambient air quality monitoring station in Victorville. The MDAQMD is the agency empowered to regulate stationary sources in the Victorville area.

Historic data indicates that levels of carbon monoxide, nitrogen dioxide, sulfates, and lead have not exceeded their respective National Ambient Air Quality Standards. However, particulates that result either from wind-blown dust or hazy, polluted air from the South Coast Air Basin often exceed State standards, but rarely exceed Federal standards.

The main air quality concern in Victor Valley is from ozone. The amount the Federal hourly ozone standard has been exceeded ranges from between 50 to

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110 days over the last ten years. These high levels of ozone cause the Victorville area, as part of the Mojave Desert Air Basin (MDAB), to be designated a non-attainment area for ozone.

Most studies have shown that the source for high ozone levels in the lee of the San Gabriel is polluted air from the South Coast Air Basin. Until emissions are sufficiently reduced in the coastal communities, the inland valleys will continue to have unhealthful levels of photochemical air pollution. The Air Quality Attainment Plan (AQAP) for the Mojave Desert Air Basin recognizes the interaction and interbasin transport between the south coast and the southeastern desert.

Inhalable particulate matters are those particulates that when inhaled, can cause health problems. Particulates in the air result from various dust- and fume-producing operations (industry and agriculture), general incineration, and atmospheric photochemical reactions. Natural sources of particulates include wind-blown dust and pollens. Some particulates in the Victor Valley area may be transported in the polluted air from the South Coast Air Basin.

The frequency that particulate matter -10 micron (PM10) standards were exceeded, number from between 5 to 25 times, measured every six days for the past several years.

Construction activities will disturb the dry desert soil, which then creates significant quantities of fugitive dust once the protective "desert varnish" soil crust is broken. The Environmental Protection Agency (EPA) suggests a fugitive dust emission factor of 80 pounds per acre disturbed per day of construction. Through the use of dust control, such as regular watering with dust palliative chemicals, the emission level can be significantly reduced. Specific regulations that may apply to the project include Rule 403, which limits fugitive dust emissions.

Since these emissions are released mainly during the day, when strong winds and deep thermal convection provide good local ventilation potential, there is little chance of any localized stagnation of these emissions and no resulting air quality impact, except in the immediate vicinity of the construction itself, would be expected.

Additional measurements and/or records of various pollutants are maintained by the Mojave Desert Air Quality Management District (MDAQMD) with monitoring stations within the Victorville, Hesperia, and Barstow areas and include the following:

- Carbon monoxide (CO) is emitted primarily by motor vehicles. The highest carbon monoxide levels within the Southeastern Desert Air Basin are generally measured during the winter months. This occurs when localized inversions are formed by the cool air drainage to lower elevations (basins) in conjunction with nearby calm air. The highest one-hour and eight-hour average CO standards recorded by the Barstow monitoring station in the last several years have not been exceeded.
- Sulfur dioxide (SO<sub>2</sub>): This pollutant is a combustion product of sulfur or sulfur-containing fuels. Sulfur dioxide levels are also generally highest in the winter time. No sulfur dioxide standards have been exceeded in the last several years at the Barstow monitoring station.

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- Nitrogen dioxide (NO<sub>2</sub>), a forerunner in the ozone, is emitted from motor vehicle engines, refineries, et. al. Nitrogen dioxide is the "brownish" colored gas observed during periods of highly concentrated pollution. The standards for nitrogen dioxide (highest one-hour average parts per million) have not been exceeded in the last several years based on existing air quality data.
  - Lead (Pb): Gasoline powered engines and fuel pumps are a major source of airborne lead. The use of unleaded fuels and fuel pump recovering systems is helping to reduce levels of airborne lead. No excess of established standards has been recorded at the Victorville monitoring station.

*Archaeology* A review was conducted at the California Archaeological inventory at the San Bernardino County Museum, Archaeological Information Center; and a paleontological records review was conducted at the San Bernardino County Museum, Earth Sciences Department. Also, the *National Register of Historic Places, California Historical Landmarks (1979), and Historical Landmarks of San Bernardino County (Quinn 1980)* were consulted to determine the proximity of historical resources to the site. The results of these literature and record searches revealed that no historic or prehistoric cultural resources were identified within or adjacent to any portion of the area of potential environmental impact (APEI).

*Paleontology* In 1985, the City of Victorville retained a qualified paleontologist to conduct a city-wide geologic survey to determine the location of fossil bearing lake bed strata. The project area is located upon the fossiliferous strata identified under cultural resources in the current Victorville General Plan, Technical Background Reports.

The project area is located on fluvial and lacustrine sediments, a formation known as Shoemaker Gravel. This is underlaid by the finer-grained "Harold" formation, sediments that are described by Bowen (1954:89) as follows:

*"South of the Upper Narrows of the Mojave River, thick light yellowish gray limey siltstone and claystone are distributed over several acres, indicating the former existence in very late Pleistocene or recent time, of a shallow lake. This may have been the result of uplift (damming) on the Victorville fault."*

Previous paleontologic material has been recorded in the Earth Sciences Department of the San Bernardino County Museum from approximately 25 localities in the "Harold" formation. The paleontological species discovered at these localities are thought to predate the Pleistocene Rancholabrean and mammal age and are probably more than 450,000 years old.

*Historical* The project area is within a larger territory once inhabited by the Serrano Indians at the time of exploration by the Spanish. In 1776, Father Garces traveled along the Mojave River east of the project site and recorded various Indian villages that existed along the river at the time. During the 1940's, the San Bernardino County Historical Society and the Archaeological Survey Association of Southern California conducted numerous archaeological surveys and some excavation of certain sites along the upper Mojave River area. Research indicates that the Indians of the area were hunters and gatherers, living in small extended family groups, and moved camps seasonally to secure food from animals and plants of the desert and mountains.

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Although no subsurface investigation was undertaken, it is believed that no cultural resources exist below the surface, chiefly because Victorville's traditional growth occurred along the Mojave River; and, as a result, most areas of historical significance are found near the river. It is more than likely that historical and archaeological resources are not contained on the project site.

*Aesthetics* The project site is generally flat and is physically separated from surrounding properties by roadways and Highway 395 (SR 395). Variable commercial uses and residential densities included in the land use plan and development program, along with flexibility in land use patterns and landscape edge treatments, will allow for compatibility with adjacent land uses. Major off-site views will be of the San Gabriel and San Bernardino Mountains south of the site, the Quartzite Mountain to the north, and the Granite Mountains to the east. There are minor on-site views from the surrounding roads.

*Noise* The project site, being vacant, is currently not a source for noise generation; nor is it particularly affected by noise intrusion from any off-site sources.

The Community Noise Equivalent Level (CNEL) serves as the noise rating scale most commonly used in California for land use compatibility assessment. The CNEL scale is a 24-hour, time-weighted annual average noise level based on the A-weighted decibel. A-weighting is a frequency response of the human ear. Noise levels were determined and depicted in the Noise Element using the CNEL scale.

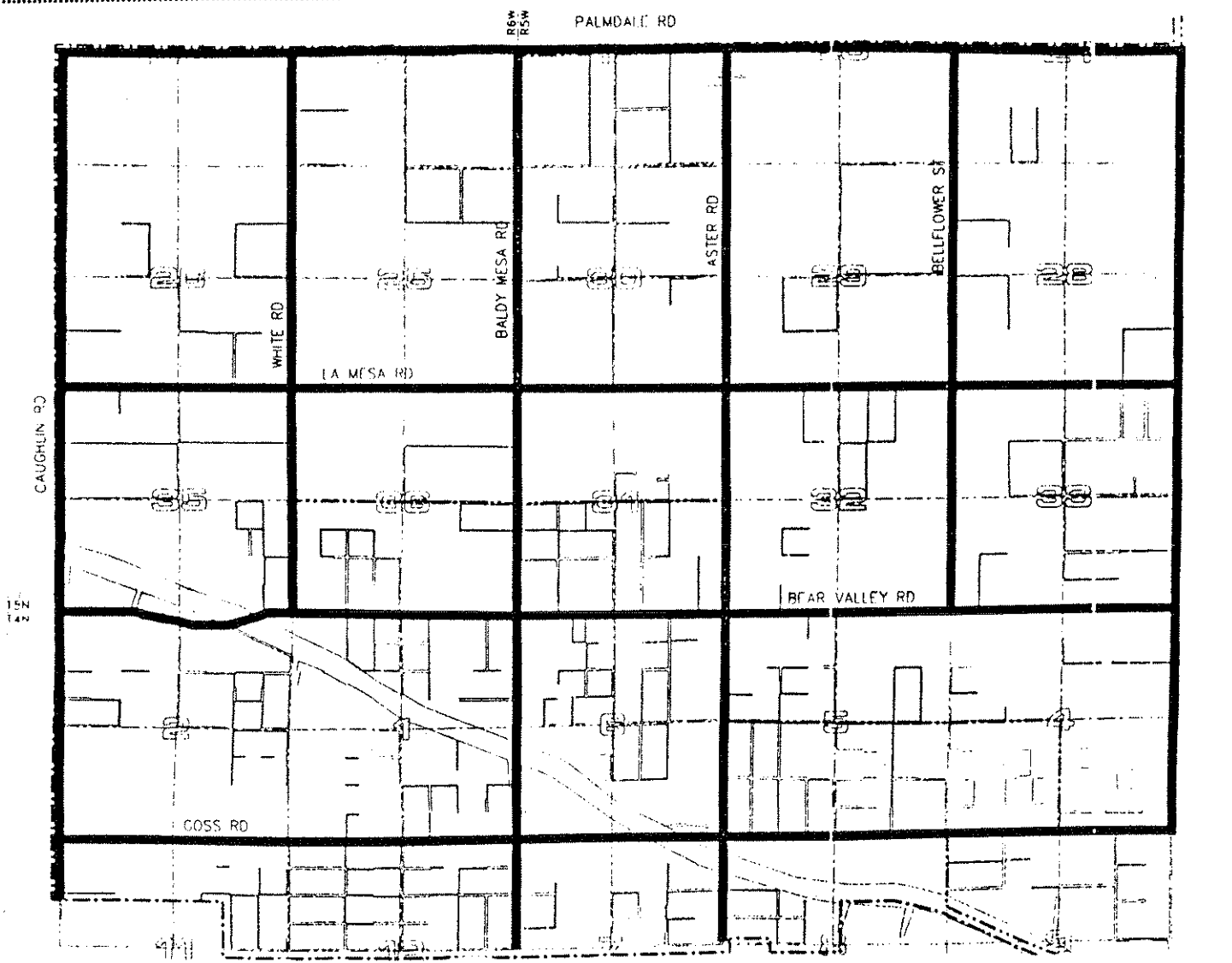
The normally acceptable external noise standard for residential areas is 60-65 CNEL. An interior noise level of less than 45 CNEL is acceptable and is generally attainable in areas where exterior noise levels do not exceed 60-65 CNEL.

The Southern California Logistics Airport (SCLA) is located to the north of the project site, approximately four miles from the closest point on the project site.

Future land uses for the SCLA are outlined in the City of Victorville's General Plan—Southern California Logistics Airport Community Plan Element and other documents (e.g., Comprehensive Airport Land Use Plan (CALUP)). A review of the SCLA future noise contours indicates that the site is not within the influence of aircraft operations. The City's Noise Element contains maps that identify noise contours for future civilian aircraft operations out of the SCLA and roadways with significant daily traffic volumes.

Currently, that portion of the site affected by the 65 dBA noise contour (within 465 feet) is located along Highway 395 (SR 395). (Refer to Exhibit 6, Noise.) Implementation of building techniques identified in the Uniform Building Code can mitigate any potential adverse noise impacts.

There may be a short-term impact on ambient noise levels as a result of construction-related noise. Noise generated by construction equipment can reach substantial levels. Construction noise may, to a lesser extent, affect any nearby sensitive receptors.



CITY OF VICTORVILLE

North ▲ Not to Scale

■ NOISE

Development Noise Impact Area/Right of Way Grid

Street:	Projected ADT	Noise Level (CNEL)		
		60dBA	65dBA	70dBA
La Mesa Road:	15,000	Distance from Median (Feet)		
Bellflower to Hwy 395		190'	88'	41'
Bellflower Street:	10,000	147'	68'	32'
La Mesa to Palmdale				
Highway 395:	65,000	1000'	465'	215'
La Mesa to Palmdale				

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Project-related traffic may increase noise levels on both perimeter and interior roadways. The existing and future residences located adjacent to the site will be affected more or less by higher noise levels.

Project-related traffic may increase noise levels on streets in the area. New residential development in those areas identified as having a noise level CNEL of 65 dBA or greater may have a noise study performed to determine what level of sound attenuation (i.e., berms, walls and/or setbacks), if any, is required to meet the acceptable interior noise levels as established by the City.

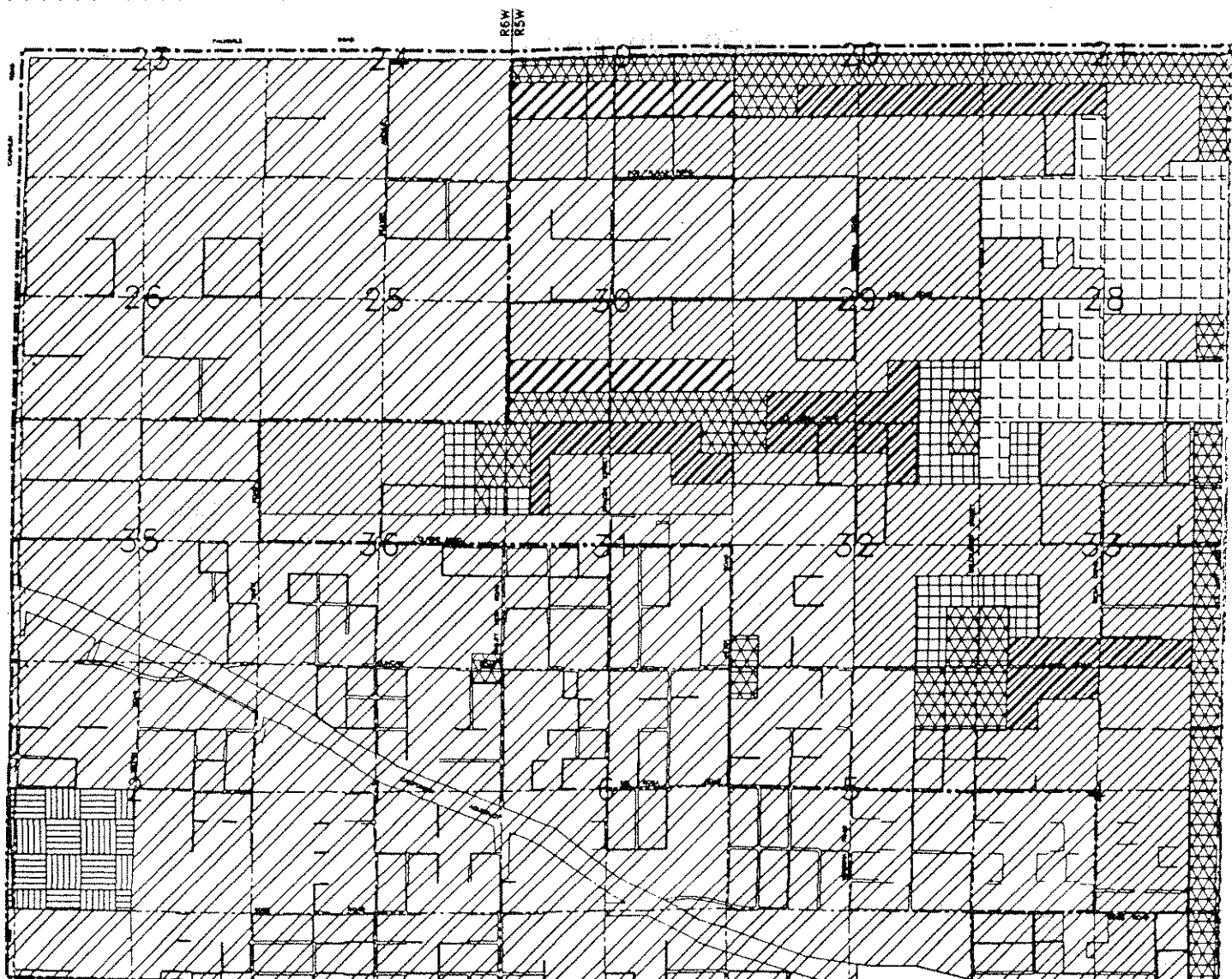
*Land Uses* Existing land uses in the project vicinity are residential, including single family and multiple family units. Most of the surrounding area is relatively undeveloped, predominately in a natural condition. Land uses within the project site include semi-improved and dirt roads. The project site is located in a vicinity that has been growing over a period of years. The Civic Center and new urban core at Palmdale Road and Interstate 15 is located approximately 4-1/2 miles from the northern portion of the site. The Mall of Victor Valley on Bear Valley Road is located 2-1/2 miles from the eastern portion of the site. This area has extended outwardly, developing in response to the desirable features of the area and low cost of the land. As a result, some parcels of land have remained vacant. The project site, made up of several parcels (under different ownerships), is one of these, remaining vacant while adjacent parcels infill with development.

*General Plan* Properties surrounding the project site are designated within the commercial, office, and residential categories. The General Plan designates the project site (approximately 519 acre) for multiple uses, including commercial, office/professional, and residential in which the predominate land use is residential. Other land uses may include a Joint Use School/Park Site. General plan land use designations for the project and surrounding area are illustrated on Exhibit 7, General Plan.

*Existing Zoning* The zoning adopted by the City Council (ZC No. 18-91) consists of a Specific Plan designation for the project area (refer to Exhibit 8, Zoning).














*Specific Plan* The City's land use policy provides for specific plans within the city. The specific plans identify the location, extent, and density of new development and also indicate specific development standards that are applicable. In the event that a specific plan is proposed for an area which exceeds existing residential densities or introduces changes in land use designations not provided for on the land use policy map, a general plan amendment is required to designate the area as Specific Plan and to establish the development limits for the specific plan area. Development standards vary within each specific plan. The specific plan land use regulations should be referred to for specific development standards.

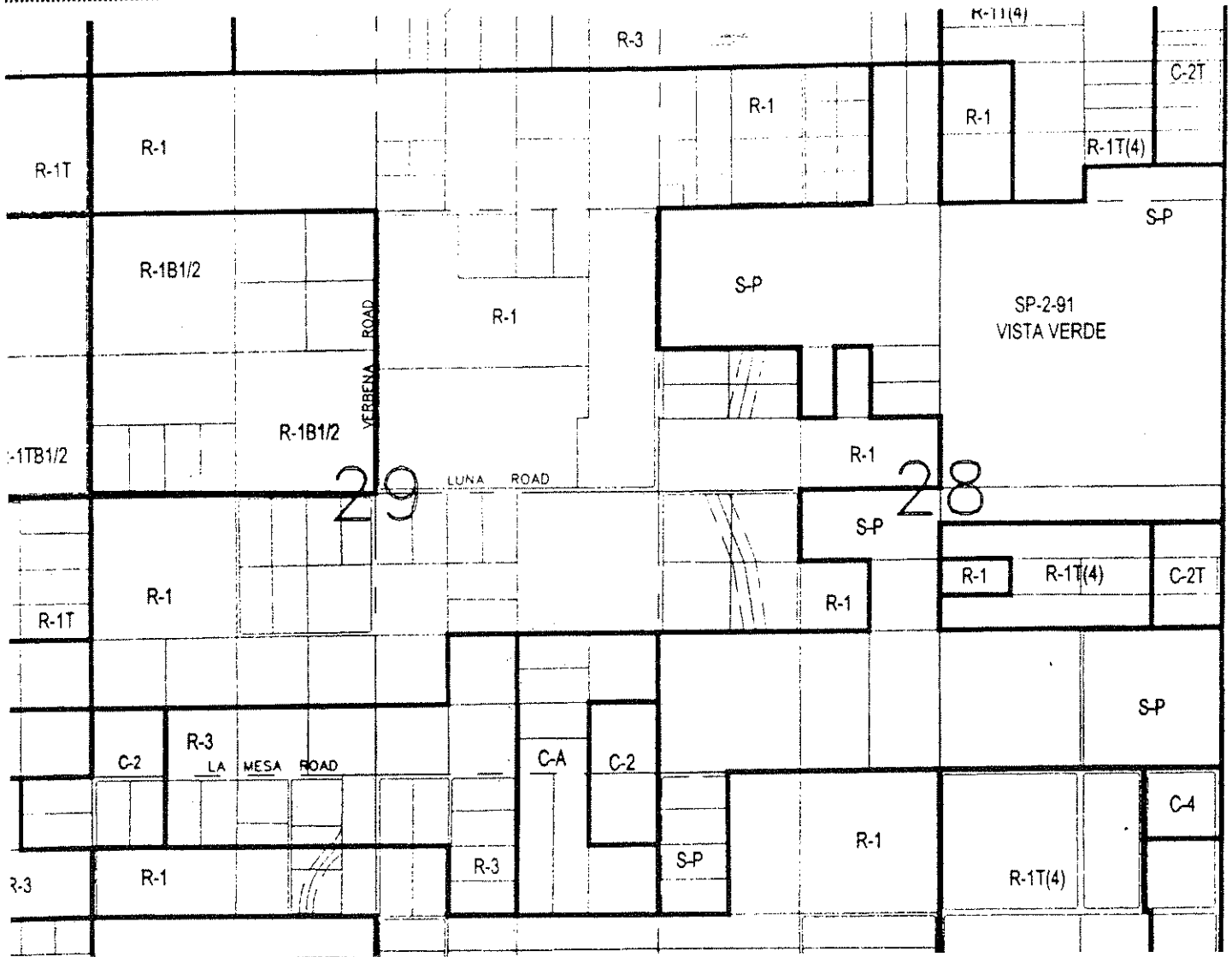
Implementation of the specific plan will change the primarily undeveloped site to urban uses. The open character of the site would be transitioned into a multiple use development adjacent to the Highway 395 corridor. Consequently, the intensity in the use of the land will increase over the existing condition. The Specific Plan Amendment SPA-2-91 (A-9) will require a General Plan Amendment to the Land Use Element, Circulation Element and Noise Element as well as other affected elements.



CITY OF VICTORVILLE

North ▲ Not to Scale

- GENERAL PLAN
-  RURAL RESIDENTIAL
  -  VERY LOW DENSITY RESIDENTIAL
  -  LOW DENSITY RESIDENTIAL
  -  MEDIUM DENSITY RESIDENTIAL
  -  HIGH DENSITY RESIDENTIAL
  -  OFFICE PROFESSIONAL
  -  COMMERCIAL
  -  LIGHT INDUSTRIAL
  -  HEAVY INDUSTRIAL
  -  PUBLIC/INSTITUTIONAL
  -  OPEN SPACE
  -  URBAN CONSERVATION
  -  SPECIFIC PLAN



CITY OF VICTORVILLE

North ▲ Not to Scale

■ ZONING

□ SP  
Specific Plan

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The site is proposed to be developed over an extended period. Uses would follow as market demand and economic conditions dictate. Uses proposed in the Land Use Plan and Development Program are consistent with adjacent off-site uses as well as the development trend proposed for this area.

The Specific Plan is the mechanism through which land use and regulatory provisions will be established and enforced for that area within the Specific Plan boundaries. Zoning will be based upon regulations and standards within this Specific Plan and applicable regulations in the City of Victorville Municipal Code Zoning Ordinance (Title 18) and Municipal Code Subdivision Ordinance (Title 17).

*Local/Regional Road System*

The Circulation Element of the current City of Victorville General Plan includes all of the roadway improvements of importance to development of the project site. These improvements are long range policies of the circulation element.

An amended traffic study/analysis of the Specific Plan area has been completed by Kunzman Associates. (Refer to separate document prepared by Kunzman Associates, Vista Verde—Victorville Traffic Impact Analysis (revised January 1993), a Traffic Analysis (letter dated March 27, 2000 and letter dated April 3, 2000). The difference between the Traffic Analysis for the Adopted Specific Plan Land Uses and the modifications to land uses proposed in the Amended Specific Plan is a reduction of approximately 15–18 percent in daily traffic generation. The project area is served by several arterials. The super arterial is Highway 395. The major arterial is Bellflower Road. The residential arterial is La Mesa Road. The arterials provide both local and indirect regional access to the project area. All of these roads are shown on the currently adopted City of Victorville Circulation Plan.

Regional access to the project area is provided by Interstate I-15, a major north-south interstate freeway, and Highway 395 (SR 395).

There is an interchange at Highway 395 and Interstate 15. The bridge structure over the freeway provides two lanes for through traffic.

Bellflower Road is a major arterial and is proposed as a four (4) lane facility. La Mesa Road, a residential arterial, is proposed as a four (4) lane facility. Luna Road and Dos Palmas Road, are residential collectors and are proposed as a two-lane facility (except the first 660 feet adjacent to Highway 395).

**Public Services:**

The development area will be served by several public and quasi-public agencies.

*Schools*

The development area currently lies within the Snowline Joint Unified School District. The development of a joint school/park site is proposed with a residential overlay. The site is located along Luna Road, east of Mesa View Drive. This site consists of one parcel (Planning Area 14—23.4 acres gross), under the current ownership of Forecast.

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*Police* The San Bernardino County Sheriff's Department is under contract to the City of Victorville to provide police protection and traffic safety services. Police services include traffic and neighborhood police control, emergency calls and crime prevention. The County Sheriff's Department would respond to the project site from its station at 14455 Civic Center Drive and/or 14199 McArt Road. Response time to the project site would be approximately 8 to 10 minutes. Manpower needs are based upon variable factors which include response times, volume of requests for service, and traffic conditions.

*Fire* The City of Victorville Fire Department currently provides fire and life safety services from Fire Station 313. The station is located directly east of the project site (Amethyst north of La Mesa) approximately 2-1/2 miles from Highway 395 and Luna Road. The response time is approximately 8-10 minutes based on a driving time of approximately five miles from the project site. At the time Luna Road is completed to Highway 395, from Cardinal Road, the response time can be reduced to approximately 5 minutes. If construction of Luna Road from Cardinal Road to Highway 395 has not commenced at such time a building permit is applied for then the buildings subject to such permits shall require the structure to be sprinkled. However, under no circumstances shall home occupancy be permitted in unsprinkled homes until such time as Luna Road is open to fire traffic.

Additional fire resources are located nine miles away with a response time of 12-15 minutes.

*Hospitals* Medical services will be provided to the project area from St. Mary Regional Center, Desert Valley Medical Center (1995) and Victor Valley Community Hospital. St. Mary Regional Center opened a new facility in December 1983. The hospital facility is maintaining an 80% occupancy rate. Desert Valley Medical Center presently maintains an 85% occupancy rate, Victor Valley Community Hospital presently maintains an 85% occupancy rate.

*Recreation and Parks* The City of Victorville Parks, Recreation and Community Services (PRCS) Department provides recreational programs and community services to residents within the Victorville Parks and Recreation District. In addition, the PRCS Department provides maintenance services to city-owned or controlled facilities and/or properties. Nearby facilities include Eagle Ranch Park, Liberty Park and the Hook Community Center.

*Public Utilities* Agencies providing services are indicated in the following table.

**Public Utility Agency**

- City of Victorville Public Works Department
- Wastewater - Victor Valley Wastewater Reclamation Authority
- Water - Baldy Mesa Water District
- Solid Waste - County of San Bernardino Solid Waste Management District and Victorville Disposal, Inc.
- Electricity - Southern California Edison Company
- Gas - Southwest Gas Corporation
- Telephone - GTE, California
- Television - Charter Communications

Utilities are more fully discussed in the infrastructure component (Section 4) of the Specific Plan.

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## ■ Summary: Impacts and Mitigation Measures

This summary analyzes the environmental effects of the project to the degree of specificity appropriate to the current proposed actions, as a response to project-related impacts affecting the aforementioned environmental resources and the City's initial study. The proposed project has been revised to mitigate some specific impacts. In addition, the following mitigation measures are recommended to avoid or substantially reduce other potential significant impacts and are intended to apply when appropriate as conditions of project approval. (Guidelines Section 15070(b)(1)).

*Earth Resources* Site grading will modify the existing terrain to prepare the land for development as necessary for drainage, infrastructure, and earthwork balancing considerations. No unusual geotechnical hazards or land subsidence constraints are expected subsequent to building construction. Mitigation includes adherence to grading regulations and that prior to the issuance of a grading permit, the project proponent shall submit a final detailed geotechnical report prepared by a registered geologist or soil engineer to Planning, and Building and Safety. All reports shall recommend appropriate mitigation and shall be completed in a manner specified in the City Grading Manual or State/County Subdivision Ordinance.

*Hydrology* Modification of the project site surface through grading and paving is expected to increase surface runoff. Urban contaminants from surface runoff will incrementally degrade surface water quality. Mitigation shall include the project proponent's preparation of a hydrological investigation to determine storm drain specifications and erosion measures to minimize sedimentation during construction. Prior to the issuance of a grading permit, the project proponent shall submit an erosion control plan to Building and Safety and the Planning Department for approval. The erosion control plan shall be implemented prior to and during the subsequent completion of construction. Prior to issuance of any permits to construct drainage facilities, the project proponent shall submit a drainage plan prepared by a registered engineer for approval by the City Engineer. The drainage plan shall include measures as proposed by the hydrological investigation prepared for the proposed project. Additional mitigation measures shall include a street sweeping program that extends into the project area.

*Biota* During site construction, the existing habitat, if any, will be removed as a result of earth movement and wildlife will be displaced to off-site locations. The site may contain the desert tortoise (*Gopherus agassizii*). This species is listed as a threatened species by the U. S. Department of Interior, and the State Fish and Wildlife Service. Mitigation measures include a project site biological survey by a qualified biologist. If the desert tortoise is discovered within the project site and/or if the site is determined to be habitat for the desert tortoise, the project proponent shall acquire a 2081 permit from the State Fish and Game, and a Section 10a permit from U. S. Fish and Wildlife Service. A copy of the biological survey and any, if necessary, permits from the State Fish and Game, and the U. S. Fish and Wildlife Service and implement the requirements of these permits prior to issuance of grading permits. Other than possibly the desert tortoise, no other known rare, threatened, or endangered species or significant habitat is located within the project site; thus, additional impacts are not considered significant. After development,

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animal habitat will shift in favor of rodents, reptiles, and songbirds. Additional mitigation includes use of desert-type landscape materials to encourage the return of native wildlife. The project proponent shall have a qualified landscape architect, biologist, or horticulturalist prepare a survey/evaluation of all Joshua trees within the project site that can be transplanted. After review and approval of the survey/evaluation by the Parks and Recreation, and Planning Departments, the project proponent shall transplant those Joshua trees, identified for relocation into open space or right-of-way areas. (Note: any replanting should be based on the original orientation of the tree.)

*Air Quality*

During and subsequent to site construction, emission from construction equipment, new vehicular traffic, and indirect energy consumption will cumulatively degrade basin air resources. Construction emissions are of short-term duration. Fugitive construction dust impacts will be controlled through compliance with Air Pollution Control District (APCD) regulations. The project proponent shall submit a fugitive Dust Control Plan to the Building and Safety Department prior to the issuance of a grading permit for approval, including those measures applicable to the project. Reference is made to the City's Model Trip Reduction Ordinance. Additional mitigation for future vehicular traffic includes encouraging the use of those programs outlined under Regional Jurisdictions (Page 3-8). The project proponent shall submit a Transportation Demand Management Program to the Planning Department for approval for any commercial development prior to final occupancy.

*Archaeology/Paleontology*

Site development is not expected to impact any archaeological resources as a result of site conditions and characteristics. For paleontological resources, however, routine construction activities that include grading, trenching, etc., may expose significant vertebrate fossils. Mitigation measures to minimize the impact on cultural resources, including archaeological resources, shall include the following. Prior to issuance of grading permits, the project proponent shall provide the Planning and Building and Safety Departments evidence that the San Bernardino County Museum Earth Science Department has been contracted to determine if a monitor must be present during ground disturbing activities. This shall include identification of any recommendations made by the Earth Science staff and written notice to the Planning Department that all recommendations have been implemented. If monitoring is required during ground disturbing activities at the project site, the project proponent shall have a qualified paleontologist on site to monitor for exposure of paleontological resources. If such resources are encountered, the paleontologist shall notify the Planning Department and have the authority to redirect ground disturbing activities until the resources are evaluated and, if necessary, recovered. Any resources recovered at the project site shall be properly curated.

*Noise*

Short-term construction-related noise impacts will temporarily disrupt the local noise environment, primarily affecting adjacent residences. After project build-out, vehicles generated from proposed land uses will increase noise levels along interior and perimeter roadways. Residential uses adjacent to certain roadways may be affected by this increase. State Route 395 is expected to service sufficient vehicles that may affect residences adjacent to this facility. Mitigation shall include the project proponent submitting noise surveys to the Building and Safety, and Planning Departments, prior to issuance of grading permits for short-term construction noise impacts and prior to building permits for potential long-term noise impacts. The project proponent shall have site specific noise surveys prepared by a qualified acoustical consultant for locations where future noise sensitive land uses, such as residences or schools, will be located adjacent to

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high noise generating activities, such as super arterials or commercial activities if determined necessary by the City. After review and approval of the survey by the City, the project proponent shall implement those short and long-term measures (i.e., sound wall adjacent to Highway 395) recommended in the report to comply with the noise thresholds established in the City's General Plan Noise Element.

*Land Use* Proposed land uses are consistent with existing designations, representing more of an implementation of proposed planning for the western addition area rather than change in land use direction. Adjacent uses will be affected by change in the existing undeveloped environment to one of urban character. Prior to development of each phase of the Land Use Plan, the project proponent shall submit a land use evaluation of the potential for conflict with the surrounding existing land uses at that time, if determined necessary by the Planning Department. If a potential exists for a significant land use conflict, the land use evaluation shall identify specific measures (such as setbacks, design buffers, etc.) that can be implemented to reduce such conflicts to acceptable levels in accordance with the policies in the City's General Plan. The Planning Department shall review and approve this evaluation and the project proponent shall implement those measures contained in the approved report.

*Traffic/Circulation* Approval of the Specific Plan Amendment requires an amendment to the General Plan Circulation Element. The development of the site will generate traffic on the existing and future arterial and collector street system.

Project traffic will contribute to the need to construct the ultimate circulation system internal to the project as depicted in the City's General Plan Circulation Element (as amended). La Mesa Road and Bellflower Road are designated as future major arterials and arterials. The total traffic generation on a daily basis before internal trips were reduced was 51,899 per day as shown in the previous 1993 Traffic Report (Kunzman). After accounting for internal trips which were approximately 35,400 ADT and was forecast for project residential land uses, of which 1,910 trips were expected to occur during the morning peak hours and 3,510 trips are expected to occur during the evening peak hour. These volumes would have been a part of the projected year 2010 daily volumes as shown in the Circulation Element of the City of Victorville General Plan.

However, the Specific Plan as amended has reduced land use intensity (i.e., commercial) and generates a total of 41,902 trips, prior to any adjustments for internal trips. This accounts for an overall 19.3 percent decrease for the amended Specific Plan. In addition, the traffic generation is between 15.2 and 18.3 percent less in the peak hours.

The Circulation Analysis summarized existing traffic conditions, project traffic volumes, and an internal roadway network to accommodate future traffic. The traffic study prepared by Kunzman Associates, Vista Verde—Victorville Traffic Impact Analysis (revised January 1993) a Traffic Study and Traffic Circulation Analysis (letter dated March 27, 2000), and a Traffic Impact Analysis review (letter dated April 3, 2000) is contained in Appendix "A" - Traffic Study. The key findings are summarized below:

- The street system within the project boundary shall be constructed (construction will be by phases as adjacent development occurs) as shown on the City's Circulation Element. Any change in designation shall be by amendment to this Specific Plan and the General Plan Circulation Element.

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- All other streets internal to the project will be two-lane collector and/or local streets and will be phased as adjacent development occurs.

The following mitigation measures, as specified in the Traffic Study (Appendix "A") shall be implemented to mitigate the impact of the project on traffic circulation:

- Construct streets within the project boundary as identified in Kunzman-Traffic Study (January 1993) under "Mitigation Measures", 3(a-f).
- Participate in the funding of off-site improvements to the existing and future circulation system as listed in the Kunzman-Traffic Study (January 1993) through the traffic fee portion of the City's Development Impact Fees (DIF), if deemed appropriate by the City.
- Participate in the funding of future traffic signals at the intersection of State Route 395 and La Mesa Road.
- Submit detailed street improvement plans prepared by registered civil engineer to the Engineering Department for review and approval. The Engineering Department shall, at that time, determine the developer's fair share (pro-rata) contribution to cumulative traffic mitigation measures.

It is recommended that the City monitor the key intersections in the vicinity of the site for warrants for traffic signals as development within the surrounding area occurs. This way the development of the roadway system can parallel the development of the project area and the surrounding areas providing for gradual expansion in both building construction and public improvements. It will also help the City avoid installation of unwarranted traffic signals. Fees are currently being collected, which will be applied towards specific master planned improvements, i.e., traffic signals that are projected to be warranted due to the accumulated traffic volumes from numerous developed areas. The City should then contract for their construction at such time as they are warranted. However, the intersection of Luna Road and Highway 395 shall include a Opticom controlled signal prior to any home occupancy.

A supplemental Traffic Generation Analysis and Traffic Impact Analysis review is attached to this document in Appendix "A". The analysis by Kunzman Associates shows that the current land uses generate significantly less traffic than the land uses in the original traffic report. Expected traffic generation for the expected land use is approximately three-fourths as much as that assumed in the original traffic analysis. The amended project is below the threshold previously established; however, all recommendations remain, the traffic generation is less and the streets will operate as well or better than previously forecast in the original traffic study.

The traffic consultant determined (letter dated April 3, 2000) that the amended Specific Plan result clearly in a reduction, not an increase in traffic to an approved Specific Plan. Therefore, the established threshold is not exceeded. The San Bernardino Association of Governments (SanBag) requires Traffic Impact Analysis (TIA) to be prepared within a project is anticipated to cause a traffic impact above a minimum threshold level. If the project causes an impact less than the minimum threshold, then no TIA is required.

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*Public Services*

Project site development will not significantly impact most community services and public utilities. However, development in the surrounding area will impact delivery of fire protection services and require the development of a future fire station. In addition, the project is located outside the original 1978 Park and Recreation District Boundary and will have an impact on services and programs operated by the City's Parks, Recreation and Community Services Department. The planned expansion of master-planned facilities will provide for orderly growth to the area without significant impact. For police and fire, site development may require additional staffing and facilities to provide adequate service to the site. In addition, the following shall be included: 1) providing required fire flows to commercial areas of the project site. In addition, 1,000 GPM minimum fire flows to residential areas, based on fire department standards.; 2) requiring site plan review by the Fire Department; 3) providing water conservation devices; 4) providing landscaping in accordance with City municipal codes; 5) collecting connection fees for sewage treatment; and, 6) collecting funds for the Capital Facilities Improvement Program.

The following mitigation measures, implementation and timing are to mitigate the impact of the project on educational facilities.

- Provide payment of the required fees or fee equivalents, prior to issuance of building permits. The fees shall be commensurate with AB 2926 and the additional \$.43 per square foot of residential units based upon the analysis in the Final Environmental Impact Report (EIR), State Clearing House No. 91112007; however, such additional fees beyond those required by AB 2926 should be reduced or eliminated upon receipt of moneys by the District from other funding sources.
- Prior to occupancy of residential units resulting in generation of the number of students, which will require the provision of additional classrooms, provide temporary classroom facilities on an interim basis pending construction and/or expansion of additional school facilities (K-12) as set forth in the Final EIR through the use of relocatable classrooms.
- Within one year of occupancy of the first phase of development of this project, the School District shall submit required applications for State aid for construction of new elementary school facilities to be constructed within the project area.
- Within one year of occupancy of the first phase of development of this project, the School District shall complete and submit all pending State aid applications with regard to the construction of a new middle school and expansion of the existing high school facility.
- Within one year of recordation of the first phase of this development, the School District shall adopt Year Round Education (YRE) as a program option (District-wide), with YRE to be fully implemented in the elementary school serving the project.
- The School District shall investigate and if possible, secure alternative funding sources to supplement developer fees and potential shortfall in State aid as part of the District's Finance Plan.
- The School District shall utilize relocatable structures for expansion of existing facilities, and starter school concepts to defray initial costs of new facilities.

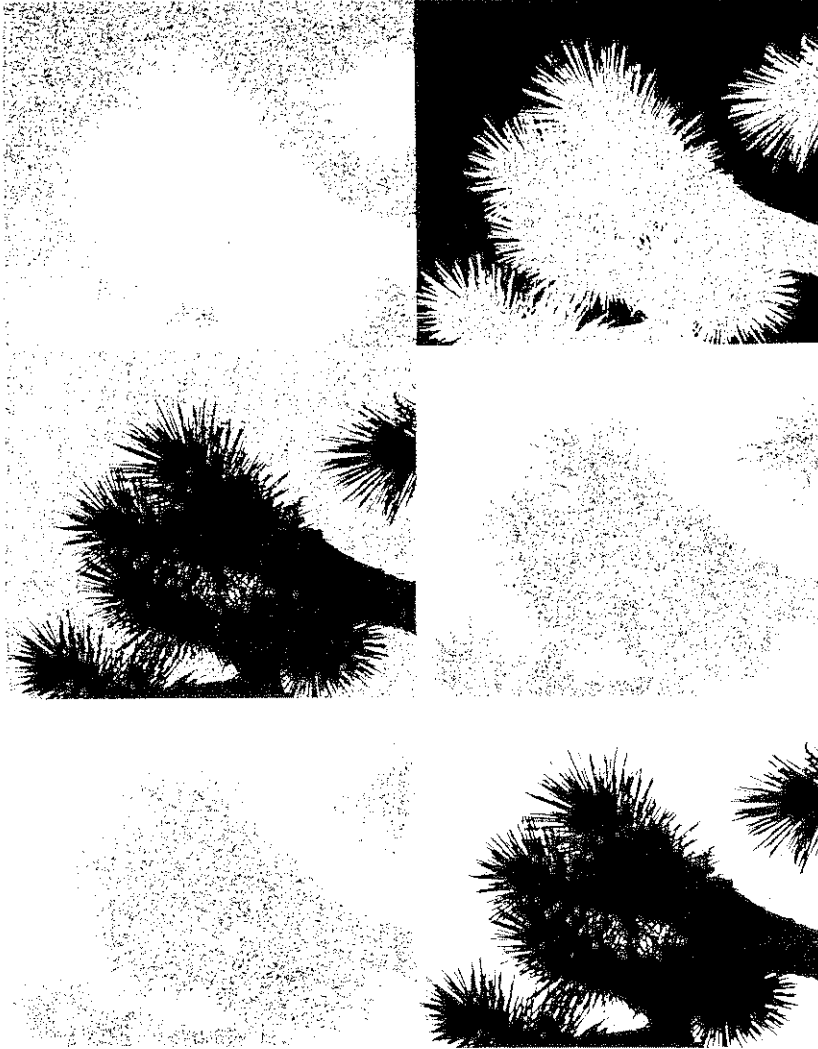
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- The City and School District may develop a joint use plan for school with the possibility of park facilities. This plan shall be designed to maximize the use and cost effectiveness of Joint Use School/Park facilities.
  - School District to acquire the K-5 school site designated in the project Specific Plan as part of a lease-purchase agreement with an anticipated seven-year lease period. The School District shall acquire the K-5 school site within one year following funding by the State or acquisition of funds from an alternative source.
  - Maximize the capacity of all K-12 schools as set forth in the Final EIR without reducing education programs.
  - The City and District shall monitor growth (both shall maintain a record of monitoring activity) and if the growth rate exceeds 8% per annum at the high school level, the project proponent and District shall make adjustments in the additional mitigation fee to address additional capacity requirements at the high school level. This would be on-going during development of the project.
  - Following adoption of new policies by the District, if the District agrees to raise its capacity limits in accordance with recommendations contained in the Final Environmental Impact Report (FEIR), State Clearing House #91112007, the project proponent shall assist the District in acquiring additional land. This additional land could be left undeveloped to increase the allowable waste discharge levels to accommodate the additional students generated by the project or to provide other alternative sewage treatment methods acceptable to the Lahontan Regional Water Quality Control Board. This assistance shall be in the form of engineering consulting assistance or funds to purchase land or alternative sewage treatment methods such as a package treatment plan. A copy of any executed plan shall be maintained by the School District, Planning Department, and project proponent in the project files.

In the alternate to the above mitigation measures, the applicant and the District may come to an agreement that mitigates the impact on schools to a level of insignificance. Prior to issuance of building permits, the applicant shall submit evidence to the satisfaction of the Director of Planning that such an agreement has been recorded.

The aforementioned potential impacts and mitigation measures are based on existing information and the Final Environmental Impact Report (FEIR). Reference is also made to the City of Victorville Mitigation Monitoring Program: "Matrix of Activities". Additional environmental assessments may be necessary on site-specific projects. All of the above measures may be modified if agreed to by the Snowline Joint Unified School District.

*Growth Inducement*

Development of the project site will induce growth in the area. This in itself may not be a significant impact in that the entire area surrounding and including the project has previously been designated for urban uses. This will create additional demands on natural and man-made resources and the environment.



D E V E L O P M E N T P L A N

# DEVELOPMENT PLAN

## ■ Introduction

The development project is proposed as a multiple use Specific Plan. As one of the City's master-planned developments, the project will be a unique component to the Baldy Mesa Planning area. The development will set a standard in this area that surrounding areas can follow.

The following goals and objectives constitute policy guidelines for the Development Plan:

- Create a unique multiple Land Use Plan that provides a variety of high-quality residential and commercial development including businesses that promote a job-housing balance (i.e., workplace is in close proximity to home);
- To reinforce the identity of the development project through control of the project elements such as architecture, landscape, walls, signage, distinctive entry treatments, and a viable circulation network that promotes a town character and a sense of place;
- Create development flexibility to allow for a broad segment of income groups and provide for residential products that will be marketable within the Victorville area;
- Allow for an integrated circulation system that will serve the various land uses without encouraging regional circulation intrusion and encourage alternative means of transportation;
- Conserve energy and prevent neglect of the area's natural resources through compatible site design and use of drought-tolerant plant material; and
- Introduce a logical phasing plan based on the marketplace and the extension and provision of infrastructure.

## ■ Land Use Plan

### *Development Concept*

The project site is planned to take advantage of its proximity to a major urban, civic and cultural area. It is master planned for commercial uses, as well as a range of desirable homes. These will include a mix of houses from affordable to move-up in order to provide for a wide range of potential buyers. All areas within the development will be linked through a common road network with an esplanade system for pedestrians as shown in Exhibit-10.

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The Land Use Plan is designed with sufficient flexibility to permit adjustments in commercial uses, housing types, and densities to meet changing market conditions, while still achieving the objectives and design intent for the development. The Land Use Plan is illustrated in Exhibit 9, along with the Specific Plan Land Use Allocations, Table 3, and provides a breakdown of the project by use density, acres and total number of homes.

The Specific Plan offers a traditional neighborhood development (TND) approach to planned community development. This can include the creation of a development character that provides opportunities including:

- Commercial uses with various retail/service commercial (e.g., gas station, restaurant-food service, church, child care, postal services, etc.) with housing and/or offices above including cottage industries and satellite work centers.
- An opportunity for a joint use school/park site with residential overlay.
- Pedestrian esplanades and related amenities connecting residential neighborhoods.

*Esplanade Phasing:* The construction of landscaped rights of way and esplanades will be phased to coincide with residential construction so that increments of landscaped rights of way can be established with the increments of housing as approved by the City of Victorville Park, Recreation and Community Services Department.

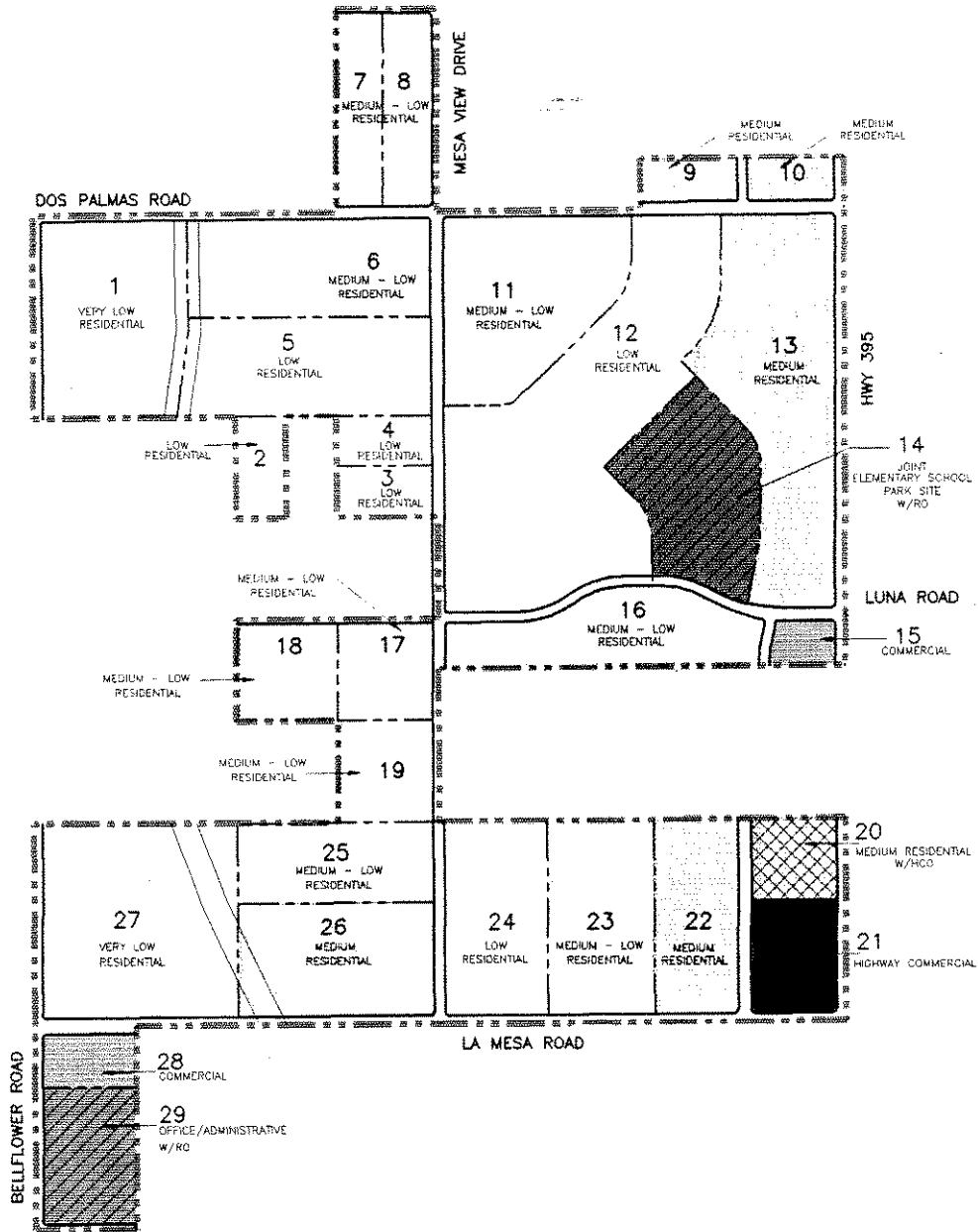
*Commercial Land Uses* The Specific Plan includes several commercial sites adjacent to the various major arterials and Highway 395 surrounding the project site. Uses will range from neighborhood commercial, featuring supermarkets, drug stores, and other local servicing retail service; and office to general commercial uses. Commercial uses can help meet local employment needs and can act as a buffer to residential uses.

*Residential Land Uses* The residential mixture for the development is designed to provide a strong neighborhood character which can include a broad range of densities of primary housing types. Residential products and densities are grouped and located based upon similar neighborhood characteristics and site criteria. It is anticipated that development will include singles, young starter families, families with older children, empty nesters, and retired residents.

The following is a brief summary of each residential product type:

**Very Low SFD Residential:** A single detached dwelling or custom home on a single lot. The site layout can be within neighborhoods along local street and cul-de-sacs. Residential lots will be a minimum of 7,000 s.f.

**Low SFD Residential:** A single family detached residence will be on a single lot with standard yard setbacks. Relatively formal arrangements will be within neighborhoods along local streets and cul-de-sacs. Residential lots will be a minimum of 6,000 s.f.



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■ LAND USE PLAN

RESIDENTIAL		COMMERCIAL	
	VERY LOW RESIDENTIAL		COMMERCIAL
	LOW SFD RESIDENTIAL		HIGHWAY COMMERCIAL
	MEDIUM LOW SFD RESIDENTIAL		OFFICE / ADMINISTRATIVE
	MEDIUM SFD RESIDENTIAL		
OVERLAY DISTRICTS		CIVIC FACILITIES	
	RO RESIDENTIAL (REFER TO TABLE 3)		ELEMENTARY SCHOOL SITE AND PARK SITE (JOINT USE)
	HCO COMMERCIAL (REFER TO TABLE 3)		

■ **TABLE 3: Specific Plan Land Use Allocations**

Land Use	Planning Area	Gross <sup>1,2</sup> Acres	Approximate Density	Total <sup>9</sup> Homes	Ownership <sup>7/</sup> Comments
<b>RESIDENTIAL USES:</b>					
Very Low SFD Residential	1	30.3 ac. <sup>6</sup>	4.4	136	Kelemen/Chambers
	27	38.1 <sup>6</sup>	3.8	145	Hai Chen
Low SFD Residential	5	20.7 <sup>6</sup>	4.7	98	Kelemen/Chambers
	2	5.0	4.7	24	Niemi/Bechek
	3	5.0	4.7	24	Litwinovich Tr.
	4	5.0	4.7	24	Simmonds
	24	22.2	4.5	100	Hai Chen
	12	59.6	4.8	284	Forecast
Medium-Low SFD Residential	7	10.0	6.0	60	Moran
	8	10.0	6.0	60	INCO
	6	28.1	5.7	160	Kelemen/Chambers
	23	21.1	5.9	126	Hai Chen
	19	10.0	5.5	55	Berger
	11	31.1	5.2	160	Forecast
	16	21.8	4.9	106	Forecast
	25	23.0	4.4	101	Forecast
	17	10.0	6.0	60	Erikson
	18	10.0	6.0	60	Erikson
Medium SFD Residential	20	8.1	5.5	45 (HC/O) <sup>5</sup>	South Star
	22	17.9	6.1	110	South Star
	13	39.8 <sup>8</sup>	5.3	209	Forecast
	10	4.2 <sup>8</sup>	6.0	25	Previtti Realty
	9	5.0	6.0	30	Previtti Realty
	26	23.4 <sup>6</sup>	5.5	128	Previtti Realty
<b>NON-RESIDENTIAL USE:</b>					
Commercial	15	4.1 <sup>8</sup>			Forecast
	28	6.1			Igorot
Highway Commercial	21	12.0			South Star
Office/Administrative	29	14.0	4.3	60 (MLR/O) <sup>4</sup>	Igorot
Park/Elementary School Site	14	23.4	6.0	140 (MR/O) <sup>4</sup>	Forecast
<b>TOTAL</b>		<b>519.0<sup>2</sup></b>		<b>2,530</b>	
<b>ROADWAYS:</b>					
Three Flags Hwy.		6.3 ac. <sup>3</sup>			
Bellflower Rd.		4.1			
Frontage Road (P.A. 19.20)		2.5			
Mesa View Rd.		7.3			
La Mesa Rd.		6.4			
Luna Rd.		6.1			
Dos Palmas Rd.		6.3			

<sup>1</sup>Gross acres to centerline of roads

<sup>2</sup>Aerial control and boundary—Ludwig Engineering

<sup>3</sup>Includes rights-of-way

<sup>4</sup>RO Residential Overlay

<sup>5</sup>HC/O Highway Commercial Overlay

<sup>6</sup>Includes drainage easements

<sup>7</sup>Ownership based on Assessor Parcel Numbers provided

by Ludwig Engineering November 5, 1999

(Note: Changes in ownership will not require amendment to the Specific Plan)

<sup>8</sup>Includes Flood Control along SR 395

<sup>9</sup>Maximum number of homes allowed per Planning area.

DU = Dwelling Units

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**Medium Low SFD Residential:** This permits a single family detached residential home on a single lot. Neighborhoods will be laid out in formal patterns along local streets and cul-de-sacs. Residential lots will be a minimum of 5,000 s.f.

**Medium SFD Residential:** A single family detached residential home helps form the core of the Master Plan. Residential lots will be a minimum of 4,000 s.f.

**School/Park Site:** Along Luna Road, one parcel has been designated for a joint use school/park sites. A park may be located adjacent to the school site. All of these facilities are located adjacent to and can be accessible to the Esplanade's pedestrian network. If the elementary school site and/or park site are not developed, a Medium Residential Overlay is allowed.

The principal focus of the park, along with proposed joint use of school facilities, will be active recreation for local residents as well as the surrounding community. An esplanade is planned along Luna Road, allowing residents non-vehicular access to the park and school.

*Community Facilities/  
Pathway Network*

The planning objective is to develop a circulation network that provides adequate automobile circulation while encouraging alternate means of pedestrian access. Emphasis is placed on the continuity of pedestrian connections within neighborhoods. Refer to Exhibit 10, Specific Plan Facilities. The pedestrian esplanade (Luna Road—south side and Mesa View Drive—west side) will be convenient to residential neighborhoods and promote an important pedestrian link between area wide facilities. During the implementation stage, connections will be provided through tentative map submittals.

The design and acceptability of the proposed Joint Use School/Park Site shall be subject to the review and approval by the Director of Parks, Recreation, and Community Services.

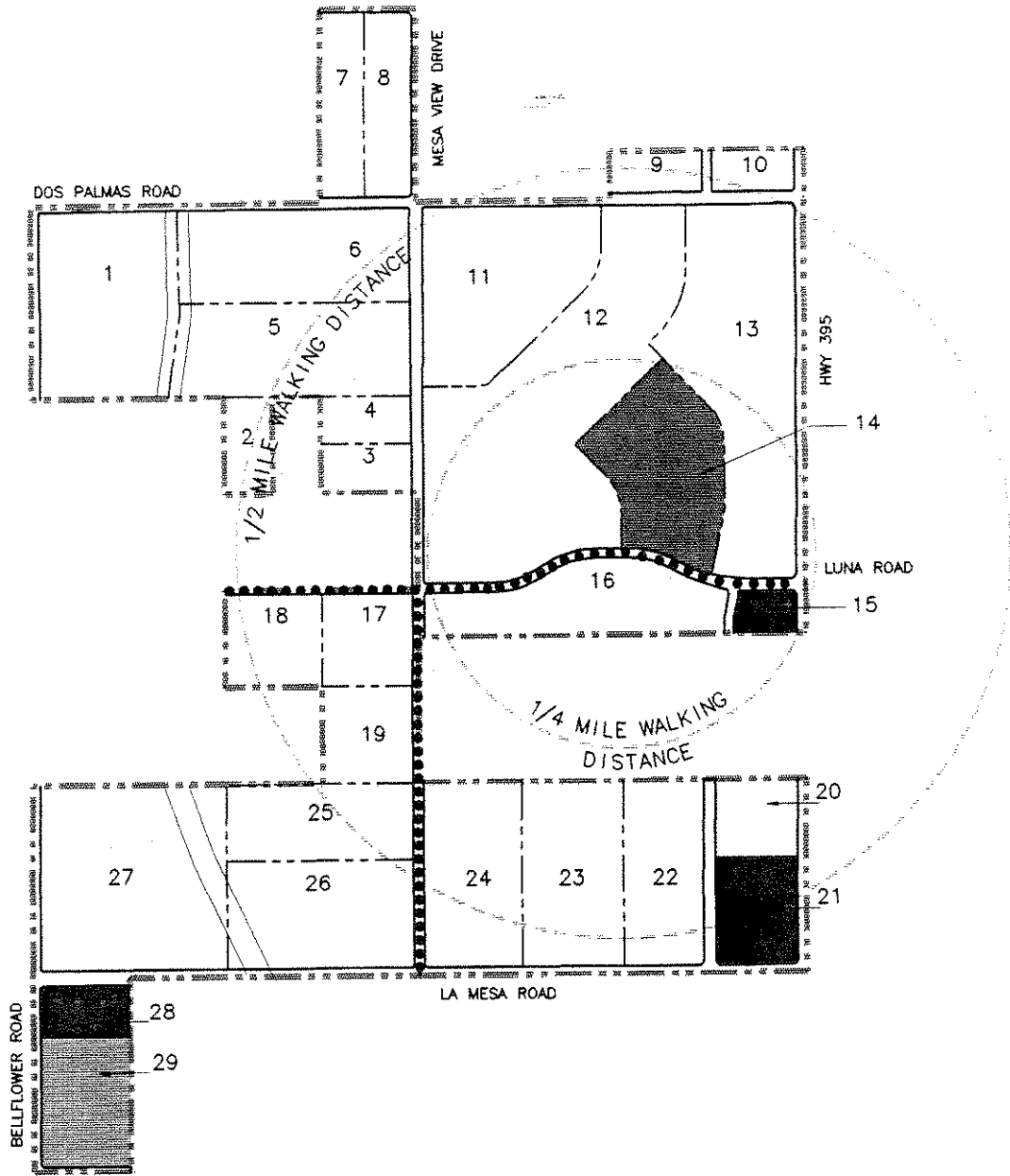
An esplanade is a lineal tree-lined planting area within the road rights of way and includes a public walk along only one side of the roadway (within the 15-foot planting area). The primary pedestrian esplanade is intended to be used area-wide and will provide a pedestrian link between neighborhoods and the joint use park/school site as well as commercial uses. It will be located along the south side of Luna Road and will depend on site specific design. It will also link a second esplanade located along the west side of Mesa View Drive.

The use of enhanced desert landscaping (e.g., native plants, along with ornamentals) and water conservation measures is strongly encouraged. Refer to Exhibit 12 and Section 4, Infrastructure Plan, Circulation, for a discussion of Roadway Options.

*Regional Jurisdictions*

The project is consistent with the growth forecast indicated in the Growth Management Plan (GMP) by offering a diversity of housing that results in a wide range of housing prices, and will supply housing to meet those needs established in the Regional Housing Needs Assessment (RHNA). The following is a list of measures to provide guidance to local governments when developing mitigation plans (refer to Summary of Impacts and Mitigation Measures).

- Public Transportation
  - Employer and/or public sponsored community-based Dial-A-Ride Programs for non-work trips.








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■ SPECIFIC PLAN FACILITIES

SHARED FACILITIES

	JOINT SCHOOL/PARK SITE		COMMERCIAL
	SERVICE AREA		OFFICE / ADMINISTRATION
	PEDESTRIAN ESPLANADE		
	• LUNA - SOUTH SIDE OF ROAD		
	• MESA VIEW - WESTSIDE OF ROAD		

- Land Use
  - Encourage multiple-use developments and ensure that they provide full service, e.g., day care, laundry, food service, etc.
  - Encourage auto-free zones.
  - Encourage pedestrian walkways and related amenities, i.e., shade trees.
  - Encourage tele-communication centers, e.g., satellite work centers.
- Non-Motorized
  - Encourage development of bike lanes and veloways at and to major use centers.
- Work Trips
  - Encourage development of cottage industries.
  - Promote jobs/housing balance, living closer to work.
- Other
  - Provide child care facilities at or near the work site.

## ■ Land Use Regulations

### *Purpose and Application*

The purpose of the Specific Plan's Land Use Regulations is to protect the public health, safety, and welfare by implementing the planning provisions of this Specific Plan and the City's General Plan.

The Land Use Regulations and Standards included herein have been established to provide criteria for the development of planning areas/parcels within the Specific Plan area in the City of Victorville. This will ensure a coordinated, comprehensive planned development project and take advantage of the superior environment that results from large-scale planning.

These Land Use Regulations and Standards are developed to ensure compliance with the intent and spirit of the California Government Code Specific Plan regulations (Sections 65450 through 65507). An objective of these regulations is to allow development flexibility and to be market driven.

The Land Use Regulations and Standards combine provisions for the opportunity to propose innovative design concepts in site planning consistent with orderly development and protection of sensitive resources. They also contain provisions for a logical and timely sequence of review. They are further intended to implement the goals and policies as stated in the current City of Victorville General Plan.

The included Land Use Regulations and Standards are to ensure that development of individual planning areas/parcels within the Specific Plan area is consistent with the City of Victorville's intention for development in the western addition area.

The Land Use Regulations in this section apply to properties within the Specific Plan boundaries and are intended to implement the Land Use Plan. The regulations, when referenced, work in conjunction with the City of Victorville's Municipal Codes or in those situations where the Specific Plan's regulations and standards do not fully address an issue. The City municipal codes are set forth in Title 18 of the Victorville Municipal Code titled "Zoning" and Title 17 of the

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Victorville Municipal Code titled "Subdivision" that are in effect at the time of approval of this Specific Plan and all subsequent amendments thereto from the time of approval of this specific plan up to the adoption of Ordinance No. 1884, July 16, 1998. They are intended to be utilized by the City, property owners, developer, and builders to ensure that the proposed development will proceed in an efficient and coordinated manner to create a high quality development. Unless specifically regulated otherwise by the regulations contained in this document, the regulations contained in Title 18 of the Victorville Municipal Code titled "Subdivision" shall apply.

*General Provisions*

A. INTRODUCTORY PROVISIONS

1. CITATION

This ordinance shall be known as Specific Plan 1-91.

2. AUTHORITY FOR THE SPECIFIC PLAN

The Land Use Regulations and Development Standards implement the Specific Plan. These regulations and standards may be adopted by ordinance pursuant to Article 8, Specific Plans of the Planning, Zoning and Development Law of the California Government Code, in compliance with the provisions of Sections 65450 et seq. (California Government Code Sections 65000-66003), Sections 21100 through 21107 et seq. of the State of California Public Resource Codes, and pursuant to state and local guidelines. The Government Code authorizes cities and counties to prepare and adopt Specific Plans for portions of their areas of jurisdiction as a means to implement their General Plan.

3. CONSISTENCY WITH THE GENERAL PLAN

The Specific Plan is based on the current City of Victorville's General Plan and related municipal codes. The Plan includes detailed regulations and standards necessary for the implementation of the current General Plan. The various land uses permitted by the Specific Plan are consistent with the goals and policies described in the General Plan. The Specific Plan focuses on those issues that directly affect and are of greatest importance to the project area. Reference should be made to the General Plan for guidance concerning goals and policies that are not covered by the Specific Plan.

4. RELATIONSHIP TO OTHER REGULATIONS

The Specific Plan will provide the user with the information needed to determine what city goals, policies, regulations, and standards will guide the development of a particular planning area as shown on the Specific Plan, Land Use Plan. (Refer to Exhibit 9.) Areas not specifically covered by this plan, however (i.e., construction standards, health regulations, subdivision procedures, etc.), will continue to be governed by existing city codes, and no provision of this plan is intended to repeal, abrogate, annul, impair, or interfere with any existing city ordinance except as is specifically changed by adoption of this plan.

5. CONFLICT WITH OTHER REGULATIONS

Whenever the provisions of this plan impose more restrictive regulations upon buildings or structures, or on the use of lands, or require larger yards, or setbacks or otherwise establish more restrictive regulations than are imposed or required by any other law, title, ordinance, code, or regulation, the provision of this plan shall govern.

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## 6. AGREEMENTS

The provisions of this plan are not intended to interfere with or abrogate any easements, covenants, or other existing agreements that are more restrictive than the provisions of this plan. The Specific Plan is not intended to supersede any development agreement, entered into with the City of Victorville, if a conflict arises.

## 7. VALIDITY

If any section, subsection, sentence, clause, phrase, or portion of the Specific Plan is for any reason held to be invalid by the decision of any court or competent jurisdiction, such decision shall not affect the validity of the remaining portion of this plan.

## B. GENERAL REGULATIONS

1. Any detail or issue not specifically covered by the provisions contained herein shall be subject to the provisions of the City of Victorville's Municipal Code. Municipal Code sections that are most applicable to the most similar issue, condition, and/or situation shall apply to all Land Use Districts within the Specific Plan.
2. Construction shall comply with applicable provisions of the Uniform Building Code, as amended, and the various other mechanical, electrical, and plumbing codes related thereto.
3. Grading plans submitted for all projects within the Specific Plan boundary shall be accompanied by geological and soils engineers' reports that shall incorporate all pertinent recommendations.
4. Grading will be permitted outside of the Specific Plan boundaries when it is consistent with an approved grading plan. If planning areas (parcels) are under different ownership, a letter of understanding will be required. Stockpile and borrow sites may be permitted between planning areas scheduled for future development. Prior to the use of any ungraded site as a stockpile or borrow site, a biological survey shall be conducted by a qualified biologist to determine if the site contains occupied habitat for the desert tortoise (*Gopherus agassizii*). The result of said survey shall be filed with and reviewed by the City of Victorville prior to the issuance of a grading permit. All mitigation measures identified in the biological survey and/or by any City department shall be implemented prior to the establishment of the stockpile or borrow site.
5. Model homes may be used for the sale of homes within a recorded subdivision if approved as a Conditional Use per Chapter 18.74 of Title 18 of the Victorville Municipal Code titled "Zoning."
6. For all residential development within this development, the developer will display a copy of the proposed Land Use Plan in all sales offices and will provide a copy of the plan to all buyers.
7. Dedication and improvements of all rights of way shall be approved by the City Engineer.
8. Dedication of park, recreational facilities, or open space shall be in conformance with the General Plan requirements of the City of Victorville.

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9. Conditional Use Permits and variances shall be processed in the manner prescribed by Title 18 of the Victorville Municipal Code titled "Zoning."

10. PLANNING AREA BOUNDARIES

- a. Except as otherwise shown, dimensions are measured from centerline of major arterials, arterials, collectors and local streets.
  - b. Adjustments in the planning area boundaries should not exceed a cumulative total of 15% of the original size. These adjustments may result from final road alignments, geotechnical or engineering refinements to the parcel (lot), and tentative and/or final tract map and shall be consistent with the underlying ownership. They shall not require an amendment to the Specific Plan where such adjustments are consistent with the intent of this Specific Plan and the City's General Plan.
  - c. Boundaries are not dimensioned in the Specific Plan and shall be established by the parcel (large lot tentative), tentative, or final subdivision map. Note: Parcel lines should follow ownership boundaries where applicable.
11. All landscape and/or grading plans, if required by the City Engineer or Planning Director, shall include provisions for temporary erosion control on all graded sites that are scheduled to remain unimproved during the rainy season.
12. The total number of dwelling units allowed for each planning area is established in the Specific Plan Land Use Allocations, Table 3. The total number of residential units allowed within each planning area shall not exceed the total homes allowed. In addition, the cumulative project total shall not exceed 2,530 residential units. In addition, development of a lower number of dwelling units than specified for a planning area may occur without requiring an amendment to this Specific Plan. Residential planning areas, as established by this Specific Plan, can be further subdivided for tentative tract purposes (including bonding) for individual residential lot development, model home complexes, and for phasing development (including utilities) that may include open space, recreational amenities, and esplanade network.
13. If any portion of these Land Use Regulations is, for any reason, declared by a court of competent jurisdiction to be invalid or ineffective in whole or in part, such decision shall not affect the validity of the remaining portions thereof. The City Council hereby declares that they would have enacted these regulations and each portion thereof irrespective of the fact that any one or more portions be declared invalid or ineffective.
14. Unless otherwise provided, any ambiguity concerning the content or application of this Specific Plan shall be resolved by the Director of Planning. The decision can be appealed to the Planning Commission and then, if necessary, to the City Council.
15. Areas of open space and parks, as well as esplanade networks shown on a parcel (lot), tentative tract maps as in-tract open space (within planning areas), shall be irrevocably offered for dedication to the City of Victorville once all improvements have been completed and accepted by the City consistent with approved plans. In addition, a Homeowners

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Association or Landscape Maintenance Assessment District will need to be formed and/or established in accordance with all applicable ordinances and policies. The in-tract open space, parks, and esplanade systems shall be deemed consistent with the Specific Plan, if approved by the City.

16. Construction of required improvements that have improvement plans can proceed prior to the recordation of the final map. All improvements that have been constructed and have been accepted by the City of Victorville will only be required to post a warranty bond for twenty percent (20%) of the total improvement cost. Improvements that have not yet been accepted by the City of Victorville can be bonded at a reduced percentage based on the amount of work remaining as recommended by City staff.

#### C. DEFINITIONS

1. A "Planning Area" is defined as a homogenous area considered as an increment of the Specific Plan area and is specifically identified as a numbered lot on the Specific Plan Land Use Map.
2. Terms used in these Land Use Regulations and Standards shall have the same definitions as given in Title 18 of the Victorville Municipal Code titled "Zoning" and Title 17 of the Victorville Municipal Code titled "Subdivision."

#### D. CHANGES IN THE SPECIFIC PLAN

##### 1. ADMINISTRATIVE CHANGES

The following changes in this Specific Plan may be made without amending the plan per Chapter 18.58.070 of Title 18 of the Victorville Municipal Code titled "Zoning":

- a. The addition of new information to the Specific Plan maps or text for the purpose of clarification that does not change the effect or intent of any standard or regulation.
- b. Changes to the project infrastructure, such as drainage systems, roads, water and sewer systems, etc., that do not have the effect of increasing or decreasing capacity in the project area beyond the specified maximum density range and do not otherwise change the intent of any provision of this plan.
- c. An adjustment in any site development standard and/or regulation, by no more than fifteen percent (15%) of that otherwise specified herein, and that does not increase the specific maximum total homes for a planning area.
- d. Upon appeal to the Planning Commission of any decision of the Director of Planning made pursuant to this Section, the Planning Commission shall set the matter for hearing in a manner prescribed in Title 18 of the Victorville Municipal Code titled "Zoning."

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- e. A "transfer" of dwelling units from one planning area may not be made to another planning area. The total number of homes for the project and/or planning areas cannot be exceeded.

## 2. SPECIFIC PLAN AMENDMENTS

The following changes to the Specific Plan shall require an amendment to the Specific Plan:

- a. Changes to the text or maps of the Specific Plan other than the addition of new information that does not change the effect or intent of any standard and/or regulation.
- b. Changes in the overall Specific Plan boundaries.
- c. Increase in number of total homes beyond the maximum specified for individual planning areas and the total project density of 2,530.
- d. Changes in infrastructure, such as drainage systems, roads, water and sewer systems, etc., that have the effect of increasing or decreasing capacity beyond the specific number of total homes in the project area.
- e. Major changes in the designated alignment or location of major arterials, arterials, and/or collector roads as shown in the Circulation Element of the General Plan.
- f. Any other additions or deletions that may change the effect or intent of any Land Use Regulations and/or Standards.

## 3. SPECIFIC PLAN PROVISIONS

### Amendment Procedures

All proposed amendments to the Specific Plan shall be processed and acted upon pursuant to Chapters 18.76 and 18.78 of the City of Victorville's Municipal Code Zoning Ordinance.

The procedures, as outlined in California Government Code Section 65453 et seq., and Division 20 of the Public Resource Code are to be followed when adoption of an amendment to a Specific Plan is initiated.

## E. LAND USE REGULATION AND SITE-RELATED STANDARDS

The regulations and standards presented below are separated into several zoning districts. (Refer to Exhibit 11, Land Use Regulations.) Roadways shall be in conformance with the circulation plan, roadway cross-sections, and standards contained in the Circulation Component of this Specific Plan.

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## 1. ESTABLISHMENT OF LAND USE DISTRICT

- a. In order to implement the Specific Plan, the planning areas are divided into the following base land use districts:
  - VLR - Very Low Residential
  - LR - Low Residential
  - MLR - Medium Low Residential
  - MR - Medium Residential
  - COM - Commercial
  - HWC - Highway Commercial
  - CA - Office/Administrative
- b. In addition, the following Overlay Districts are established:
  - 1) RO - Residential Overlay (Very Low, Low, Low Medium, and medium.)
  - 2) HCO - Highway Commercial Overlay

## F. RESIDENTIAL USES AND REGULATIONS

### 1. General

- a. As shown on Exhibit 11, Land Use Regulations, the Specific Plan has allocated certain residential districts and commercial districts; and a residential overlay district has been allocated to certain Specific Plan "Planning Areas."
- b. The Land Use Regulations shall be applied only within the boundaries of the area defined in the Specific Plan Land Use Plan.
- c. Conformance of a Residential Land Use proposal with the Specific Plan shall be determined as follows:
  - 1) The number of units within any residential-designated area and/or overlay residential of the Specific Plan Land Use Plan shall be determined by the number of total homes permitted in a defined planning area. (Refer to Specific Plan Use Map, Exhibit 9, and Specific Plan Land Use Allocations, Table 3.)
  - 2) The minimum individual building site area provided in these regulations is a net figure, which can be exceeded by 15% of the building site area as long as the number of total homes for each planning area is not exceeded and the project total does not exceed 2,530 residential units.
- d. Fences, hedges, and walls shall comply with the provisions of Chapter 18.64 in Title 18 of the Victorville Municipal Code titled "Zoning."
- e. Masonry chimneys, fireplaces, wing walls, and kitchen garden windows may project into any or side setback area a maximum of twenty-four inches (24"). In addition, architectural features (bay windows, chimneys, fireplaces, kitchen garden windows) and other architectural features and/or building projections may project into the rear yard setback a maximum of four feet (4') provided the width of

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the feature does not exceed twenty-five percent (25%) of the building width as approved by the Planning Department. In no event shall such chimney, fireplaces, wing walls, and other architectural features (including minor) project into any required setback area so as to be closer than three feet (3') to any property line of the building site.

- f. Patio covers, open trellis, and beam construction including patio covers (excludes enclosed patios), shall be permitted to be free standing and/or attached to the residential unit (detached unit only). Patio and/or trellis may extend to within eight feet (8') from the rear property line and five feet (5') from the side yard property line as measured from the centerline of the structural supports. Detached patio covers and trellises shall be regulated by the Uniform Building Code (UBC). Front yard setbacks shall exclude all structures.
- g. Where noise levels may exceed community standards for residential use, builders are required to utilize construction techniques to reduce interior noise levels within all habitable structures at or below 45 Ldn. All required to meet city standards (i.e., sound walls, berms and setbacks).
- h. All development proposals to be processed through the City shall be reviewed through the Site Plan or Tentative Tract Map process for the Residential or Commercial Overlay District.
- i. In the "Planning Area" proposed for Residential Overlay purposes, Planned Unit Developments (PUD) may be allowed. The procedure for review and approval of those Planned Unit Developments shall be those procedures established in Titles 17 and 18 of the Victorville Municipal Code. No Site Plan Review shall be required for Planned Unit Developments within the adopted Specific Plan boundaries.
- j. Relation to Existing Uses: Where proposed commercial development abuts a residential use or an established existing use of lessor or equal intensity, such new development shall be designed to minimize impact on the existing uses. Design considerations shall include building orientation and its relationship to established uses, adequate buffering, height limitations to prevent sightline intrusion, structural setbacks, location of trash enclosures, and other design solutions as may be necessary to ensure compatibility of existing and future uses.
- k. No Landscape Maintenance Assessment District (LMAD) shall extend beyond the public rights-of-way unless approved by the Specific Plan (e.g., Landscape Easements). All residential rear yards, under yard requirements shall meet the minimum distance for usable space (3% or less) unencumbered by rear yard slopes.
- l. All uses shall be subject to all applicable provisions of the City of Victorville Municipal Code Zoning Ordinance.

**TABLE 4**  
**S.F. Detached**  
**Residential Development Standards**

Category/ Density	Permitted Uses	Accessory Structures	Minimum Lot Dimensions (Width by Depth)	Building Coverage	Yards	Building Height	Minimum <sup>2</sup> Parking	Street Standards
<b>VLR:</b> Very Low Residential	<ul style="list-style-type: none"> <li>S.F. Detached</li> <li>Open Space;</li> <li>Rec. Facilities;</li> <li>Trails</li> </ul>	<ul style="list-style-type: none"> <li>Garage</li> <li>Fences, Walls</li> <li>Trellis/Patio Covers</li> <li>Pools</li> </ul>	<ul style="list-style-type: none"> <li>60 ft. x 100 ft.</li> <li>65 ft. min. corner lot</li> <li>min. area 7,000 s.f.</li> <li>Cul-de-sac/knuckles and exterior curves per Chapter 17.48.090</li> </ul>	45% max.	Front: 18 ft. min. <sup>1</sup> Side: 5 ft. min. Street Side: 10 ft. min. Rear: 15 ft. min.	2 ½ stories and 35 ft.	2-car garage per single family residence min.	Local street 60 ft. ROW
<b>LR:</b> Low Residential	<ul style="list-style-type: none"> <li>VLR uses</li> <li>S.F. detached</li> <li>Open Space;</li> <li>Rec. facilities; Trails</li> </ul>	<ul style="list-style-type: none"> <li>Garages</li> <li>Fences, walls</li> <li>Trellis/Patio covers</li> <li>Pools</li> </ul>	<ul style="list-style-type: none"> <li>55 ft. x 95 ft.</li> <li>60 ft. min. corner lot</li> <li>Min. area 6,000 s.f.</li> <li>Cul-de-sac/knuckles and exterior curves per Section 17.48.090</li> </ul>	45% max.	Front: 18 ft. min. <sup>1</sup> Side: 5 ft. min. Street Side: 10 ft. min. Rear: 15 ft. min.	2 ½ stories and 35 ft.	2-car garage per single family residence min.	Local street 60 ft. ROW
<b>MLR:</b> Medium Low Residential	<ul style="list-style-type: none"> <li>LR uses</li> <li>S.F. detached</li> <li>Open space;</li> <li>Rec. facilities; Trails</li> </ul>	<ul style="list-style-type: none"> <li>Garages</li> <li>Fences, walls</li> <li>Trellis/Patio covers</li> <li>Pools</li> </ul>	<ul style="list-style-type: none"> <li>50 ft. x 90 ft.</li> <li>55 ft. min. corner lot</li> <li>Min. area 5,000 s.f.</li> <li>Cul-de-sac/knuckles and exterior curves per Section 17.48.090</li> </ul>	50% max.	Front: 18 ft. min. <sup>1</sup> Side: 5 ft. min. Street Side: 10 ft. min. Rear: 15 ft. min.	2 ½ stories and 35 ft.	2-car garage per single family residence min.	Local street 60 ft. ROW
<b>MR:</b> Medium Residential	<ul style="list-style-type: none"> <li>MLR uses</li> <li>S.F. detached</li> </ul>	<ul style="list-style-type: none"> <li>Garages</li> <li>Fences, Walls</li> <li>Trellis/Patio Covers</li> <li>Pools</li> </ul>	<ul style="list-style-type: none"> <li>40 ft. x 90 ft.</li> <li>45 ft. min. corner lot</li> <li>Min. area 4,000 s.f.</li> <li>Cul-de-sacs/knuckles and exterior curbs per Section 17.48.090</li> </ul>	50% max.	Front: 18 ft. min. <sup>1</sup> Side: 5 ft. min. Street Side: 10 ft. min. Rear: 15 ft. min.	2 ½ stories and 35 ft.	2-car garage per single family residence min.	Local street 60 ft. ROW
<b>RO:</b>	Residential Overlay - NOTE: Per Exhibit 11 (Land Use Regulations) and the Residential Uses and Regulations identified.							

<sup>1</sup> Refer to Land Use District

<sup>2</sup> Three car garages are allowed on applicable product types and shall not exceed building coverage

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1. VLR - Very Low Residential District

a. Purpose and Intent

The VLR District is intended to permit development of a range of residential units, including single-family detached homes.

b. Permitted Uses

The following principal uses are permitted in the Very Low Residential District:

- 1) Single-family detached dwellings (one dwelling per lot).
- 2) Parks and open space areas, recreation centers and facilities, and trails.
- 3) Utility facilities not subject to discretionary approval.
- 4) Detention/retention basins.
- 5) Uses and structures typically incidental or accessory to residential uses as specified in Chapter 18.66, Title 18 of the Victorville Municipal Code titled "Zoning."
- 6) LR-Low Residential provided at a minimum, said development shall comply with all development standards of said land use district.

c. Conditional Uses

The following principal uses are conditional in the Very Low Density Residential District and shall be permitted only if approved pursuant to Chapter 18 of the Victorville Municipal Code titled "Conditional Uses ":

- 1) Churches
- 2) Day Care
- 3) Utility facilities that are subject to discretionary review
- 4) Temporary structures and enclosures for use during construction activities (construction office and model homes, model home sales centers, and signs)

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the Very Low Density Residential:

- 1) Recreational Vehicles may be stored on any developed single family residential lot in compliance with Section 18.16.040(2) of the Victorville Municipal Code.
- 2) The keeping of dogs, cats, and birds shall be subject to the regulations set forth in the Victorville Municipal Code.

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- 3) An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements.
  - 4) No accessory building designated for use as servants' quarters or as a guest house shall contain any kitchen or cooking facility.
  - 5) Home occupations shall be permitted as approved by the Planning Commission pursuant to Section 18.66.020.
  - 6) Child care not to exceed the child limits of a large family day care as specified in Title 22 of the California Administrative Code and licensed by the California Department of Social Services.
  - 7) Home school of not more than eight children, provided not more than six children are from outside of the resident family, shall be allowed.

e. Site Development Standards

When single-family detached subdivisions are implemented, the following standards apply:

- 1) Building site area: seven thousand square feet (7,000 s.f.) minimum
- 2) Building site width: sixty feet (60') minimum. Cul-de-sacs, knuckles, and exterior curves of local street shall comply with Chapter 17.48.090 of Title 17 of the Victorville Municipal Code titled "Subdivision."
- 3) Building site depth: one hundred feet (100') minimum
- 4) Building height: thirty-five feet (35') maximum. No building shall have more than two and one-half stories.
- 5) Building site coverage: forty-five percent (45%) maximum for all buildings on the site.
- 6) Yard Requirements:
  - a) Front Yard: Twenty feet (20') minimum from property line to garage door, except fifteen feet (15') minimum from the property line is allowed where the residence is closer to the street than the garage.  
A minimum setback of twenty-seven (27') from the face of the curb to the garage door; or eighteen feet (18') from the property line shall be required, whichever is greater, provided sectionalized doors are utilized.
  - b) Side Yard: Five feet (5') minimum

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- c) Rear Yard: Fifteen feet (15') minimum
  - d) From any property line abutting on a street of a corner lot ten feet (10') minimum subject to the exceptions set forth in Chapter 18.64.040 of Title 18 of the Victorville Municipal Code titled "Zoning"

7) Garages: The placement and/or construction of garages shall comply with yard requirements for a main building. Detached garages may be placed or constructed any place within the required rear or interior side yard setback area as long as twenty feet (20') from property line to garage face is maintained.

8) Off-street parking in compliance with Chapter 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning." Two (2) spaces are required for each dwelling unit and shall be within a fully enclosed garage.

## 2. LR - Low Residential District

### a. Purpose and Intent

The LR District is intended to permit development of a range of residential units, including single-family detached homes.

### b. Permitted Uses

The following principal uses are permitted in the Low Density Residential District:

- 1) Single-family detached dwellings (one dwelling per lot)
- 2) Parks and open space areas, recreation centers and facilities, and trails
- 3) Utility facilities not subject to discretionary approval
- 4) Detention/retention basins
- 5) Uses and structures typically incidental or accessory to residential uses as specified in Chapter 18.66, Title 18 of the Victorville Municipal Code titled "Zoning"
- 6) VLR - Very Low Residential, provided at a minimum, said development shall comply with all development standards of said land use district

### c. Conditional Uses

The following principal uses are conditional in the Low Density Residential District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code entitled "Conditional Uses ":

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- 1) Churches
  - 2) Day Care
  - 3) Utility facilities that are subject to discretionary review
  - 4) Temporary structures and enclosures for use during construction activities (construction office and model homes, model home sales centers, and signs)

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the Low Density Residential:

- 1) Recreational Vehicles may be stored on any developed single family residential lot in compliance with Section 18.16.040(2) of the Victorville Municipal Code.
- 2) The keeping of dogs, cats, and birds shall be subject to the regulations set forth in the Victorville Municipal Code.
- 3) An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements.
- 4) No accessory building designated for use as servants' quarters or as a guest house shall contain any kitchen or cooking facility.
- 5) Home occupations shall be permitted as approved by the Planning Commission pursuant to Chapter 18.66.020.
- 6) Child care not to exceed the child limits of a large family day care as specified in Title 22 of the California Administrative Code and licensed by the California Department of Social Services.
- 7) Home school of not more than eight children, provided not more than six children are from outside of the resident family, shall be allowed.

e. Site Development Standards

- 1) Building site area: Six thousand square foot (6,000 s.f.) minimum
- 2) Building site width: Fifty-five feet (55') minimum. Cul-de-sacs, knuckles, and curves of local streets shall comply with Chapter 17.48.090 of Title 17 of the Victorville Municipal Code titled "Subdivision."
- 3) Building site depth: Ninety-five feet (95') minimum

- 
- 4) Building height: Thirty-five feet (35') maximum. No building shall have more than two and one-half stories.
  - 5) Building site coverage: Forty-five percent (45%) maximum for all buildings on the site.
  - 6) Yard requirements;
    - a) Front Yard: Twenty feet (20') minimum from property line to garage door, except fifteen feet (15') minimum from the property line is allowed where the residence is close to the street than the garage.  
A minimum setback of twenty-seven feet (27') from the face of curb to the garage door; or eighteen feet (18') from the property line shall be required, whichever is greater, provided sectionalized doors are utilized.
    - b) Side Yard: Five feet (5') minimum
    - c) Rear Yard: Fifteen feet (15') minimum
    - d) From any property line abutting on a street of a corner lot ten feet (10') minimum, subject to the exceptions set forth in Chapter 18.64.040 of Title 18 of the Victorville Municipal Code titled "Zoning"
  - 7) Garages: The placement and/or construction of garages shall comply with yard requirements for a main building. Detached garages may be placed or constructed any place within the required rear or interior side yard setback area as long as twenty feet (20') is maintained.
  - 8) Off-street parking in compliance with Chapter 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning." Two (2) spaces are required for each dwelling unit and shall be within a fully enclosed garage.

3. MLR - Medium-Low Residential District

a. Purpose and Intent

The MLR area is intended to allow for development of single-family detached homes.

b. Permitted Uses

The following principal uses are permitted in the Medium-Low Residential District:

- 1) Single-family detached dwellings (one dwelling per lot)
- 2) Parks and open space area, recreation centers and facilities, and trails
- 3) Utility facilities not subject to discretionary approval
- 4) Detention/retention facilities

- 
- 5) Uses and structures typically incidental or accessory to permitted residential uses as specified in Chapter 18.66 in Title 18 of the Victorville Municipal Code titled "Zoning"
  - 6) LR - Low Residential, provided at a minimum, said development shall comply with all development standards of said Land Use District

c. Conditional Uses

The following principal uses are conditional in the Medium-Low Residential District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code titled "Conditional Uses":

- 1) Churches
- 2) Utility facilities that are subject to discretionary review
- 3) Temporary structures and enclosures for use during construction activities (construction office and model homes, model homes sales centers, and signs)

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the Medium-Low Residential:

- 1) Recreational Vehicles may be stored on any developed single family residential lot in compliance with Section 18.16.040(2) of the Victorville Municipal Code.
- 2) The keeping of dogs, cats, and birds shall be subject to the regulations set forth in the Victorville Municipal Code.
- 3) An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements.
- 4) No accessory building designated for use as servants' quarters or as guest house shall contain any kitchen or cooking facility.
- 5) Home occupations shall be permitted as approved by the Planning Commission pursuant to Section 18.66.020.
- 6) Child care not to exceed the child limits of a large family day care as specified in Title 22 of the California Administrative Code and licensed by the California Department of Social Services.
- 7) Home school of not more than eight children, provided not more than six children are from outside of the resident family, shall be allowed.

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e. Site Development Standards

When single-family detached subdivisions are implemented, the following standards apply:

- 1) Building site area: Five thousand square feet (5,000 s.f.) minimum
- 2) Building site width: Fifty feet (50') minimum. Cul-de-sacs, knuckles, and exterior curves of local streets shall comply with Chapter 17.48.090 of Title 17 of the Victorville Municipal Code titled "Subdivision"
- 3) Building site depth: Ninety feet (90') minimum
- 4) Building height: Thirty-five feet (35') maximum. No building shall have more than two and one-half stories.
- 5) Building site coverage: Fifty percent (50%) maximum for all buildings on the site.
- 6) Yard requirements;
  - a) Front Yard: Twenty feet (20') minimum from property line to garage door, except fifteen feet (15') minimum from the property line is allowed where the residence is closer to the street than the garage.  
A minimum setback of twenty-seven feet (27') from the face of curb to the garage door; or eighteen feet (18') from the property line shall be required, whichever is greater, provided sectionalized doors are utilized.
  - b) Side Yard: Five feet (5') minimum
  - c) Rear Yard: Fifteen feet (15') minimum
  - d) From any property line abutting on a street of a corner lot ten feet (10') minimum, subject to the exceptions set forth in Chapter 18.64.040 of Title 18 of the Victorville Municipal Code titled "Zoning"
- 7) Off-street parking in compliance with Chapter 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning." Two (2) spaces are required for each dwelling unit and shall be within a fully enclosed garage.

4. MR - Medium Residential District

a. Purpose and Intent

The MR area is intended to allow for development of single-family detached homes.

b. Permitted Uses

The following principal uses are permitted in the Medium Residential District:

- 
- 1) Single-family detached dwellings (one dwelling per lot)
  - 2) Parks and open space area, recreation centers and facilities, and trails
  - 3) Utility facilities not subject to discretionary approval
  - 4) Detention/retention facilities
  - 5) Uses and structures typically incidental or accessory to permitted residential uses as specified in Chapter 18.66 in Title 18 of the Victorville Municipal Code titled "Zoning"
  - 6) MLR - Medium-Low Residential, provided at a minimum, said development shall comply with all development standards of said Land Use District

c. Conditional Uses

The following principal uses are conditional in the Medium Density Residential District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code entitled "Conditional Uses":

- 1) Churches
- 2) Day Care
- 3) Utility facilities that are subject to discretionary review
- 4) Temporary structures and enclosures for use during construction activities (construction office and model homes, model homes sales centers, and signs)

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the Medium Density Residential:

- 1) Recreational Vehicles may be stored on any developed single family residential lot in compliance with Section 18.16.040(2) of the Victorville Municipal Code.
- 2) The keeping of dogs, cats, and birds shall be subject to the regulations set forth in the Victorville Municipal Code.
- 3) An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements.
- 4) No accessory building designated for use as servants' quarters or as guest house shall contain any kitchen or cooking facility.

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- 5) Home occupations shall be permitted as approved by the Planning Commission pursuant to Section 18.66.020.
  - 6) Child care not to exceed the child limits of a large family day care as specified in Title 22 of the California Administrative Code and licensed by the California Department of Social Services.
  - 7) Home school of not more than eight children, provided not more than six children are from outside of the resident family, shall be allowed.

e. Site Development Standards

- 1) Building site area: Four thousand square feet (4,000 s.f.) minimum
- 2) Building site width: Forty feet (40') minimum. Cul-de-sacs, knuckles, and exterior curves of local streets shall comply with Chapter 17.48.090 of Title 17 of the Victorville Municipal Code titled "Subdivision."
- 3) Building site depth: Ninety feet (90') minimum
- 4) Building height: Thirty-five feet (35') maximum. No building shall have more than two and one-half (2-1/2) stories
- 5) Building site coverage: Fifty percent (50%) maximum for all buildings on the site.
- 6) Yard requirements;
  - a) Front Yard: Twenty feet (20') minimum from property line to garage door, except fifteen feet (15') minimum from the property line is allowed where the residence is closer to the street than the garage.  
A minimum setback of twenty-seven feet (27') from the face of curb to the garage door or eighteen feet (18') from the property line shall be required, whichever is greater, provided sectionalized doors are utilized.
  - b) Side Yard: Five feet (5') minimum
  - c) Rear Yard: Fifteen feet (15') minimum
  - d) From any property line abutting on a street of a corner lot ten feet (10') minimum, subject to the exceptions set forth in Chapter 18.64.040 of Title 18 of the Victorville Municipal Code titled "Zoning"
- 7) Off-street parking in compliance with Chapter 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning." Two (2) spaces are required for each dwelling unit and shall be within a fully enclosed garage.

G. COMMERCIAL USES AND STANDARDS

1. General

- a. All development plans to be reviewed by the City pursuant to Chapter 18.71 of the Victorville Municipal Code entitled "Site Plan" or Chapter 18.74, entitled "Conditional Uses"

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- b. Any regulation not identified within the Specific Plan regulation shall be as specified within Title 18, Victorville Municipal Code titled "Zoning."

## 2. COM - General Commercial District

### a. Purpose and Intent

The purpose of these provisions is to regulate the design and development of projects of a commercial nature in the designated General Commercial District. It is also the intent of this section to permit a variety of compatible uses and facilities supportive of the residential uses within the Specific Plan area and of the general community.

### b. Permitted Uses

All uses shall be conducted within a completely enclosed building; however, the open storage of materials, products, and equipment is allowed if approved pursuant to Chapter 18.74 of Title 18 of the Victorville Municipal Code titled "Conditional Uses."

The following principal uses are permitted in the General Commercial District:

- 1) Any and all uses in this zone district providing drive-thru service shall be the director of planning, excepting those adjacent to residential zones.
- 2) Any uses permitted in the C-1 District of Title 18.
- 3) Any uses permitted in the C-2 District of Title 18.
- 4) Any uses permitted in the C-A District of Title 18.
- 5) Office buildings, business and professional.
- 6.) Other uses similar to the above if approved by the Planning Commission

### c. Conditional Uses

The following principal uses are conditional in the Town Center Commercial District and shall be permitted only if approved pursuant to Chapter 18.74 in Title 18 of the Victorville Municipal Code entitled "Conditional Uses ":

- 1) Any uses enumerated in this Zone District providing drive-thru service adjacent to residential zones
- 2) Any uses enumerated in this Zone District selling alcoholic beverages for either on-premise or off-premise consumption within 300 feet of a residence within a residential zone measured from a property line; and/or when a finding recommending to the Department of Alcoholic Beverage Control that public convenience or necessity will be served by

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the alcoholic beverage sale is needed consistent with Business and Professions Code Section 23958.4, and required by Section 18.58.190 entitled "Finding of Public Convenience or Necessity."

- 3) Animal hospital or veterinary clinic
  - 4) Automatic and self-service car wash
  - 5) Automobile service station
  - 6) Retail fuel dispensing facility
  - 7) Day nurseries/day care centers
  - 8) Self-service storage facilities
  - 9) Public services, i.e., fire station
  - 10) Churches
- d. Special Regulations: All permitted and conditional uses incidental to those uses and accessory buildings, when located on the same lot within this district, shall be subject to Chapter 18.30.040 in Title 18 of the Victorville Municipal Code titled "Zoning."
- e. Development Standards: Per applicable section of the permitted district in Title 18 of the City of Victorville Municipal Code Zoning Ordinance.
- f. Property Development Standards

Commercial property development shall be implemented through Site Plan Review procedures within Title 18 of the Victorville Municipal Code, excepting conditional uses found in this section. Conditional uses shall be subject to Chapter 18.74. Any C-2 District standard set forth within Title 18 shall be used as a benchmark by which to evaluate Site Plan applications.

### 3. HWC - Highway Commercial District

#### a. Purpose and Intent

Commercial within the Highway Commercial shall be subject to all provisions of the C-4 District within Chapter 18.34 in Title 18 of the City of Victorville Municipal Code Zoning Ordinance.

#### b. Permitted Uses

The following principal uses are permitted in the Highway Commercial District:

- 1) All uses listed in Section 18.34.020 in Title 18 of the Victorville Municipal Code titled "Permitted Uses."
- 2) Any uses permitted in the C-2 District of Title 18.

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3) Mini-storage facilities, including recreational vehicles.

4) Detention/retention facilities.

c. Conditional Uses

All uses listed in Section 18.34.030 in Title 18 of the City of Victorville Municipal Code shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code entitled "Conditional Uses."

d. Development Standards

Per Section 18.34 in Title 18 of the City of Victorville Municipal Code Zoning Ordinance.

4. CA - Administrative Professional Offices District

a. Purpose and Intent

Administrative Professional Offices shall be subject to all provisions of the C-A District within Chapter 18.36 in Title 18 of the City of Victorville Municipal Code Zoning Ordinance.

b. Permitted Uses

All uses listed in Section 18.36.020 in Title 18 of the Victorville Municipal Code entitled "Permitted Uses."

c. Conditional Uses

All uses listed in Section 18.36.030 in Title 18 of the City of Victorville Municipal Code shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code entitled "Conditional Uses."

d. Development Standards

Per Section 18.36 in Title 18 of the City of Victorville Municipal Code Zoning Ordinance.

H. PARK AND PUBLIC USES AND STANDARDS

1. Open Space

a. Purpose and Intent

Land designated for parks and public uses is intended to provide for active and passive recreation and other public uses which do not interfere unreasonably with park usage.

b. Permitted Uses

The following principal uses are permitted in the Open Space:

1) Parks/playgrounds, outdoor recreation

2) Watershed, drainage swales, and detention/retention basins

3) Pump stations

4) Restrooms

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c. Conditional Uses-

The following principal uses are conditional in the Park/Open Space District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code entitled "Conditional Uses ":

- 1) Fire station

d. Site Development Standards

Park development shall be implemented through the Site Plan Review procedures within Title 18 of the Victorville Municipal Code and the PRCS Specification and Detail Booklet, excepting conditional uses found in this section. Any standard set forth within Title 18 shall be used as a benchmark by which to evaluate Site Plan applications. The open space development shall be implemented through the establishment or formation of a Homeowners' Association (HOA) or Landscape Maintenance Assessment District and in accordance with all applicable ordinances and policies.

I. OVERLAY DISTRICT

1. RO - Residential Overlay District

a. Purpose and Intent

The Residential Overlay is to provide for residential uses if the Joint Use Park and/or Elementary School (Planning Area 14) is not developed as a school site and/or if the Office/Administration (Planning Area 29) is not developed as an office site. All residential development within the Overlay District shall meet the following residential standards and regulations:

- Joint Park/Elementary School site (Planning Area 14) Section F, residential uses and regulations; Medium Residential District
- Office/Administration site (Planning Area 29) Section F, residential uses and regulations; VLR - Very Low Residential District

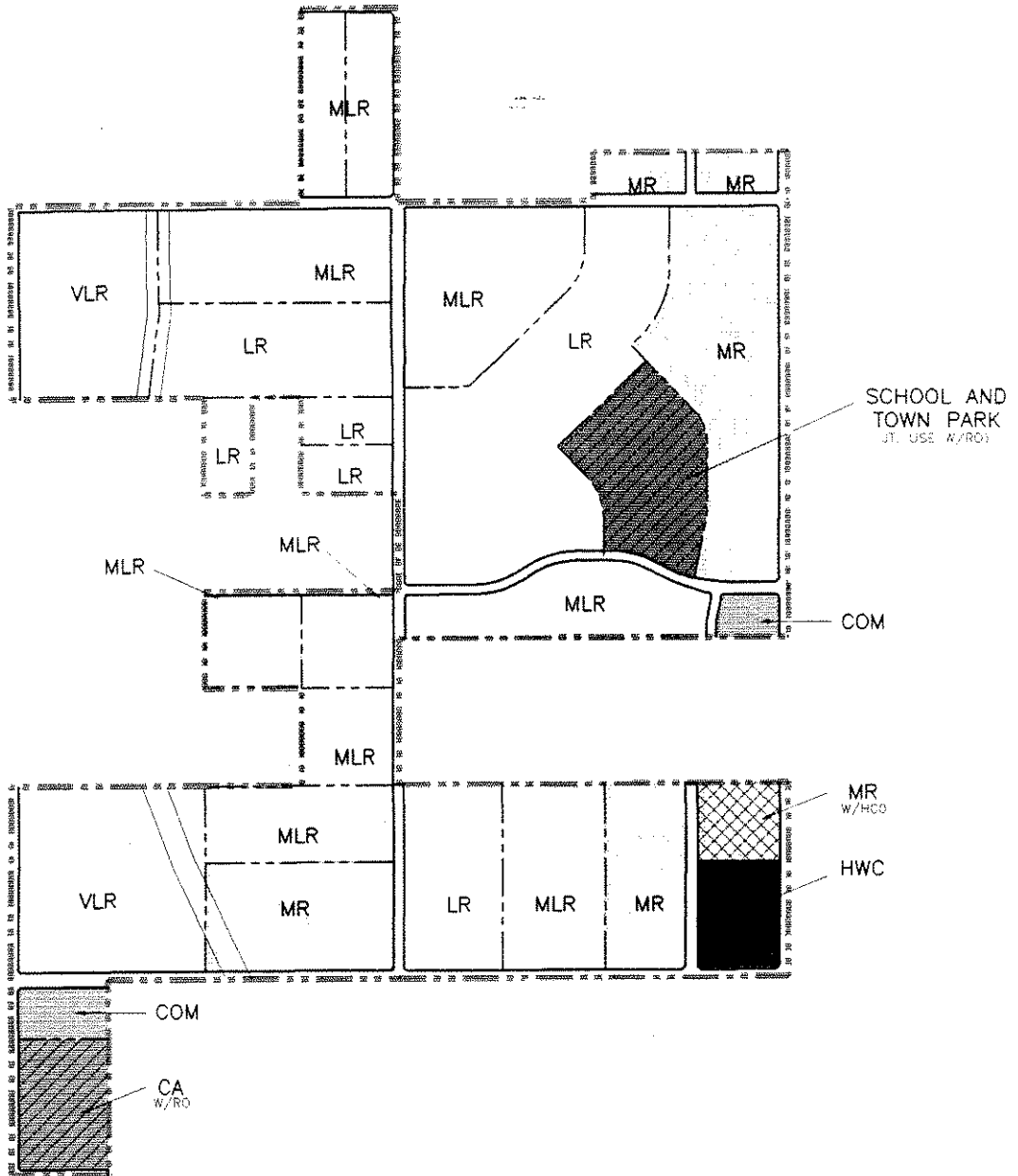
2. HCO - Highway Commercial Overlay District

a. Purpose and Intent

The Highway Commercial Overlay provides development flexibility to meet market demands of Planning Area 20 adjacent to Highway 395. It is intended to allow for expansion of the Highway Commercial area if additional residential units are unnecessary. All commercial development within the Overlay District shall meet the standards and regulations within Section G-3 (Commercial Uses and Standards - HWC - Highway Commercial District).

J. SCHOOL SITE

1. If a portion of Planning Area 14 is used as a school site, its development shall be subject to review and approval by the City pursuant to Section 18.58.170 of Victorville Municipal Code titled "Schools."



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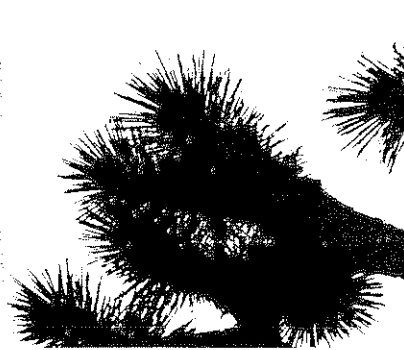
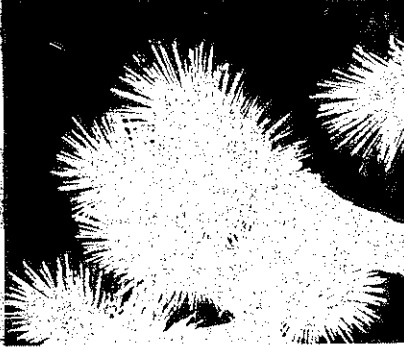
■ LAND USE REGULATION

RESIDENTIAL DISTRICT

	(VLR) VERY LOW SFD RESIDENTIAL
	(LR) LOW SFD RESIDENTIAL
	(MLR) MEDIUM LOW SFD RESIDENTIAL
	(MR) MEDIUM SFD RESIDENTIAL
	(R/O) RESIDENTIAL (VLR, LR, MLR, MR)

COMMERCIAL DISTRICT

	(COM) COMMERCIAL
	(HWC) HIGHWAY COMMERCIAL
	(CA) OFFICE/ADMINISTRATION
	(HC/O) HIGHWAY COMMERCIAL OVERLAY



J N F R A S T R U C T U R E P L A N

# INFRASTRUCTURE PLAN

## ■ Circulation

### *Area Wide Concept*

The circulation plan provides the transportation system and standards for safe, efficient vehicular movement within and around the project area. This plan consists of alignments for major arterials and collector roadways, their rights-of-way and typical roadway sections. (Refer to Exhibits 12 and 13.)

The circulation plan is based on the ultimate buildout of the project area.

### *Circulation System*

Circulation internal to the project site will be provided by a roadway system keyed to the existing street system and based upon ultimate circulation patterns shown on the General Plan's Circulation Map as amended.

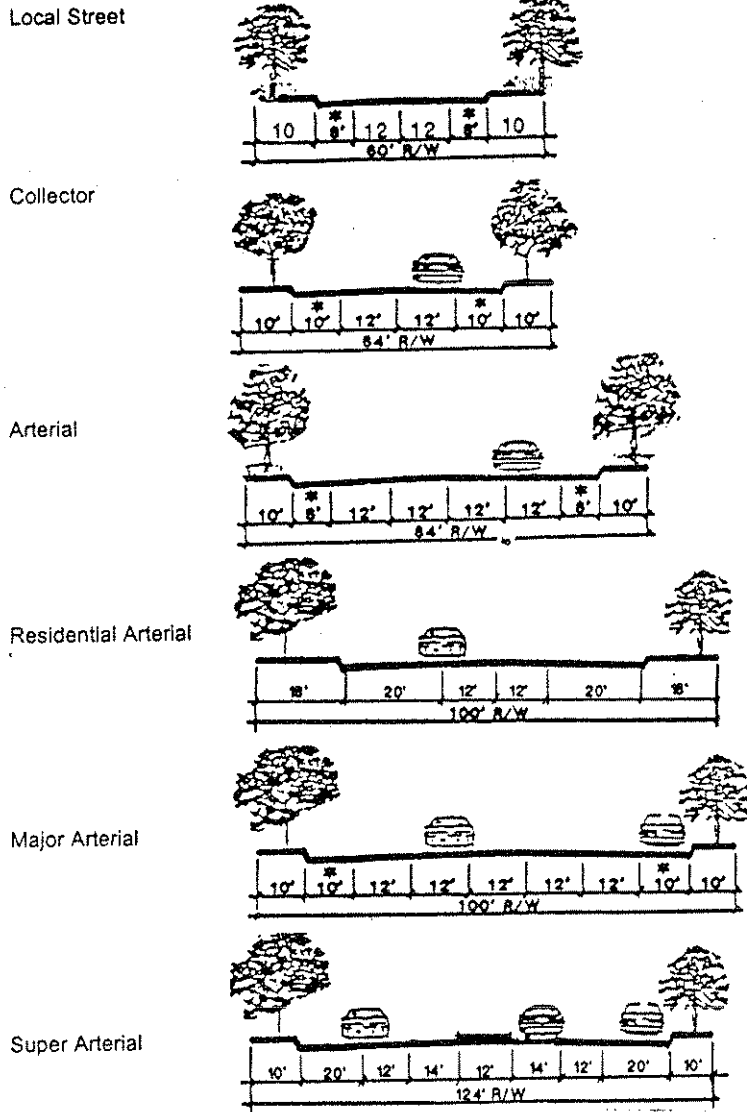
Emphasis has been placed upon providing the primary access routes to link the various commercial and residential neighborhoods with Luna Road, La Mesa Road, Dos Palmas Road, and with the existing I-15 interchanges and Highway 395 (super arterial). The backbone of the Circulation System consists of super and major arterials, residential arterials, arterials, and collector roadways containing vehicular and non-vehicular functions. Roadway classifications include super and major arterials, residential arterials, arterials, collectors, and local streets. A series of pedestrian esplanades will reinforce the roadway system through the provision of minor inter-community pedestrian links.

The following describes the characteristics of the various roadway classifications within the project site.

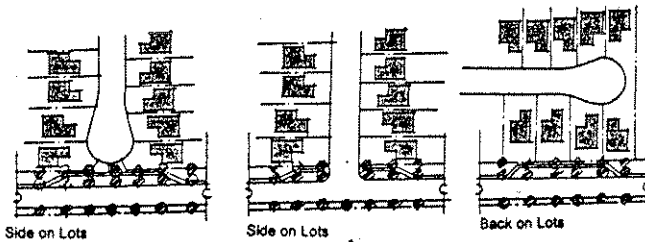
**Super/Major Arterials:** Super and major arterials service the immediate vicinity of the project site for through traffic and provide linkages from arterials, and collectors to the regional transportation corridors. Highway 395 (SR 395), a super arterial, which runs north/south along a portion of the eastern boundary, is a super arterial as designated in the current roadway classification with a 124-foot right-of-way (6 lanes). Bellflower Road, a major arterial, which runs north/south adjacent to the western portion of the project site, will be improved to half of its 100-foot right-of-way (4 lanes with center lane) for that portion adjacent to the project site, reflecting its major arterial status.

**Residential Arterials/Arterials:** Residential arterials and arterials service the immediate vicinity of the site and connect/distribute traffic from collectors to the major arterials. La Mesa Road, a residential arterial running east/west adjacent to the southern portion of the project site, will be improved to its 100-foot right-of-way (4 lanes) for that portion related to the project site, reflecting its residential arterial status.

# ROADWAY SECTIONS

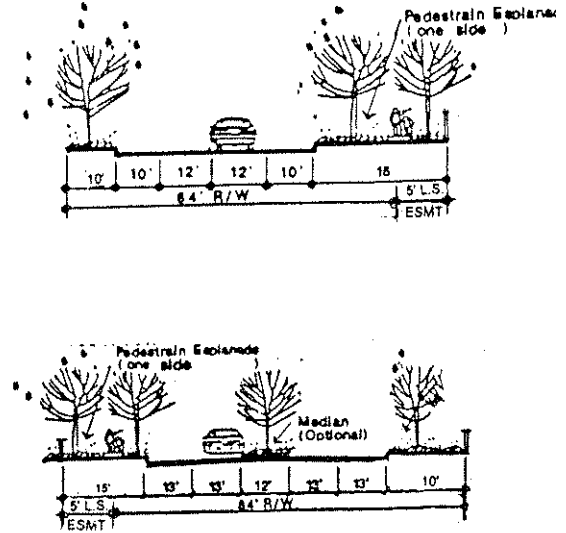


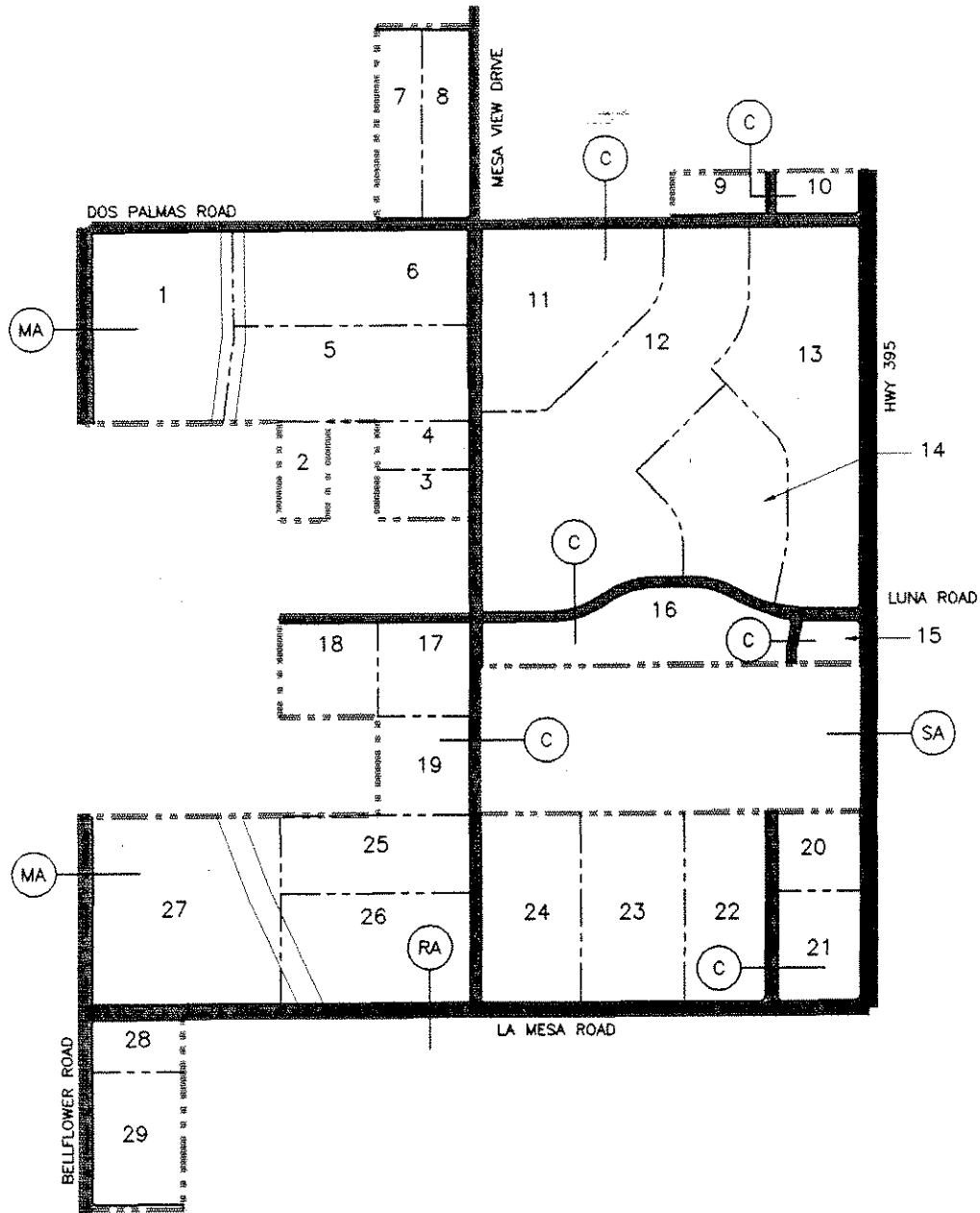
# PLANS



# ROADWAY OPTIONS

## Collectors









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■ CIRCULATION  
ROADWAY NETWORK

-  SA - SUPER ARTERIAL (HWY 395)
-  MA - MAJOR ARTERIAL
-  RA - RESIDENTIAL ARTERIAL
-  C - COLLECTOR

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**Collectors:** Collectors will service the primary areas of the project and link the project to the regional transportation corridors. The collectors will generally have a 64-foot right-of-way. However, where they interact with a regional transportation corridor additional rights-of-way will be installed, if required by the City Engineer. This will allow additional lanes to increase capacity of the intersections. A pedestrian walk (esplanade) will be provided on some collectors with a sidewalk on both sides. These roads will visually unite the project area, as well as provide a pedestrian link (esplanade) between the commercial, joint park/school facilities, and residential neighborhoods.

Luna Road, is an east/west collector and runs through the center of the project site. Luna road, between Highway 395 and the first local street (approximately 660 feet) will be improved to a full 84-foot right-of-way (4 lanes) reflecting its modified collector status (per traffic study). In addition, this collector may have a raised median (Roadway Option), reflecting its importance as the primary ingress/egress to the project. That portion within the project site will be improved to its full 64-foot right-of-way or improved to half width plus 12 feet of its 64-foot right-of-way per City Standards. An esplanade will be provided on the south side of Luna Road within the project area.

Dos Palmas Road is an east/west collector. That portion within the project site between Highway 395 and the first local street (approximately 660 feet), will be improved to a 84-foot right-of-way (4-lanes) reflecting its modified collector status (per traffic study). That portion within the project site will be improved to its full 64-foot right-of-way or improved to half width plus 12 feet of its 64-foot right-of-way per City Standards.

Mesa View Drive, a north/south collector, runs through the center of the project site. It serves as the important link between La Mesa Road, Luna Road, and Dos Palmas Road. That portion within the project site will be improved to its full 64-foot right-of-way or improved to half width plus 12 feet of its 64-foot right-of-way per City Standards. An esplanade will be provided on the west side of Mesa View Drive between La Mesa and Luna Roads (refer to Exhibit 12, Roadway Standards, Plans).

Residential lots that are adjacent to a collector are allowed to front on, side on (in combination with a local street), side on (in combination with an extended cul-de-sac), and/or back on (when adjacent to an esplanade), or a combination of the aforementioned (refer to Exhibit 12, Roadway Standards, Plans). However, a maximum of one-third (1/3) of the units located adjacent to an esplanade may be backed on. However, the one-third (1/3) units can be exceeded by the applicant with supporting information, which will be reviewed and approved by the Planning Commission to ensure land use compatibility. On-street parking is allowed; however, individual driveways should be minimized on the esplanade side (with sidewalk) of the street.

**Local Streets:** Local streets will service each residential neighborhood within the project and are designed with a 60-foot right-of-way and a minimum of two travel lanes to accommodate automobiles and pedestrians.

#### *Roadway Options*

A pedestrian walk (esplanade) will be provided on some roadways within the road right-of-way. In addition, entry median planters (within road rights of way) planter strips and bike lanes can make busy streets more friendly to cyclists and pedestrians. Refer to Exhibit 12, "Roadway Standards, Roadway Options."

Alternate roadway sections not shown in Exhibit 12, "Roadway Standards," which satisfy minimum lane requirements based on the traffic study (Kunzman) and Circulation Element of the General Plan, may be allowed, subject to the review and approval of the City engineering and planning departments.

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*Circulation Analysis*

The following is a brief summary of the Circulation Analysis prepared by Kunzman Associates (revised January 1993 with a letter regarding modifications Dated October 1999) for the Specific Plan:

A level of service was used as the basis for roadway selection determination unless modified by the City Engineer. The Circulation System within the Specific Plan follows the City of Victorville's Circulation Plan. The Circulation Analysis shows that La Mesa Road is a major arterial with the remaining roads being arterials or collectors. (Refer to Exhibit 13.)

The study recommends that the City monitor the key intersections in the vicinity of the site for warrants for traffic signals as development within the surrounding area occurs. This way the development of the roadway system can parallel the development of the project area and the surrounding areas, providing for gradual expansion in both building construction and public improvements. It will also help the City avoid installation of unwarranted traffic signals.

Fees that are collected from the various developers are applied toward specific master-planned improvements; e.g., traffic signals that are projected to be warranted due to the accumulated traffic volumes from numerous developed areas. The City will then contract for their construction at such time as they are warranted.

■ **Public Works**

*Introduction*

Future demand for residential opportunities in Vista Verde, as well as other residential communities in the Baldy Mesa portion of the City of Victorville, call for a systematic plan for the provision of public services. The Public Works Component addresses these needs relative to the future development of the project site and illustrate the possible methods and mechanisms through which public services can be provided.

The infrastructure systems are designed to provide adequate service for the maximum level of planned development. Interim facilities may be able to serve the limited phases of development. (Note: All Exhibits in the Public Works Section are schematic only. Any changes would not necessitate a Specific Plan Amendment.)

*Water Service Concept Plan*

Domestic water will be supplied by Baldy Mesa Water District. The district has master planned the major facilities that would serve the site's future needs. The proposed concept is shown in Exhibit 14, Water Concept.

The District currently is supplying water to the area with a 12" mainline along the east side of Highway 395 from Bear Valley Road to Luna Road. A 12" stub-out runs under Highway 395 (west) at Luna Road.

The District has an adopted master plan that provides for transmission lines, supply, and storage for this area.

Exhibit 14 shows the proposed water transmission system extensions due to the development of the project. In addition to the mainlines shown, the developer shall install 8" minimum mainlines internally throughout the development to serve the domestic water and fire flow requirements and the needs of the residents.

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*Implementation* The cost of proposed water improvements may be funded by public financing and/or through reimbursement agreements entered into with the Baldy Mesa Water District.

*Sewer System Concept Plan* The Victor Valley Waste Water Reclamation Authority (VWVRA) will provide waste water treatment service for Vista Verde. It is a regional sewerage facility whose service area includes the Victorville Sanitary District. The VWVRA receives sewage from the Sanitary District's local collector system that connects to the VWVRA interceptor pipeline at two points along the Mojave River. The regional facility is located approximately eight miles north of Victorville at the north end of Shay Road adjacent to the Mojave River. The plant is currently operating at its allowable capacity of 9.5 million gallons per day (MGD). Design work is in process to expand capacity to 11.0 MGD. Currently, the VWVRA Master Plan is being updated.

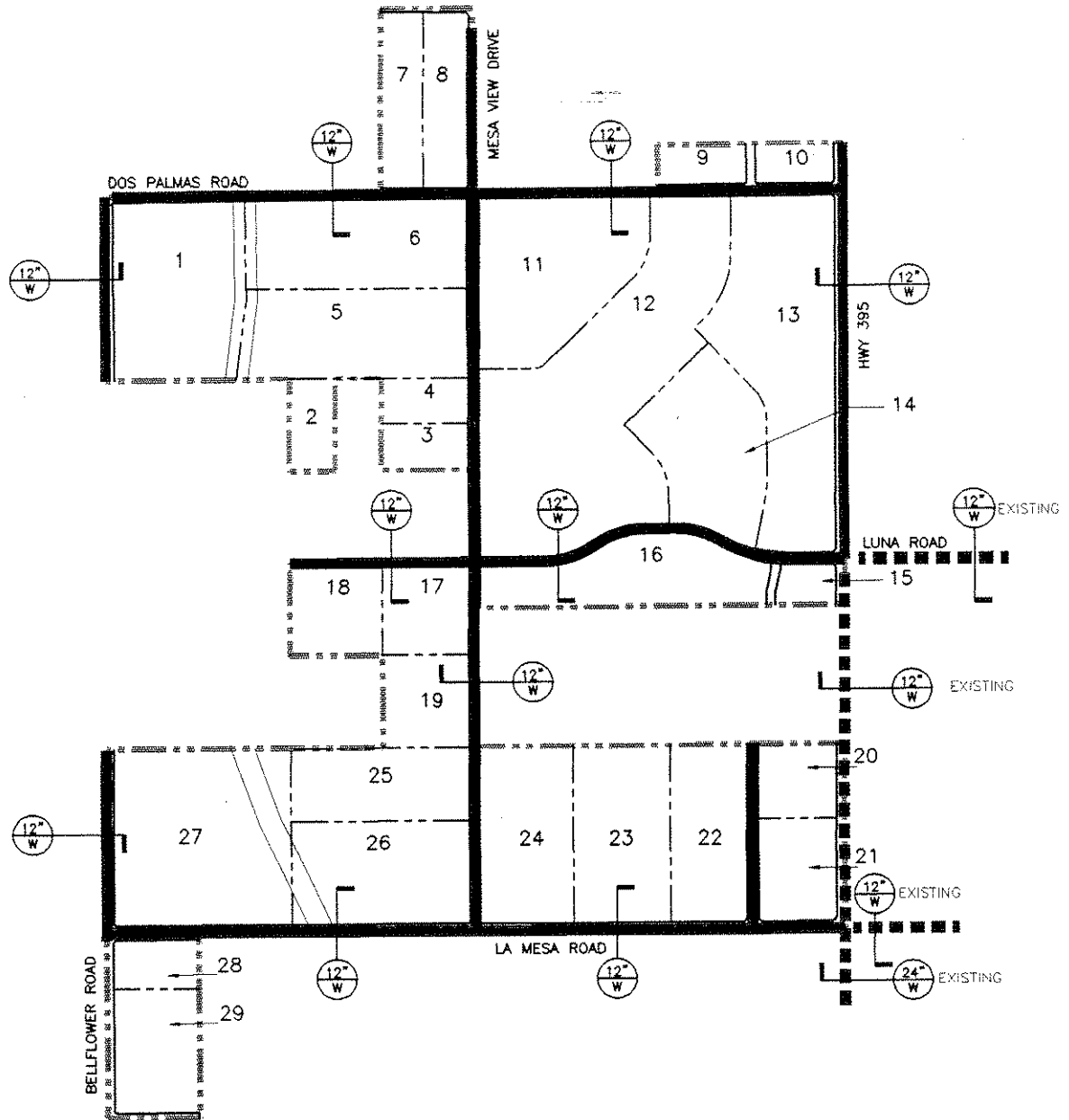
The on-site gravity sewer system will consist of 8-inch and larger mainlines constructed per City of Victorville standards. The project lies adjacent to the Highway 395 leg of the City's Master Trunk Sewer Plan.

Exhibit 15 shows the conceptual alignment of proposed facilities. Actual alignments and sizing of mainline will be determined at the design stage of the incremental phases of development. Since no sewer currently exists at the discharge point at Dos Palmas and Highway 395, off-site connection will be required.

*Implementation* The off-site improvements between Mojave Drive and Palmdale Road was undertaken by the City. An 18" trunk line currently exists in Palmdale Road to the north. Further extension of this line may be eligible for fee credit as part of the overall master plan. Financing of the offsite sewer facilities may occur as an assessment district.

*Drainage Concept Plan* The project site encompasses flat, unimproved land which has a slight (<2%) downward slope toward the northeast. However, a well defined drainage course enters the property approximately a quarter mile east of Bellflower Road and proceeds northerly through the project. This drainage course tends to cut off all flows from the southwest and direct them northerly. Approximately 30% of the developed site will drain into this natural course. It is proposed to leave it in its natural open state.

The remainder of the property east of the natural channel is essentially void of organized drainage courses, although there is some definition of drainage swales which exist due to the natural sheet flow tending to concentrate as it gathers to traverse the property.



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■ SCHEMATIC WATER PLAN



PROPOSED WATER LINE



DIAMETER OF LINE



EXISTING WATER LINE

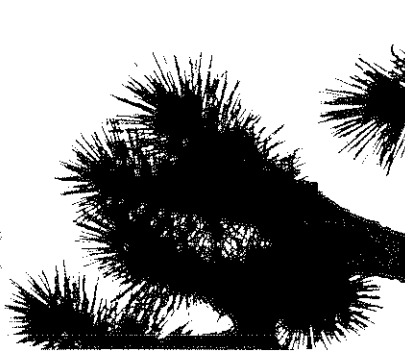
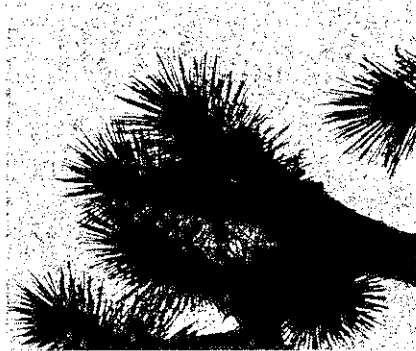
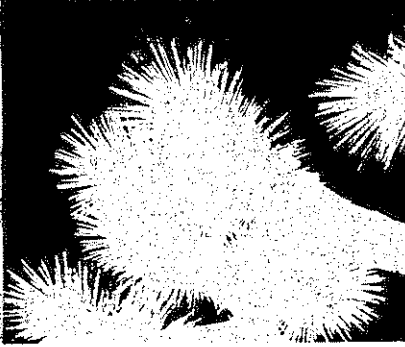
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The project incorporates drainage in several ways. The proposed street system, when constructed, and the open natural drainage channel will provide certain drainage controls to intercept and direct the street flow runoffs from the proposed improved properties. The street pattern and open space design accommodates these drainage patterns. Actual on-site drainage facilities will be determined at the design stage of the incremental phases of development.

Off-site drainage conveyance will be accomplished in a manner acceptable to the City Engineer, City of Victorville Engineering Department.

*Implementation* Construction of the drainage improvements as shown in Exhibit 16 is necessary for the development of the project. The drainage improvements and the in-tract improvements needed for each subdivision will be constructed in an incremental basis, provided that the increased runoff is not allowed to adversely affect downstream properties.

*Other Utilities* The Vista Verde project lies within the service areas of Southern California Edison Company (electricity), Southwest Gas Corporation (natural gas), GTE California (telephone), Charter Communications (television cable), and Victorville Disposal, Inc. (solid waste). This utility network can be expanded to meet future demands of the project. All future utility line additions are proposed to be placed underground.



I M P L E M E N T A T I O N

# I M P L E M E N T A T I O N

## ■ Density

### *Introduction*

The Specific Plan will be implemented through Parcel, Tentative Tract, and Final Maps, pursuant to Title 17 of the Victorville Municipal Code titled "Subdivision," and Site Plan Review procedures, pursuant to Chapter 18.71 of Title 18 of the Victorville Municipal Code titled "Zoning." The review procedures and requirements associated with each are specified below.

The Parcel Map, Tentative Tract Map, and Site Plan Review procedures are used to accomplish the objective of providing a logical and timely sequence of community and governmental review and input. The purpose of the Parcel Map and Tentative Tract Map is to provide a method and procedure to analyze and evaluate the significant features within the project to ensure compliance with the provisions contained within this Specific Plan. The purpose of the Site Plan Review is to establish the procedure of review of any residential (PUD) and commercial development. The Site Plan Review is also intended to assess, on an on-going basis, any impacts of this development project on the surrounding community.

## ■ Application Process

### A. GENERAL PROVISIONS

#### 1. TRANSFERS OF DWELLING UNITS/RESIDENTIAL OVERLAY

Transfers of residential dwelling units between parcels (planning areas) and the residential overlay areas within the Specific Plan area shall not be permitted. The following findings shall be made in administering this document:

- a. The total number of dwelling units within the Specific Plan does not exceed 2,530.
- b. The proposal is consistent with the criteria specified in this Specific Plan.
- c. There are no material impacts to the circulation system of a nature that would necessitate amendments to the roadway cross-sections.

- 
- d. There are no material impacts to surrounding planning areas beyond those previously identified as part of this Specific Plan.
  - e. The residential overlay complies with all other provisions of this Specific Plan, except as noted above; and the resultant densities are consistent with the overall character of development envisioned as part of this Specific Plan.

## B. LAND DIVISION REVIEW PROCEDURES

The Specific Plan shall be implemented through the Parcel Map, the Tentative Tract Map, and the Site Plan Review process as noted herein.

### 1. PARCEL MAP

A Parcel Map is intended for parcelization and/or financing and conveyance purposes. Conditions of approval for this Specific Plan, or any other plan or program, may not apply to this map. The Parcel Map submittal shall meet all requirements stipulated by the Subdivision Map Act and Title 17 of the Victorville Municipal Code titled "Subdivision."

### 2. TENTATIVE TRACT MAP

A Tentative Tract Map, as applicable, shall be filed for all projects within the Specific Plan area subject to the provisions as stipulated in Chapters 17.04 through 17.108 et seq. of the City of Victorville Municipal Code Subdivision Ordinance. After map approval, the final map may be recorded and building permits may be issued. This process may include the parcelization of large tracts or lots (i.e., Large Lot Tentative Tract Map) for future use as residential development or cluster residential development site. Submittal requirements shall be as specified in the Victorville Municipal Codes.

## C. PARCEL/TENTATIVE TRACT MAP REVIEW REQUIREMENTS

### 1. GENERAL PROVISIONS

Parcel and Tentative Tract Maps and their review shall comply with the review requirements established in Title 17 of the Victorville Municipal Code titled "Subdivision." It is intended that preliminary plans include plans, programs, and other documentation and information per Chapter 17.61 of the Victorville Municipal Code titled "Subdivision" necessary to implement the provisions of this Specific Plan. Such information may be beyond the typical requirements for submittal of a Tentative Tract Map, as specified in Chapter 17.20 of the City's Subdivision Code.

A Parcel Map or Large Lot Tentative Tract Map may be processed when it is solely intended to be used for parcelization and/or financial purposes, and is intended to facilitate model home complexes.

### 2. PARCEL/TENTATIVE TRACT MAP SUBMITTALS

A Parcel or Tentative Tract Map, as applicable, shall be filed for all projects within the "Specific Plan" area subject to the provisions as stipulated in the Victorville Municipal Codes.

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Project data may be submitted as a part of a Preliminary Plan review process per Chapter 17.16 of Title 17 of the Victorville Municipal Code titled "Subdivision." After map approval, the Final Map may be recorded and building permits may be issued.

### 3. PARCEL/TENTATIVE TRACT MAP REVIEW PROCEDURE

The Parcel/Tentative Tract Map review process involves two steps: the pre-application conference and Tentative Tract Map submission review and approval.

#### a. Pre-Application Conference

This is intended to provide the Planning Department with knowledge about the developer's intent and to provide the developer with an understanding of what is required to develop under the Specific Plan. There are no particular requirements for submission of materials and plans by a developer at a pre-application conference. However, the more information the developer has, the more response he may get from the conference. Staff shall explain all relevant City Ordinances and Codes that relate to the Specific Plan.

Another function of the pre-application conference is to determine levels of information necessary to implement satisfactorily all provisions of this Specific Plan. Further submittal and review schedules meeting statutory, staff, and workload requirements shall also be established as part of the pre-application conference.

The Director of Planning may choose to form a pre-application conference team that routinely conducts this function. This team may include members of the planning staff and others from related departments, such as engineering, public works, traffic, police and fire, and the City Manager's office.

#### b. Parcel/Tentative Tract Map Submission

All Parcel/Tentative Tract Map review requirements contained in the City of Victorville Municipal Code Chapter 17.04 through 17.108, "Subdivisions," shall apply upon formal submittal of a Parcel/Tentative Tract Map.

A Development Plan may be required as part of the Tentative Tract approval process and as contained in Chapter 17.23 of the City of Victorville Municipal Code titled "Subdivision."

## D. SITE PLAN REVIEW REQUIREMENTS

### 1. GENERAL PROVISIONS

The purpose of the Site Plan Review process is to provide for review of detailed final plans for commercial development within the Specific Plan Area. This process ensures that projects will be planned, established, and maintained in a manner that will be compatible with surrounding uses. It is further intended to ensure compliance with all provisions of this Specific Plan. No development or construction, other than minor repairs that do not alter the physical or architectural characteristics of a structure, shall be undertaken unless a site plan and related documents have been submitted to

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and approved by the City of Victorville in accordance with its established review procedures.

2. SITE PLAN SUBMITTALS

Project data may be submitted in conjunction with a Site Plan application. The exact format, content, and order of project data shall be determined in consultation with the City of Victorville prior to submittal and as outlined within the Victorville Municipal Codes.

3. SITE PLAN REVIEW PROCEDURES

All Site Plans shall be submitted, reviewed, and approved pursuant to Chapter 18.71 of Title 18 of the Victorville Municipal Code titled "Site Plan."

The Site Plan Review process involves two steps: the pre-application conference and the Site Plan submission for staff review. These are described further below.

a. Pre-Application Conference

Those procedures specified in Section C-3-a, herein, shall apply.

b. Site Plan Submission for Staff Review.

The purpose of the Site Plan Review process is to provide for review of detailed final plans for commercial development within the Specific Plan area. This process ensures that projects will be planned, established, and maintained in a manner that will be compatible with surrounding uses. It is further intended to ensure compliance with all provisions of this Specific Plan. No development or construction, other than minor repairs that do not alter the physical or architectural characteristics of a structure, shall be undertaken unless a site plan and related documents have been submitted to and approved by the City of Victorville in accordance with its established review procedures.

E. ENFORCEMENT

Enforcement of these provisions shall be as stated below.

1. The Director of Planning shall have the duty of enforcing the provisions of this Specific Plan.
2. Any use of a building or structure hereafter erected, built, maintained, or used contrary to provisions of this Specific Plan is deemed an illegal use.
3. Any person violating any provisions of this Specific Plan is guilty of a misdemeanor.
4. The Director of Planning shall have the duty to interpret the provisions of this Specific Plan where noted. All such interpretations shall be in writing and be permanently maintained. Any person aggrieved by the Director of Planning's interpretation may appeal the interpretation to the Planning Commission and, if necessary, to the City Council.

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A variety of funding sources are available for the implementation of the improvements proposed in the Specific Plan. These improvements fall into three main categories:

- City of Victorville Capital Improvements Program (i.e., Development Impact Fees)
- Reimbursement Districts
- Assessment Districts

Each of these funding sources is briefly described below and is presented in greater detail in the Appendix.

City of Victorville Capital Improvements Program - The City of Victorville has a capital budget composed of funds from a variety of sources. All capital improvements must be approved as part of the City's annual budget. Some of the proposed capital improvements for the Specific Plan Area may be funded in this manner.

Reimbursement Districts - In the case of reimbursement districts, the developer enters into an agreement with the City whereby he will provide certain public improvements, at his expense, in the initial stages of the project. As further development occurs, the City will assess the new projects that benefit from the original public improvements and reimburse the original developer.

Assessment Districts - In the case of an assessment district, liens are taken out against the properties upon which capital improvements are proposed. The bonds are held against these properties. Funds from the bonds can be used to construct the capital improvements. The benefitting properties are assessed to repay the debt. There are three specific types of assessment districts. These are:

- Improvement Acts
  - The Improvement Act of 1911
  - The Improvement Bond Act of 1913
  - The Municipal Improvement Act of 1915
- Mello-Roos Community Facilities Act of 1982
- The 1972 Landscaping and Lighting Act

The 1911 and 1915 Acts operate similarly to the general description of assessment districts above. The 1913 Act is solely a bond issuance Act.

The Mello-Roos provides for the establishment of a Community Facilities District which can provide both public services and public capital facilities. Special taxes are levied against the properties where the services and facilities are being provided.

The Landscaping and Lighting Act provides for the maintenance of landscaping, lighting systems, and materials, as well as operation costs for these elements within a specific district. Special assessments can be levied against the area where these improvements and maintenance occur. Since the passage of Prop 218, it is necessary to have an affirmative vote (two-thirds) of the benefitting properties prior to forming a district under this Act. In addition, any assessment imposed may not increase without an affirmative vote (two-thirds) of the benefitting properties, unless otherwise allowed by law.

*Conclusion*

Upon approval of the Specific Plan by the Planning Commission and City Council, it is recommended that a feasibility study be initiated to establish an Assessment District to fund selected improvements within the Specific Plan Area.

- 
5. Unless otherwise specified, all development within the Specific Plan shall comply with the City of Victorville Municipal Codes. Terms used shall have the same meaning as defined in the City of Victorville Municipal Codes unless otherwise defined herein.
  6. Any details or issues not specifically covered by this Specific Plan shall be subject to the regulations of the City of Victorville Municipal Codes.
  7. All construction within the boundaries of the Specific Plan shall comply with all provisions of the Uniform Building Code and the various mechanical, electrical, plumbing, fire, and security codes adopted by the City of Victorville.
  8. If any regulation, condition, program, or portion thereof of the Specific Plan is for any reason held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision; and the invalidity of such provision shall not affect the validity of the remaining provisions hereof.

#### H. COMMUNITY FACILITIES AND OPEN SPACE: MAINTENANCE

Generally, the maintenance of all facilities designed for community-wide public use, such as the park and esplanades can be funded through the creation a Homeowners' Association (HOA) or Landscape Maintenance Assessment Districts (LMAD). Facilities that are within detached residential projects that are intended for residents of that project may be maintained by a homeowners' association. Land belonging to other private, public, and quasi-public agencies will be maintained by the owners.

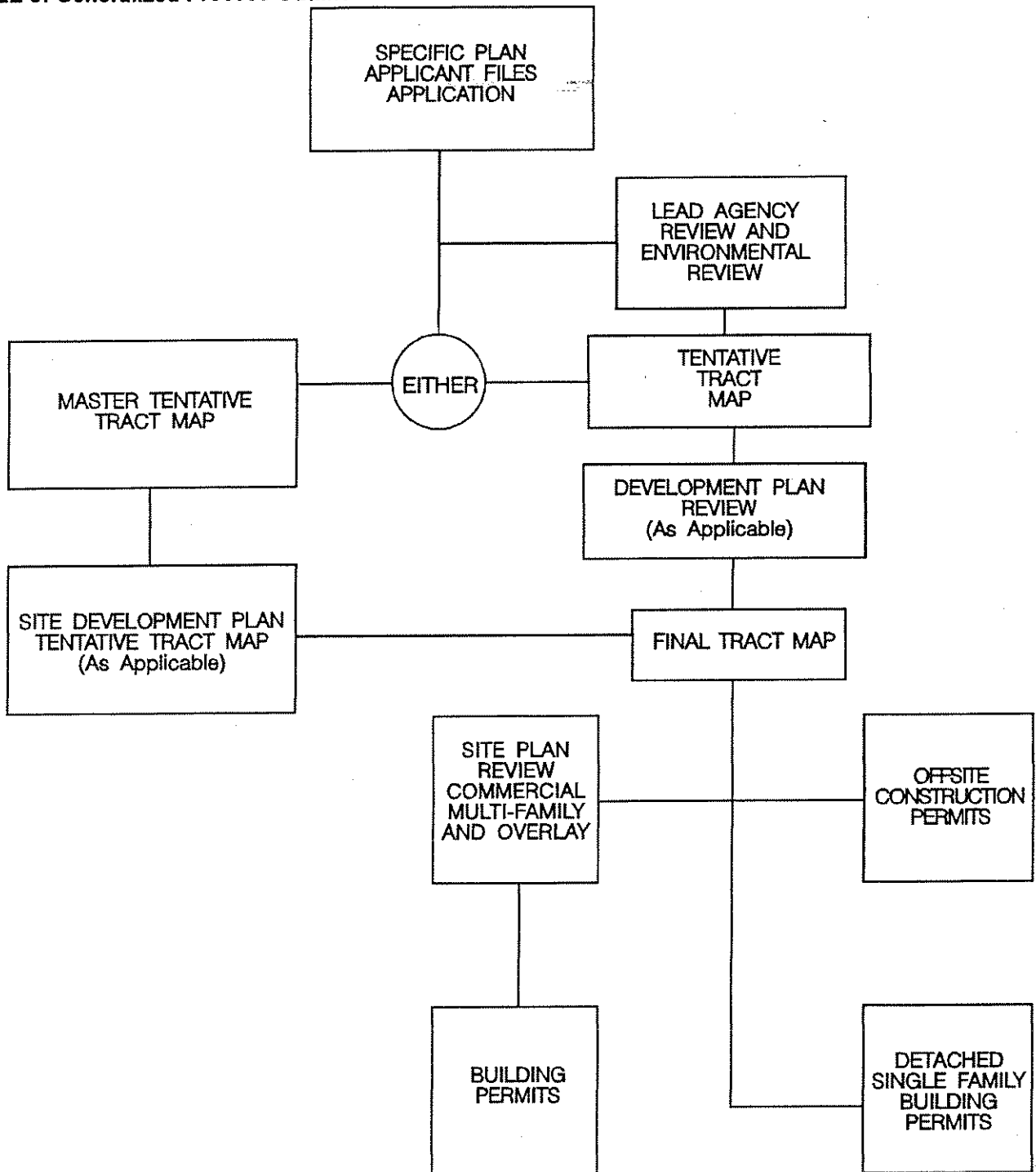
The areas identified in Exhibit 10, and discussed within the Specific Plan, that deal with pedestrian esplanades, shall be (within the road right-of-way) irrevocably offered for dedication to the City of Victorville at the recordation of any parcel or final map dividing land contained within the Specific Plan. All improvements will need to be completed and accepted by the City. In addition, a method for perpetual maintenance either through a Homeowners' Association (HOA) or Landscape Maintenance Assessment District (LMAD), shall be implemented.

#### ■ **Municipal Finance Mechanisms**

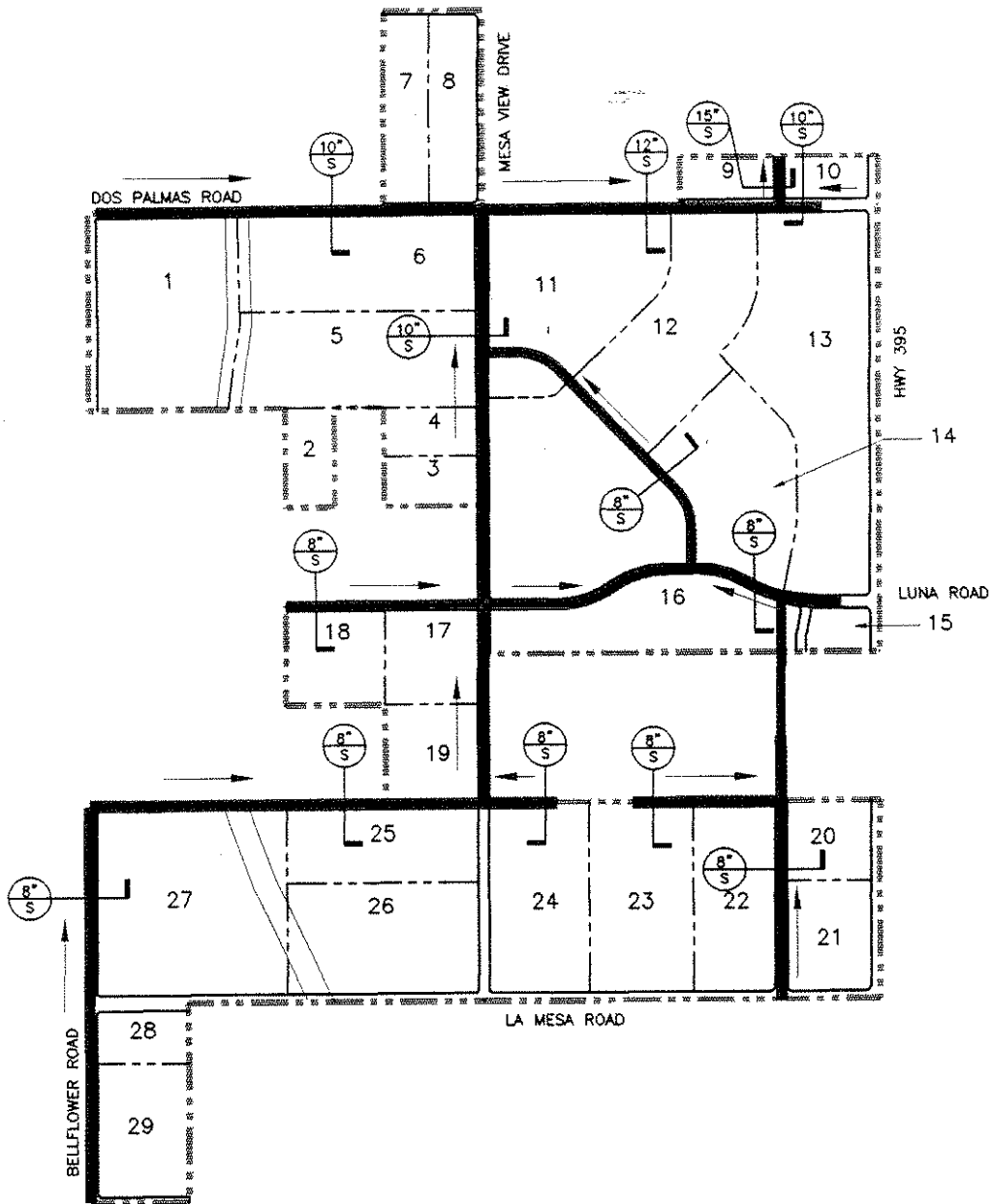
The following presents a summary of funding sources and mechanisms available for implementing the capital improvements proposed in the Specific Plan.

The Specific Plan may be implemented through a combination of public and private actions and investments. Both the public and/or private sectors may provide the infrastructure and other capital improvements of the plan. These can include backbone roads, water, sewer and storm drainage improvements, public street lighting, special intersections, special streetscapes, open space, and maintenance.

■ TABLE 5: Generalized Process Outline



Note: Illustrative Only. Throughout the process, reviews and approvals are by the Planning/Engineering staff, Planning Commission and/or City Council. See Gov. Code 65920 et seq., Pub. Res. Code 2100 et seq. and Cal. Admin. Code 15000 et seq.



LUDWIG ENGINEERING

NORTH ▲ NOT TO SCALE

■ SCHEMATIC SEWER PLAN



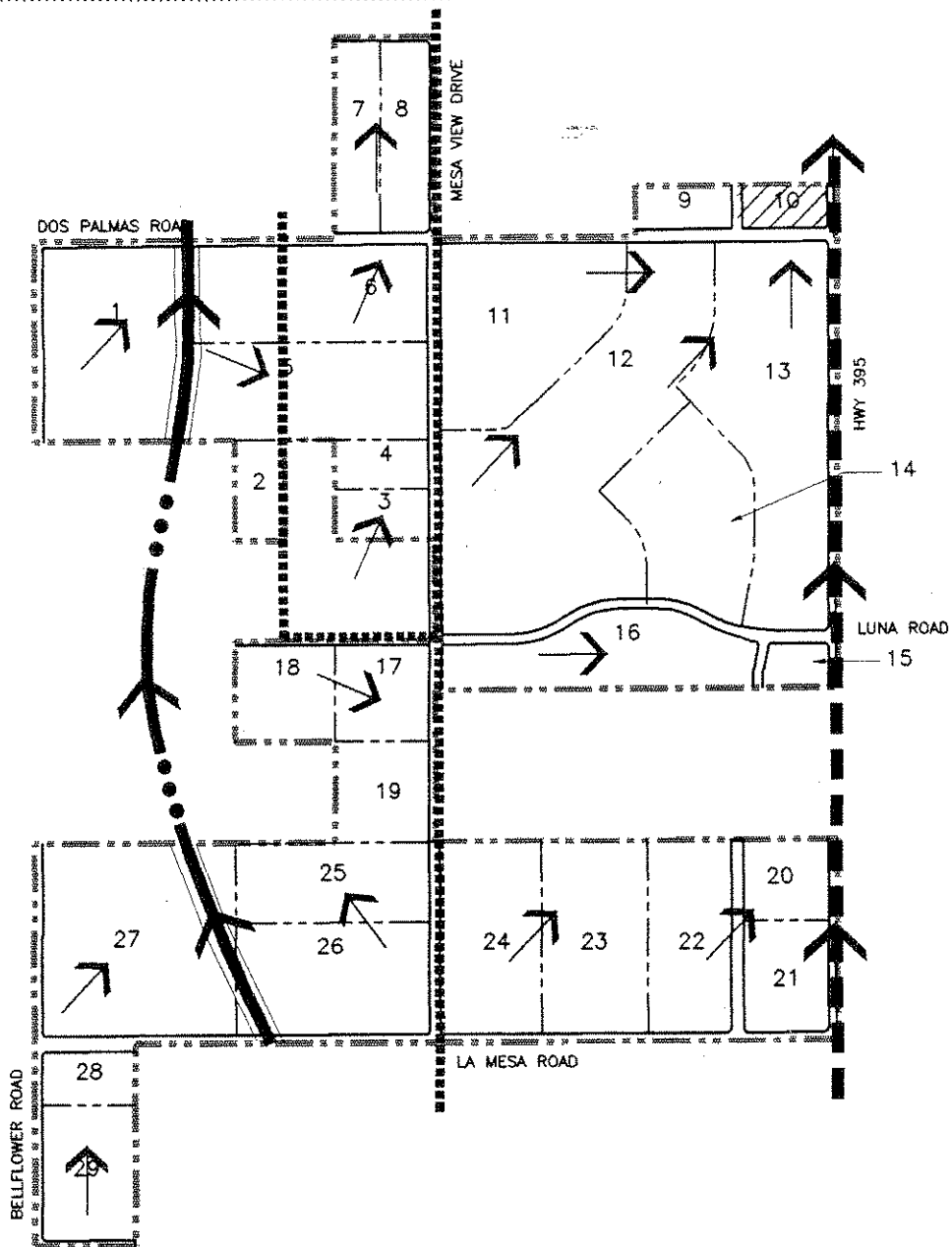
PROPOSED SEWER LINE



SEWER LINE DIAMETER








DIRECTION OF FLOW

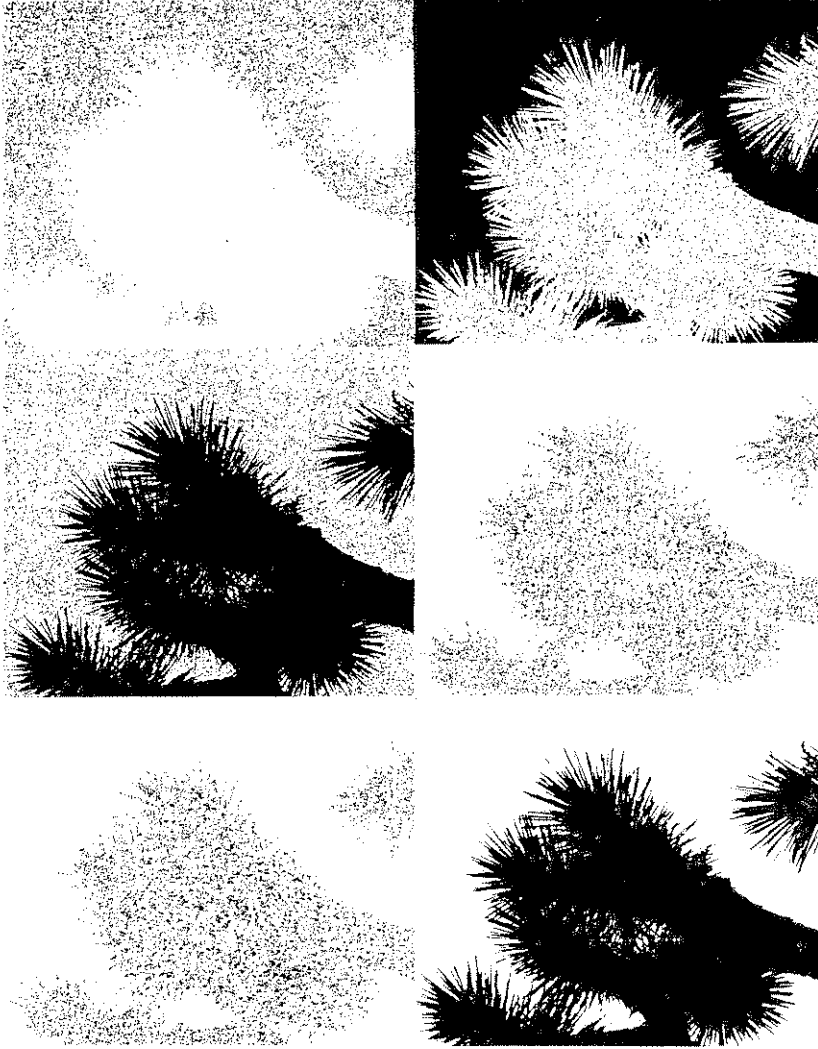


LUDWIG ENGINEERING

NORTH ▲ NOT TO SCALE

■ SCHEMATIC DRAINAGE

-  SUB AREA DRAINAGE BOUNDARY
-  DIRECTION OF FLOW
-  TRAPEZODIAL CHANNEL
-  180 FT. DRAINAGE EASMENT TO CITY OF VICTORVILLE
-  DETENTION/RETENTION BASIN (OPTIONAL)



A P P E N D I X



# KUNZMAN ASSOCIATES

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March 27, 2000

John R. Hnatek  
City of Victorville  
P.O. Box 5001  
14343 Civic Drive  
Victorville, CA 92392-2399

Dear Mr. Hnatek:

The firm of Kunzman Associates is pleased to submit this traffic generation analysis for the Vista Verde project in the City of Victorville.

Kunzman Associates previously prepared a traffic analysis for the project entitled, "Vista Verde - Victorville Traffic Impact Analysis (Revised January, 1993."

## Land Use

In the 1993 traffic analysis, the land use upon which it was based is listed in Tables 1 and 5. That same information appears in Table A which accompanies this letter report. In Table A the land use previously assumed is listed in the part of the table labeled "PREVIOUS PLAN TRAFFIC GENERATION," under the column labeled "Land Use Quantity."

The land use has changed since the 1993 traffic analysis. In fact it has gone down substantially. In Table A the land use that is now contemplated is listed in the part of the table labeled "PROPOSED PLAN TRAFFIC GENERATION," under the column labeled "Land Use Quantity."

The difference in the land uses is shown in Table A in the part of the table labeled "DIFFERENCE," under the column labeled "Land Use Quantity."

It can be seen from Table A that number of single family dwellings increased by 83, the number of multi-family dwellings decreased by 390, the retail commercial square footage decreased by 171,000 square feet, while the office square footage is 420,000 square feet.

#### Traffic Generation Rates

In the 1993 traffic analysis, the best available Institute of Transportation Engineers (ITE) traffic generation rates were used. Those rates are contained in Table 4 of the 1993 report.

In 1993 the ITE rates per 1,000 square foot of floor space for retail commercial such as a shopping center was a function of the square footage. The rates per 1,000 square feet was higher for a small center than for a large center. Now ITE uses one rate for retail commercial shopping center and does not vary that rate as a function of how large the center is.

Because the 1993 rates were predicated on the size of each shopping center, and because the size of centers has changed, the trip generation rates used in this analysis are the currently recommended ITE rates.

The traffic generation rates used in this analysis are shown in Table A in the part of the table labeled "TRAFFIC GENERATION RATES PER UNIT."

#### Traffic Generation

In the 1993 traffic analysis, the project total traffic generation was contained in Table 5. On a daily basis the traffic generation was reported as 52,300 vehicles per day, and that was based on rounding all components to the nearest 100 vehicles per day. From Table A it can be seen that the daily traffic generation for the 1993 land use is now calculated at 51,899 which is virtually the same when round off error of each component is accounted for.

For the currently proposed land uses, the expected daily traffic generation is 41,902.

Likewise,, Table A shows the peak hour traffic generation for the previous and proposed plans.

### Difference in Traffic Generation

The difference in daily traffic generation between the 1993 land use and the currently proposed land use is 9,997 daily trips. On a percentage basis, this is a decrease of 19.3 percent.

Table A shows the differences for the daily traffic and peak hour traffic at the bottom of the table in the section entitled "DIFFERENCE."

Close examination will show that the traffic generation is between 15.2 and 18.3 percent less in the peak hours.

### Conclusion

The currently proposed plan generates significantly less traffic than the previously approved plan. The new plan generates less daily traffic and less traffic in both the morning and evening peak hours. The new plan generates significantly less than traffic than did the previous plan.

It has been a pleasure to prepare this information for you and the City of Victorville. If there are any questions, or if we can be of further assistance, please do not hesitate to call.

Respectfully submitted,

KUNZMAN ASSOCIATES

*William Kunzman*

William Kunzman, P.E.  
Professional Registration  
Expires March 31, 2000

#1907d

c: Jimmy Previti, The Forecast Group  
Dorian Johnson, The Forecast Group  
Charles Rangel, The Forecast Group  
Stephen Long, Stephen Long Associates



Table A

TRAFFIC GENERATION COMPARISON

ITE	Land Use	Acres	Conversion Factor Assumed	Land Use Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Total	In	Out	Total
TRAFFIC GENERATION RATES PER UNIT (1)												
210	Single Family Detached				Dwelling Units	9.57	0.19	0.58	0.77	0.65	0.37	1.02
220	Multi-Family Residential				Dwelling Units	6.63	0.08	0.43	0.51	0.42	0.20	0.62
820	Retail Commercial				1,000 Sq. Ft.	42.92	1.37	0.40	1.03	1.80	1.94	3.74
710	General Office Building				1,000 Sq. Ft.	11.01	1.37	0.13	1.56	0.25	1.24	1.49
520	Elementary School				Student	1.02	0.17	0.19	0.30	0.14	0.12	0.26
411	Park				Acres	1.59	0.16	0.02	0.18	0.16	0.16	0.32
565	Day Care Center				1,000 Sq. Ft.	79.25	6.74	5.97	12.71	6.28	7.00	13.20
TOTAL												
PREVIOUS PLAN TRAFFIC GENERATION												
210	Single Family Detached			2,434	Dwelling Units	23,293	462	1,412	1,874	1,382	901	2,485
220	Multi-Family Residential			390	Dwelling Units	2,546	32	167	199	162	80	242
820	Retail Commercial			573.8	1,000 Sq. Ft.	28,627	361	230	591	1,050	1,116	2,146
710	Office	30.2	19,000 Sq Ft per acre		1,000 Sq. Ft.	0	0	0	0	0	0	0
520	Elementary School	0	30,000 Sq Ft per acre		Student	510	85	85	150	70	60	130
411	Park		500 students		Acres	10	1	1	1	88	77	145
565	Day Care Center	1.0	11,000 Sq Ft per acre		1,000 Sq. Ft.	51,899	3,016	1,939	2,955	2,913	2,234	5,148
TOTAL												
PROPOSED PLAN TRAFFIC GENERATION												
210	Single Family Detached			2,517	Dwelling Units	24,088	478	1,460	1,938	1,636	931	2,567
220	Multi-Family Residential			0	Dwelling Units	0	0	0	0	0	0	0
820	Retail Commercial			602.8	1,000 Sq. Ft.	17,288	254	161	415	723	783	1,506
710	Office	21.2	19,000 Sq Ft per acre		1,000 Sq. Ft.	4,628	575	80	655	105	521	626
520	Elementary School	14.0	30,000 Sq Ft per acre		Student	16	2	2	2	70	60	130
411	Park	10.0	500 students		Acres	10	1	1	1	2	2	3
565	Day Care Center	0.0	11,000 Sq Ft per acre		1,000 Sq. Ft.	51,902	819	1,686	2,505	2,431	1,776	4,207
TOTAL												
DIFFERENCE												
210	Single Family Detached			83	Dwelling Units	794	16	48	64	54	31	85
220	Multi-Family Residential			(390)	Dwelling Units	(2,506)	(32)	(167)	(199)	(142)	(80)	(262)
820	Retail Commercial			-171.0	1,000 Sq. Ft.	(7,339)	(108)	(80)	(178)	(307)	(333)	(640)
710	Office			420.0	1,000 Sq. Ft.	4,628	575	80	655	105	521	626
520	Elementary School			0	Student	6	0	0	0	0	0	0
411	Park			3.5	Acres	(672)	(74)	(66)	(440)	(68)	(77)	(145)
565	Day Care Center			-11.0	1,000 Sq. Ft.	(9,997)	(197)	(253)	(450)	(483)	(458)	(941)
TOTAL												
Percent Reduction												

(1) SOURCE: Trip Generation, 6th Edition, Institute of Transportation Engineers, 1997.

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April 3, 2000

John R. Hnatek  
City of Victorville  
P.O. Box 5001  
14343 Civic Drive  
Victorville, CA 92392-2399

Dear Mr. Hnatek:

The firm of Kunzman Associates is pleased to submit this analysis of whether a Traffic Impact Analysis (TIA) needs to be submitted for the Vista Verde Specific Plan Amendment.

The San Bernardino Association of Governments (SanBag) requires TIAs to be prepared when a project is anticipated to cause a traffic impact above a minimum threshold level. If the project causes an impact less than the minimum threshold, then no TIA is required.

The threshold that triggers a TIA is specified in SanBag's Appendix C, entitled "Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County." On page C-1, second paragraph, the threshold is specified. It reads as follows:

"TIA reports shall be prepared by local jurisdictions when the local criteria and thresholds indicate they are necessary. However, TIA Reports must be prepared to satisfy CMP requirements when a proposed change in land use, development project, or at local discretion, a group of projects are forecast to equal or exceed the CMP threshold of 250 two-way peak hour trips (1,000 for retail land uses or projects) generated, based on trip generation rates published for the applicable use or uses in the Institute of Transportation Engineers' Trip Generation or other CMA-approved data source."

In this case the Kunzman Associates' letter dated March 27, 2000 shows that the overall traffic generation went down as did the land uses.

The number of homes was decreased by 303 dwellings, the retail commercial was decreased by 171,000 square feet, and the office land use did increase by 420,000 square feet. For the commercial land uses (retail plus office) the traffic generation went down by 2,715 trips per day. On an overall basis for the entire Vista Verde Specific Plan, the total daily traffic went down by 9,997 trips per day, a 19.3 percent decrease.

The traffic generation by the entire Vista Verde Specific Plan went down 450 vehicles per hour in the morning peak hour, and went down 941 vehicles per hour in the evening peak hour. The percentage decreases in the morning and evening peak hours are 15.2 percent and 18.3 percent, respectively.

FINDING

There was a traffic analysis prepared for the existing Vista Verde Specific Plan, and the proposed Amendment to the Vista Verde Specific Plan results clearly in a reduction, not an increase, in traffic. No threshold is exceeded.

Therefore, there is no negative traffic impact associated with the new Specific Plan versus the existing Specific Plan. Infact there is a positive traffic impact.

Based on the language quoted above, no TIA is needed.

It has been a pleasure to prepare this information for you.

Respectfully submitted,

KUNZMAN ASSOCIATES

*William Kunzman*

William Kunzman, P.E.  
Professional Registration  
Expires March 31, 2000

#1907d

c: Jimmy Previti, The Forecast Group  
Dorian Johnson, The Forecast Group  
Charles Rangel, The Forecast Group  
Stephen Long, Stephen Long Associates



# Vista Verde - Victorville

## Traffic Study

*Kunzman Associates*

Transportation Planning • Traffic Engineering



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# Vista Verde - Victorville

## Traffic Study

This report contains the traffic impact analysis for the proposed Vista Verde development on the west side of Highway 395 between Palmdale and Duncan Roads in the City of Victorville.

The traffic report contains documentation of existing traffic conditions, traffic generated by the project, distribution of the project traffic to the existing street system in the vicinity of the site, and an analysis of traffic conditions in 1999 (the year the project was assumed to be completed). Each of these topics is contained in a separate section of the report. The first section is "Findings", and subsequent sections expand upon the findings. In this way, information on any particular aspect of the study can be easily located by the reader.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

# 1. Findings

---

This section summarizes the existing traffic conditions, project traffic impacts, and the proposed mitigation measures.

## Existing Traffic Conditions

- a. The project site is vacant at present, and does not generate traffic.
- b. The arterial system is incomplete at present and roadways in the vicinity of the site are only partially improved.
- c. The proposed project will initially have access to Highway 395. In the future when the circulation system is complete (by others), the project will also have access to Palmdale and Duncan Roads.
- d. Existing intersections in the vicinity of the site are currently operating at Level of Service A during the peak hours.

## Traffic Impacts

- a. The proposed land uses for the site include single family residential, multi-family residential, retail commercial, elementary school park, church and day care facilities.
- b. The project is estimated to generate approximately 35,400 daily vehicle trips, 1,910 and 3,510 of which are expected to occur during the morning and evening peak hours, respectively.
- c. Future background plus other development traffic will require the provision of four lanes on Palmdale Road west of Highway 395, on Highway 395 and on Bear Valley Road. This traffic will also satisfy the traffic signal warrants on Highway 395 at Dos Palmas, Luna and Bear Valley Roads.
- d. Project-related traffic will require additional improvements on Highway 395 and on Dos Palmas, Luna and La Mesa Roads as discussed in Section 5. Project traffic will satisfy the signal warrants on Highway 395 at La Mesa Road.

- e. Dos Palmas, Luna and La Mesa Roads should be built as four lanes streets westerly from Highway 395 to the first intersection within Vista Verde. Two lane collector streets should be adequate to accommodate future volumes on all other streets internal to the project.
- f. The City of Victorville's Circulation Element was designed to accommodate future traffic volumes including traffic from the project area. Construction of the Circulation Element should adequately service future traffic volumes.

#### Mitigation Measures

The following measures are recommended to mitigate the impact of the project on traffic circulation:

- a. Construct Highway 395 and Bellflower Road bordering the project to ultimate half-section widths in conjunction with development.
- b. Provide four lanes on Dos Palmas, Luna and La Mesa Roads westerly from Highway 395 to the first intersection (660 feet to the west).
- c. Construct all other streets internal to the project to full ultimate cross-sections as adjacent development occurs.
- d. Provide intersection geometrics on Highway 395 at Dos Palmas, Luna and La Mesa Roads as listed on Table 12.
- e. Install a signal when warranted at the intersection of Highway 395/La Mesa Road.
- f. Participate in the funding of future off-site improvements in accordance with City of Victorville policies.

## 2. Project Description

---

This section discusses the project's location, the proposed development, and traffic characteristics of the proposed development.

### Location

The project is located on the west side of Highway 395 between Palmdale and Duncan Roads in the City of Victorville. Figure 1 shows the location of the Vista Verde development.

### Proposed Development

The project site is proposed to be developed with single family residential dwellings, multi-family residential dwellings, retail commercial, elementary school, park and church (with a day care facility) land uses.<sup>1</sup>

The following describes the proposed land uses from a traffic engineering viewpoint:

Single Family Residential Dwellings: The primary market for these units will be families with children. As a result, peak traffic volumes will occur during home-to-work and work-to-home trips. Child-related trips such as home-to-school or home-to-Little League are also a significant factor in the daily trip generation, but they have a smaller influence on peak hour volumes.

Multi-Family Residential: Peak traffic volumes occur in the morning and evening when inhabitants are going to and from work. Mid-day volumes are often shopping oriented or child related, such as home-to-school and home-to-Little League.

Retail Commercial: The proposed commercial facilities are characterized by a large number of short duration trips throughout the day. Their typical opening times produce minor traffic volumes during the morning peak hour. During the evening peak hour, people driving home from work stop to shop, creating a minor peak in commercially generated traffic volumes.

---

<sup>1</sup>Although a church is planned as part of Vista Verde, it is not included in subsequent land use or traffic generation tables because the church will generate negligible traffic on weekdays (i.e. the period of evaluation in this analysis).

Elementary School: As a result of late morning starting and early afternoon ending times, elementary schools do not greatly affect the peak hour traffic. The biggest component of traffic is student drop-off and pick-up.

Park: Local parks generate little vehicle traffic because most persons walk to them. Of the traffic they do generate, it is usually from within the community and during off-peak traffic hours.

Day Care Facility: The biggest component of day care center traffic is child drop off and pick up. As a result of the early morning starting and late afternoon ending times, day care centers contribute directly to the peak hour traffic volumes. However, a portion of these trips are usually diversions of existing trips rather than new trips on the circulation system.

The project has been divided into 7 zones to facilitate analysis. The zone boundaries are shown on Figure 2 and the land use quantities in each zone are listed in Table 1. The analysis in this report is based on the assumption that the development would be complete in 1999.

Table 1  
LAND USE BY ZONE

Zone	Planning Areas	Land Use	Quantity
1	D	Single Family Residential	119 DU
2	A,B,C	Single Family Residential	482 DU
3	R,S,U NN	Single Family Residential Retail Commercial Elementary School Community Park	472 DU 4.5 AC 11.1 AC 6.5 AC
4	T	Single Family Residential	90 DU
5	G H	Multi-family Residential Retail Commercial	90 DU 3.7 AC
6	E,F,I,P,Q J,O  K,L,M,N	Single Family Residential Multi-family Residential Day Care Facility Retail Commercial	868 DU 300 DU 1 AC 12.6 AC
7	V,W,X,Y Z	Single Family Residential Retail Commercial	403 DU 9.4 AC
<u>Land Use Summary</u>			
Single Family Residential			2434 DU
Multi-Family Residential			390 DU
Retail Commercial			30.2 AC
Community Park			6.5 AC
Day Care Facility			1.0 AC

AC = acre

DU = dwelling unit

Figure 1  
Project Location

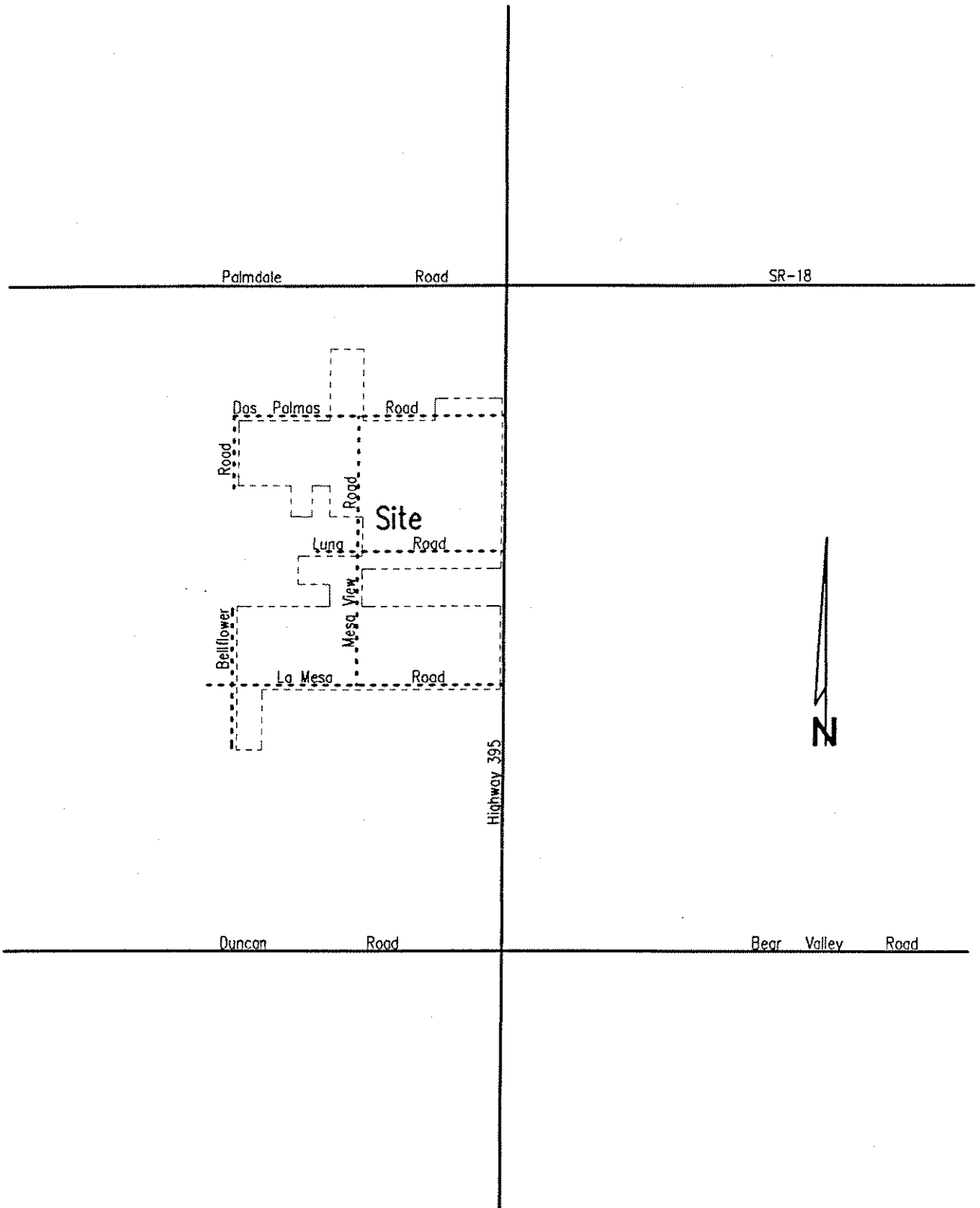
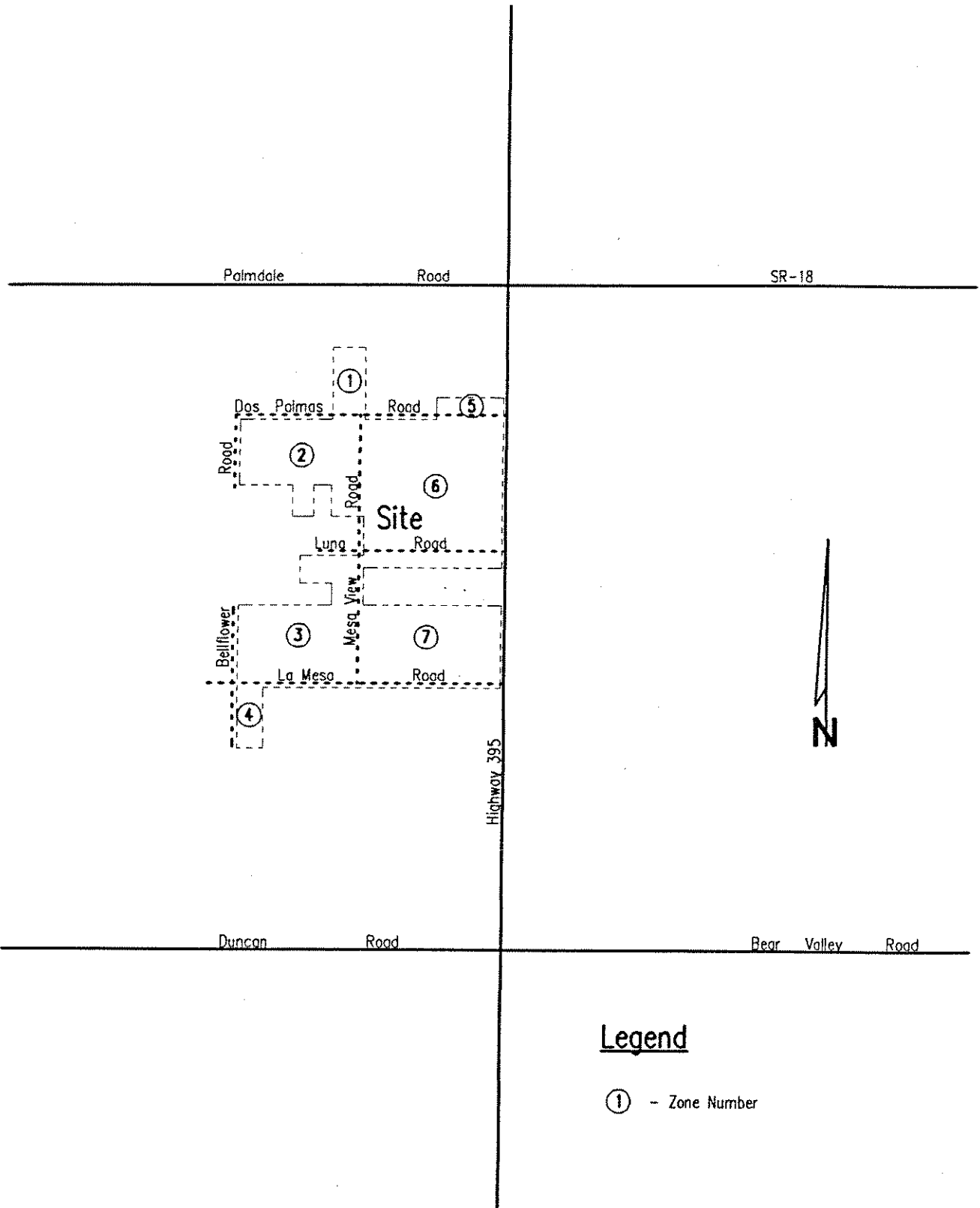


Figure 2  
Project Traffic Analysis Zones



Legend

① - Zone Number

### 3. Existing Traffic Conditions

---

The traffic conditions as they exist today are discussed below and illustrated in Figure 3.

#### Surrounding Street System

Roadways that will be utilized by the development include Highway 395, Palmdale Road and Duncan Road/Bear Valley Road. In the vicinity of the project site, the following roadway conditions exist.

U.S. 395: This state highway is a two lane roadway providing access to the I-15 Freeway to the south and to the City of Adelanto and the Owens Valley to the north. It is designated as a super arterial (i.e. 6 lane divided street) on the circulation element.

Palmdale Road: Palmdale Road (SR-18) extends westerly from I-15 and provides access to the cities of Palmdale and Lancaster. In the vicinity of the site, it is a two lane road. Palmdale Road is also designated as a super arterial on the City's Circulation Element.

Duncan Road/Bear Valley Road: These streets accommodated traffic generated in Victorville and in Hesperia. Both are designated as super arterials on the city's Circulation Element.

#### Existing Travel Lanes and Intersection Controls

Figure 3 identifies the existing conditions for roads in the vicinity of the site. The number of through lanes and the existing intersection controls are shown.

#### Daily Traffic Volumes

Figure 3 depicts the average daily two-way traffic volumes. Traffic volumes were obtained from CalTrans 1989 Traffic Volumes on State Highways and factored from counts taken by Kunzman Associates.

#### Existing Daily Volume to Capacity Ratios

Roadway capacity is generally defined as the number of vehicles that can be reasonably expected to pass over a given section of road in a given time period. Congestion, high accident rates, the quality of traffic flow (Level of Service), and environmental acceptability all come into play in defining a

particular roadway's effective capacity. It is possible to identify maximum desirable volumes for typical roadway types based on the number of roadway travel lanes. These daily volumes reflect estimates of the amount of daily traffic that will result in peak hour traffic volumes equal to the maximum desirable capacity of each roadway type. Two lane undivided roadways are estimated to have a maximum (i.e. Level of Service E) capacity of 12,500 vehicles per day, four lane undivided roadways are estimated to have a Level of Service E capacity of 30,000 vehicles per day, four lane divided roadways are estimated to have a Level of Service E capacity of 37,500 vehicles per day, and six lane divided roadways are estimated to have a Level of Service E capacity of 56,000 vehicles per day.

By dividing existing daily traffic volumes by the daily roadway capacities listed above, daily volume to capacity ratios have been calculated and are shown in Figure 3. Table 1 compares Level of Service to volume to capacity ratios. The ratios on Figure 3 shows that roadways in the vicinity of the site are operating at Level of Service C or better, except for Highway 395 north of Palmdale Road which is operating at Level of Service E.

#### Existing Intersection Capacity Utilization

The technique used to assess peak hour intersection operation is Intersection Capacity Utilization (ICU). To calculate an ICU the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a percent which represents that portion of the hour required to provide sufficient capacity to accommodate intersection traffic if all approaches operate at capacity. The ICU's for existing intersections in the vicinity of the project are shown in Table 3 and are based upon manual peak hour turning movement counts made by Kunzman Associates in June, 1991. Intersections in the vicinity of the site are operating at Level of Service A during the peak hours. An explanation of ICU and Level of Service is included in Appendix B.

#### City of Victorville General Plan Circulation Element

Figure 4 exhibits the City of Victorville's current circulation element designations for the existing and future roadway network. This figure shows the nature and extent of arterial highways that may be needed to accommodate the ultimate development depicted by the Land Use Element of the General Plan and serves to coordinate future arterials between local jurisdictions.

Figure 4 shows several future streets which will have an impact on circulation in the vicinity of the site. La Mesa Road is a future east-west four lane divided street which will function as a parallel facility to both Palmdale and Bear Valley Roads. Bellflower Road is a future north-south four lane divided street which will function as a facility parallel to Highway 395.

#### Planned Improvements

CalTrans has plans for improvements on Palmdale Road and at the intersection of Highway 395/Palmdale Road. By 1994, it is expected that:

1. Palmdale Road will be widened to four lanes easterly from Highway 395 to Caheunga Road (the point at which Palmdale Road is currently four lanes).
2. At Highway 395/Palmdale Road, there will be a traffic signal and the intersection will be widened to provide two through and one left turn lane on each approach.

Table 2

## LEVEL OF SERVICE DESCRIPTION

Level of Service	Description	Volume to Capacity Ratio
A	Level of Service A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.60 and below
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	0.61 to 0.70
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	0.71 to 0.80
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	0.81 to 0.90
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	0.91 to 1.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	1.01 and up

Source: "Highway Capacity Manual" Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985, Pages 9-4 to 9-5.

Table 3

EXISTING INTERSECTION CAPACITY UTILIZATION  
AND LANE GEOMETRICS

Intersection	Intersection Approach Lanes (1)				Peak Hour ICU-LOS (2)	
	North-bound	South-bound	East-bound	West-bound	AM	PM
	T R L	T R L	T R L	T R L		
Highway 395 (NS) at Palmdale Road (EW)	1 0 0	2 0 0	1 0 0	1 0 0	56-A	51-A
Duncan Road/ Bear Valley Road (EW)	1 0 1	1 0 1	1 0 0	1 0 0	39-A	47-A

- (1) When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
- (2) Intersection Capacity Utilization (ICU) - Level of Service (LOS)

T = Through  
R = Right  
L = Left

### Figure 3 Existing Traffic Conditions

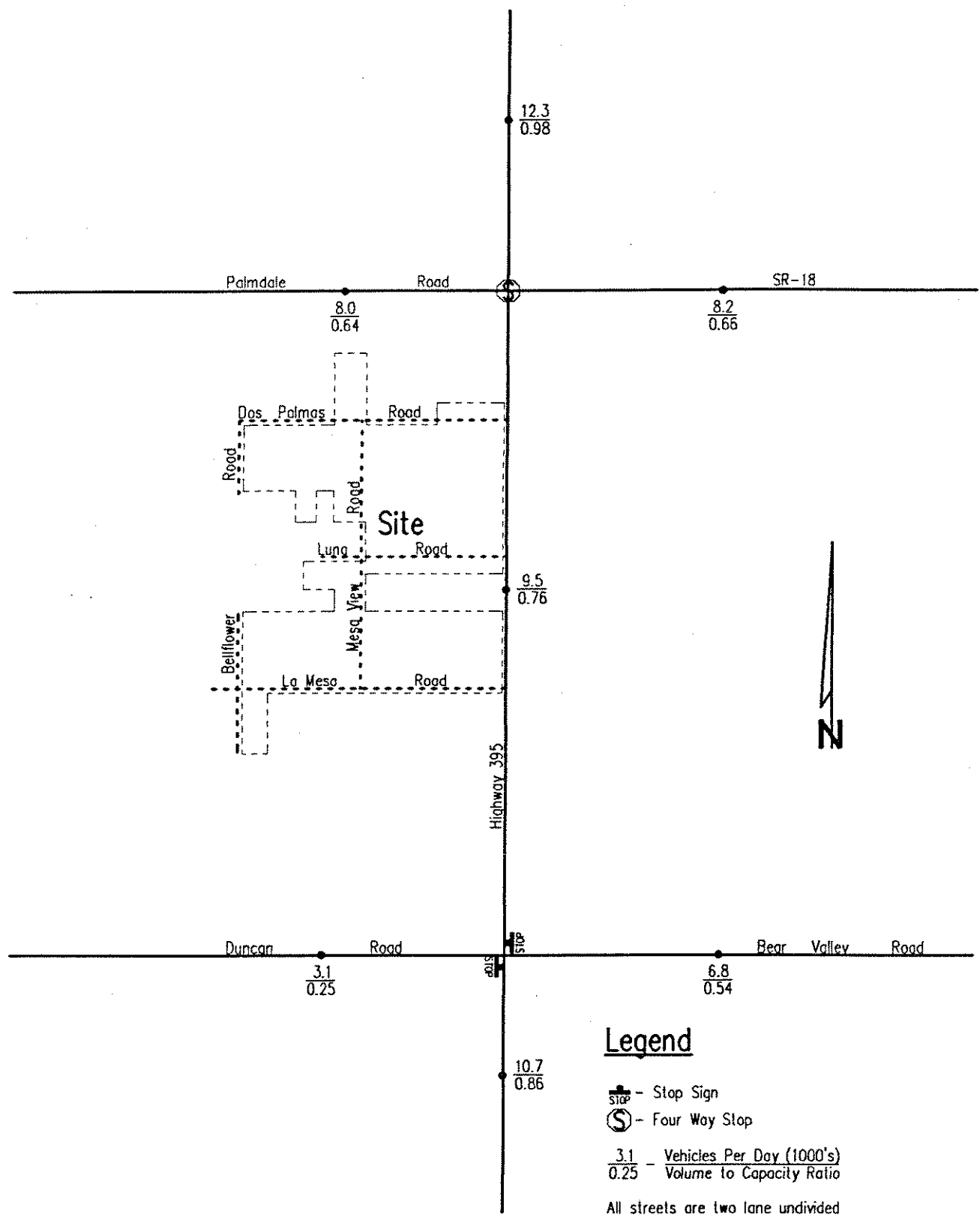
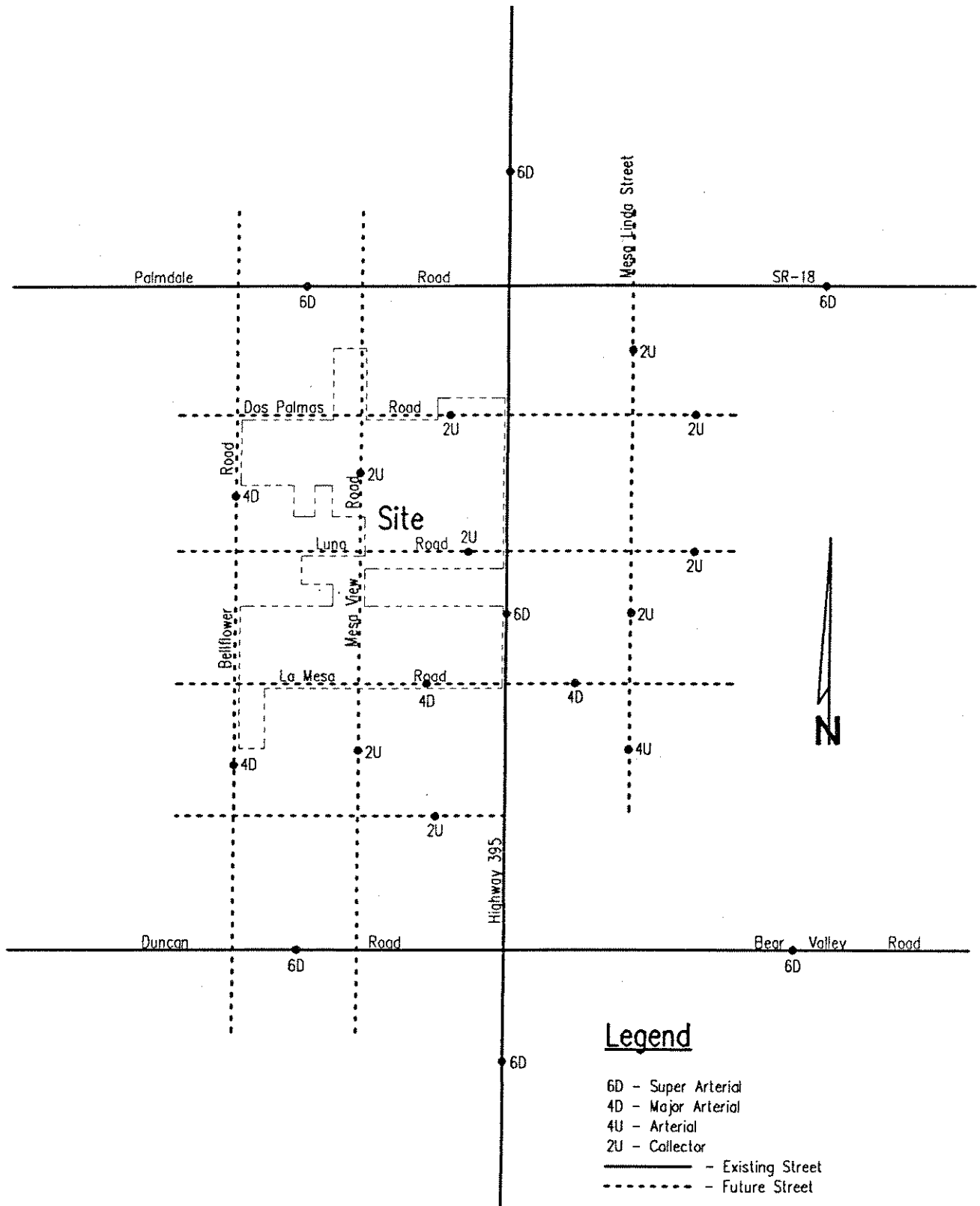


Figure 4  
 General Plan Circulation Element Designations



## 4. Project Traffic

---

To estimate project-related traffic volumes at various points on the street network, a three step process is utilized. First, the traffic that will be generated by the proposed development is determined. Second, the traffic volumes are geographically distributed to major attractions of trips, such as employment centers, commercial centers, recreational areas or residential areas. Finally, the trips are assigned to specific roadways and the project-related traffic volumes are determined on a route-by-route basis.

### Traffic Generation

The traffic generated by the project is determined by multiplying the appropriate trip generation rate by the quantity of land use. Trip generation rates are expressed in terms of trip ends per person, trip ends per employee, trip ends per acre, trip ends per dwelling, or trip ends per thousand square feet of floor space. For instance, if a particular land use generates six outbound trips per acre in the morning peak hour, then six vehicles are expected to leave the site in the morning peak hour for each acre of development.

Significant research efforts have been made by CalTrans, the Institute of Transportation Engineers (ITE), Kunzman Associates, and others to establish the correlation between trips and land use. From this body of information, trip generation rates can be estimated with reasonable accuracy for various land uses. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

ITE trip generation rates for daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land uses are shown on Table 4. Table 5 exhibits the total peak hour and daily traffic volumes for each zone.

The traffic volumes shown in Table 5 include the total trips generated by the individual land uses in each zone. However, as there will be some interaction of trips between project land uses (e.g. project residential to project commercial), a double counting of some trips occurs. Table 6 shows the home-based

trip profile for residential trips as identified in the Los Angeles Regional Transportation Study (LARTS). This data was used to estimate the total residential trip types as follows:

Project Residential Trips (by purpose):

	<u>Daily Trips</u>
Local Work	1,000
Regional Work	6,200
Local Shopping	6,200
Regional Shopping	1,800
Local Other	7,700
Regional Other	2,800
	<hr/>
Total daily residential trips	25,700

The total project traffic volumes shown on Table 5 were adjusted based on the following assumptions:

1. Fifty percent of the local work trips would be to facilities located in the project commercial land uses.
2. Seventy five percent of the local shopping trips would be to project commercial land uses.
3. Twenty five percent of the local "Other" trips would be to facilities located in the project commercial land uses.
4. Seventy five percent of the trips generated by the elementary school and by the day care facility would be to/from the project residential land uses.

Adjustments to reflect the above assumptions were made to the residential trips and to the elementary school/day care facility trips (on Table 5) and are shown on Table 7.

The total trips/day generated by the commercial land uses listed on Table 5 are approximately 25,200. Of this total, approximately 7,100 trips/day are estimated to be to/from the project residential land uses (calculated from above assumptions). Therefore the balance of trips (18,100/day) will be to/from points outside the project.

Studies have shown that a significant amount of traffic generated by commercial facilities is a diversion of existing traffic on adjacent arterial streets. Due to the high volumes of passby traffic in the future on the Highway 395, it was assumed that 50 percent of the balance of the commercial traffic

would be diversion of existing traffic flows. The commercial traffic volumes on Table 7 have been adjusted to reflect this assumption.

#### Traffic Distribution and Assignment

Traffic distribution is the determination of the directional orientation of traffic. For this project it is primarily based on the geographical location of existing and future residential area concentrations.

Traffic assignment is the determination of which specific route development traffic will use, once the generalized traffic distribution is determined. The basic factors affecting route selection are minimum time path and minimum distance path. Note: the distributions are based on the construction of Dos Palmas and Luna Roads east of Highway 395 (to be built in conjunction with the previously approved Talon Ranch Specific Plan).

Figures 5a-5g contain the directional distribution and assignment of the traffic for Zones 1-7. These distributions are generally the same as were used for the previously approved Talon Ranch development.

#### Project Related Traffic Volumes

Figure 6 shows the project related daily traffic volumes on existing and future streets in the vicinity of the site. The daily volumes on Dos Palmas, Luna and La Mesa Roads west west of Highway 395 include the passby commercial trips discussed previously in this section.

Table 4

## ITE TRIP GENERATION RATES

Land Use	Units*	Morning Peak Hour		Evening Peak Hour		Daily
		In	Out	In	Out	
Single Family Residential	DU	0.19	0.55	0.66	0.35	9.55
Multi-Family Residential	DU	0.09	0.42	0.43	0.20	6.47
Retail Commercial (1)						
3.7 AC Site	AC	18.48	10.89	53.35	57.86	1216.93
4.5 AC Site	AC	14.97	8.79	44.56	48.28	1008.15
9.4 AC Site	AC	11.11	6.49	35.86	35.86	771.98
12.6 AC Site	AC	10.12	5.50	33.00	33.00	708.73
Elementary School	ST	0.18	0.12	0.00	0.02	1.09
Park	AC	--	--	--	--	2.23
Day Care (1)	AC	90.09	76.78	78.76	92.40	871.86

\*DU = dwelling unit

AC = acre

ST = student

Source: Institute of Transportation Engineers, Trip Generation, Fifth Edition, 1991, Land Use Categories 210, 220, 411 520, 565 and 820.

(1) Assumed 11,000 square feet of building per acre.

Table 5

## ESTIMATED TOTAL PROJECT TRAFFIC GENERATION

Zone/Land Use	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
1/Single Family Dwelling	20	70	80	40	1,100
Zone 1 Totals	20	70	80	40	1,100
2/Single Family Dwelling	90	270	320	170	4,600
Zone 2 Totals	90	270	320	170	4,600
3/Single Family Dwelling	90	260	310	170	4,500
3/Retail Commercial	70	40	200	220	4,500
3/Elementary School (1)	90	60	0	10	500
3/Park	0	0	0	0	0
Zone 3 Totals	250	360	510	400	9,500
4/Single Family Residential	20	50	60	30	900
Zone 4 Totals	20	50	60	30	900
5/Multi-Family Residential	10	40	40	20	600
5/Retail Commercial	70	30	200	210	4,500
Zone 5 Totals	80	70	240	230	5,100

Table 5 (Continued)

## ESTIMATED TOTAL PROJECT TRAFFIC GENERATION

Zone/Land Use	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
6/Single Family Residential	160	480	570	300	8,300
6/Multi-Family Residential	30	130	130	60	1,900
6/Retail Commercial	130	70	420	420	8,900
6/Day Care Commercial	90	80	80	90	900
Zone 6 Totals	410	760	1,200	870	20,000
7/Single Family Residential	80	220	270	140	3,800
7/Retail Commercial	100	60	340	340	7,300
Zone 7 Totals	180	280	610	480	11,600
Project Totals	1,050	1,860	3,020	2,220	52,300

Note: Trips generated are rounded to nearest 10 for peak hour and 100 for daily.

(1) Elementary School assumed to have 500 students.



Table 7

## ADJUSTED TOTAL PROJECT TRAFFIC GENERATION

Zone/Land Use	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
1/Single Family Dwelling	10	50	60	30	800
Zone 1 Totals	10	50	60	30	800
2/Single Family Dwelling	70	200	230	120	3,400
Zone 2 Totals	70	200	230	120	3,400
3/Single Family Dwelling	70	190	230	120	3,300
3/Retail Commercial	40	30	130	140	2,900
3/Elementary School (1)	20	20	0	0	100
3/Park	0	0	0	0	0
Zone 3 Totals	130	240	360	260	6,300
4/Single Family Residential	10	40	40	20	700
Zone 4 Totals	10	40	40	20	700
5/Multi-Family Residential	10	30	30	10	400
5/Retail Commercial	40	20	130	130	2,900
Zone 5 Totals	50	50	160	140	3,300

Table 7 (Continued)

ESTIMATED TOTAL PROJECT TRAFFIC GENERATION

Zone/Land Use	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
6/Single Family Residential	120	350	420	220	6,100
6/Multi-Family Residential	20	90	90	40	1,400
6/Retail Commercial	80	40	270	270	5,700
6/Day Care Commercial	20	20	20	20	200
<b>Zone 6 Totals</b>	<b>240</b>	<b>500</b>	<b>800</b>	<b>550</b>	<b>13,400</b>
7/Single Family Residential	60	160	200	100	2,800
7/Retail Commercial	60	40	220	220	4,700
<b>Zone 7 Totals</b>	<b>120</b>	<b>200</b>	<b>420</b>	<b>320</b>	<b>7,500</b>
<b>Project Totals</b>	<b>630</b>	<b>1,280</b>	<b>2,070</b>	<b>1,440</b>	<b>35,400</b>

Note: Trips generated are rounded to nearest 10 for peak hour and 100 for daily.

(1) Elementary School assumed to have 500 students.

Figure 5a  
Zone 1 Traffic Distribution

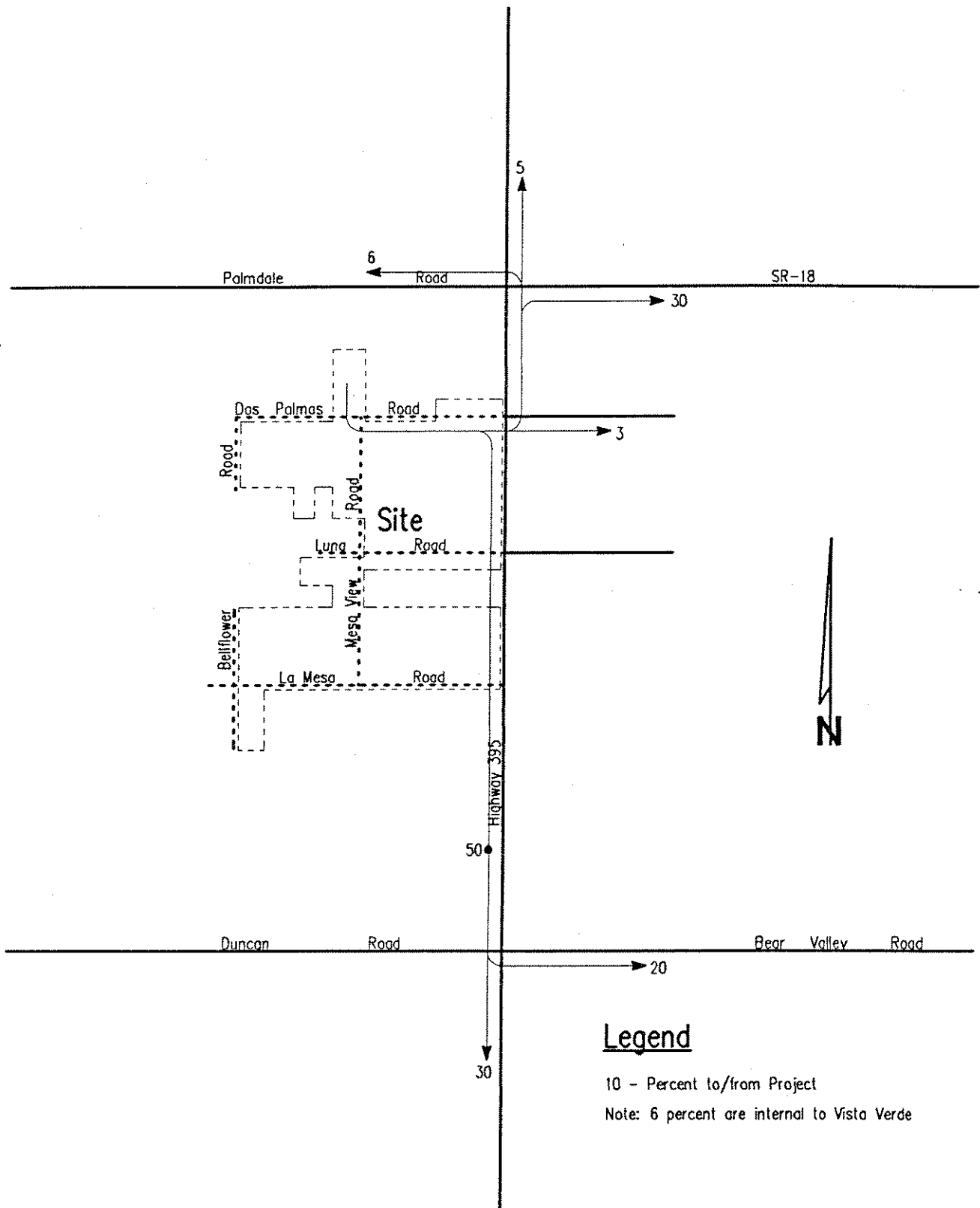
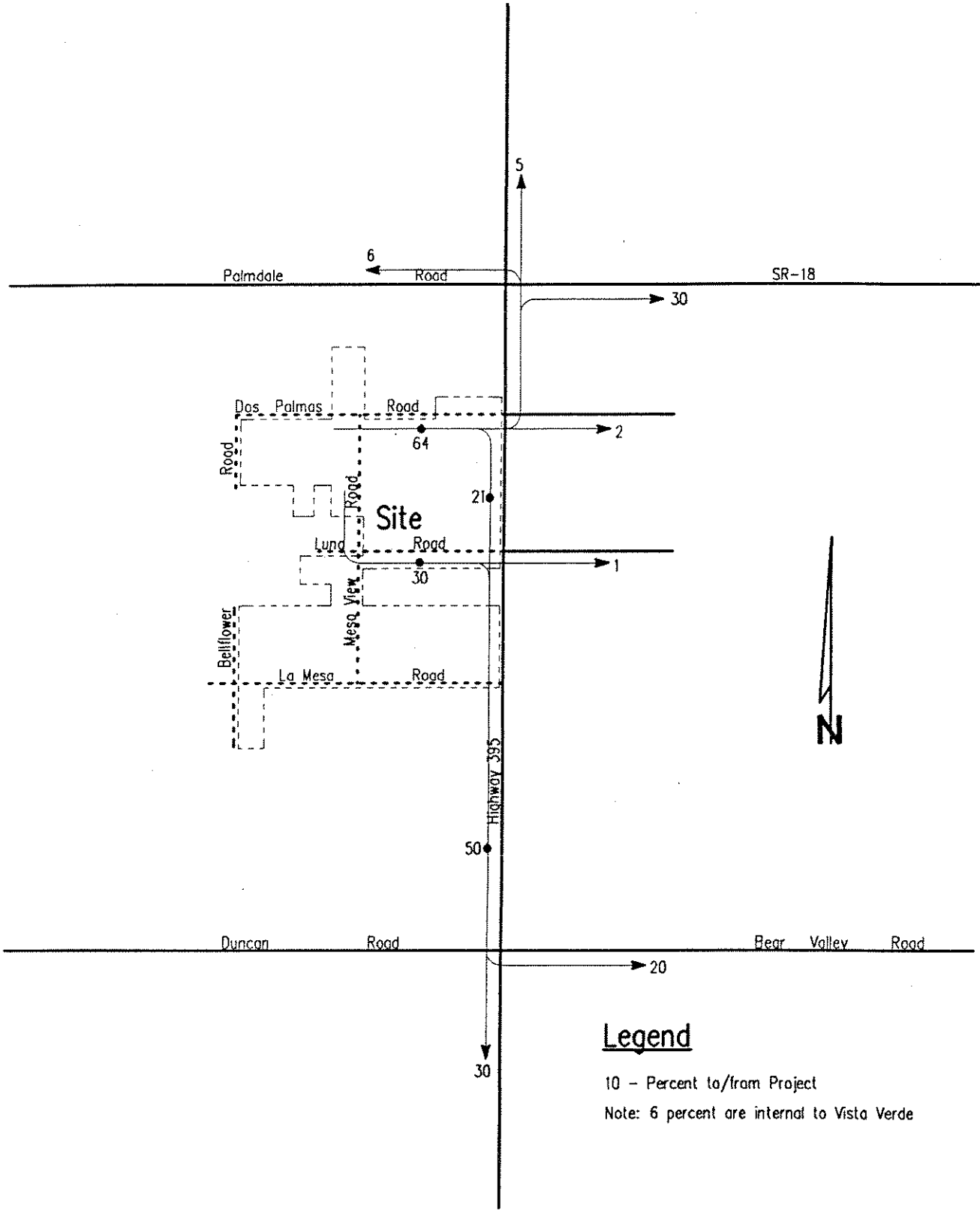


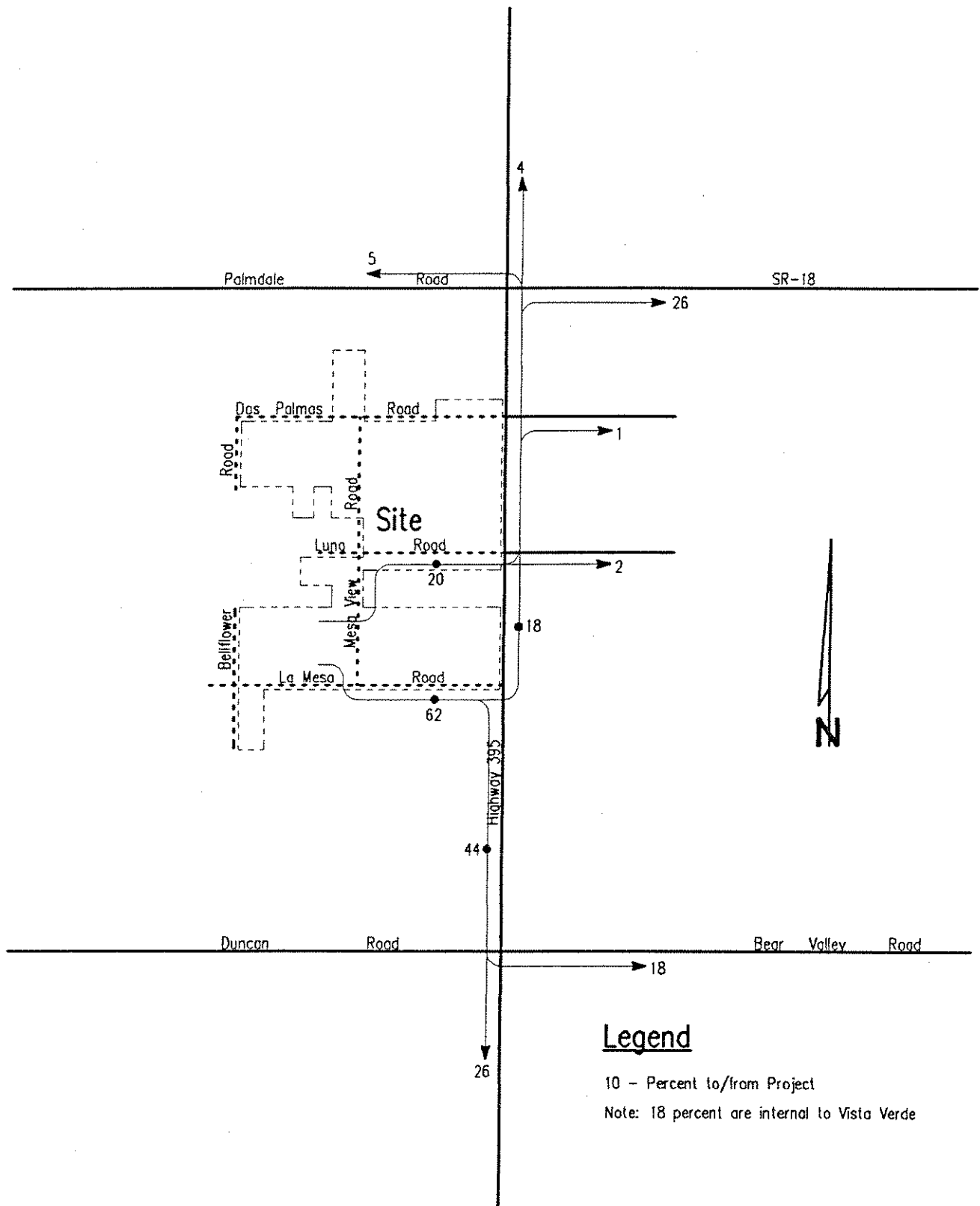
Figure 5b  
 Zone 2 Traffic Distribution



**Legend**

10 - Percent to/from Project  
 Note: 6 percent are internal to Vista Verde

Figure 5c  
Zone 3 Traffic Distribution



**Legend**

10 - Percent to/from Project

Note: 18 percent are internal to Vista Verde

Figure 5d  
 Zone 4 Traffic Distribution

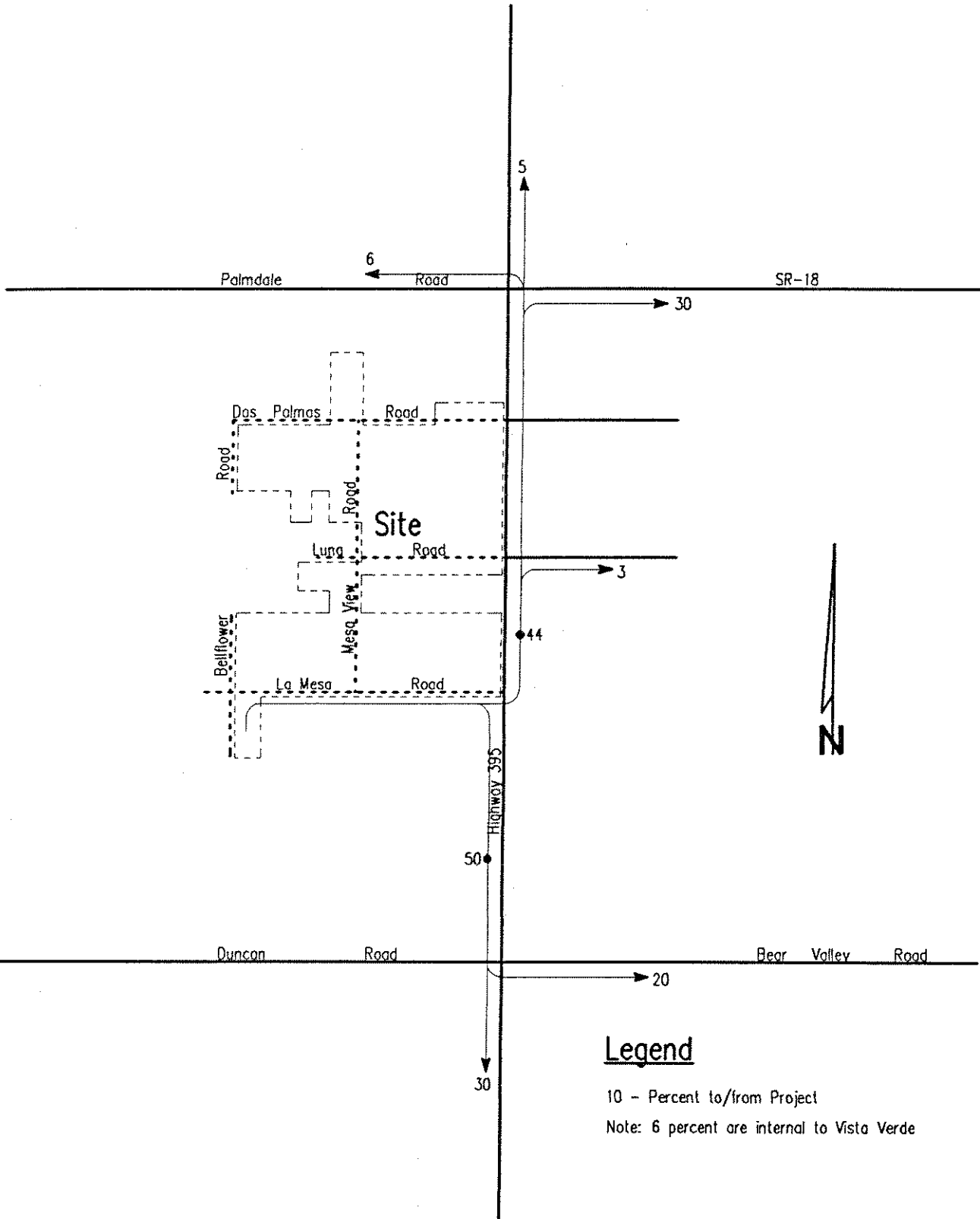


Figure 5e  
Zone 5 Traffic Distribution

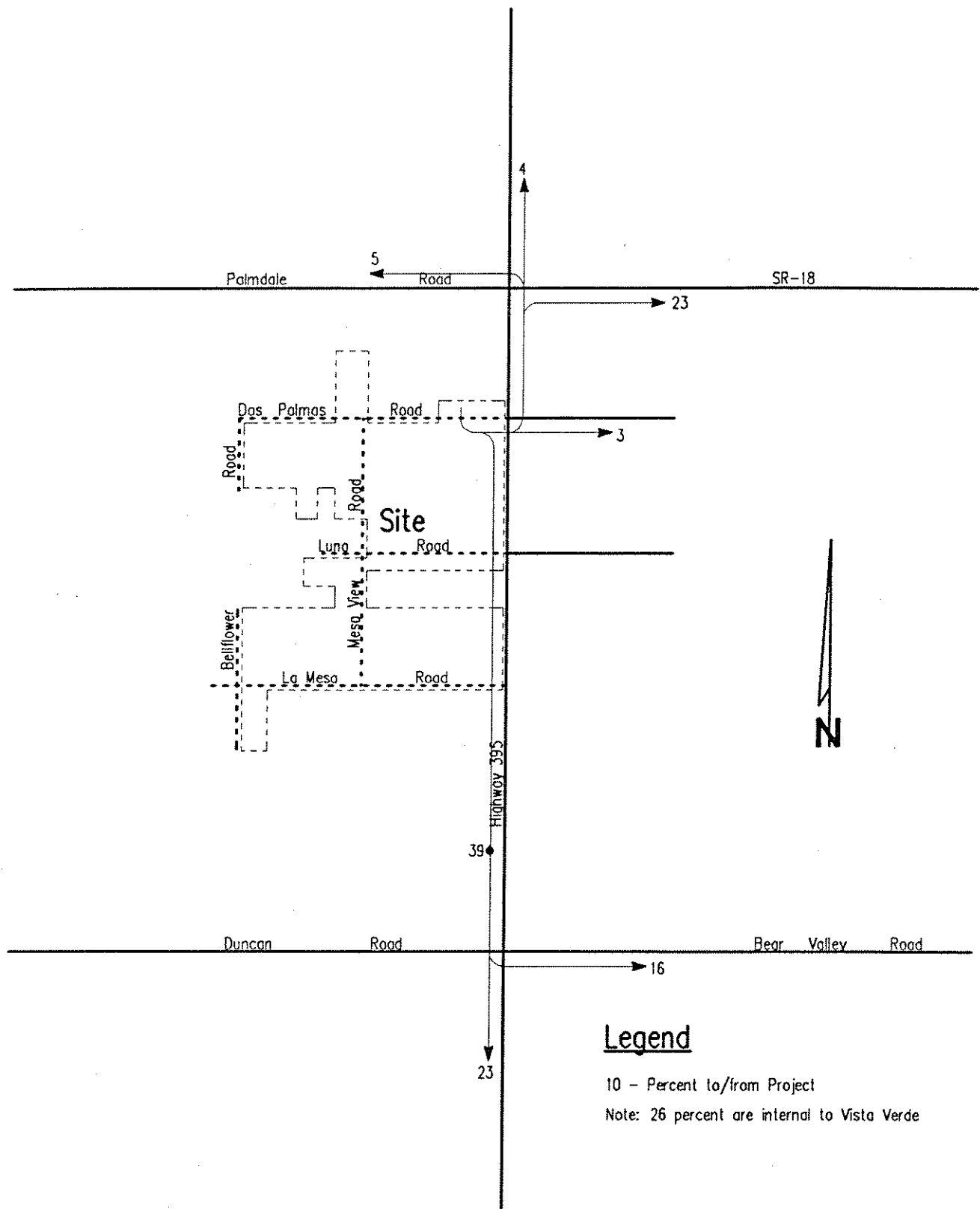
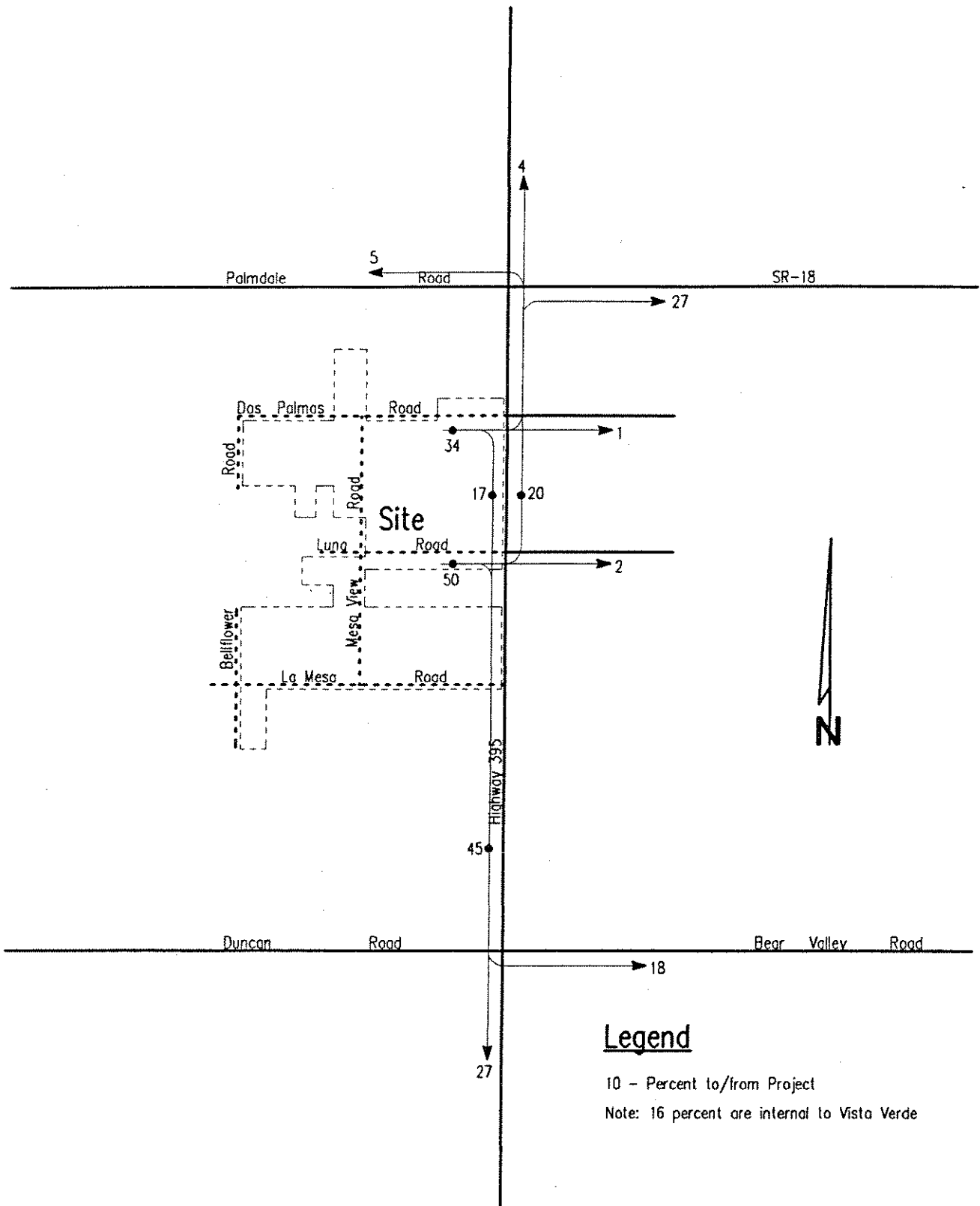


Figure 5f  
Zone 6 Traffic Distribution



Legend

10 - Percent to/from Project  
Note: 16 percent are internal to Vista Verde

Figure 5g  
Zone 7 Traffic Distribution

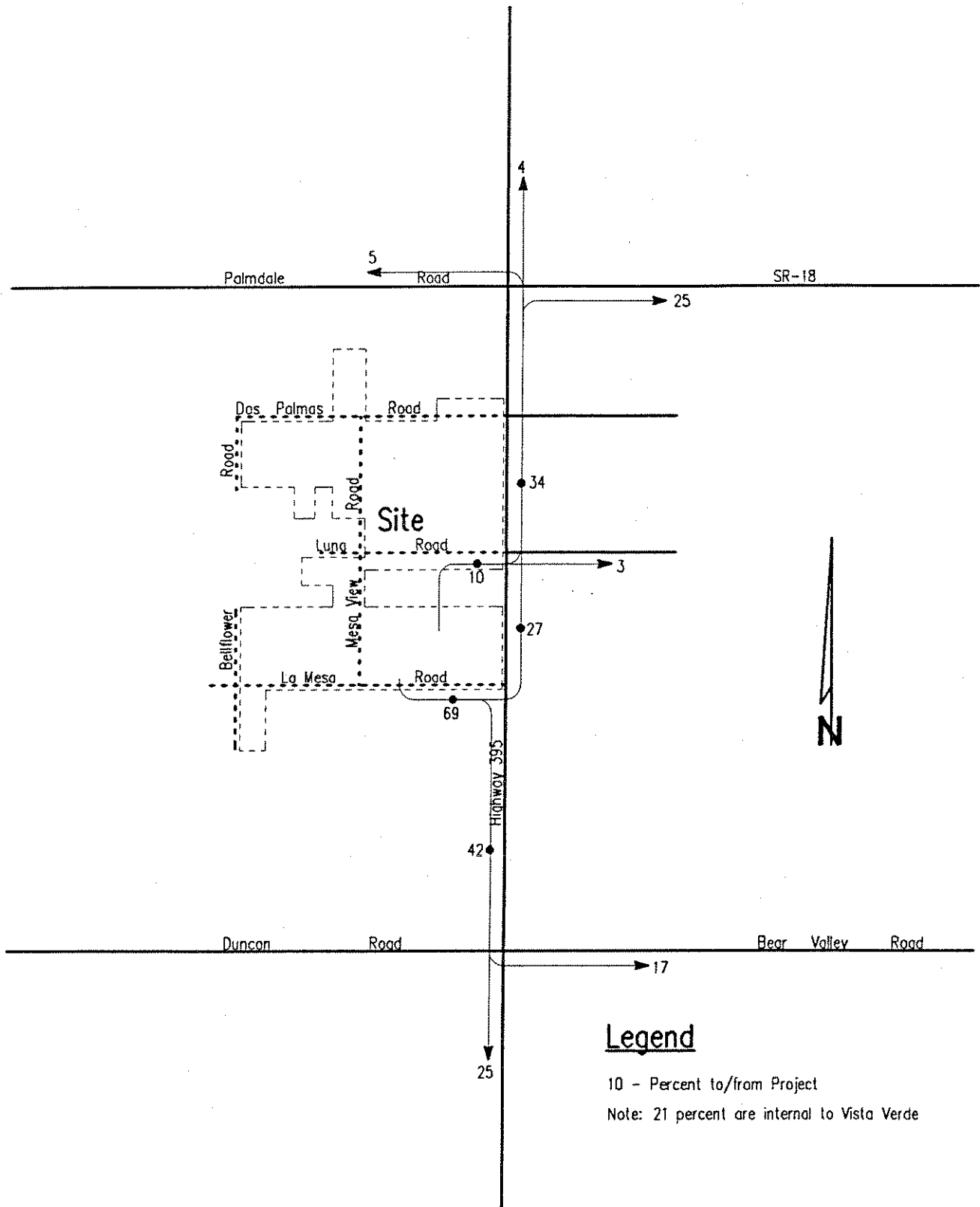
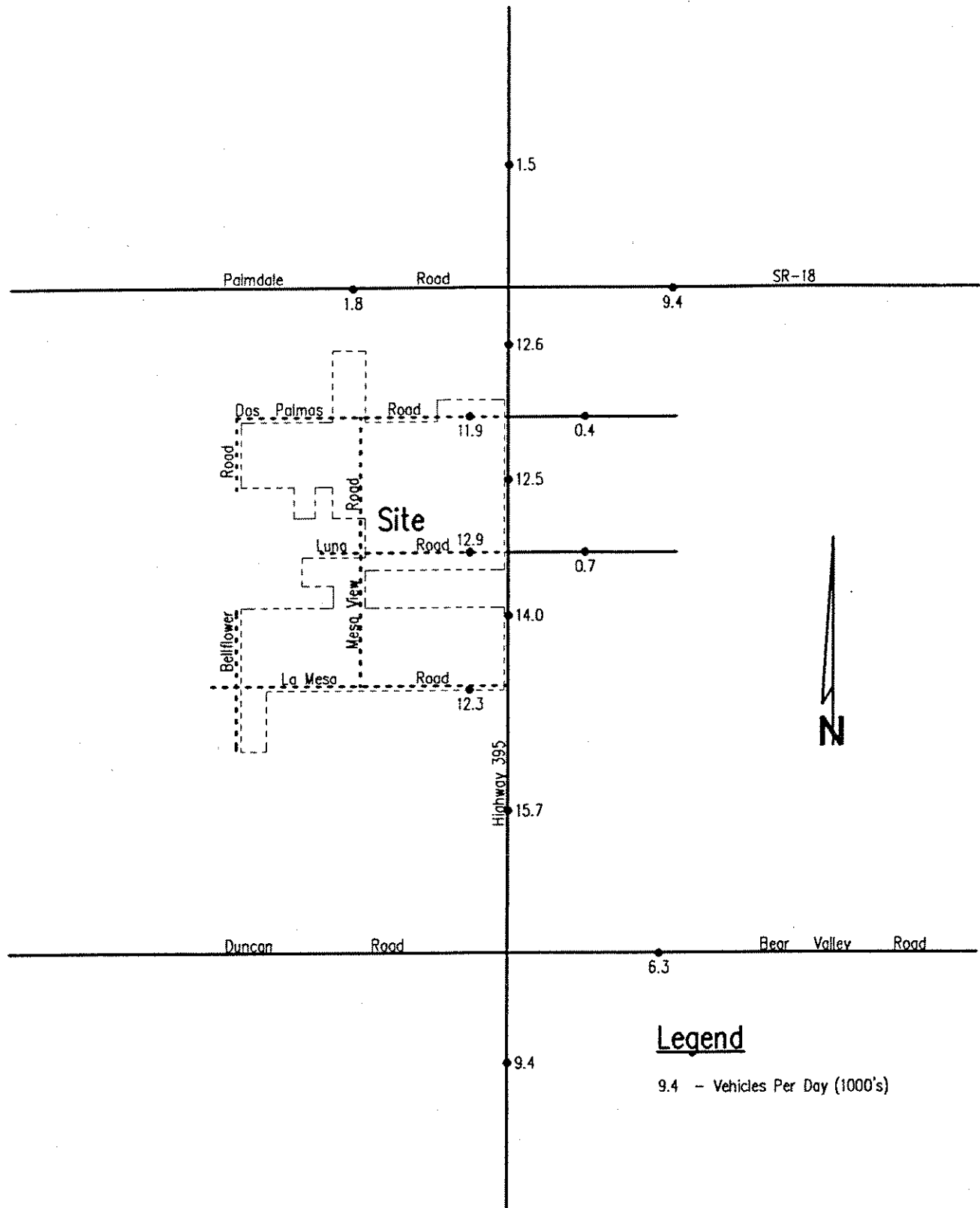


Figure 6  
Daily Project Traffic Volumes



Legend

9.4 - Vehicles Per Day (1000's)

## 5. Year 1999 Traffic Conditions

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This section discusses traffic conditions in 1999 without the project (i.e. background traffic) and analyzes the impact of the addition of project traffic. The background traffic includes existing traffic, growth in existing traffic due to increases in through traffic and traffic from other approved developments in the area.

### Annual Growth Rate

An annual growth rate of 7 percent was used for the period 1991-1999 to reflect increases in through traffic. Although this is a higher rate than population projections for Victorville, it is less than recent historical growth on key arterial streets in the city.

### Traffic Signal Warrants

Traffic signal warrants adopted by CalTrans are based upon the eight highest hour volumes in a day. It is assumed by CalTrans that the eighth highest hour is 62.5 percent of the peak hour, and the peak hour is generally 10 percent of the daily traffic. Thus, the signal warrants can also be expressed in terms of the daily traffic volumes shown on Table 8. Rural traffic volume warrants are utilized when the 85th percentile speed of the major street traffic exceeds 40 miles per hour.

When calculating signal volume warrants, the volumes of both the major and minor street must meet or exceed those listed in Table 8. Determining the major street daily signal warrant volume involves calculating the number of daily vehicles approaching the intersection on both major street legs; usually the daily approach volume is 50 percent of the street's daily two-way volume on each leg. Finding the minor street daily signal warrant volume involves calculating the number of daily vehicles approaching the intersection on only the highest volume leg; usually the daily approach volume is 50 percent of the street's two-way daily volume. If the minor street forms a tee intersection with the major street, then the minor street volume is the highest volume because there is no other volume.

### Other Developments

Foxfire Ranch and Talon Ranch are other approved developments in the general vicinity of Vista Verde. Both of these projects are assumed to be complete by 1999. Table 9 shows the peak hour and

daily traffic volumes generated by these developments. The daily traffic on the streets in the vicinity of the site generated by Foxfire Ranch is shown on Figure 7a and Figure 7b illustrates the Talon Ranch daily traffic volumes.

#### Background Plus Other Developments Daily Traffic Volumes

The 1999 background plus other developments daily traffic volumes are shown on Figure 8.

#### Background Plus Other Developments Daily Volume to Capacity Ratios

Figure 8 also shows the daily volume to capacity ratios. The ratios are based on the planned CalTrans improvements on Palmdale Road east of Highway 395 (as discussed in Section 3) and the improvements needed to accommodate Foxfire and Talon Ranch traffic (as documented in the respective traffic studies and listed below):

1. Construct Dos Palmas and Luna Roads easterly from Highway 395 as collector streets (i.e. 2 lane undivided).
2. Provide four lanes on Highway 395.

#### Background Plus Other Developments Intersection Capacity Utilization (ICU)

The peak hour ICU values for 1999 traffic without Vista Verde have been calculated and are shown on Table 10. The ICU's are based on existing plus 7 percent/year growth through 1999 and traffic from Foxfire and Talon Ranches. The intersection geometrics shown on Table 10 are those after planned improvements by CalTrans at Highway 395/Palmdale Road and improvements on Highway 395 at Dos Palmas, Luna and Duncan/Bear Valley Roads required to accommodate traffic generated by Foxfire and Talon Ranches.

#### Background Plus Other Developments Traffic Mitigation

The volume to capacity ratios on Figure 8 indicate that the following improvements will be needed in order for all street segments and intersections to operate at Level of Service C or better:

1. Provision of four lanes on Palmdale Road west of Highway 395.
2. Provision of four lanes on Bear Valley Road east of Highway 395.

The daily volumes on Figure 8 satisfy the signal warrants on Table 8 at the following intersections:

Highway 395/Dos Palmas Road  
Highway 395/Luna Road  
Highway 395/Duncan Road/Bear Valley Road

#### Cumulative Daily Volumes

The 1999 cumulative daily volumes are illustrated on Figure 9 and include existing, growth in existing, Foxfire Ranch, Talon Ranch and Vista Verde traffic.

#### Cumulative Daily Volume to Capacity Ratios

Figure 9 also shows the daily volume to capacity ratios for cumulative traffic. The ratios are based on improvements needed to accommodate 1999 background plus other developments traffic as discussed earlier in this section.

#### Cumulative Intersection Capacity Utilization

The project's peak hour traffic was added to the 1999 background plus other developments traffic volumes and the resultant ICU's are shown on Table 11. The intersection geometrics on Table 11 are those required to accommodate background plus other development traffic and those planned to be constructed on Dos Palmas, Luna and La Mesa Roads as part of the Vista Verde development.

#### Cumulative Traffic Mitigations

The volume to capacity ratios on Figure 9 and the ICU values on Table 11 indicate that the following improvements will be needed in order for all street segments and intersections to operate at Level of Service C or better:

1. Provision of six lanes on Highway 395 south of Palmdale Road.
2. Provision of four lanes on Dos Palmas, Luna, and La Mesa Roads westerly from Highway 395 (to the first intersection 660 feet west of Highway 395).
3. Provision of an eastbound right turn lane and a second westbound left turn lane on Palmdale Road at Highway 395.
4. Provision of a second southbound left turn lane on Highway 395 at Bear Valley Road.

The 1999 Cumulative ICU values with the above improvements are listed on Table 12 and show that all intersections are projected to operate at Level of Service C or better during the peak hours.

The daily volumes on Figure 9 satisfy the traffic signal warrants at the intersection of Highway 395/La Mesa Road.

#### Other Mitigations

There are two potential improvements to the circulation system in the vicinity of the site which could reduce the need for the mitigations listed in the previous section:

1. CalTrans is studying future alignments for a north-south freeway to the west of the site. This freeway would accommodate through traffic and reduce the future volumes on Highway 395 adjacent to the site.
2. The future connection of Bellflower and/or Mesa View Roads (by others) to Palmdale and/or Duncan Roads will reduce the volume of project traffic approaching Highway 395 on Dos Palmas, Luna and La Mesa Roads.



Table 9

OTHER DEVELOPMENT TRAFFIC GENERATION

Development	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
Foxfire Ranch	330	670	990	710	18,000
Talon Ranch	250	450	750	580	14,600

Table 10

1999 BACKGROUND PLUS OTHER DEVELOPMENTS  
INTERSECTION CAPACITY UTILIZATION

Intersection	Intersection Approach Lanes (1)				Peak Hour ICU-LOS (2)	
	North-bound	South-bound	East-bound	West-bound	AM	PM
	T R L	T R L	T R L	T R L		
Highway 395 (NS) at						
Palmdale Road (EW) (3)	2 0 1	2 0 1	2 0 1	2 0 1	48-A	60-A
Dos Palmas Road (EW) (4)	2 1 *	2 * 1	* * *	* 1 1	36-A	34-A
Luna Road (EW) (4)	2 1 *	2 * 1	* * *	* 1 1	43-A	42-A
Duncan Road/Bear Valley Road (EW) (4)	2 0 1	2 0 1	1 0 0	1 0 0	54-A	79-C

- (1) When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
- (2) Intersection Capacity Utilization (ICU) - Level of Service (LOS)
  - T = Through
  - R = Right
  - L = Left
  - \* = Movement not possible
- (3) Geometrics after improvements planned by CalTrans
- (4) With widening of Palmdale Road and streets constructed with Foxfire and Talon Ranch developments.

Table 11

## 1999 CUMULATIVE INTERSECTION CAPACITY UTILIZATION

Intersection	Intersection Approach Lanes (1)				Peak Hour ICU-LOS (2)	
	North-bound	South-bound	East-bound	West-bound	AM	PM
	T R L	T R L	T R L	T R L		
Highway 395 (NS) at						
Palmdale Road (EW)	2 0 1	2 0 1	2 0 1	2 0 1	72-C	104-F
Dos Palmas Road (EW)	2 0 1	2 0 1	1 0 1	1 0 1	58-A	89-D
Luna Road (EW)	2 0 1	2 0 1	1 0 1	1 0 1	67-B	94-E
La Mesa Road (EW)	2 * 1	2 1 *	* 1 1	* * *	48-A	87-D
Duncan Road/Bear Valley Road (EW)	2 0 1	2 0 1	1 0 0	1 1 1	74-C	97-E

- (1) When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
- (2) Intersection Capacity Utilization (ICU) - Level of Service (LOS)

T = Through  
R = Right  
L = Left  
\* = Movement not possible

Table 12

1999 CUMULATIVE INTERSECTION CAPACITY UTILIZATION -  
WITH ADDITIONAL IMPROVEMENTS

Intersection	Intersection Approach Lanes (1)				Peak Hour ICU-LOS (2)	
	North- bound	South- bound	East- bound	West- bound	AM	PM
	T R L	T R L	T R L	T R L		
Highway 395 (NS) at						
Palmdale Road (EW)	2 0 1	2 0 1	2 1 1	2 0 2	62-B	76-C
Dos Palmas Road (EW)	3 0 1	3 0 1	1 1 1	1 0 1	42-A	75-C
Luna Road (EW)	3 0 1	3 0 1	1 1 1	1 0 1	44-A	78-C
La Mesa Road (EW)	3 * 1	3 0 *	* 1 1	* * *	39-A	75-C
Duncan Road/Bear Valley Road (EW)	3 0 1	3 0 2	1 0 0	1 1 1	52-A	65-B

- (1) When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
- (2) Intersection Capacity Utilization (ICU) - Level of Service (LOS)

T = Through

R = Right

L = Left

\* = Movement not possible

Figure 7a  
 Foxfire Ranch Daily Traffic Volumes

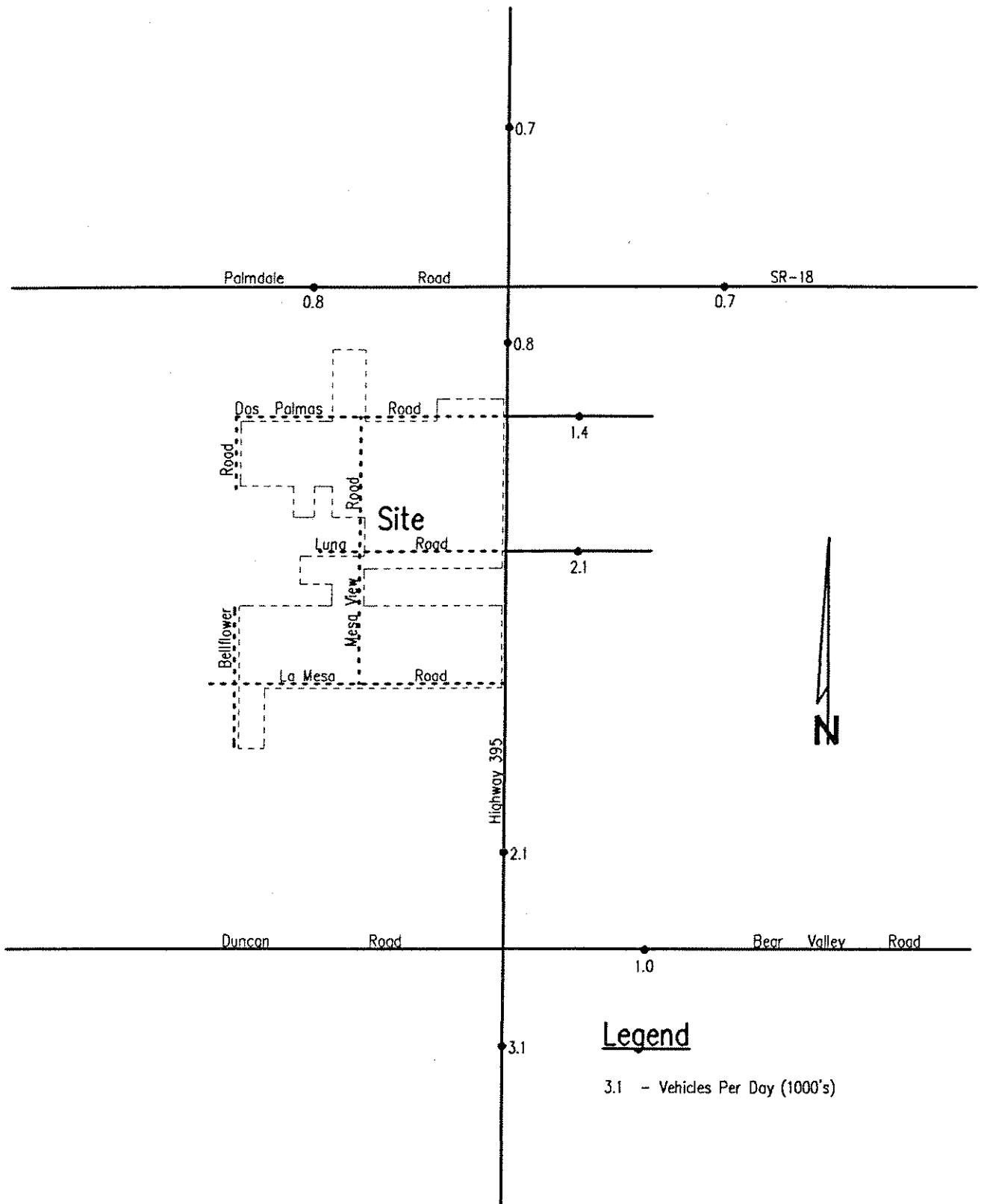


Figure 8  
 1999 Background Plus Other Development  
 Daily Volumes and Volume to Capacity Ratios

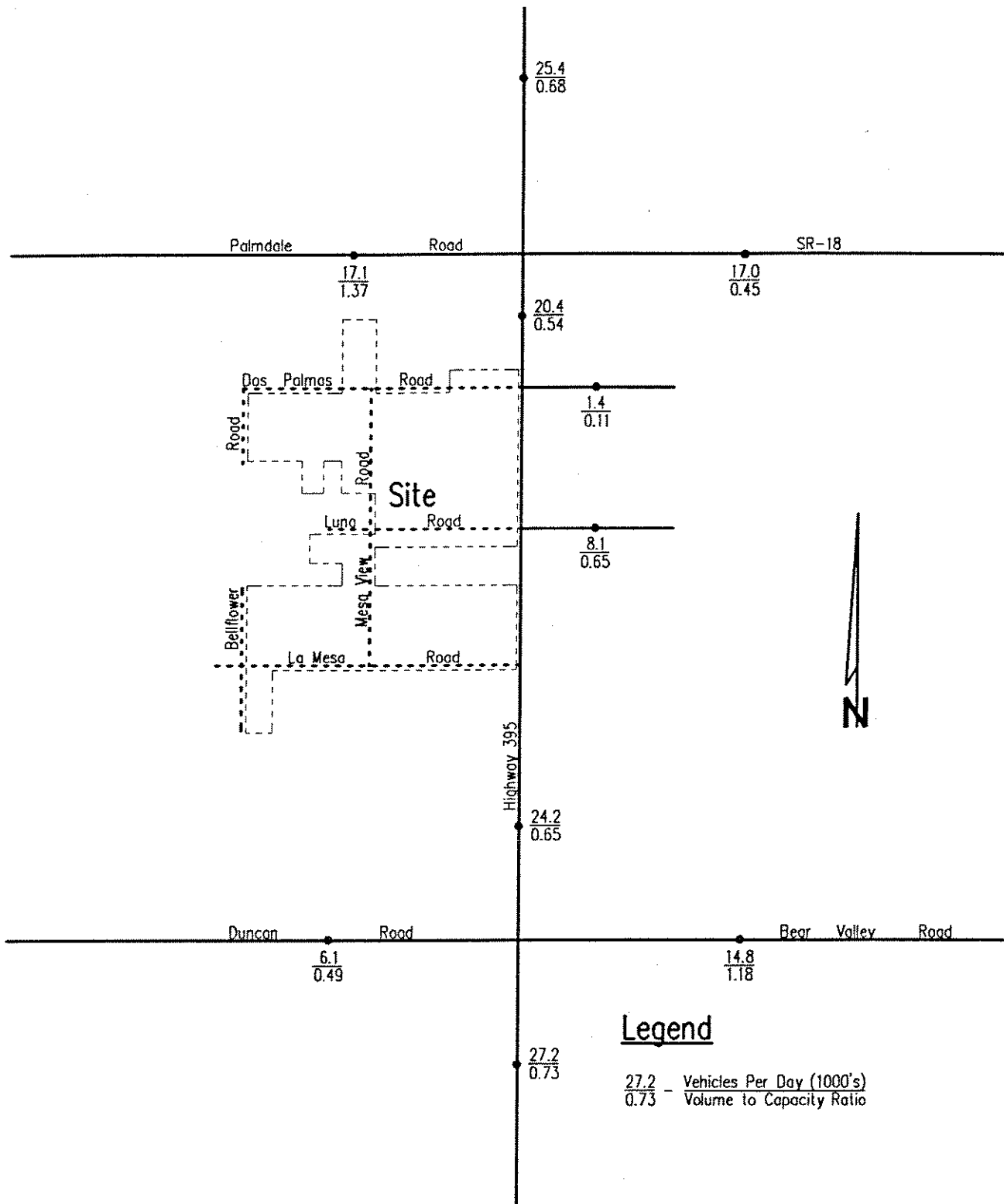
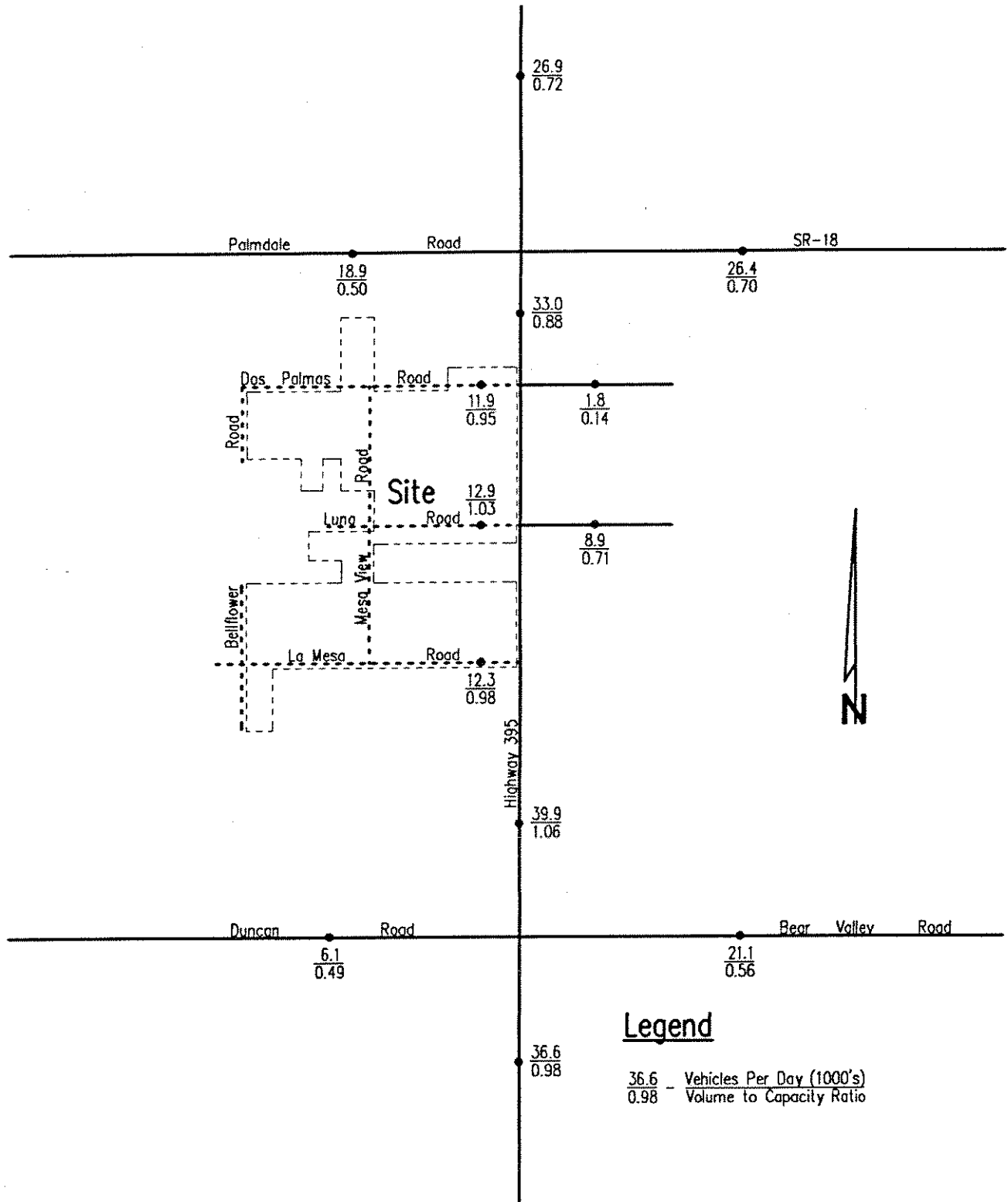


Figure 9  
 1999 Cumulative Daily Volumes and Volume to Capacity Ratios



## 6. Future Traffic Conditions

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In this section, future traffic conditions reflecting completion of the circulation system and development of other properties in the vicinity of the site are discussed.

### Future Daily Traffic Volumes

Figure 10 shows the daily traffic volumes on arterials near the site that can be expected in the Year 2010. The volumes were obtained from the City's Circulation Element and include traffic from the project and from the development of adjacent areas. (Note: the circulation element did not show volumes on Highway 395 on Palmdale Road west of Highway 395 or on Duncan Road).

### Daily Roadway Capacities

Roadway capacity is generally defined as the number of vehicles that can be reasonably expected to pass over a given section of road in a given time period. Congestion, high accident rates, the quality of traffic flow (Level of Service), and environmental acceptability all come into play in defining a particular roadway's effective capacity. It is possible to identify maximum desirable volumes for typical roadway types based on the number of roadway travel lanes. These daily volumes reflect estimates of the amount of daily traffic that will result in peak hour traffic volumes equal to the maximum desirable capacity of each roadway type. The following daily capacities were used to develop the City of Victorville's Circulation Element.

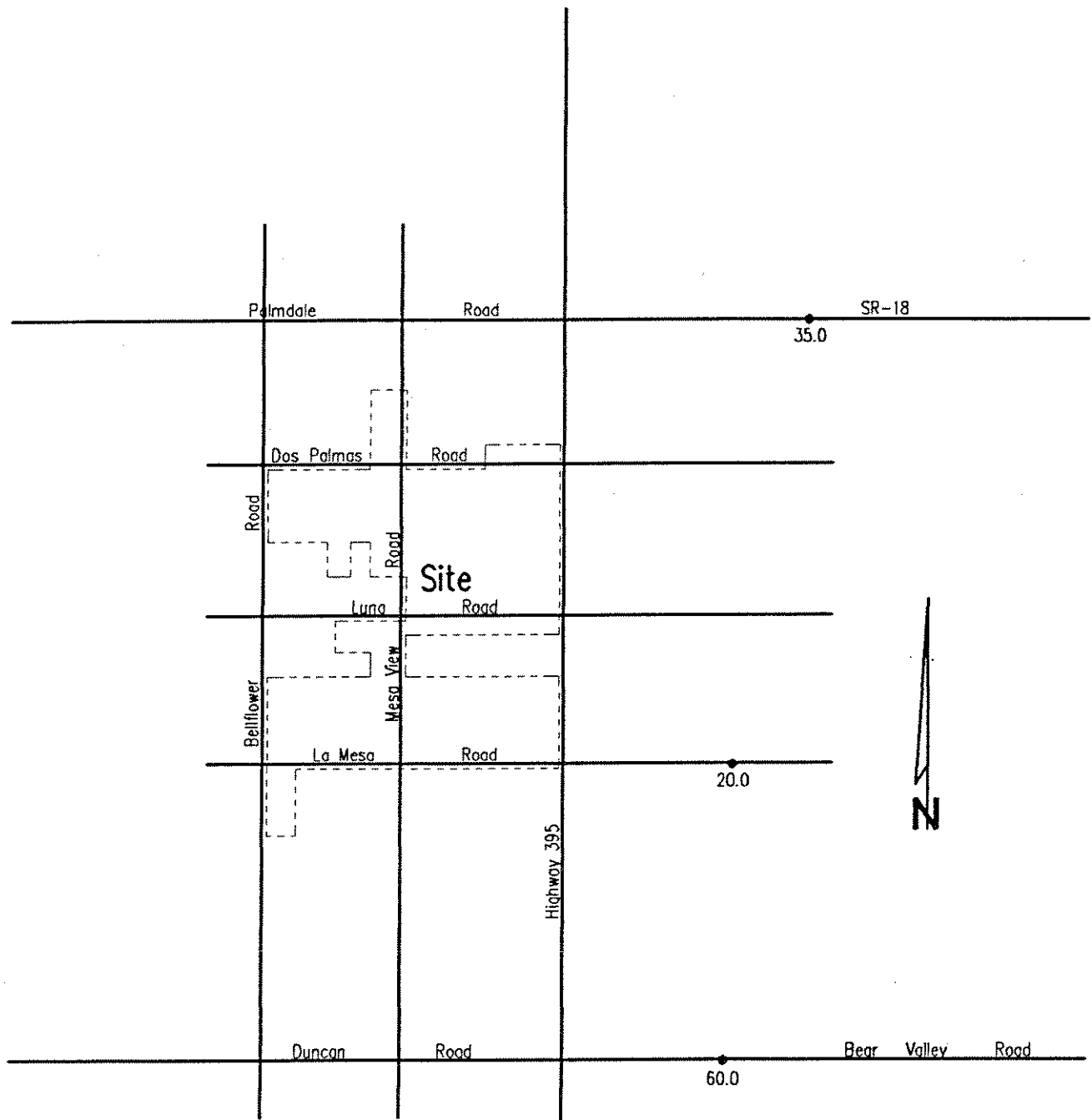
6 lane freeway	- 138,000
6 lane divided arterial	- 60,000
4 lane divided arterial	- 36,000
4 lane undivided arterial	- 24,000
2 lane undivided collector	- 12,000

### Future Impacts

The daily volumes shown on Figure 10 are results of generalized traffic generation and distribution (i.e. based on acres of land use and not on specific developments or site plans). Future refinements to the daily volume projections are expected as the area develops.

The completion of the circulation system to the north and to the south of the site will improve access to this project and reduce the dependence on Dos Palmas, Luna and La Mesa Roads (to the east of the site) to provide access.

Figure 10  
Future Daily Traffic Volumes



Legend

60.0 - Vehicles Per Day (1000's)

Source: Victorville General Plan

## 7. On-Site Traffic Considerations

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This section discusses site access and internal circulation.

### Site Access

The proposed development is planned to be served by an internal street system that will provide 3 access roads (Dos Palmas, Luna and La Mesa Roads) to Highway 395. There will be no other access points to Highway 395 from the adjacent land uses in the Vista Verde development. The spacing of the access roads (1/2 mile intervals) and the absence of direct access from the adjacent land uses will promote traffic flows on Highway 395 and restrict project access to locations which are controlled by traffic signals. This in turn will maximum traffic safety for vehicles travelling to/from Vista Verde.

### Internal Circulation

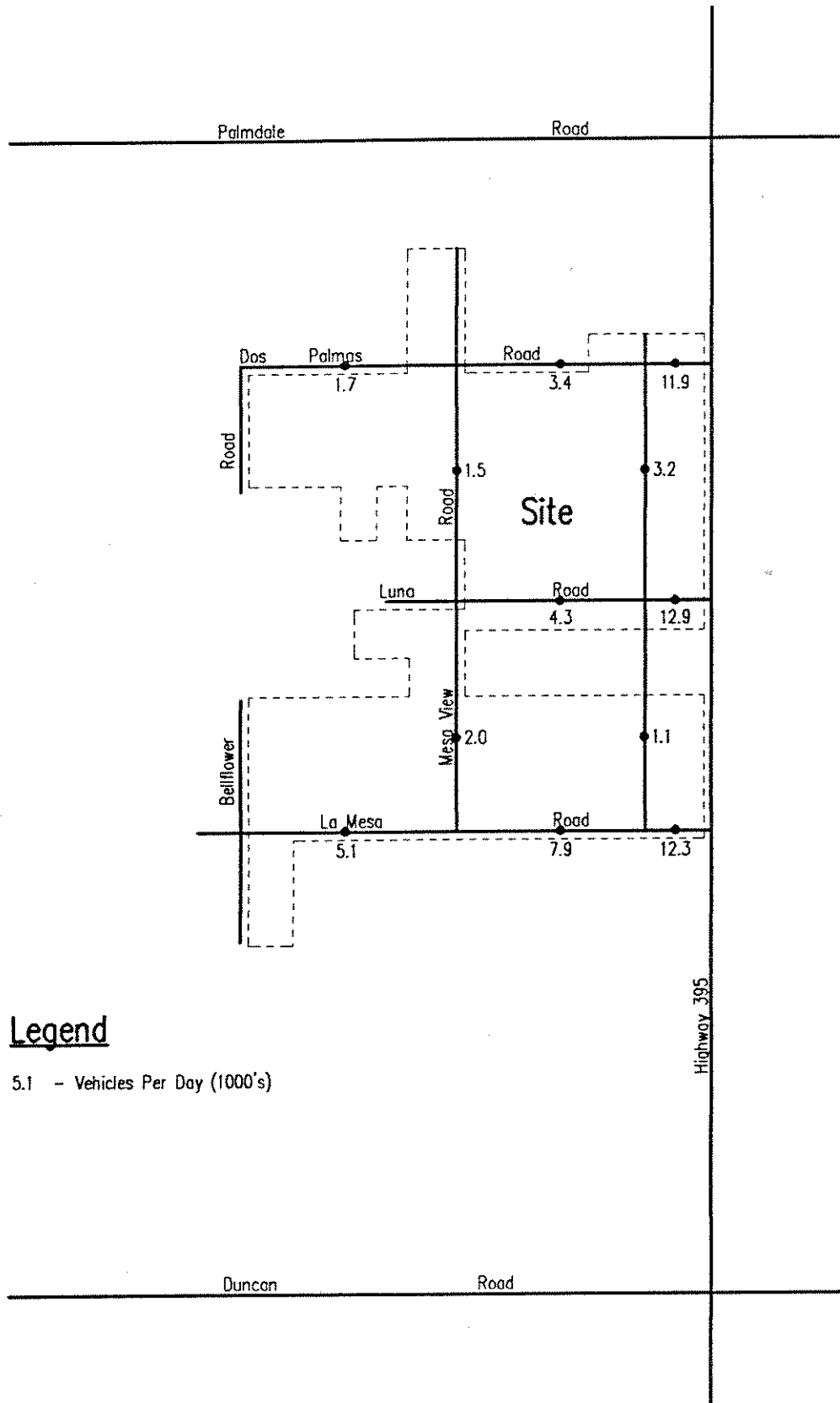
The estimated daily volumes on internal street are shown on Figure 11.

La Mesa Road and Bellflower Road are designated as major arterials (four lane divided) on the City's Circulation Element. Since these roads are on the perimeter of Vista Verde, the project would normally be required to improve half of the street which would provide 2 lanes. Although this partial improvement will be adequate on Bellflower Road, the daily volumes on La Mesa Road on Figure 9 shows that this street will have to be fully improved with 4 lanes westerly from Highway 395 to the first intersection. This is primarily due to the traffic generated by the 9.4 acre commercial site on the northwest corner of Highway 395/La Mesa Road.

Dos Palmas and Luna Roads are designated as collector streets (two lane undivided) on the Circulation Element. These streets will need to be widened for four lanes westerly from Highway 395 to the first intersection to accommodate the traffic generated by the 3.7 acre commercial site on the northwest corner of Highway 395/Dos Palmas Road and by the Town Center commercial planned adjacent to Luna Road.

To facilitate internal circulation between Planning Areas V, W, X, Y and Z and the Town Center Commercial area, it is recommended that the roadway parallel to Highway 395 (at a point 660 feet to the west), be extended across the "Not a Part" parcel south of Luna Road. This street need only have minimal improvements (i.e. 24 feet of pavement) at this time.

Figure 11  
Daily Traffic Volumes – Internal Streets



Legend

5.1 - Vehicles Per Day (1000's)



## Appendices

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Appendix A - Glossary of Transportation Terms

Appendix B - Explanation and Calculation of  
Intersection Capacity Utilization

## APPENDIX A

GLOSSARY OF TRANSPORTATION TERMS

## GLOSSARY OF TRANSPORTATION TERMS

### COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
CalTrans:	California Department of Transportation
DU:	Dwelling Unit
EMA:	Environmental Management Agency
FAU:	Federal Aid Urban
FHWA:	Federal Highway Administration
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

### TERMS

**AVERAGE DAILY TRAFFIC:** The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

**BANDWIDTH:** The number of seconds of green time available for through traffic in a signal progression.

**BOTTLENECK:** A constriction along a travelway which limits the amount of traffic which can proceed downstream from its location.

**CAPACITY:** The maximum number of vehicles which can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

**CHANNELIZATION:** The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

**CLEARANCE INTERVAL:** Same as yellow time.

**CORDON:** An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

**CYCLE LENGTH:** The time period in seconds required for one complete signal cycle.

**CUL-DE-SAC STREET:** A local street open at one end only, and with special provisions for turning around.

**DAILY CAPACITY:** The daily volume of traffic which will result in a volume during the peak hour equal to the capacity of the roadway.

**DAILY TRAFFIC:** Same as average daily traffic.

**DELAY:** The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

**DEMAND RESPONSIVE SIGNAL:** Same as traffic-actuated signal.

**DENSITY:** The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

**DETECTOR:** A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

**DESIGN SPEED:** A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

**DIRECTIONAL SPLIT:** The percent of traffic in the peak direction at any point in time.

**DIVERSION:** The rerouting of peak hour traffic to avoid congestion.

**FIXED TIME SIGNAL:** Same as pretimed signal.

**FORCED FLOW:** Opposite of free flow.

**FREE FLOW:** Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

**GAP:** Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

**HEADWAY:** Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

**INTERCONNECTED SIGNAL SYSTEM:** A number of intersections which are connected to achieve signal progression.

**LEVEL OF SERVICE:** A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

**LINK:** The roadway segment between any two intersections.

**LOOP DETECTOR:** A vehicle detector consisting of a loop of wire imbedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

**MINIMUM ACCEPTABLE GAP:** Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

**MULTI-MODAL:** More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

**OFFSET:** The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

**PLATOON:** A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

**ORIGIN-DESTINATION SURVEY:** A survey to determine the point of origin and the point of destination for a given vehicle trip.

**PEAK HOUR:** The 60 consecutive minutes with the highest number of vehicles.

**PRETIMED SIGNAL:** A type of traffic signal which directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions.

**PROGRESSION:** A term used to describe the progressive movement of traffic through several signalized intersections.

**SCREEN-LINE:** An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

**SIGNAL COORDINATION:** Same as interconnected signal system.

**SIGNAL CYCLE:** The time period in seconds required for one complete sequence of signal indications.

**SIGNAL PHASE:** The part of the signal cycle allocated to one or more traffic movements.

**STARTING DELAY:** The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

**TRAFFIC-ACTUATED SIGNAL:** A type of traffic signal which directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

**TRIP:** The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

**TRIP-END:** One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

**TRIP GENERATION RATE:** The quality of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet.

**TRUCK:** A vehicle having dual tires on one or more axles, or having more than two axles.

**UNBALANCED FLOW:** Heavier traffic flow in one direction than the other.

**VEHICLE MILES:** A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length in miles.

## **APPENDIX B**

**EXPLANATION AND CALCULATION  
OF INTERSECTION CAPACITY UTILIZATION**

## EXPLANATION AND CALCULATION OF INTERSECTION CAPACITY UTILIZATION (ICU)

The ability of a roadway to carry traffic is referred to as capacity. The capacity is usually greater between intersections and less at intersections because traffic flows continuously between them and only during the green phase at them. Capacity at intersections is best defined in terms of vehicles per lane per hour of green. If capacity is 1600 vehicles per lane per hour of green, and if the green phase is 50 percent of the cycle and there are three lanes, then the capacity is 1600 times 50 percent times 3 lanes, or 2400 vehicles per hour.

The technique used to compare the volume and capacity at an intersection is known as Intersection Capacity Utilization (ICU). ICU, usually expressed as a percent, is the proportion of an hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. If an intersection is operating at 80 percent of capacity, then 20 percent of the signal cycle is not used. The signal could show red on all indications 20 percent of the time and the signal would just accommodate approaching traffic.

ICU analysis consists of (a) determining the proportion of signal time needed to serve each conflicting movement of traffic, (b) summing the times for the movements, and (c) comparing the total time required to the total time available. For example, if for north-south traffic the northbound traffic is 1600 vehicles per hour, the southbound traffic is 1200 vehicles per hour, and the capacity of either direction is 3200 vehicles per hour, then the northbound traffic is critical and requires  $1600/3200$  or 50 percent of the signal time. If for the east-west traffic 30 percent of the signal time is required, then it can be seen that the ICU is 50 plus 30, or 80 percent. When left turn phases exist, they are incorporated into the analysis. The critical movements are usually the heavy left turn movements and the opposing through movements.

Level of service is used to describe the quality of traffic flow. Levels of Service A to C operate quite well. Level of Service C is typically the standard to which rural roads are designed, and level of Service D is the standard to which urban roadways are typically designed. Level of Service D is characterized by fairly restricted traffic flow. Level of Service E is the maximum volume a facility can accommodate and will result in possible stoppages of momentary duration. Level of Service F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration. A description of the various levels of traffic service appears on the following page, along with the relationship between ICU and level of traffic service.

The ICU calculation assumes that an intersection is signalized and that the signal is ideally timed. Although calculating ICU for an unsignalized intersection is invalid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volume with a signal. It is possible to have an ICU well below 100 percent, yet have severe traffic congestion. This would occur if one or more movements is not getting sufficient green time to satisfy its demand, and excess green time exists on other movements. This is an operational problem which should be remedied.

Capacity is often defined in terms of roadway width; however, standard lanes have approximately the same capacity whether they are 11 or 14 feet wide. Our data indicates a typical lane, whether a through lane or a left turn lane, has a capacity of approximately 1750 vehicles per hour, with nearly all locations showing a capacity greater than 1600 vehicles per hour per lane. This finding is published in the August, 1978 issue of ITE Journal in the article entitled, "Another Look at Signalized Intersection Capacity" by William Kunzman. For this study, a capacity of 1600 vehicles per hour per lane will be assumed for both through and left turn lanes.

The yellow time can either be assumed to be completely used and no penalty applied, or it can be assumed to be only partially usable. Total yellow time accounts for less than 10 percent of a cycle, and a penalty up

to three percent is reasonable. On the other hand, during peak hour traffic operation the yellow times are nearly completely used. If there are no left turn phases, the left turn vehicles completely use the yellow time. If there are left turn phases, the through traffic continues to enter the intersection on the yellow until just a split second before the red. In this study no penalty will be applied for the yellow because the capacities have been assumed to be only 1600 vehicles per hour per lane when in general they are 1750.

The ICU technique is an ideal tool to quantify existing as well as future intersection operation. The impact of adding a lane can be quickly determined by examining the effect the lane has on the intersection capacity utilization.

ICU parallels another calculation procedure known as the Critical Lane Method with one exception. Critical Lane Method dimensions capacity in terms of standardized vehicles per hour per lane. A Critical Lane Method result of 800 vehicles per hour means that the intersection operates as though 800 vehicles were using a single lane continuously. If one assumes a lane capacity of 1600 vehicles per hour, then a Critical Lane Method calculation resulting in 800 vehicles per hour is the same as an ICU calculation of 50 percent since  $800/1600$  is 50 percent. It is our opinion that the Critical Lane Method is inferior to the ICU method simply because a statement such as "The Critical Lane Method value is 800 vehicles per hour" means little to most persons, whereas a statement such as "the Intersection Capacity Utilization is 50 percent" communicates clearly. A Critical Lane Method of ICU correspondence table is as follows, assuming a lane capacity of 1600 vehicles per hour.

<u>Critical Lane Method Result</u>	<u>Corresponding ICU Result</u>
800 vehicles per hour	50 percent
960 vehicles per hour	60 percent
1120 vehicles per hour	70 percent
1280 vehicles per hour	80 percent
1440 vehicles per hour	90 percent
1600 vehicles per hour	100 percent

LEVEL OF SERVICE DESCRIPTION

Level of Service	Description	Stopped Delay Per Vehicle (Seconds)	Intersection Capacity Utilization (Percent)
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 5.0	0 to 60
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	5.1 to 15.0	61 to 70
C	Level of Service generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	15.1 to 25.0	71 to 80
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	25.1 to 40.0	81 to 90
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	40.1 to 60.0	91 to 100
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	60.1 +	100 +

Source: "Highway Capacity Manual" Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985, Pages 9-4 to 9-5.

INTERSECTION: HIGHWAY 395 (NS) AND PALMDALE ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: EXISTING CONDITIONS-1991  
 Existing Geometrics

1

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	440	260	0	0	440	260	34*	23*
NR	0	0	20	30	0	0	20	30	0	0
NL	0	0	80	70	0	0	80	70	5	4
ST	2	3200	210	400	0	0	210	400	8	18
SR	0	0	20	70	0	0	20	70	0	0
SL	0	0	30	100	0	0	30	100	2*	6*
ET	1	1600	260	220	0	0	260	220	19*	19*
ER	0	0	30	70	0	0	30	70	0	0
EL	0	0	20	20	0	0	20	20	1	1
WT	1	1600	140	190	0	0	140	190	16	18
WR	0	0	100	50	0	0	100	50	0	0
WL	0	0	20	50	0	0	20	50	1*	3*
ICU LEVELS OF SERVICE									56	51
									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: EXISTING CONDITIONS-1991  
 Existing Geometrics

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
			NT	1	1600	360	260	0	0	360
NR	0	0	30	40	0	0	30	40	0	0
NL	1	1600	10	20	0	0	10	20	1	1
ST	1	1600	160	330	0	0	160	330	11	24
SR	0	0	20	50	0	0	20	50	0	0
SL	1	1600	80	140	0	0	80	140	5*	9*
ET	1	1600	110	100	0	0	110	100	9*	8
ER	0	0	20	10	0	0	20	10	0	0
EL	0	0	20	20	0	0	20	20	1	1*
WT	1	1600	80	130	0	0	80	130	9	18*
WR	0	0	50	120	0	0	50	120	0	0
WL	0	0	20	30	0	0	20	30	1*	2
ICU									39	47
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND PALMDALE ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CONDITIONS-WITHOUT PROJECT  
 With CalTrans Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXIST/GROWTH VOLUME		OTHER VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	760	450	30	30	790	480	26*	17
NR	0	0	30	50	0	0	30	50	0	0
NL	1	1600	140	120	30	30	170	150	11	9*
ST	2	3200	360	690	10	40	370	730	13	27*
SR	0	0	30	120	0	0	30	120	0	0
SL	1	1600	50	170	10	10	60	180	4*	11
ET	2	3200	450	380	10	30	460	410	16*	18*
ER	0	0	50	120	10	40	60	160	0	0
EL	1	1600	30	30	0	0	30	30	2	2
WT	2	3200	240	330	20	20	260	350	14	14
WR	0	0	170	90	10	10	180	100	0	0
WL	1	1600	30	90	0	0	30	90	2*	6*
ICU									48	60
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DOS PALMAS ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CONDITIONS-WITHOUT PROJECT  
 Future Geometrics (without project)

1

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXIST/GROWTH VOLUME		OTHER VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	930	620	50	60	980	680	31*	21
NR	1	1600	0	0	40	90	40	90	3	6
NL	0	0	0	0	0	0	0	0	0	0*
ST	2	3200	450	890	30	80	480	970	15	30*
SR	0	0	0	0	0	0	0	0	0	0
SL	1	1600	0	0	10	30	10	30	1*	2
ET	0	0	0	0	0	0	0	0	0*	0*
ER	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0
WR	1	1600	0	0	20	20	20	20	1	1
WL	1	1600	0	0	60	70	60	70	4*	4*
ICU									36	34
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND LUNA ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CONDITIONS-WITHOUT PROJECT  
 Future Geometrics (without project)

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXIST/GROWTH VOLUME		OTHER VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	930	620	10	30	940	650	29*	20
NR	1	1600	0	0	100	290	100	290	6	18
NL	0	0	0	0	0	0	0	0	0	0*
ST	2	3200	450	890	20	20	470	910	15	28*
SR	0	0	0	0	0	0	0	0	0	0
SL	1	1600	0	0	40	120	40	120	3*	8
ET	0	0	0	0	0	0	0	0	0*	0*
ER	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0
WR	1	1600	0	0	70	90	70	90	4	6
WL	1	1600	0	0	180	220	180	220	11*	14*
ICU									43	42
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CONDITIONS-WITHOUT PROJECT  
 With Widening of Hwy 395

1

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXIST/GROWTH VOLUME		OTHER VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	620	450	90	270	710	720	24*	27*
NR	0	0	50	70	20	60	70	130	0	0
NL	1	1600	20	30	0	0	20	30	1	2
ST	2	3200	280	570	170	200	450	770	15	27
SR	0	0	30	90	0	0	30	90	0	0
SL	1	1600	140	240	10	20	150	260	9*	16*
ET	1	1600	190	170	0	0	190	170	16	14
ER	0	0	30	20	0	0	30	20	0	0
EL	0	0	30	30	0	0	30	30	2*	2*
WT	1	1600	140	220	0	0	140	220	19*	34*
WR	0	0	90	210	10	20	100	230	0	0
WL	0	0	30	50	40	40	70	90	4	6
ICU									54	79
LEVELS OF SERVICE									A	C

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND PALMDALE ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With CalTrans Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	790	480	50	60	840	540	38*	30
NR	0	0	30	50	350	380	380	430	0	0
NL	1	1600	170	150	70	70	240	220	15	14*
ST	2	3200	370	730	30	90	400	820	13	29*
SR	0	0	30	120	0	0	30	120	0	0
SL	1	1600	60	180	0	0	60	180	4*	11
ET	2	3200	460	410	0	0	460	410	17*	21*
ER	0	0	60	160	30	110	90	270	0	0
EL	1	1600	30	30	0	0	30	30	2	2
WT	2	3200	260	350	0	0	260	350	14	14
WR	0	0	180	100	0	0	180	100	0	0
WL	1	1600	30	90	170	550	200	640	13*	40*
ICU LEVELS OF SERVICE									72 C	104 F

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DOS PALMAS ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 Future Geometrics (with project)

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
			NT	2	3200	980	680	280	390	1260
NR	0	0	40	90	10	10	50	100	0	0
NL	1	1600	0	0	100	330	100	330	6	21*
ST	2	3200	480	970	160	520	640	1490	20	47*
SR	1	1600	0	0	90	310	90	310	6	19
SL	1	1600	10	30	0	0	10	30	1*	2
ET	1	1600	0	0	10	20	10	20	12*	16*
ER	0	0	0	0	180	240	180	240	0	0
EL	1	1600	0	0	190	210	190	210	12	13
WT	1	1600	0	0	10	20	10	20	2	3
WR	0	0	20	20	0	0	20	20	0	0
WL	1	1600	60	70	0	10	60	80	4*	5*
ICU									58	89
LEVELS OF SERVICE									A	D

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND LUNA ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 Future Geometrics (with project)

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	940	650	220	500	1160	1150	39*	45
NR	0	0	100	290	0	0	100	290	0	0
NL	1	1600	0	0	100	330	100	330	6	21*
ST	2	3200	470	910	250	470	720	1380	23	43*
SR	1	1600	0	0	90	290	90	290	6	18
SL	1	1600	40	120	0	0	40	120	3*	8
ET	1	1600	0	0	20	30	20	30	14*	16*
ER	0	0	0	0	210	230	210	230	0	0
EL	1	1600	0	0	160	220	160	220	10	14
WT	1	1600	0	0	10	40	10	40	5	8
WR	0	0	70	90	0	0	70	90	0	0
WL	1	1600	180	220	0	0	180	220	11*	14*

ICU  
 LEVELS OF SERVICE

67 94  
 B E

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND LA MESA ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 Future Geometrics (with project)

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
			NT	2	3200	840	980	200	660	1040
NR	0	0	0	0	0	0	0	0	0	0
NL	1	1600	0	0	130	410	130	410	8*	26*
ST	2	3200	630	1120	390	470	1020	1590	32*	50*
SR	1	1600	0	0	70	230	70	230	4	14
SL	1	1600	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0
ER	1	1600	0	0	220	310	220	310	14	19
EL	1	1600	0	0	120	170	120	170	8*	11*
WT	0	0	0	0	0	0	0	0	0*	0*
WR	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0
ICU									48	87
LEVELS OF SERVICE									A	D

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With Widening of Hwy 395 & Bear Vly Rd

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	710	720	170	550	880	1270	30*	44*
NR	0	0	70	130	0	0	70	130	0	0
NL	1	1600	20	30	0	0	20	30	1	2
ST	2	3200	450	770	350	380	800	1150	26	39
SR	0	0	30	90	0	0	30	90	0	0
SL	1	1600	150	260	230	260	380	520	24*	33*
ET	1	1600	190	170	0	0	190	170	16*	14*
ER	0	0	30	20	0	0	30	20	0	0
EL	0	0	30	30	0	0	30	30	2	2
WT	1	1600	140	220	0	0	140	220	9	14
WR	1	1600	100	230	110	370	210	600	13	38
WL	1	1600	70	90	0	0	70	90	4*	6*
ICU									74	97
LEVELS OF SERVICE									C	E

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND PALMDALE ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With Additional Improvements

1

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	790	480	50	60	840	540	38*	30
NR	0	0	30	50	350	380	380	430	0	0
NL	1	1600	170	150	70	70	240	220	15	14*
ST	2	3200	370	730	30	90	400	820	13	29*
SR	0	0	30	120	0	0	30	120	0	0
SL	1	1600	60	180	0	0	60	180	4*	11
ET	2	3200	460	410	0	0	460	410	14*	13*
ER	1	1600	60	160	30	110	90	270	6	17
EL	1	1600	30	30	0	0	30	30	2	2
WT	2	3200	260	350	0	0	260	350	14	14
WR	0	0	180	100	0	0	180	100	0	0
WL	2	3200	30	90	170	550	200	640	6*	20*
ICU									62	76
LEVELS OF SERVICE									B	C

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DOS PALMAS ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With 6 Lanes on Hwy 395

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	3	4800	980	680	280	390	1260	1070	27*	24
NR	0	0	40	90	10	10	50	100	0	0
NL	1	1600	0	0	100	330	100	330	6	21*
ST	3	4800	480	970	160	520	640	1490	15	38*
SR	0	0	0	0	90	310	90	310	0	0
SL	1	1600	10	30	0	0	10	30	1*	2
ET	1	1600	0	0	10	20	10	20	1	1
ER	1	1600	0	0	180	240	180	240	11	15
EL	1	1600	0	0	190	210	190	210	12*	13*
WT	1	1600	0	0	10	20	10	20	2*	3*
WR	0	0	20	20	0	0	20	20	0	0
WL	1	1600	60	70	0	10	60	80	4	5
ICU									42	75
LEVELS OF SERVICE									A	C

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND LUNA ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With 6 lanes on Hwy 395

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	3	4800	940	650	220	500	1160	1150	26*	30
NR	0	0	100	290	0	0	100	290	0	0
NL	1	1600	0	0	100	330	100	330	6	21*
ST	3	4800	470	910	250	470	720	1380	17	35*
SR	0	0	0	0	90	290	90	290	0	0
SL	1	1600	40	120	0	0	40	120	3*	8
ET	1	1600	0	0	20	30	20	30	1	2
ER	1	1600	0	0	210	230	210	230	13	14
EL	1	1600	0	0	160	220	160	220	10*	14*
WT	1	1600	0	0	10	40	10	40	5*	8*
WR	0	0	70	90	0	0	70	90	0	0
WL	1	1600	180	220	0	0	180	220	11	14
ICU									44	78
LEVELS OF SERVICE									A	C

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND LA MESA ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With 6 lanes on Hwy 395

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	3	4800	840	980	200	660	1040	1640	22	34
NR	0	0	0	0	0	0	0	0	0	0
NL	1	1600	0	0	130	410	130	410	8*	26*
ST	3	4800	630	1120	390	470	1020	1590	23*	38*
SR	0	0	0	0	70	230	70	230	0	0
SL	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0
ER	1	1600	0	0	220	310	220	310	14	19
EL	1	1600	0	0	120	170	120	170	8*	11*
WT	0	0	0	0	0	0	0	0	0*	0*
WR	0	0	0	0	0	0	0	0	0	0
WL	0	1600	0	0	0	0	0	0	0	0
ICU									39	75
LEVELS OF SERVICE									A	C

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: HIGHWAY 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)  
 RUN TITLE: VISTA VERDE (VICTORVILLE) TRAFFIC STUDY

LAND USE: 1999 CUMULATIVE CONDITIONS  
 With Widening of Hwy 395

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	OTHER VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	3	4800	710	720	170	550	880	1270	20*	29*
NR	0	0	70	130	0	0	70	130	0	0
NL	1	1600	20	30	0	0	20	30	1	2
ST	3	4800	450	770	350	380	800	1150	17	26
SR	0	0	30	90	0	0	30	90	0	0
SL	2	3200	150	260	230	260	380	520	12*	16*
ET	1	1600	190	170	0	0	190	170	16*	14*
ER	0	0	30	20	0	0	30	20	0	0
EL	0	0	30	30	0	0	30	30	2	2
WT	1	1600	140	220	0	0	140	220	9	14
WR	1	1600	100	230	110	370	210	600	13	38
WL	1	1600	70	90	0	0	70	90	4*	6*
ICU LEVELS OF SERVICE									52	65
									A	B

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (\*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES  
 WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST  
 T: THROUGH, R: RIGHT, L: LEFT

## Appendix B: Model Trip Reduction Ordinance

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## MODEL TRIP REDUCTION ORDINANCE

Section 1: **Findings.** The City Council of the City of \_\_\_\_\_ hereby determines that:

1. Traffic volumes and congestion in the High Desert/Victor Valley area of San Bernardino County have increased appreciably in recent years;
2. Increased employment and/or residential growth in Victorville and the surrounding region has occurred in recent years and is expected to continue, contributing to growing traffic congestion and impacting air quality throughout the region;
3. Traffic congestion is a regional problem which requires coordinated and concerted actions by local governments, employers, San Bernardino Air Pollution Control District, transit service providers, and Cal Trans;
4. Peak hour traffic congestion can be managed by increasing the efficiency of the transportation system through such techniques as ridesharing, increased use of public transit, and varying work schedules so that travel occurs during off-peak periods;
5. The San Bernardino County Board of Supervisors has adopted an Air Quality Attainment Plan which identifies measures which will be effective in reducing air pollution and air pollution precursors and requires local jurisdictions to adopt trip reduction ordinances;
6. The City of Victorville supports the Air Quality Attainment Plan and commits itself to reducing traffic levels;
7. Adoption of a trip reduction ordinance is one component of the City's goal of reducing air pollution and congestion management; and
8. Adoption of this trip reduction ordinance will promote public health, safety, economic vitality, and general welfare, within the City, County, and region and is consistent with the City's General Plan.

Section 2: **Purposes.** In recognition of these findings the City does establish this trip reduction ordinance for the following purposes:

1. To reduce peak hour traffic congestion in the City, County, and surrounding region by reducing the number of vehicular trips and vehicular miles travelled related to work travel;

2. To reduce vehicular emissions, energy usage and ambient noise levels as a result of fewer vehicle trips, fewer vehicle miles travelled and reduced traffic congestion;
3. To achieve, as an initial goal, a 25% participation by employees who work in the City in commute alternatives to single-occupant vehicles during week day peak hours. The City will periodically re-evaluate this goal in conjunction with the various county wide programs and revise it when warranted by traffic conditions and demonstrated results of the trip reduction program.

Section 3: Definitions. The following definitions shall apply to words and phrases used in this ordinance:

1. "Alternative work hours" shall mean any work schedule for employees which starts and ends the work day outside of the peak hours as defined below, and may include staggered work hours, flexible work hours, compressed work week, or other schedule.
2. "Carpool" shall mean a motor vehicle occupied by two or more employees commuting together.
3. "Commute Alternatives" shall include any alternative to commuting to work in a single occupant vehicle and shall include carpools, vanpools, buspools, bicycles, transit, motorcycles, alternative work hours, telecommuting, or walking.
4. "Complex" shall mean any business park or non-resident development separate or common ownership, which can be identified by two or more of the following characteristics:
  - a. It is known by a common name;
  - b. It is governed by a common set of covenants, conditions, and/or restrictions;
  - c. It is (or will be) approved as an entity by the City;
  - d. It is covered by a single final subdivision or parcel map;
  - e. It is operated by a single management;
  - f. It shares common parking facilities. "Complex" shall also mean any multi-tenant, non-residential building or group of buildings under common ownership which is not covered by the above.
5. "Compressed Work Week" shall mean a regular weekly or bi-weekly work schedule of approximately 40 hours completed in less than five days during a single week or ten days during a two week period, such as four 10 hour days.

6. "Employee" shall mean any person hired by an employer to perform work at the workplace, including part-time and seasonal employees working 20 or more hours per week, but excluding independent contractors.
7. "Employer" shall mean any public or private employer, including the City, who has a permanent place of business in the City.
8. "Employer Trip Reduction Plan" or "Commute Alternative Plan and Program" shall mean a written report in a format to be determined by the City TRC, designating a workplace TRC, documenting the mode of commute of all employees of an employer and demonstrating a rate of participation in commute alternatives that achieves the purpose of this ordinance.
9. "Flexible Work Hours" shall mean a flexible work schedule in which an employee is permitted discretion, within certain fixed parameters, as to the hours for starting and completing the work day.
10. "Peak Hours" or "Peak Period" shall refer to the period between 5:00 A.M. through 9:00 A.M. Mondays through Fridays, except holidays.
11. "Parking Management" shall mean expanding restricting or pricing the supply of parking in order to support trip reduction objectives any may include provision to employees of transit passes or cash subsidies in place of free parking.
12. "Single-occupant vehicle" shall mean a motor vehicle occupied by one employee for commute purposes, excluding motorcycles, unipeds, and other two-wheeled vehicles.
13. "Staggered Work Hours" shall mean fixed work hours in which groups of employees within a complex or company begin and end work at predetermined intervals in order to spread out the traffic flow.
14. "Workplace" shall mean the usual and customary place of employment, base of operations or predominant location of an employee.
15. "Workplace TRC" shall mean a person designated by an employer to implement a trip reduction program required pursuant to the provisions of this ordinance.

Section 4: Trip Reduction Program.

1. City Trip Reduction Program. In order to carry out this trip reduction program the City Manager shall designate a City Trip Reduction Coordinator (TRC) and shall notify San Bernardino County Air Pollution Control District (APCD) of this appointment. The City TRC shall have the following duties and responsibilities:
  - a. Administer the City's Trip Reduction program and make periodic reports on the progress of the program to the Employer Advisory Committee and to the City Council;
  - b. Assist employees who are required by this ordinance to prepare Trip Reduction Plans and implement programs;
  - c. Review, and if acceptable, approve employer Trip Reduction Plans and implementation programs;
  - d. Coordinate promotional events at workplaces in which literature and information on commute alternatives is distributed to employees;
  - e. Promote the use of all available techniques for reducing peak hour congestion, including ridesharing, increased use of public transit, compressed work schedules, flexible work schedules, shuttle buses, and telecommuting;
  - f. Prepare the Trip Reduction Plan and implementation program for City Employees;
  - g. Participate in the APCD program and coordinate efforts with the APCD coordinator and with other cities in the preparation of employee surveys, analysis of survey data, training of workplace TRC's and monitoring and evaluation of results of trip reduction programs;
  - h. Provide, upon request, commute alternative assistance, including ridesharing matching, transit route and schedule information, and bikeway information to employees of companies and complexes in the City which do not have a TRC; and
  - i. Coordinate the City's Trip Reduction program with adjacent jurisdictions.

2. Employer Requirements.

- a. Employee Survey. Every employer in the City, as defined in Section 3.7 above, shall complete and submit to the City TRC a confidential employee survey when the program is initiated and periodically thereafter, as needed. Employee surveys shall include information on number of employees, residence of employees, mode of travel to work, usual work schedule, and interest of employees in commute alternatives.
- b. Commute Alternative Information. Every employer of \_\_\_\_\_ or more employees, and every complex of \_\_\_\_\_ or more employees, in addition to the requirements of Section 4.1.A above, shall in coordination with the City TRC, distribute to its employees on a regular basis, commute
- c. Employer Trip Reduction Plans and Programs. Every employer of 100 or more employees, and every complex of 100 or more employees, shall prepare and submit to the City TRC, each year on or before April 1, an Employer Reduction Plan which includes the following elements:
  - (1) Designation of a Workplace Trip Reduction Coordinator (TRC);
  - (2) Evidence of participation of the Workplace TRC in a training program sponsored by the San Bernardino County Air Pollution Control District;
  - (3) A Commute Alternative Plan which demonstrates how at least 25% of the employees of the employees at the workplace will commute to work on a regular basis by a mode other than a single-occupant vehicle or will use an alternative work hour schedule such that no more than 33 employees are reporting to or departing from the workplace during peak hours. Said usage of commute alternatives maybe a gradual or staged approach using the following formula:
    - a. 5% commute alternative use by \_\_\_\_\_, 1993.
    - b. 15% commute alternative use by \_\_\_\_\_, 1993.
    - c. 25% commute alternative use by \_\_\_\_\_, 1993.

- (4) The Commute Alternative Plan shall identify the specific trip reduction techniques, as identified in the APCD plan, to be used by employees, including but not limited to:
  - a. Ridesharing, including carpooling, vanpooling (with or without disabled access), and buspooling (or club bus);
  - b. Alternative work hours, including flexible work hours, staggered work hours and compressed work week schedules;
  - c. Parking management, including preferential parking for ridesharing vehicles and/or provision of transit passes or cash subsidies to employees in place of free parking;
  - d. Use of transit, including subsidies and/or provision of shuttle service to rail, bus stops, or park and ride lots;
  - e. Telecommuting, or allowing employees to work at home or in a telecommuting center a portion of the work week and communicate business transactions through electronic media; of bicycling, including provision at the workplace of bicycle storage facilities and employee lockers and/or showers.
  
- (5) The Employer Commute Alternative Plan shall be reviewed by the City TRC, who will respond in writing no later than 45 days after submittal as to the approval or disapproval of the Employer Trip Reduction Plan and Programs. If the City TRC does not respond within 45 days, the Commute Alternative Plan and its implementation shall be deemed approved.
  
- (6) In the event a Commute Alternative Plan or its implementation program prepared by an employer or responsible complex operation is not approved by the City TRC, the employer or complex operator shall either revise the Commute Alternative Plan and/or implementation measures cited and resubmit it to the City TRC within 30 days of notification of disapproval, or appeal the City TRC's determination to the Employer Advisory Committee.

- (7) The Employer Advisory Committee will hear the matter at regularly scheduled and advertised meeting within 90 days of the appeal by the employer and will render its decision in the form of a recommendation to the City Council within 15 days of the hearing. The City Council may accept the recommendation of the Employer Advisory Committee or remand it to the Committee for reconsideration. The action of the City Council shall be final.

Section 5. Employer Advisory Committee. If Employer Commute Alternative Plans and implementation programs are required by this ordinance an Employer Advisory Committee is established to advise the City Council on the Trip Reduction program, to hear appeals from employers, to arbitrate issues of non-compliance and applicability, and to review decisions of the City TRC concerning the adequacy of employer programs and attainment of mandated goals.

1. The Employer Advisory Committee shall consist of 3 members, as follows, to be appointed by the City Council:
  - a. 2 members of the City Council.
  - b. 2 employers, one of whom has more than 100 employees.
  - c. 1 representative named by the San Bernardino Air Pollution Control District.

If desired by the City Council, one of the Council or Employer representatives may be replaced by an employee representative provided that at least one employer with more than 100 employees shall be on the Employer Advisory Committee.

2. Term. The members of the Employee Advisory Committee shall serve two year terms.
3. Duties. The Employer Advisory Committee shall meet periodically, but not less than quarterly, to monitor the implementation of the City's Trip Reduction program and Employer Commute Alternative Plan implementation efforts. The Committee will also hear appeals from employers on the decisions of the City TRC. The Committee will make recommendations to the City Council concerning the City's Trip Reduction Program and the decisions of the City TRC.

SECTION 6: City Evaluation of City-Wide Trip Reduction Program Progress

1. Review of City Wide Trip Reduction Program Progress. The City TRC shall review compliance with the requirements of this ordinance on an annual basis. Said review shall include (1) Commute Alternative Plans and Programs, (2) Annual Employer Surveys, and (3) the results of driveway and entrance monitoring programs.
2. Report to the City Council. The City TRC shall submit an annual summary report to the City Council and Employer Advisory Committee describing the results as of April of the Commute Alternative Plans and Programs and the prospects for success in meeting the goals established in this ordinance.

If the goals have not been met, then the Employer Advisory Committee shall recommend to the City Council changes to this Ordinance as may be necessary to meet the goals established herein. Included in these recommendations shall be an estimate of the time period needed to attain the goals included herein.

3. Implementation of Mandatory Commute Alternative Plans and Programs. If, at any time after two (2) years from the effective date of this Ordinance, the City TRC determines that substantial progress is not being made to meet the goals of this Ordinance based upon the actual reduction achieved by employers and complexes Commute Alternative Plans and Programs, the Employer Advisory Committee shall recommend that the City Council institute the mandatory Commute Alternative Plan and Program requirements included in Section 7.

- a. A hearing shall be held before the City Council following thirty (30) day notice to all employers and to all building complex owners.
- b. If, following said hearing, the City Council determines that substantial progress is not being made, and that time alone will not bring success to the Commute Alternative Plans and Programs in place by employers, complexes, and the Employer Advisory Committee, the City Council shall, by resolution, deem the provisions of Section 7 to be operative.

**SECTION 7: Mandatory Commute Alternative Plan and Program.**

If, pursuant to Section 6, this Section becomes operative, employers required to have Commute Alternative Plans and Programs shall be required to supplement their Commute Alternative Plans and Programs in accordance with this Section.

1. Revision of an Employer Commute Alternative Plan and Program for Failure to Achieve Target Goals. If, after review of an employer's second annual report, or any annual report thereafter, the City TRC determines (1) that, as indicated in such report, substantial progress is not being made toward reaching the target goals identified in Section 4 of this Ordinance, and (2) that, on the basis of good cause which includes but is not limited to: content of Commute Alternative Plan; historical performance of the employer, plan or complex; and/or ineffectiveness of prior plan proposals, the implementation measures included in the Program proposed for the ensuing year will not achieve the staged reduction in peak period traffic generation objectives, increase in average vehicle ridership, or decrease in vehicle miles traveled, then the City TRC shall reject the proposed plan and implementation program and require that revisions and/or additions be made in order to achieve the designated reduction in peak period traffic generation, increase in average vehicle ridership, or reduction in vehicle miles traveled within one (1) year of submittal. Notice of such rejection together with a list of suggested modifications shall be sent, certified mail, to the effected employer with a copy to the Employer's Advisory Committee.
  - a. The City TRC shall explicitly describe the reason(s) for rejection of a Commute Alternative Plan and Program and shall include an indication of those kinds of measures which may be used to achieve an acceptable Plan and Program.
  - b. If a Plan and Program has been required to be revised by any employer, it shall be revised and resubmitted for review and approval within one (1) month following receipt of the City TRC's Notice of Rejection.
  - c. If the resubmitted Commute Alternative Plan and Program is determined to be inadequate by the City TRC and the deficiencies have not been resolved within one (1) month of the Notice of Rejection of the resubmitted Plan and Program, the matter shall be referred to the Employer Advisory Committee for resolution. The

Employer Advisory Committee may approve the original Commute Alternative Plan and Program, approve the resubmitted Plan and Program, revise either Plan and Program, or may incorporate those elements it determines are necessary to achieve the target goals in this Ordinance and require that the employer implement the program as designated by the Employer Advisory Committee.

- d. Any employer whose Plan and Program has been rejected or modified pursuant to this subsection may appeal the decision of the Employer Advisory Committee to the City Council. A hearing shall be held before the City Council within thirty (30) days of receipt of the appeal. The City Council may approve, modify, or overrule the action of the Employer Advisory Committee.

**SECTION 8: Fees.**

1. The City Council may assess annual fees on all public and private employers in order to off-set the costs of the City's Trip Reduction Program. The amount of such fees together with any formula for calculating charges for individual services, such as appeals processing, shall be set by a separate resolution and may be revised periodically to reflect the actual cost of services provided.

**SECTION 9: Enforcement.**

1. Failure to Provide Survey Data, Annual Reports, and/or Provide and Implement Commute Alternative Information Programs and Commute Alternative Plans and Programs. Any employer who fails to provide the survey data or annual report required by this Ordinance, after thirty (30) days notice to remedy the failure, shall be guilty of a misdemeanor. Any employer who fails to provide the Commute Alternative Information Program and/or Commute Alternative Plan and Program and/or fails to implement said program, as required by this Ordinance, after thirty (30) days notice to remedy the failure, shall be guilty of a misdemeanor.
  - a. Any amounts collected as fines shall be used to fund the development and purchase of Commute Alternative marketing materials for employees in the City.

- b. Each failure to supply data, reports, programs, or implement the Information Program or Commute Alternative Plan and Program, following the City's TRC's written request for such material and/or acts shall constitute a separate violation.
2. Other violations of this Ordinance, Except Section 7, Mandatory Commute Alternative Plan and Program. Every employer who fails to comply with any other provisions of this Ordinance, except those requirements mandated pursuant to Section 7, shall have thirty (30) days, after notice of such failure, to correct the failure or be guilty of a misdemeanor.
3. Violations of Section 7, Mandatory Commute Alternative Plan and Program. Every employer who fails to comply with any requirement mandated pursuant to Section 7 of this Ordinance shall have thirty (30) days, after notice of such failure, to correct the failure, or satisfactorily explain to the Employer Advisory Committee why compliance is impossible. If the employer does not correct the failure within the thirty (30) day time period or is not excused from compliance by the Employer Advisory Committee, then the Employer Advisory Committee shall refer the matter to the City Council for one of the following actions:
  - a. The City Council may grant an extension of time for compliance solely on the evidence that time is the only condition needed to accomplish the requirement; or
  - b. The City Council may find that an extension is unwarranted, find a violation of this Ordinance, and order compliance. Failure to comply shall be a violation and subject to a civil penalty of five hundred dollars (\$500.00) per day from the date the City Council orders compliance until the failure to comply is corrected. Any amounts collected as penalty shall be used to fund traffic related improvements in order to relieve congestion and improve the level of service on roadways in the City.