

Palmdale Transit Village Specific Plan



City of Palmdale

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Community Design + Architecture

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EXHIBIT I

ADDENDUM TO PALMDALE TRANSIT VILLAGE SPECIFIC PLAN

Section 3.4.5 Uses Requiring Conditional Use or Use Permit

For property within the specific plan area the following uses are considered uses that are conditional and require Use Permits; Conditional uses are subject to Article 22 – Conditional Use Permits of the City's Zoning Ordinance.

- Retail sale of goods generally characterized by relatively long-term utility or consumption;
- Uses listed in Section 53.06 - Uses Permitted Subject to Approval of a Conditional Use Permit of the City's Zoning Ordinance;
- Religious assembly;
- Grocery stores;
- Parking Facilities (Commercial) or Principal Use Parking (Structured or Surface); and,
- Reestablishment of expired Non-Conforming Uses (see Section 3.4.6).

Section 3.4.6 Non-Conforming Uses

Non-Conforming uses shall be those uses deemed to not be in compliance with the development standards set forth in this Specific Plan, but were lawfully in existence prior to the adoption of this Specific Plan. Expired legal non-conforming uses may be reauthorized through the application of a Conditional Use Permit for up to six-years with up to three time extensions, for a cumulative total of up to a maximum of 12-years subject to the Palmdale Municipal Code (PMC) Section 17.22.05 and the following finding:

- The proposed use is surrounded by properties that have not been developed under the current zone designation and no applications have been received for such development.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

Palmdale has undergone a significant investment in constructing a new transportation center adjacent to Downtown Palmdale. It is only sensible to create a Transit Village near the center and link land use planning policies and programs, and other transportation investment with this major undertaking. Transit-Oriented Development (TOD) is a fitting approach to planning for the Palmdale Transit Village surrounding the transportation center. TOD is a development pattern characterized by a mix of uses surrounding a transit facility where streets have a high level of connectivity, blocks are relatively small, and streetscapes, buildings and uses cater to the pedestrian. TOD brings several benefits that would otherwise be lost with conventional planning: TOD can support increased transit ridership, help relieve congestion and ultimately contribute to improving air quality by reducing automobile reliance. TOD can also create a sense of place by providing a focus for the community and offering residents a wide range of centrally located services. For the Palmdale Transit Village, the pedestrian-oriented aspects of TOD can also improve access for existing residents in the area, as many of them already walk and take transit for many of their daily trips.



Figure 1.1 Illustrative Plan of the Palmdale Transit Village

1.2 PURPOSE AND INTENT OF THIS SPECIFIC PLAN

It is the intent of the Palmdale Transit Village Specific Plan to encourage investment and development in the vicinity of the Palmdale Transportation Center under the direction of clearly established public policies, a land use plan, design standards and guidelines, and implementation steps. The Specific Plan provides investors with a level of certainty regarding the future of the area and the quality of development that is expected.

A governing objective of the plan is to allow for a mix of uses resulting in a vital neighborhood which complements the existing character of Palmdale. Land use regulations developed in the Palmdale Transit Village Specific Plan ensure a mix of uses providing for residential, commercial, and employment needs of the community that are complementary with development of the Transportation Center, and closely follow the principles of Transit-Oriented Development (TOD). The land use standards provide a level of flexibility that will allow incremental development of the Plan to address the changing demands and needs of the real estate market.



Figure 1.2 Aerial photo of planning area

The development standards and design guidelines established in this Specific Plan are unique to the City of Palmdale. Standards and guidelines established are consistent with TOD principles in that they maximize the efficiency of land surround the Transportation Center while also promoting new development, open spaces and streets that are attractive, vibrant and safe for all users.

The Specific Plan’s implementation measures provide a strategy for the development phasing, the funding and construction of capital public improvements, and the provision of on-going public services to the Plan’s residents and workers.

1.2.1 Planning Process

In 2003 the city of Palmdale applied for, and received, funding for the Palmdale Transit Village Specific Plan through a Caltrans grant administered by the Southern California Association of Governments (SCAG). The consultant team was hired (see Table 1.1), and coordinated efforts under the guidance of the City’s project manager. At the beginning of the process, a Transit Village Working Group was established and comprised of City staff from Planning, Redevelopment, Traffic/Transportation, Housing and Public Works, and staff representatives from Metrolink, the Antelope Valley Transit Authority (AVTA), SCAG, the Antelope Valley Union High School District, and the Palmdale Chamber of Commerce. The Working Group met throughout the process to establish common goals for the project, share information, express their respective department or agency concerns, and regularly review the work products of the Consultant Team. Two Public Workshops were also held with public notices for each workshop mailed to all property owners with the Specific Plan area and the immediate vicinity. Additionally, the City Public Information Officer issued press releases to the local newspaper advertising the workshops. The six participants of the first workshop were presented an informational PowerPoint show on Transit-Oriented Development (TOD), reviewed base information, and invited to comment on the preliminary design alternatives developed by members of the Consultant Team during a two-day charrette (an intensive design exercise) held in Palmdale prior to the workshop. Approximately four months later a second Public Workshop was held and the sixteen participants were invited to comment on the preferred design alternative developed by the Consultant Team

An environmental review of this draft document will occur in summer 2006, and the Specific Plan is anticipated to be adopted in summer 2006.

Consultant	Primary Role(s)
Community Design +Architecture	Lead Consultant Land Use Planning and Urban Design Specific Plan Preparation
[Environmental consultants]	Environmental Evaluation EIR Preparation
Economic & Planning Systems	Economic Market Evaluations Implementation Strategies
Nelson\Nygaard Consultants	Transportation Evaluation & Planning
JMC ²	Infrastructure Evaluation Cost Estimation
ICF Consulting	Relocation Requirements Parcel Analysis

Table 1.1 Specific Plan Consultants

1.2.2 How to Use this Specific Plan

This document is organized to provide guidance to both property owners/developers and builders. Chapter Two, *Existing Conditions* presents the baseline information for the approximately 110-acre planning area. Chapter Three, *Land Use and Community Character* begins with a description of the Full Buildout scenario and phasing alternatives. The chapter also includes development standards and design guidelines that will direct the type of transit- and pedestrian-oriented development that is most appropriate for this area. Chapter Four, *Circulation* provides guidance on planning and design of the new street network, a bicycle access plan for the planning area, and guidelines for a safe and attractive pedestrian realm. Chapter Five, *Infrastructure* provides a conceptual plan for improvement to city services in order to accommodate the proposed development. Chapter 6, *Implementation* includes planning actions for phasing, environmental regulations, construction procedures, generalized costs and financing strategies for public improvements, and guidance for addressing potential relocation issues. The Appendix in Chapter 7 includes a glossary of terms used in the Specific Plan, along with supportive tables and project acknowledgments.

1.3 RELATION TO PERTINENT GENERAL PLAN GOALS, POLICIES AND OBJECTIVES

Specific Plans must be compatible with the goals and policies of the adopted General Plans of local jurisdictions (California Government Code Section 65454). In this case the City of Palmdale General Plan (adopted in 2003) is the governing document.

The Land Use and Community Character element of the Specific Plan provides a range of land uses to accommodate the living, working, shopping and recreational needs of the City's growing population with a diversity of uses that will promote economic growth. Land uses also take advantage of the Specific Plan area's unique condition of being well-served by regional transit systems; and the urban in-fill nature of the site reduces development pressure on existing agricultural lands. The Community Character envisions new development within the Specific Plan area to be attractive, safe, well-designed, and well-integrated with adjacent neighborhoods. The Circulation Element provides for an attractive well-connected street system that accommodates the needs of all users including pedestrian and cyclists, and connects to the Transportation Center thereby reducing the number of vehicle miles driven in the plan area.

Finally, the Infrastructure Element ensures that adequate public services will support proposed land uses.

Applicable General Plan goals are as follows:

Community Design Element

The Community Design Element of the General Plan establishes guidelines for developers, staff, and decision makers to use in evaluating whether development projects meet design goals of the City for functional, efficient, and attractive development.

Goal CD 1: Create and maintain a well-designed built environment for the City of Palmdale, which contributes to the community's economic vitality and enhances the quality of life for its residents.

Goal CD 2: Enhance a "Sense of Place" within Palmdale by emphasizing the City's environmental setting, natural amenities, and human resources.

Goal CD 4: Promote safe, functional, attractive single-family residential neighborhoods, integrated with the surrounding community, and easily accessible by multiple transportation modes.

Goal CD 5: Multiple family housing shall provide a safe and pleasant living environment for residents and shall be integrated with the surrounding neighborhoods so as to enhance the sense of community.

Goal CD 6: Commercial development in the City of Palmdale should enhance the community's economic vitality by providing a high quality environment for shopping and working.

Goal CD 7: Establish design guidelines for mixed use projects in which commercial retail, office and residential uses coexist, to ensure that such developments are attractive and functional while minimizing conflicts between uses of different intensities.

Goal CD 8: Use landscaping to reinforce community identity, to create a pleasant environment, to control erosion and promote natural percolation of storm water, to provide protection from wind and hot summer sun, and to integrate new development into the surrounding district.

Goal CD 9: Incorporate a high quality of design into planning for public buildings, capital improvement projects, rights-of-way, drainage facilities, open spaces, and other and uses owned or initiated by the City of Palmdale, to contribute to a cohesive sense of place, enhance the overall quality of development in the city, and perpetuate the image which the city wishes to create.

Goal CD 10: Facilitate creation and expansion of industrial use within the city to accommodate manufacturing, distribution, and complementary office and support uses in order to expand the City's employment and economic base and improve the jobs/housing balance, while ensuring that such areas are compatible with adjacent uses and minimizing adverse impacts on more restrictive use districts.

Circulation Element

The Circulation Element of the General Plan addresses the City's plans to upgrade and expand its pedestrian walkways, surface streets, arterial and regional highways, public transportation, rail service and air service.

Goal C1: Establish, maintain and enhance a system of streets and highways which will provide for the safe and efficient movement of people and goods throughout the Planning Area, while minimizing adverse impacts on the community.

Goal C2: Reduce the number of trips and vehicle miles traveled by individuals within the Planning Area, to meet regional transportation and air quality goals.

Goal C4: Promote opportunities for rail service to move goods, passengers and commuters into and out of the Planning Area.

Land Use Element

The Land Use Element of the General Plan addresses the rapid growth and resulting development patterns that have occurred in Palmdale, and establishes a framework for focusing future growth in a logical manner. The Land Use Element also identifies existing and potential opportunities and constraints.

Goal L1: Create a vision for long-term growth and development in the City of Palmdale which provides for orderly, functional patterns of land uses within urban areas, a unified and coherent urban form, and a high quality of life for its residents.

Goal L2: Adopt land use and development policies which encourage growth and diversification of the City's economic base.

Goal L3: Provide a high quality of life for all existing and future residents, meeting the needs of a variety of lifestyles.

Goal L4: Provide opportunities for a wide range of retail and service commercial uses, to serve neighborhood, community and regional needs and provide economic benefit to the City of Palmdale.

Goal L6: Plan for and reserve land to accommodate uses needed for public benefit, including open space, recreation, public improvement, school and community facilities.

Goal L7: Provide proactive comprehensive planning within designated areas of the City where unique development opportunities or physical conditions warrant special planning efforts.

Parks, Recreation, and Trails

The Parks, Recreation, and Trails Elements serves to guide future development of parks, recreational facilities, multi-use trails, bikeways, and open space areas to serve the recreational needs of existing and future residents.

Goal PRT1: Provide adequate parks to meet the needs of existing and future residents.

Goal PRT3: Provide a network of open space areas to provide for passive recreation opportunities, enhance the integrity of biological systems, and provide visual relief from the developed portions of the City.

Goal PRT4: Develop a system of multi-use trails which provide connections to the County trails system and the City of Lancaster trails system.

Goal PRT5: Promote bicycling as an important mode of transportation and recreation in the City of Palmdale.

The Public Service Element presents a plan for ensuring that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare.

Public Services

Goal PS1: Ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.

Goal PS2: Ensure that all development in Palmdale is served by adequate water distribution and sewage facilities.

Goal PS3: Develop and maintain adequate storm drainage and flood control facilities.

Goal PS5: Support the provision of adequate public and community services to meet the needs of residents.

Environmental Resources

The Environmental Resources Element addresses the related issues of resource conservation and open space. The goal of this Element is to improve the long-term quality of life for Palmdale

residents through the rational management of natural resources and open space lands.

Goal ER4: Protect the quality and quantity of local water resources.

Goal ER5: Promote the attainment of state and federal air quality standards.

Goal ER8: Avoid the premature conversion of agricultural lands to urban areas.

1.4 BENEFITS OF TRANSIT-ORIENTED DEVELOPMENT

Transit-Oriented Development is not a new concept. Since the days of the streetcar, and earlier when the railroad was a dominant transportation system, land use and transit have been formally linked as two of the most basic components of our settlement patterns. Additionally, walking distances informed planners as to configuration of appropriate land uses in a community (Figure 1.3). Although this continues to be the case, planning for transit has taken a back seat to highway and roadway planning. Development patterns have followed this lead and the single-use roadway has begotten a segregated, single-use land use pattern. TOD are important to transit, as its users are pedestrians rather than drivers; although drivers may access the station from the surrounding community they still desire a quality pedestrian environment as they walk from their car to the station. TOD brings back the human aspect of community. It restores the detail that makes places interesting to the passerby, the lingerer, and the stroller.

A TOD approach to the Palmdale Transit Village will focus the community around the transportation center making it a “node” of activity. Typically within TOD uses are developed in a compact configuration to allow for more variety within a walkable distance. An interconnected street pattern make *real* walking distances shorter (Figure 1.4) while variety and interest make walking more comfortable and *perceived* distances shorter for pedestrians. Different uses, storefront windows, architectural detail, and street amenities create diversity in activities, sights, and possibilities. Auto-oriented amenities such as parking, driveways, and large-scale signage are restrained, allowing the car to function within the district, but not overwhelm it. Parking lots are moved to the rear of the lot to avoid interrupting the street frontage. Station park-and-ride and bus transfer facilities are in close proximity to the station, but located to minimize impacts on pedestrian access from surrounding uses and designed to support pedestrian-friendly access and streets. Driveways are aggregated and placed away from heavily traveled pedestrian



Figure 1.3 Plan for Radburn, NJ illustrating use of the 1/2 mile radius around neighborhood elementary schools (Clarence Stein, 1928)

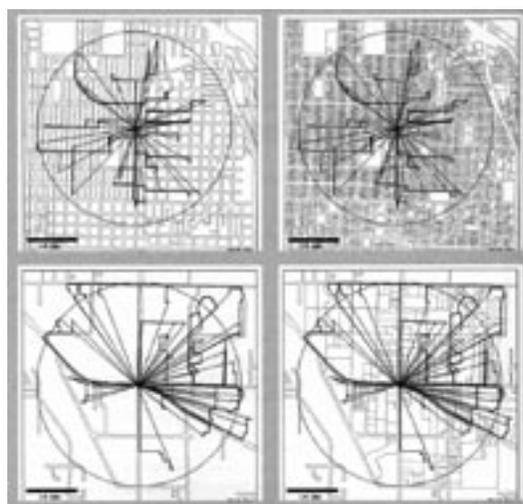


Figure 1.4 Pedestrian Accessibility Diagram. These diagrams illustrate walking distance in four neighborhoods in Seattle, WA. The circles are 1/2 mile in radius, the lines radiating from the circle's center show direct distance from the center, and the indirect lines represent the walking distance from that point to the center. The two diagrams at the top illustrate neighborhoods with interconnected street networks, while the two on the bottom are more disconnected. The walking distances in the interconnected neighborhoods average 1.29 times longer than the direct distances, while walking distances average 1.6 times longer in the disconnected neighborhoods (Anne Vernez-Moudon)

streets and the station area to not interrupt sidewalks and create too many conflicts with pedestrians. Retail and services catering to pedestrians are encouraged at street-level to create an active streetscape. Street-fronting residences and offices are designed to create an interaction between the street and the uses within buildings in order to provide “eyes on the street” and support a safe pedestrian environment. Street amenities such as continuous sidewalks, lower-scale lighting, seating and dining areas, waste receptacles, planters, and trees make the sidewalk environment more comfortable for users giving them a sense that they belong on the street.

In order for TODs to be successful, both private and public interests must create a supportive environment. This cannot be emphasized enough, as many of the development and financing mechanisms and attitudes that prevail today are based on the auto-oriented, single-use model rather than the TOD. Both public and private systems must, therefore, be rethought in order to create successful TOD.

The benefits of Transit-Oriented Development can be principally organized into public (generally non-exclusive) benefits--such as air quality, and private benefits--such as increased property values or sales revenue from foot traffic. Often public and private realms operate independently, resulting in disconnected decisions and places. Making the interconnections between public and private entities and acknowledging this fundamental synergy facilitates the success of TOD. They depend as much upon an understanding of the land use and transportation context as they do upon sound market analysis. Improvements in the public realm e.g., infrastructure investments or development incentives can foster revitalization in the private realm. In turn, improvements in the private realm will generally yield public returns e.g., visual interest at the street level or increased tax revenues.

Public and private benefits can be further organized into “primary” and “collateral” benefits. Primary benefits include those for which a primary cause and effect relationship can be documented such as increased transit ridership. Collateral benefits are associated benefits of TOD, but are not as easily quantifiable such as improved community health. Table 1.2 presents one way of understanding the benefits of Transit-Oriented Development. The lines, however, are not black and white, and the overwhelming truth is that these benefits overlap and support each other.

	Public	Private
Primary	<ul style="list-style-type: none"> ▪ TODs can help revitalize declining neighborhoods and urban centers; ▪ Increased opportunities for affordable housing; ▪ Increased transit ridership; ▪ Decreased roadway congestion; ▪ Improved accessibility to jobs; ▪ Improved air and water quality; ▪ TODs can serve as a revenue source for transit agencies; ▪ Mixed-use TOD can generate strong sales tax revenues; and, ▪ Transit investment in general brings positive local and regional impacts 	<ul style="list-style-type: none"> ▪ TODs can provide affordable housing near a readily available source of transportation, creating a high-level of mobility for households on limited incomes; ▪ Increased property values; ▪ Improved foot traffic for retailers; ▪ Decrease in transportation costs for residents and workers; ▪ Decreased employee travel costs; and ▪ Access to a more diverse workforce.
	Public	Private
Collateral	<ul style="list-style-type: none"> ▪ Improved community health; ▪ Increased property and sales tax revenues; ▪ Reduced crime; ▪ Less time in cars means more time for work and play; ▪ Decreased expenditures on roadway expansion; and, ▪ Preservation of open space. 	<ul style="list-style-type: none"> ▪ Co-location of services and uses increases sales and productivity; ▪ Improvements for pedestrians and transit riders do not come at the expense of automobile access; ▪ Co-location of employment with other uses (such as daycare) increases the attractiveness of workplace to prospective employees; ▪ Public co-investment in TOD supports new development; and, ▪ Mixed-use TOD can deliver more highly-valued development.

Table 1.2 Benefits of TOD

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2. EXISTING SITE CONDITIONS

2.1 SITE AREA DESCRIPTION

The Palmdale Transit Village Site is approximately a 110-acre site bounded between Technology Boulevard to the north and Avenue Q - 3 to the south, by Sierra Highway to the east and 3rd Street East to the west. Located in the northern portion of the Transit Village site, is the Transportation Center, constructed in 2004. Directly south of the Transportation Center is the P - 14 block accessed via 6th Street East. These 40 homes were annexed by the City from the County in 2002. To the southwest is the Telstar Trailer Court that, as of 2004, has not been annexed by the City and remains part of the County. Currently there are about 25 mobile homes on the site.

On the corner of Avenue Q and 6th Street East is the continuation high school. It is approximately six acres and primarily consists of stacked classroom portables. Between the eastern edge of the high school site and the rail tracks is an approximately one-acre parcel that was a result of the realignment of 6th Street East (which will be the primary access to the Transportation Center). It is intended that this site be the touchdown point of the proposed pedestrian bridge that will cross Sierra Highway and the rail tracks, and connect the Transit Village site with the neighborhoods to the east. Further south on 6th Street East, 16 commercial uses and several vacant parcels front either side street. Though referred to “Gasoline Alley” because of the many automotive uses, other uses along 6th Street East within the Specific Plan area include industrial supply stores, a motel, and an antique store.

As of early 2005, the residential neighborhood south of Avenue Q, within the project site, is a mix of 30 single-family homes, 43 multifamily apartments, and 29 vacant lots that have not been developed. This is one of the city’s “Focus Neighborhoods” under the Neighborhood Improvement Program. Through the program the City purchases vacant lots and builds single-family homes, provides grants to homeowners to improve their homes, and undertakes infrastructure improvements such as installing new sidewalks.

To the north of Avenue Q along the western edge of the site area, all homes along 3rd Street East, except one, have been razed. There is the possibility that these parcels may be developed into a linear park that would connect to the Desert Sands Park northwest of the site. Directly northwest of the site area is city’s maintenance yard. There are no plans to relocate this facility.



Figure 2.1 Location of Palmdale Transit Village



Figure 2.2 Aerial photo of planning area

2.2 CURRENT LAND USE AND ZONING

A detailed parcel analysis is provided in Table 7.1 of the Appendix.

2.2.1 Current Land Use Designation

According to parcel data supplied by the City of Palmdale and Los Angeles County, the planning area for the Palmdale Transit Village contains a diverse number of land uses. See Table 2.1 and Figure 2.3.



Figure 2.3 Current Land Use



Figure 2.4 A significant amount of vacant land exists within the site

Current Land Use	Number of Parcels	Total Acres
City – Business Park (BP)	40	7.679
City – Commercial Manufacturing (CM)	33	7.151
City – Industrial (IND)	20	49.141
City – Multi-family Residential (MFR)	88	17.670
City – Medium Residential (MR)	17	3.250
County – Multi-family Residential *	1	1.920
County – Vacant Land *	1	0.334
Total	200	87.155 **

* Zoned by City as Business Park

** Not including approximately 13 acres of street r.o.w.

Table 2.1 Current Land Use Designation

Industrial (IND) uses are located north of Avenue Q, accounting for 20 parcels or 10% of the total number in the planning area. The 40 parcels identified as Business Park (BP) uses are all located along Avenue P-14. The land use designation of these 40 parcels is based on the City’s General Plan Land Use Element, although the existing land use for this area is residential. When the City of Palmdale annexed these parcels from Los Angeles County, it was intended that this area would transition to industrial use.

Medium Residential (MR) uses are designated south of Avenue Q and west of 4th Street East, accounting for 17 parcels. Currently all parcels are occupied by single-family homes with the exception of five vacant parcels. To the east, multi-family Residential (MFR) uses are designated between 4th Street East and 6th East Alley. Of the 84 parcels designated MFR 17, are currently occupied by single-family homes, and 24 are vacant. Commercial Manufacturing (CM) uses are located south of

Avenue Q and east of 6th East Alley. 33 parcels are labeled CM. Two parcels located along Avenue Q fall within Los Angeles County’s jurisdiction. One of these parcels is the Telstar Mobile Home Park.

2.2.2 Zoning Designation

According to parcel data supplied by the City of Palmdale and Los Angeles County the Village area’s zoning districts are fairly well-segregated. See Table 2.2 and Figure 2.5.

Zoning Designation	Number of Parcels	Total Acres
Zone C-5: Service Commercial	33	7.151
Zone M-1: Light Industrial	20	49.141
Zone M-4: Planned Industrial	40	7.679
Zone R-2: Medium Residential	17	3.253
Zone R-3: Multiple Residential	88	17.67
Zone CPD: Commercial Planned Development	1	1.920
Zone R-A: Residential Agriculture	1	0.344
Total	200	87.155 *

* Not including approximately 13 acres of street r.o.w.

Table 2. 2 Zoning Designation

Zone M-1: Light Industrial is located north of Avenue Q, accounting for 20 parcels or 10% of the total number in the planning area. Zone M-4: Planned Industrial is located along Avenue P-14. 40 parcels make up this district.

Zone R-2: Medium Residential is located south of Avenue Q and west of 4th Street East, accounting for 17 parcels. Zone R-3: Multiple Residential is located south of Avenue Q and in between 4th Street East and 6th East Alley. 84 parcels are located within this district. Zone C-5: Service Commercial is located south of Avenue Q and east of 6th East Alley. 33 parcels are located within this district.

Two parcels located along Avenue Q fall within Los Angeles County jurisdiction. One of these parcels is zoned for Residential Agriculture and the other is zoned for Commercial Planned Development (the existing mobile home park).



Figure 2.5. Zoning Designation



Figure 2.6 Commercial businesses along 6th Street East



Figure 2.7 Single family homes south of Avenue Q



Figure 2.8 Multiple family apartments south of Avenue Q

2.3 INCOME, TENURE AND OTHER DEMOGRAPHIC INFORMATION

According to the Decennial U.S. Census of Population and Housing (Block Group 2, Census Tract 9102.01 and Block Group 2, Census Tract 9104.2), approximately 44% of the population within or in close proximity of the Palmdale Transit Village is living below the federal poverty level. In comparison, only 16% of Palmdale’s citywide population is living below the federal poverty level.

Minority populations comprise the majority of the block group’s population, or approximately 77% of the total. The Hispanic/Latino population is the most sizeable group at 2,024 (63%). The White population is 727 (23%), the Black/African American population is 392 (12%), and the other population, including the Asian and Pacific Islander and multi-racial populations, is 86 (3%).

2.3.1 Tenure

According to Assessor’s data, 115 parcels or approximately 58% of the total in the planning area are identified as residential. Of this total, only 28 parcels in the planning area have filed for the homeowner’s property tax exemption and are thereby considered owner occupied. These 28 owner occupied parcels constitute approximately 24% of the residential parcels in the planning area. 14 of these parcels are located along Avenue P-14, and the remaining 14 parcels are located south of Avenue Q and west of 6th East Alley.

This information on the tenure of parcels in the planning area corresponds with data available from the U.S. Census. According to census data, the general area contains 931 housing units that are occupied by owners or renters (87%), and 145 housing units that are vacant (13%). Of the total number of occupied housing units, approximately 24% are owner occupied.

Total Number of Housing Units	Owner Occupied	Renter Occupied
931	226	705
100%	24%	76%

Table 2.3 Tenure

2.4 SITE CONSTRAINTS

2.4.1 Fly Over Zone – Air Force Plant 42

In 2002, the Air Force Plant 42 located approximately 2 miles northeast of the site area produced the *Air Installation Compatible Use Zone (AICUZ) Study*. The study promotes health, safety and general welfare in the areas surrounding Plant 42, providing noise contours and compatible use guidelines for land areas surrounding the installation based on a combination of the November 2001 operations and the anticipated future aircraft and maintenance operations. This information is provided to assist Palmdale in future planning and zoning activities.

Approximately 2.5 acre in the northwest corner of the Village area lies within Accident Potential Zone II (APZ II). The zone is the least critical of three potential accident zones, but restrictions to land uses are still recommended:

- No residential beyond very low density single-family;
- No eating or drinking establishments;
- No high intensity retail uses ;
- No hospitals, nursing homes and other medical facilities;
- No education facilities;
- Only low-intensity office uses are allowed; and
- No public assembly– i.e.. clubhouses, conference centers, sports arenas, auditoriums, etc.

2.4.2 Existing Circulation and Parcelization

A primary tenet of transit-oriented design is the creation of a fine-grain, interconnected circulation system that provides the most direct path between transit facilities and other uses within the neighborhood. Within the Palmdale Transit Village Specific Plan area the existing street network and parcelization pattern is not necessarily conducive to a pedestrian-friendly network. East-west access is currently extremely limited north of Avenue Q, and south of Avenue Q block lengths exceed 1000 feet.

2.4.3 Existing Businesses

The majority of existing businesses with the Specific Plan area, primarily those along 6th Street East, are not pedestrian-oriented, nor neighborhood-serving in nature.



Figure 2.9 Site Constraints Map.



Figure 2.10 The continuation high school under construction (2004)



Figure 2.11 Mobile homes within County land



Figure 2.12 Transportation Center under construction



Figure 2.13 A rail right-of-way borders the Village's eastern boundary

2.4.4 Existing Housing

Existing single-family homes within the P-14 block will constrain location of new development in closest proximity to the Transportation Center until a point that they are acquired either through private acquisition or through the City (see Relocation Requirement Assessment in Chapter 6).

2.4.5 School

The continuation high school built within the Village area in 2004 is anticipated to remain indefinitely, although relocation in the longer term is a possibility. The perimeter wall of the school is impermeable thereby restricting the creation of an interconnected pedestrian path system.

2.4.6 County Land

Two parcels within the Village area remain in the County including the Telstar Mobile Home Park. The City will have no authority over these parcels until they are annexed.

2.5 TRANSPORTATION

2.5.1 Transit

In 2004, a new train station for Metrolink (Figure 2.12); a commuter rail service to downtown Los Angeles via Santa Clarita, Burbank and Glendale; and an Antelope Valley Transit Authority (AVTA) bus transfer center was constructed in the northern section of the Palmdale Transit Village. The Transportation Center is intended to be the focal node of integration between AVTA and Metrolink services- both agencies being an integral part of local and regional mobility offering viable alternatives to the automobile. Metrolink itself runs 18 trains on a weekday with an average daily ridership of 6,700 passengers, and eight on Saturday with an average daily ridership of 1,380 passengers (March 2005). Seventy six percent of those riders use are using Metrolink to get to work, but currently less than 10% of riders are getting to the train via foot, bike or bus.

2.5.2 Air Transportation

Palmdale Regional Airport is located at 41000 North 20th Street on a 70-acre site on United States Air Force Plant 42. The airport features a newly refurbished, 9,000 square-foot terminal capable of handling up to 300,000 passengers annually. Los Angeles World Airports (LAWA) owns approximately 17,750 acres of land adjacent to Plant 42, most of which is available

for development. The airport is located approximately 3 miles northeast of the project site and 35 air miles north of the Los Angeles Civic Center. As of early 2005 the only scheduled airline service is Scenic Airways that provides air service between Palmdale and Las Vegas.

Intersection	AM LOS	PM LOS
3 rd Street East / Technology Drive	A	B
3 rd Street East / Avenue P-12	A	B
3 rd Street East / Avenue Q	B	B
Sierra Highway / Technology Drive	B	C

Table 2.4 Intersection LOS for Peak Hours

The following table is re-produced from Table A of the Palmdale Transportation Center Traffic Report prepared in January 2002 by LSA Associates Inc. for the City of Palmdale Public Works Department. Intersections are currently operating at LOS C or better, which is within the City's LOS C standard for intersection operations.

2.5.3 The Road Network

The major arterial street layout in Palmdale illustrated in Figure 2.1 is based on a one-mile primary grid. These arterials are typically paved to 84 feet within a 100-foot right of way. The grid is further divided into a half-mile secondary arterial (typically paved to 64 feet within an 80-foot right of way), and further into a quarter mile grid as required. The quarter mile grid is then subdivided based on the needs of the site and the local road network is generally less geometric. Regional transportation infrastructure such as the Sierra Highway, the Southern Pacific Railway and SR 14 (the Antelope Valley Freeway) do not generally follow the rigid north-south grid alignment and thus interrupt the grid geometry.

Table 2.4 summarizes available existing peak hour levels of service for selected intersections affecting the project site.

2.5.4 Parking

The project site is currently largely undeveloped and as such, parking is not a significant issue. However, the Transportation Center does provide commuter parking associated with the Metrolink commuter rail, and bus services (commuter and local). As of 2004, 650 spaces serve the Center.



Figure 2.14 Newly constructed 6th Street East as entry to Transportation Center



Figure 2.15 Mature street trees exist along 4th Street East south of Avenue Q



Figure 2.16 Alternative alignments for the California High Speed Rail Project

2.5.5 Street Character

The street network context for the Transit Village site is primarily a north-south grid orientation. Although block widths are, on average, 250' (slightly wider than a typical city block), block lengths are excessive at 1000' – 1200'. In the northern half of the site (north of Avenue Q), Avenue P-14 and the extension of Avenue P-12 (access from 3rd Street East into the Transportation Center) is east west. An isolated 400' section of 4th Street East is located at the western end of Avenue P-14. It appears to anticipate an eventual connection to 4th Street East at Avenue Q.

6th Street East, 3rd Street East, and Technology Drive are to be the primary access to the Transportation Center, and upgrading of 6th Street East has occurred. At Avenue Q, the street is reconfigured east of the extension high school to eliminate a previous off-set intersection.

Typical residential street right-of-way width is 60'. 6th Street East has an 80' wide right-of-way and Avenue Q varies between 70' and 80'. There is a notable absence of street tree coverage on many streets within the site area (with the exception of 4th Street East). This is in contrast to the residential blocks west of the site area. Sidewalks are non-existent along Avenue P-14, and sporadic along Avenue Q and along the residential streets south (typically there are no sidewalks along the several vacant parcels in the site area). Where present, the sidewalks are both separated and non-separated from the roadway by a landscape strip.

2.5.6 Proposed California High Speed Rail Project

The California High-Speed Rail Authority (Authority) is the state entity responsible for planning, constructing, and operating a high-speed train system serving California's major metropolitan areas. It has prepared a program-level Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for a 700-mile high-speed train system serving Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County and San Diego. High-speed trains would be capable of maximum speed of at least 200 miles per hour with an expected trip time from San Francisco to Los Angeles in just under 2 hours and 30 minutes.

Palmdale falls into the Bakersfield to Sylmar segment, of which there were two corridor alternatives between Bakersfield and Sylmar (see Figure 2.16). As of 2005, the Antelope Valley alignment, with a proposed station at the Palmdale Transportation Center, has been approved by the High Speed Rail Commission as the preferred alignment.

2.6 SITE INFRASTRUCTURE

The existing infrastructure consists of traditional systems, including paved streets, domestic water, sewer lines, gas, telephone, cable television, and electrical (see Figure 7.1 Existing Infrastructure in the Appendix). These systems appear to provide the current and necessary services required by the local community. The future development needs will however require additional services such as separate fire water loops, new water lines, cable television, telephone, electrical, gas, and sewer lines. Initial assessment of future needs is provided in this section. More detailed requirements are provided in Chapter 5 *Infrastructure*.

2.6.1 Streets and Streetlights

The Los Angeles County Public Works Department (LACDWP) designed and built most of the local roads in the 1950s. The streetlights were designed by Los Angeles County Street Lighting Division and installed by Southern California Edison (SCE). The City maintains the streetlights.

Future Needs

Future street lighting upgrades will be designed and paid for by private developers. The City does its own plan checking services in-house for streets and streetlights.

2.6.2 Storm Drainage

The Anaverde Creek Watershed extends through the City in a northerly direction. About one third of this watershed drains overland from the southwest corner to the northeast corner of the site within channels and street under crossings. Along the eastern edge of the site under the rail lines is a double 12' x 6' box culvert that carries a design flow of 1,485 cubic feet per second (CFS). Both of these watersheds join at Sierra Highway and 6th Street East to flow in a 25' x 10' creek to the Lockheed Basin. Currently, the outletting culvert, designed by LACDWP, is undersized.

Future Needs

To alleviate the undersized outlet culvert problem, the City has required that upstream developments provide for storm water management and a reduction in the runoff rates at each project. The downstream creek may currently have the capacity to handle the Transit Village runoffs. If this is the case, then the City may not require additional detention basins. The City will however still require each development to reduce their post-development runoff rates to 85% of the pre-development runoff rates.



Figure 2.17 Drainage canal along rail tracks



Figure 2.18 Utility lines are typically above ground in the Village area

Portions of the Transit Village adjacent to Sierra Highway lie in a flood plain and therefore any future development will require a Conditional Letter of map Revision (CLOMR) and/or a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).

2.6.3 Domestic water

Domestic water service is potable water typically used for sinks, toilets, irrigation, fire safety, drinking fountains, and other ‘drinkable’ water applications. The PTV receives its water service from the Palmdale Water District (PWD). Individual developments will tap off PWD lines and receive metered service.

Future Needs

Water main replacements have recently occurred at Avenue Q, Avenue P-12, and Avenue P-15 and these upgrades will support future development. Water mains in Avenue P-12 between 6th Street East and 3rd Street East, 4th and 5th Streets East and Larkin Avenue between Avenue Q and Q-3, and 6th Street East between Avenue P-12 and Avenue R are either new or have been replaced within the last 15 years. The water mains in Avenue P-14 between 6th Street East and 4th Street East and in 3rd Street East between Avenue P-12 and Avenue Q remain from the 1950s. Limited water service is currently available along 3rd Street East.

2.6.4 Fire water

The fire protection systems are supplied by the water mains previously discussed. Off-site there are fire hydrants located at every 300-feet in commercial areas and 600-feet in residential areas as dictated by the Los Angeles County Fire Department.

Future Needs

On-site fire water “loop systems” will be determined by the Fire Department.

2.6.5 Sewer

The Los Angeles County Sanitation District (LACSD) own, operate and maintain only the large trunk lines that form the backbone of the regional wastewater conveyance system. Local collector sewer lines, located beneath the streets surrounding the Transit Village site, are the responsibility of the Los Angeles County Department of Public Works. These off-site sewer lines were installed in the 1950s. These vitrified clay pipe (VCP) lines generally flow north and east to trunk lines located at Avenue P-8 and Avenue Q. The sewer trunk lines flow to the City’s treatment plant.

Future Needs

Wastewater flow generated by the PTV will be treated at the Palmdale Water Reclamation Plant which has a design capacity of 15 mgd (million gallons per day) and currently processes an average flow of 9.4 mgd. The expected average wastewater flow from the PTV is approximately 300,000 gallons per day and therefore within the plant's capacity. However, the Districts should review development projects within the PTV in order to determine whether or not sufficient trunk sewer capacity exists to serve the project.

2.6.6 Gas and Electricity

Natural gas is used to provide heating, air conditioning, and a power source for cooking appliances. The Gas Company is the source for gas that is delivered within the surrounding city streets. Southern California Edison (SCE) maintains the electrical distribution lines and supplies power that are typically above ground on utility poles. The Palmdale area is served by SCE from their Vincent Substation where major transmission lines traverse from this location out to the Gorman and Antelope Substations.

Future Needs

SCE has plans to upgrade their substations and conductors in order to meet the rising demand of electricity. Current plans include a possible substation in the Ritter Ranch area and increased transmission capacity throughout the west Palmdale area where the PTV resides.

2.6.7 Telephone and Cable

Telephone service is provided by SBC via both above and underground cable running in the surrounding streets. Available SBC as-built plans show underground cabling and vaults in Sierra Highway, 3rd Street East, 6th Street, and near the City maintenance yard at Technology Drive and Division Street. The residential areas south of Avenue Q between Division Street and 6th Street East are a mixture of aerial and underground lines. A fiber optic system has been installed at Technology Drive (P8), 3rd Street East, and Transportation Center Drive as part of the Palmdale Transportation Center project.

Future Needs

Time Warner Cable provides cable TV services via above ground and buried cable in most of the surrounding streets. This service is not available in the undeveloped areas of this project, and all new cable TV lines are to be underground. As with telephone service, cable TV conduit and vaults are designed and installed by the cable system provider.



Figure 2.19 A significant amount of vacant land exists even in the existing residential neighborhood south of Avenue Q



Figure 2.20 Typical single family homes south of Avenue Q

2.7 MARKET CONDITIONS

Current market conditions in Palmdale indicate that a housing-dominated TOD project such as the Palmdale Transit Village will be feasible over a longer term (i.e. full build-out after 10 to 12 years) if the right policies guiding future development and infrastructure investments, and strategic planning and phasing of development on the Site is put in place as soon as possible. The following is the summary of findings from the Palmdale Transit Village Market Study completed in 2004.

2.7.1 Demographic Trends

Palmdale has experienced strong population and housing growth over the last ten years, driven largely by immigration and rapid economic growth in the southern California region. However, the Palmdale housing market has been and continues to be dominated by for-sale, single-family detached units with families attracted to the area by relatively affordable home-ownership opportunities. Larger households containing five or more persons have been the fastest growing residential segment over the last ten years. With the exception of several income and/or age restricted projects, the development of multi-family or other high-density products has been minimal.

2.7.2 Employment and Population Growth

Employment growth in Palmdale has also been relatively strong over the last ten years, creating about 21,000 new jobs during this period. However, the City has functioned primarily as a bedroom community, with over 75 percent of the employed residents commuting to other jurisdictions for work. Consequently, the labor market has not yet attracted a significant number of younger professionals who live close to work and often seek more compact residential development options.

Both population and employment growth are projected to remain strong over the next 15 to 20 years, increasing demand for a wider range of housing types, including higher density single-family, attached, and multi-family units. Specifically, the City is expected to gain an additional 51,000 new jobs and 126,000 new residents over the next 20 years. The employment growth rate is expected to equal to or exceed the population growth rate over this period and that both growth rates are significantly higher than Los Angeles County as a whole, suggesting a gradual reversal in the City's historical jobs-housing imbalance and an increasing demand for higher-density development.

2.7.3 Housing Trends

In the near term, small-lot detached homes may be a viable development option for the area, and more compact units can be added to the overall development of the area over time. Already several housing projects in the pipeline indicate emergence of smaller-lot single-family detached units, moving away from 7,000-square-foot plus lots that have been common in the City. However, a significant amount of market-rate multi-family development on the project Site is only expected to be viable over the long term.

2.7.4 Retail Trends

Although an expanding population base has resulted in strong demand for additional retail space in the Palmdale area, existing and proposed retail shopping centers are likely to meet current demand as well as additional demand in the foreseeable future term. For example, there are currently eight major shopping centers in the City totaling 2.6 million square feet of space and three new major shopping centers currently under construction that will add an additional 800,000 square feet. In addition, there are several smaller, local serving shopping centers in a short driving distance from the Site. Overall, the site is not competitively located with regard to the development of a local or regional serving retail center

The most viable option for the retail component of mixed-use development on the Site is likely to be local serving retail catering to local residents, nearby employees and commuters. Specifically, small-retail development in the range of 10,000 to 20,000 square feet may be feasible for the Site, if developed strategically over time. Tenants could include service retail (e.g., dry cleaners or nail salons) as well as eateries (e.g., sandwich shops or ice cream parlors). The most strategic approach to retail development on the Site will be to begin with several small-scale shops and allow other land uses to drive further addition to the retail in the future.

2.7.5 Office Trends

Although the conventional office market in Palmdale is relatively small, the City maintains a significant and growing warehouse, industrial, and to a lesser extent R&D sector. The warehouse and industrial market is being driven by the City's large supply of affordable land and strong labor force characteristics. However, the significant supply of competitive land, including a 2,000 acre site nearby planned by the LA Airport Authority as an aviation related business, makes the market support future warehouse and industrial development on the project Site

questionable. In addition, these uses are likely to require large, contiguous parcels that may compete or be incompatible with other types of development. In the longer term, the Site may be more suitable for higher density office development driven by a growing professional sector and transit accessibility.

The City's concerted effort to draw businesses to the area and potential development on the LAWA property may bring a significant number of high-paying jobs to the area, which may result in an influx of young professionals who would be highly interested in compact residential development on the Site, which is also close in proximity to the LAWA property.

3. LAND USE AND COMMUNITY CHARACTER

3.1 URBAN DESIGN CONCEPT

3.1.1 Introduction

The urban design concept for the Palmdale Transit Village was developed during a multi-day design charrette (an intensive design workshop) in the summer of 2004. Members of the consultant team met with the City's Ad Hoc committee (comprised of City staff from various departments, and representatives from AVTA, Metrolink, SCAG and the school board), and established a design approach that was further developed by the consultants. The charrette concluded with a public workshop where the concepts were presented, and public comment noted. The consultant team then refined the alternatives over two months, and returned to Palmdale in the fall to meet with Ad Hoc Committee and present the preferred alternative at a public workshop.

3.1.2 Design Principles

The following principles established the design framework for the block pattern and circulation system of the Transit Village. They reflect the TOD principles of creating interconnected, pedestrian and bicycle-friendly streets, and recognize that current revitalization efforts in the area appear to be successful.

A finer network of streets should be planned north of Avenue Q that integrate with the existing street network, provide developable building parcels, and minimize neighborhood cut-through traffic to the transportation center. The existing street network lends itself to some obvious connections:

- connecting Avenue P-14 with 3rd Street East,
- connecting 4th Street East from Avenue Q to Avenue P-12 (the City owns easement between Avenue Q and Avenue P-14), and extending it further north to Avenue P-14, and,
- extending 5th Street East from Avenue Q to the Transportation Center.

The extension of 5th Street East would require eventually vacating at least two parcels on Avenue P-14. This alignment creates a development parcel directly west of the continuation high school with parcels that would front the street, but back onto the school's wall. Creating these development parcels will



Figure 3.1 Initial Concept Plan developed during design charrette



Figure 3.2 Avenue P-14 currently deadends at an unconnected segment of 4th Street East.



Figure 3.3 Existing curb-to-curb street widths in the Village area appear excessively wide



Figure 3.4 Example of a renovated home on 3rd Street East funded by the Focus Neighborhood program



Figure 3.5 Existing sidewalk along 6th Street East

necessitate a jog in the alignment and direct alignment with the existing 5th Street East may not be possible. In lieu of a vehicular connection, a pedestrian and bicycle connection can still be created that maintain neighborhood connectivity. The current vehicular access to the Transportation Center from outside the neighborhood would remain relatively unchanged with primary access still being from 3rd and 6th Street East, and Technology Drive.

Narrow streets and introduce traffic calming measures. Several streets in and around the study area, most notably Avenue Q between Division and the rail right-of-way, are so wide that they invite high speed auto traffic. It is possible to narrow Avenue Q to one lane in each direction with the remaining right of way given over to a combination of wider sidewalks and a landscaped median (see Figure 4.3 in the Street Design section of Chapter 4). Street design throughout the study area should also reflect a pedestrian and bicycle focus (see Chapter 4).

The current revitalization of neighborhood properties in the blocks south of Avenue Q embarked on by the City’s Focus Neighborhood program should continue and be supported. The primary objective of the program is to build and renovate single family homes to promote home ownership, and provide funds to current homeowners to maintain their property although the program also renovated two multi-family buildings south of Avenue Q-3, completed construction on sidewalks along the length of Avenue Q-3, and have incrementally been building sidewalks along other streets. Residential redevelopment options south of Avenue Q also include the possibility of vacating the Avenue Q-1 and Q-2 cul de sacs and replacing them with courtyard style single-family housing, and acquiring some vacant parcels and developing a small linear park that would connect the neighborhood with the future commercial uses along 6th Street East

Pedestrian-scale retail should be developed along 6th Street East from Palmdale Boulevard to the Transportation Center. Commercial zoning exists along Sixth Street East from Palmdale Boulevard north to Avenue Q. Currently, this stretch is referred to as “Gasoline Alley” given the number of automotive-serving businesses located there. The stretch is also characterized by a significant number of vacant parcels. Over time, 6th Street East has the potential of becoming the City’s walkable main street linking the Transportation Center with Palmdale Boulevard and the Civic Center.

An effective connection is needed to neighborhoods east of Sierra Highway. Currently the rail tracks and Sierra Highway create a barrier between the Transportation Center (and Transit Village site), with the neighborhoods to the east. This, along with

the Air Force Plant 42 Accident Zone II to the north, effectively reduces the “pedestrian shed” of the Center almost 75%. The City has received a grant to construct a pedestrian bridge across the tracks at Avenue Q, and will improve connectivity. A network-wide solution to the rail line-as-barrier problem is to explore the possibility of raising the tracks along the stretch within central Palmdale, and “punching-through” street connections (some perhaps only pedestrian) where necessary.

The Transit Village plan should incorporate greenway connections. Currently there are plans for Desert Sands Park to expand south to Avenue P-12, and it is likely that the parcels vacated along the west side of 3rd Street East will be developed into a linear greenbelt connecting Avenue Q with the Park. The narrowing of Avenue Q and the creation of the greenway along the avenue’s north side would effectively link the park to 6th Street East and, upon completion of the bike/ped bridge, ultimately to the Robert C. St. Clair Parkway east of the rail tracks.

3.1.3 Land Use Program and Illustrative Plan

Table 3.1 provides the Final Build-out program for the illustrative plan overleaf (Figure 3.8).

Land Use	Dwelling Units/Square Footage
Single-family/Duplex	78 du
Townhomes	104 - 192 du
Multi-family	426 – 725 du
Mixed-Use	32
Total Residential	640 - 1027 du
Neighborhood Retail (stand alone)	40,000 sq.ft.
Neighborhood Retail (mixed use)	9,000 sq.ft.
Office – low rise (stand alone)	353,000 sq.ft.
Office – low rise (mixed use)	93,000 sq.ft.
Public Open Space	175,000 sq.ft (4 acres)

Table 3.1 Final Build-Out Program Summary



Figure 3.6 Avenue Q currently dead-ends at the rail tracks along the eastern boundary of the village site



Figure 3.7 Robert C. St. Clair Parkway along Sierra Highway



Figure 3.8 Final Build-Out Illustrative Plan

3.2 PROGRAM PHASING

The development of the Transit Village will occur over the course of a number of years. Proper program phasing will be critical to the success of the early efforts, which will in turn increase the opportunities for later efforts. Phasing strategies provide recommendations for the preferred order of redevelopment efforts. The actual timing of these efforts will be affected in large part by the relocation efforts, the strength of the real estate market, and infrastructure financing availability. Any vacation of street right-of-way shall only take place in conjunction with a development project.

See *Program Phasing* in Chapter 6 for Implementation Actions.

Phase One - Near Term

In the near term, the City’s Focus Neighborhood program would continue to develop and redevelop properties in the neighborhood south of Avenue Q. A linear park connection could be made through the blocks and connect with 6th Street East (that, over time, would be improved and developed with more pedestrian-oriented uses). Acquiring existing vacant lots would make the park connection. Cul-de-sacs Avenue Q-1 and Avenue Q-2 could be vacated and the abutting parcels (many vacant) be acquired. In their place detached single family/duplex units may be developed in a courtyard configuration with the existing cul-de-sacs converted to semi-private greens.

Avenue Q is itself is reduced in width, and a separated sidewalk provided with tree planting. Along the north side, a greenway is proposed that links the proposed pedestrian overpass at Avenue Q and 6th Street East with the proposed linear park along the west side of 3rd Street East and ultimately north to Desert Sands Park.

In this scenario the street network north of Avenue Q is developed/improved. Fourth Street East from Avenue P-14 is connected south to Avenue Q within the existing city-owned right-of-way. In Phase One it may not be necessary to connect north to Avenue P-12. Similarly, Avenue P-14 is connected through to 3rd Street East requiring City to acquire easement right-of-way. A new 5th Street East connection is made south from the Transportation Center, crossing Avenue P-14 and south to a new Avenue P-15. The street itself does not connect through to Avenue Q, but is replaced with a pedestrian and bicycle connection that maintains connectivity while dissuading cut-through vehicular traffic to the Transportation Center. Development of the new 5th



Figure 3.9 Phase One – Near Term

Land Use	Dwelling Units/Square Footage
Single-family/Duplex (small lot)	37 du
Single-family/Duplex (courtyard)	34 du
Townhomes	166 du
Multi-family	N/A
Mixed-Use	N/A
Total Residential	237 du
Neighborhood Retail (stand alone)	N/A
Neighborhood Retail (mixed use)	N/A
Office – low rise (stand alone)	N/A
Office – low rise (mixed use)	N/A

Table 3.2 Phase One – Program Summary

Street East segment would necessitate the acquiring a minimum of three parcels on Avenue P-14, but creates the possibility of development parcels that back onto the wall of the high school. The new short segment of Avenue P-15 connects 4th Street East with 5th Street East creating a city block and parcels that back onto the P-14 lots.

Development type within this area north of Avenue Q ranges from small lot single-family/duplexes along Avenue Q to attached units elsewhere (including the possibility of courtyard configurations). Single-family lots average 5,000 square feet and duplex lots 6,000 square feet. This produces a density of approximately 9 du/acre. It is possible to increase this density by reducing lot sizes further to 4,000 square feet. Parking and garage access to these lots would be by a rear alley thus precluding the need for curb cuts along Avenue Q and the disruption of the greenway element. Elsewhere, courtyard style attached units are proposed with homes arranged around a common green and vehicular access to garages or tuck-under parking via rear alleys. Units could range from two to three stories with an average density of 20 du/acre.

All street should be designed with traffic calming elements such as traffic calming circles in the intersections and pedestrian bulbouts at the corners (see Table 4.1 in Chapter 4).

In this scenario, the trailer court and the adjacent County parcel remain, as well as the majority of the P-14 homes due to annexation and relocation issues.

Phase One – Residential High Alternative

A “Residential High Alternative” to Phase One reflects the actions of the City’s Housing Division which has acquired three vacant parcels north of Avenue Q between the existing trailer court and the school site (#3006008008, #3006008009, #3006008010). It is reasonable to assume that the City wishes to maximize density in this location. This option would include multi-story multiple family buildings north of the single-family/ townhome lots along Avenue Q. Due to the reduced parking requirement for residences located within the Specific Plan area as shown on Table 3.16 and replacing surface parking with podium structures, a maximum of 58 dwelling units per acre is allowed as shown in Table 3.19 Area “D” with a maximum of 309 dwelling units available under the Residential High Alternative.



Figure 3.10 Residential High Alternative

Land Use	Dwelling Units/Square Footage
Townhomes	187 du
Multi-family	156 du
Mixed-Use	N/A
Total Residential	309 du
Neighborhood Retail (stand alone)	N/A
Neighborhood Retail (mixed use)	N/A
Office – low rise (stand alone)	N/A
Office – low rise (mixed use)	N/A

Table 3.3 Phase One (Residential High Alternative) – Program Summary



Figure 3.11 Phase Two – Mid Term

Land Use	Dwelling Units/Square Footage
Single-family/Duplex (small lot)	3 du
Single-family/Duplex (courtyard)	N/A
Townhomes	26 du
Multi-family	485 du
Mixed-Use	N/A
Total Residential	514 du
Neighborhood Retail (stand alone)	15,000 sq.ft.
Neighborhood Retail (mixed use)	N/A
Office – low rise (stand alone)	N/A
Office – low rise (mixed use)	N/A

Table 3.4 Phase Two – Program Summary

Phase Two - Mid Term

In Phase Two, the west side of 6th Street East south of Avenue Q is improved to provide for a more comfortable pedestrian environment and establish the conditions conducive to more pedestrian-oriented development. Initial new development is proposed for pedestrian-oriented uses adjacent to the greenway connection to the neighborhood. The proposed use would be some neighborhood serving retail and/or service with the buildings directly abutting the street and parking in the rear.

North of Avenue Q, it is assumed that the trailer court and adjacent property is annexed and redeveloped with an additional right-of-way established connecting Sumac Avenue from the south with Avenue P-14 to the north. Due to shallowness of the resulting parcels, townhomes could be developed along this street with parking accessed by a rear alley.

In the P-14 block, parcels can be acquired incrementally in order to establish multi-family developments. The proposed building type would be double aspect (accessible from two sides) and could be multi-story townhome above ground floor flats. This arrangement precludes an interior corridor in exchange for units having an individual entry along the street thus producing a more pedestrian-friendly street frontage. The average density for such a development type would be 16.5 – 26 du/acre. Higher density development is possible by introducing podium parking (partially submerged) configured in such a way that street (or rear garden) access to each unit is retained by the use of front stoops.

Right-of-way is acquired for the remaining segment of 4th Street East from Avenue P-14 to Avenue P-12. The parcels to the west are developed with a similar development type as those on Avenue P-14, but can be larger due to the increased depth of the parcels. As in Phase One, all street should be designed with traffic calming elements such as traffic calming circles in the intersections and pedestrian bulbouts at the corners.

Phase Three - Long Term

In Phase Three pedestrian-oriented uses are now established along the west side of 6th Street East. The possibility of mixed use (commercial and residential) exists at the corner of Avenue Q and 6th Street East with the redevelopment of the continuation high school site.

The Transportation Center itself is now redeveloped with low-rise (2 – 3 stories) office uses located on the existing parking lots. The majority of the parking is relocated to a structure north of the bus transfer facilities. A small retail use is located on the ground floor of the office building fronting the main plaza serving transit riders.

Figure 3.13 illustrates an alternative configuration for the Transportation Center’s parking structure that would allow for expanding the bus transfer facilities.

Parcels to the west of the Center are also low-rise office uses with surface parking located beneath the Plant 42 Accident Potential Zone (where uses are restricted).



Figure 3.12 Phase Three – Long Term



Figure 3.13 Potential future bus transfer facility extension

Land Use	Dwelling Units/Square Footage
Single-family/Duplex (small lot)	4 du
Single-family/Duplex (courtyard)	N/A
Townhomes	N/A
Multi-family	40 du
Mixed-Use	32 du
Total Residential	76 du
Neighborhood Retail (stand alone)	25,000 sq.ft.
Neighborhood Retail (mixed use)	9,000 sq.ft.
Office – low rise (stand alone)	353,000 sq.ft.
Office – low rise (mixed use)	93,000 sq.ft.
Total Office	446,000 sq.ft.

Table 3.5 Phase Three – Program Summary

3.3 RESIDENTIAL BUILDING TYPES

3.3.1 Single Family

Figures 3.14 to 3.16 illustrate a range of residential building types appropriate for the Palmdale Transit Village. Development standards are provided within Section 3.4 of this chapter, and appropriate design guidelines in Section 3.5. Each illustrate an appropriate interface between the private and public character.



Figure 3.14 small-lot single family homes (courtyard configuration)

Courtyard Configurations

A design concept for residential units in the Palmdale Transit Village is the courtyard typology. The courtyard allows homes to be clustered around a common open space directly accessed off of a publicly accessible roadway. Rear access to the properties for parking and refuse collection purposes is achieved through the use of residential alleys behind the homes perpendicular to the adjacent roadways.

This configuration creates a hierarchy from the public character of the streets, parks, and plazas to the semi-private residential character of the courts and residential porches to the private realm of the homes themselves. The shared common open space encourages interactions with neighbors thereby strengthening the sense of community in the neighborhood.

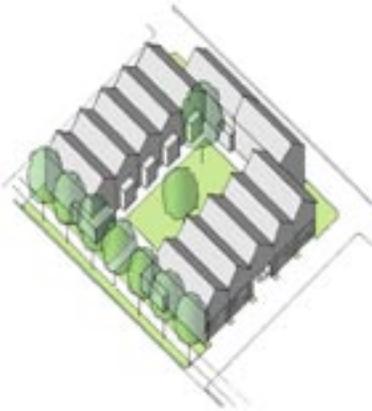


Figure 3.15 Attached townhomes (courtyard configuration)

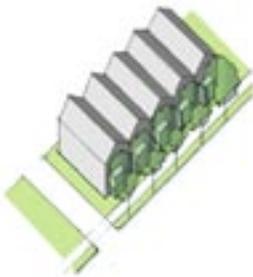


Figure 3.16 Attached townhomes (row configuration)

3.3.2 Multiple Family

Figures 3.17 and 3.18 illustrate two models of multiple family building types appropriate for the Palmdale Transit Village. Each illustrate an appropriate interface between the private and public character.

An objective of the street design of the Village area is to be as pedestrian-friendly as possible (see Chapter 4). The multiple family building types illustrated support this objective by having each ground floor unit's entry fronting directly onto a small entry garden within the building's setback directly accessed from the sidewalk. The same type of entry would be in the rear of the building as well where entries front semi-private pathways, gardens or greens. This type of "dual aspect" design precludes the need for interior corridors. Unit configuration in this type of design could be ground floor flats with multi-story townhomes above. The entry to the townhomes would be by stairs shared by two units that are also directly accessed from the sidewalk or rear pathway/garden.

Figure 3.17 illustrates a higher density version of the similar building type. Podium parking is used, but parking is partially below grade by at least five feet. This type of design still allows for direct access of ground floor unit entries, and stairways to the sidewalk via front steps or stoops. The exposed view into the parking can be screened with landscaping that still allows for natural ventilation of the parking stalls precluding the need for a more expensive mechanical ventilation system. Recreational open space can also be atop the parking podium.

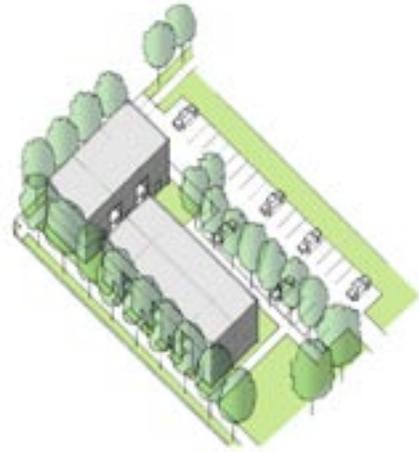


Figure 3.17 Multiple family building with surface parking

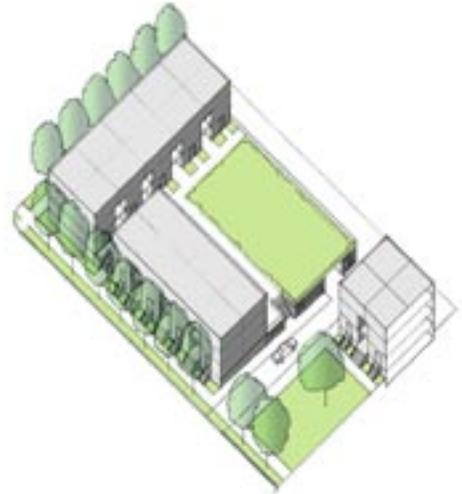


Figure 3.18 Multiple family building with podium parking

3.4 TOD DEVELOPMENT STANDARDS

3.4.1 Purpose and Intent

The purpose of this section is to encourage an appropriate mixture and density of activity around the Palmdale Transportation Center, and promote alternative modes of transportation to the automobile. The intent is to decrease auto-dependency, and mitigate the effects of congestion and pollution. These transit-oriented development standards seek to achieve this by providing a pedestrian-, bicycle-, and transit-supportive environment configured in a compact pattern and a complementary mix of land uses all within a comfortable walking and bicycling distance from the Transportation Center.

The specific objectives of these standards are to:

- Encourage people to walk, ride a bicycle, or use transit;
- Allow for a mix of uses to create an environment that engages people at the pedestrian scale;
- Achieve a compact pattern of development that is more conducive to walking and bicycling;
- Provide a high level of amenities such as attractive landscaping, benches, bicycle racks, and public art elements that create a comfortable environment for pedestrians, bicyclists, and other users;
- Maintain an adequate level of parking and access for automobiles;
- Create fine-grained detail in architectural and urban form that provides interest and complexity at the level of the pedestrian and bicyclist;
- Encourage uses that allow safe round-the-clock activity around transit stations;
- Provide sufficient density of employees, residents, and recreational users to support transit; and,
- Generate a relatively high percentage of trips serviceable by transit.

3.4.2 General Provisions

A. Relationship to the Palmdale Zoning Ordinance

This specific plan augments the development regulations and standards of the Palmdale Zoning Ordinance. When an issue, condition or situation occurs which is not covered or provided for in the Specific Plan, the regulations of the Zoning Ordinance that are most applicable to the issue, condition or situation shall

apply. In the event that the provisions of the Specific Plan are in conflict with the Zoning Ordinance, the provisions of the Specific Plan shall prevail.

B. Interpretation

The Planning Director or his/her designee, shall have the responsibility to interpret the provisions of the Specific Plan, except that the Planning Director may refer the matter to the Planning Commission. All such interpretations shall be in written form and permanently maintained. Any person aggrieved by such an interpretation may make a formal request in writing to the Planning Director that such interpretation be reviewed by the Planning Commission, by filing an appeal. Such appeal is subject to applicable fees and processing requirements.

C. Enforcement

The City shall enforce the provision of this Specific Plan and all the applicable codes of all governmental agencies and jurisdictions in such matters including, but not limited to, building, mechanical, fire and electrical codes pertaining to drainage, waster water, public utilities, subdivisions and grading.

D. Definitions

Words, phrases, and terms not specifically defined herein shall have the same definition as provided in the City of Palmdale Zoning Ordinance. Definitions of words, phrases and terms as used in this Specific Plan are included in the Glossary in the Appendix.

3.4.3 Establishment of Neighborhood Zones

Figure 3.19 illustrates the location of Neighborhood Zones within the Palmdale Transit Village. Development standards established for the Palmdale Transit Village Specific Plan shall pertain to the respective zone where specified.

3.4.4 Permitted Uses

The following uses shall be permitted within the Palmdale Transit Village Specific Plan area, and shall correspond with each neighborhood zone as per Table 3.6.

Retail/Commercial

- Retail sale of goods generally characterized by relatively short-term utility or consumption
- Food services excluding fast food restaurants with drive-through windows
- Personal services

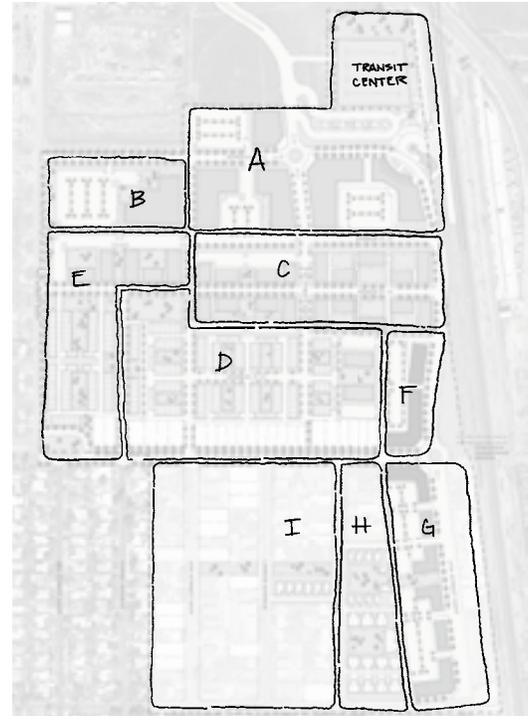


Figure 3.19: Neighborhood Zone Diagram

Neighborhood Zone	Allowable Use
A, B, F, G	Retail/Commercial
A, B, F, G	Office
A, F, G	Mixed-Use
A, B, C, D, F, G	Civic
C, D, E, F, H, I	Residential
F	Public School

Table 3.6: Allowable Use per Neighborhood Zone

- Day care facilities
- Bed and Breakfast establishments

Office

- Financial and real estate services
- Professional services
- Business services

Mixed-Use

- Residential and retail/commercial and/or office mixed-use
- Office and retail/commercial mixed-use

Civic

- Post offices
- Government administrative offices (office uses only)
- Recreational centers, including senior centers (indoor operations and facilities only)

Residential

- Single-family detached
- Single-family and townhomes attached
- Condominiums/apartments
- Accessory units

Schools

- Public schools

3.4.5 Uses Requiring Conditional Use or Use Permit

For property within the specific plan area the following uses are considered uses that are conditional and that require Use Permits; Conditional uses are subject to Article 22 – Conditional Use Permits of the City’s Zoning Ordinance.

- Retail sale of goods generally characterized by relatively long-term utility or consumption
- Uses listed in Section 53.06 - Uses Permitted Subject to Approval of a Conditional Use Permit of the City’s Zoning Ordinance
- Religious assembly
- Grocery stores
- Parking Facilities (Commercial) or Principal Use Parking (Structured or Surface)

3.4.6 Non-Conforming Uses

Non-Conforming uses shall be those uses deemed to not be in compliance with the development standards set forth in this Specific Plan, but lawfully in existence prior to the adoption of this Specific Plan. Because it is reasonable to assume that such uses would not be considered to be transit-oriented, future expansions, rebuilding, repair and reconstruction, abandonment and change in use shall be limited by the regulations outlined in Article 29 – Non-Conforming Uses and Structures of the City’s zoning ordinance.

3.4.7 Determination of Unlisted Uses

The Planning Director upon written request, or the Planning commission upon referral by the Planning Director, shall be allowed to determine whether a use not specifically listed as a use that is principally permitted or conditionally permitted in the Specific Plan area should be given such designation based upon a similarity to uses already allowed.

3.4.8 Setbacks and Build-To Lines

3.4.8.1 The standards established in Table 3.7 shall apply to new non-residential and mixed-use development within the specific plan area. Setbacks are measured from the property line. Where ground level retail uses are present, setback may be increased up to twelve (12) feet for outdoor seating or sales (e.g. produce display). Features such as overhangs, porticos, balconies, loggias, arcades, covered (non-enclosed) bicycle parking, pergolas, and similar architectural features placed on the front (street-facing) side of the building shall be allowed within the setback.

3.4.8.2 The standards established in Table 3.8 shall apply to new residential development within the specific plan area. Features such as front porches, overhangs, porticos, balconies, loggias, arcades, covered (non-enclosed) bicycle parking, pergolas, and similar architectural features placed on the front (street-facing) side of the building shall be allowed within the setback.

3.4.9 Lot and Dwelling Size Standards

3.4.9.1 New residential single-family development within the specific plan area shall have an allowable minimum lot area of five thousand (5,000) square feet. The minimum lot width shall have a minimum of fifty (50) feet and a minimum lot depth of eighty (80) feet. Side

Neighborhood Zone	Building Setback
A, B, C, E, G	0 to 6 feet
D	0 to 10 feet
E, H, I	N/A

Table 3.7: Non-Residential & Mixed-Use Setbacks and Build-to Lines

Neighborhood Zone	Building Setback
C, F	0 to 8 feet
D	0 to 12 feet
E, H, I	8 to 18 feet
A, B, G	N/A

Table 3.8: Residential Setbacks and Build-to Lines

Livable Area in Square Feet	Bedrooms	Baths
	Maximum Number	Minimum Number
500	Bachelor	1
600	1	1
800	3	1
1,000	3	2
1,200 and over	3 or more	2

Table 3.9 Multiple family dwelling size standards

Neighborhood Zone	Minimum FAR
A	0.80
B, F	0.60
G	0.40
D, E, H, I	N/A

Table 3.10: Non-Residential & Mixed-Use Densities

Neighborhood Zone	Residential Density (range)
D	Up to 58 du/acre
C	25 - 40 du/acre
F	18 - 30 du/acre
G, H	12 - 16 du/acre
E, I	8 – 12 du/acre
A, B	N/A

Table 3.11: Residential Densities

Neighborhood Zone	Max. Building Heights
A, B, D	60 feet
C, F, G, H	45 feet
E, I	36 feet

Table 3.12: Building Heights

Neighborhood Zone	Maximum Lot Coverage
A, B, D	70%
C, E, F, G, H, I	50%

Table 3.13: Lot Coverage

yards shall have width of five (5) feet each, except on corner or reverse corner lots, both side yards shall be a minimum of ten (10) feet in width.

3.4.9.2 New multiple family development shall maintain a minimum lot area of twenty thousand (20,000) square feet. Notwithstanding the minimum lot area requirement, a new development shall be allowed a minimum net lot area of one thousand two hundred fifty (1,250) square feet per unit.

3.4.9.3 Multiple family dwelling size standards established in Table 3.9 shall apply to new residential development within the specific plan area. Minimum dwelling areas listed are computed by calculating the living areas as measured from the outside walls and excluding garages, carports, exterior courtyards, patios, and balconies, except as otherwise approved in conjunction with a housing project for low income households or seniors.

3.4.10 Density

3.4.10.1 New non-residential and mixed-use development within the Specific Plan area shall achieve minimum FARs as stated in the Table 3.10.

3.4.10.2 New residential uses within the Specific Plan area shall achieve densities according to Table 3.11.

3.4.11 Building Height

3.4.11.1 For all new development and the vertical alteration of existing development, building heights within the Specific Plan area shall conform to Table 3.12.

3.4.12 Lot Coverage

3.4.12.1 New development within the Specific Plan area shall achieve lot coverage of not more than that defined in Table 3.13.

3.4.12.2 Features such as front porches, overhangs, porticos, balconies, loggias, arcades, covered (non-enclosed) bicycle parking, pergolas, and similar architectural features placed on the front (street-facing) side of the building shall be exempt from the lot coverage requirement.

3.4.13 Building Frontage and Façades

- 3.4.13.1 In order to support the pedestrian-oriented environment within the Specific Plan area, building frontages onto streets and open spaces shall be maximized. Building frontage within the Specific Plan area shall achieve the requirements as outlined in Table 3.14.
- 3.4.13.2 Clear windows shall encompass, at a minimum, fifty percent (50%) of a non-residential building façade length fronting onto a street, and thirty percent (30%) of a residential building façade fronting onto a street within the Specific Plan area. A section of a facade shall not exceed twenty (20) linear feet without being interrupted by a window or entry.

Neighborhood Zone	Min. Building Frontage as a Percentage of Lot Frontage
A, C, F, G	75%
B, D, E, H, I	65%

Table 3.14: Building Frontage

3.4.14 Building Entry

- 3.4.14.1 If a building is adjacent a transit street or a major pedestrian accessway, at least one main building entry shall be oriented to the adjacent transit street and/or major pedestrian accessway. A pedestrian way shall be provided from the building entry to the transit street or major pedestrian accessway.
- 3.4.14.2 To allow for their use, residential porches shall have a minimum clear depth of six (6) feet and shall be a minimum of fifty (50) square feet.

3.4.15 Open Space and Amenities

- 3.4.15.1 All multiple family developments with four (4) or more dwelling units shall provide twenty percent (20%) usable common open space for passive and active recreational uses. Usable open space areas shall not include public or private rights-of-way; vehicular parking area; areas adjacent to or between structures less than fifteen (15) feet apart; required building setback areas; private patios or yards; or areas having a slope greater than 3:1. Usable open space can include roof decks (including roof deck above structured or podium parking) accessible to all residents in the development.
- 3.4.15.2 A minimum of two hundred (200) square feet of usable private open space, consisting of a private yard, patio, deck balcony or a combination of the above, shall be provided for each single family unit. Within multiple family residential projects, a minimum of one hundred (100) square feet of usable private open space shall be provided.

Units	Amenities
0-3	0
4-25	1
26-50	2
51-100	3
101-150	4

Add 1 amenity for each 100 additional units or fraction thereof.

Table 3.15: Multiple family development amenities

3.4.15.3 All open space associated with multiple family developments with four (4) or more developments shall have, at a minimum, a landscaped area of six hundred (600) square feet complete with two (2) benches. Additional amenities may include, but are not limited to, a swimming pool; spa; tot lot with play equipment; picnic shelter with barbecue area; and court game facilities. The types of amenities shall be dependent upon the nature of development, and shall be approved by the reviewing authority in accordance with Table 3.15.

3.4.15.4 All new development within the Specific Plan area shall incorporate an element of public art equivalent to one percent (1%) of total building cost. Guidelines for incorporating public art are included in Section 3.5.9.

3.4.16 Sign Regulations

3.4.16.1 New signage within the Specific Plan area shall conform to the standards stated herein and within Article 88 of the city’s zoning ordinance. In the event of a conflict between the standards given herein and Article 88 - Signs of the zoning ordinance, the TOD standards shall prevail.

3.4.16.2 Signage shall not reduce clear sidewalk width to less than eight (8) feet. Opaque signage shall not reduce visual permeability of street-fronting windows to less than the minimum clear window requirement within Section 3.4.13: Building Frontage and Façade.

3.4.17 Parking Requirements Per Land Use Type

3.4.17.1 For new development within the Specific Plan area, the number of required parking spaces (on-street and off-street) shall be based upon in Table 3.16 that summarizes the number of parking spaces required for permitted uses. Parking space calculations resulting in a fraction shall require a whole space and not rounded to the nearest whole number.

RETAIL/COMMERCIAL	
Bed & Breakfast	1.0 space per room or suite of rooms
Retail and Service Uses	1.0 space for each 333 square feet of gross floor area
Restaurants and Drinking Establishments	1.0 space for each 100 square feet of gross floor area; 1 space for every 333 square feet when there is no on-site consumption.
Hotel or Motel Lodging	1.0 spaces per room or suite of rooms; 1 space per 100 square feet of eating/meeting area; 1 space per 4 employees on largest shift
MIXED-USE	
Mixed-Use	The sum of the requirements of the various uses computed separately
Live-Work	1.25 spaces per dwelling unit and 1 space for each employee not residing in the dwelling unit
OFFICE	
Medical and Professional Offices	1.0 space for each 300 square feet of gross floor area
Other Offices	1.0 space for each 333 square feet of gross floor area
CIVIC	
Day Care Facilities	0.80 spaces per employee
Gov't Offices	1.0 space for each 333 square feet of gross floor area
Lodges/Clubs	1.0 space for each 125 square feet of gross floor area
Post Offices	1.0 space for each 300 square feet of gross floor area
Schools-Elementary/Jr. High	1.5 spaces per classroom
Schools-High/College	0.25 spaces per student and staff
Sports Facilities	1.0 space for each 200 square feet of gross floor area
Theaters	0.30 spaces per seat
Worship	0.50 spaces per seat
RESIDENTIAL	
1 Bedroom/Studio (multi-family)	1.25 spaces per dwelling unit (0.25 designated visitor)
2 Bedroom* (multi-family)	1.5 spaces per dwelling unit (0.25 designated visitor)
3 Bedroom* (multi-family)	1.75 spaces per dwelling unit (0.25 designated visitor)
Single-Family Residential	2.0 spaces (enclosed in garage)
Townhomes	2.25 spaces (2 enclosed in garage)
Accessory Units	1.0 space per accessory dwelling unit
Boarding Houses	1.0 space per bedroom
Nursing Home	0.33 space per bed
Senior Housing	1.25 spaces per unit (1 space covered and designated to unit).

* Current City zoning ordinance does not specify number of bedrooms.

Table 3.16: Parking Requirements for Permitted Uses

3.4.18 On-Street Parking

3.4.18.1 For new development occurring within the Specific Plan area, on-street parking along the use’s lot frontage shall count towards the parking requirements for non-residential uses on the lot set forth within the regulations of this District. This count shall be rounded to the nearest whole number. Curb parking along residential uses will count towards visitor parking requirements only. The minimum lineal frontage is twenty two (22) feet per parallel parking stall, and nine (9) feet for head-in and angled parking.

3.4.19 Off-Street Parking

- 3.4.19.1 Off-street parking shall be located to the rear and/or interior of a lot such that its visibility from a street shall be minimized.
- 3.4.19.2 At-grade, above-, or below-ground parking structures shall be permitted. At-grade parking structures shall have a minimum frontage as outlined in Section 3.4.13: Building Frontage and Façade.
- 3.4.19.3 Surface parking lots shall be placed between the structure and a side or rear lot line. Where a lot fronts onto two or more streets, parking shall be located accordingly:
 - Along the street with the least amount of commercial activity
 - Along the street with the least amount of pedestrian activity if the lot is located along two or more commercial streets with equal amounts of commercial activity.
- 3.4.19.4 A wall or fence no higher than six (6) feet and no lower than four (4) feet shall separate parking lots from abutting residential uses with a minimum four (4) foot wide landscaped buffer. Walls and fences shall take on the character of residential uses.
- 3.4.19.5 Podium parking used in any development shall be partially submerged with the above-grade height not to exceed five (5) feet. Landscaping shall be used to screen exposed openings.
- 3.4.19.6 Garages associated with single-family residential uses, whether attached or detached, shall be set back at least ten (10) feet behind the primary front façade of the buildings they serve. The primary front façade shall comprise at least fifty percent (50%) of the overall width of the primary residence and the ten (10) foot setback shall not be measured from projections such as bay windows and porches, but from the façade of the wall which encloses the building.
- 3.4.19.7 Parking structures, including structures developed in conjunction with the Transportation Center shall adhere to the same setback, frontage, and height requirements as buildings within their respective neighborhood zone.
- 3.4.19.8 Parking structures in commercial and mixed use areas fronting on a street shall include ground floor

uses to create a pedestrian-supportive interface with the abutting sidewalk. If a use cannot be provided, landscaping can be used as screening.

3.4.20 Bicycle Parking

3.4.20.1 Convenient bicycle facilities shall be provided within the Specific Plan area. The following bicycle parking requirements shall be applied within the Specific Plan area. For non-residential uses, the number of bicycle parking spaces should be 5% of the number of automobile parking spaces. For office, 80% of these should be Class I (bicycle lockers, restricted access facilities such as a locked room or garage, or an enclosed cage), and 20% Class II. For retail, 20% of spaces should be Class I and 80% Class II, ideally in the form of on-street bicycle racks at least every 50' along the commercial frontage. For residential uses, at least 1 Class I bicycle parking space per unit should be provided.

3.4.21 Location of Vehicle Access

- 3.4.21.1 Conflicts between pedestrians and vehicles entering and exiting parking lots shall be minimized. Access from pedestrian-oriented streets shall be avoided unless no other reasonable access is available, such as in lots with a single street frontage and no alley.
- 3.4.21.2 Where alleys are present, driveways leading to parking lots, and loading and service areas shall be accessed from the alley. Lots with more than one street frontage and no alley shall locate vehicular access along the street with the least amount of pedestrian activity. All loading and service drives shall be of a depth that prevents loading and service vehicles from obstructing the sidewalk and roadway.
- 3.4.21.3 Access driveways shall not dominate the street frontage, and driveway widths shall be minimized to reduce their presence along the street.
- 3.4.21.4 Where feasible, driveways shall be consolidated within the single lot and shared with adjacent properties to minimize their encroachment upon sidewalks.
- 3.4.21.5 Shared driveway agreements shall be utilized where possible for shared parking, and loading and service areas.
- 3.4.21.6 To avoid encroaching upon sidewalks and creating uneven pedestrian surfaces, driveway slopes shall be

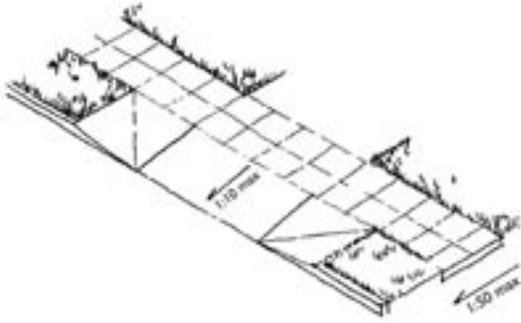


Figure 3.20 Preferred sidewalk/driveway interface.

located between the roadside edge of the sidewalk and the curb (see Figure 3.20).

3.4.22 Loading and Service Area Location

- 3.4.22.1 Loading, service, and refuse areas shall be located at the interior of the lot and screened from view with walls, trellises, planting, berms, or by integration into the design of the building.
- 3.4.22.2 Walls shall not exceed 6 feet in height. Solid walls shall be landscaped to soften their appearance and shall be made of finished materials to match the primary building. Decorative elements, variation in materials, and articulation shall be used.

3.5 DESIGN GUIDELINES

Although the site design and the style of buildings should reflect the context of the area, in general, buildings should adhere to the following guidelines. Building design standards such as height and setback are defined in Section 3.4. The issues discussed below relate to urban design and architectural qualities and character of buildings within the Palmdale Transit Village Specific Plan area.

3.5.1 General Building Guidelines

- 3.5.1.1 All exterior walls of a building should be articulated with a consistent style and materials. In no case should any façade consist of unarticulated blank walls.
- 3.5.1.2 Building facades should have design elements that are human-scaled in order to support the creation of a pedestrian-friendly environment. This is particularly important on the ground floor of commercial buildings where pedestrians have the most direct relationship to buildings. Effective elements include: building bays, towers, roof eaves, window proportions, arcades, awnings, verandahs, porches, and stoops (see Figure 3.21).
- 3.5.1.3 Arcades and recessed building entries should provide shade and enclosure that create comfortable human-scaled environments for pedestrians.
- 3.5.1.4 To give buildings an authentic appearance, as opposed to a veneer-like quality, materials should be consistent on all sides of the building (see Figure 3.22).
- 3.5.1.5 The amount of reflective building materials should be limited or prohibited on development directly abutting a pedestrian way. Highly reflective material on building facades may help to keep interior temperatures down but can be extremely uncomfortable for the pedestrian passing by.
- 3.5.1.6 Primary entries should be clearly expressed and recessed or framed by sheltering elements such as awnings, arcades, porches, or porticos. Secondary entries should be treated in a similar, but lesser manner.
- 3.5.1.7 All mechanical equipment and meters should be located to minimize visual impacts from streets, sidewalks and other public spaces. Rooftop mechanical equipment should be screened from view within the overall form of the roof or behind a parapet.



Figure 3.21 This arcade offers both shade and visual interest to the passing pedestrian.

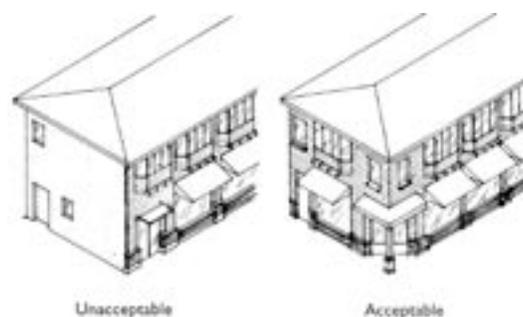


Figure 3.22: Façade materials should not create a veneered look.



Figure 3.23. Prominent garages create an environment that is devoid of life, both in the private and the public environment.



Figure 3.24 Front stoops, porches and low fences create a friendly street frontage.



Figure 3.25 A wrap-around porch provides a friendly frontage to the street in this courtyard development.

3.5.2 Residential Buildings

- 3.5.2.1 Street fronting side yards (yards on corner lots) and the design of the building façade should be similar in design and quality to a typical front yard of a home. These side yards are important to the character of residential areas because they are the most visible yards.
- 3.5.2.2 Primary walkways should connect entrances to the sidewalk rather than to driveways.
- 3.5.2.3 Outdoor entrances to residential developments should be clearly defined so that they provide a sense of transition between the public realm of the street and the private realm of the homes and so they are easy to find.
- 3.5.2.4 Street frontages should be addressed by the more active rooms within a residence and avoid lining the street with garages and excessive driveways.
- 3.5.2.5 Where multi-family residential units are set back less than ten (10) feet from a public right-of-way, first-floor units of multi-family residential buildings should be designed with additional measures to ensure privacy. At a minimum, window sill heights should be raised above the eye level of a passing pedestrian. Elevated stoops and raising interior floor elevations above adjacent sidewalk grade are some measures that can be employed.
- 3.5.2.6 Building fronts should contain public/semi private transitions such as stoops and open porches to create a friendlier streetscape where pedestrians can interact easily with their neighbors.

Residential Courtyards

- 3.5.2.7 All of the homes should have a porch and front door facing onto the courtyard garden or court with the exception of the homes that front onto the public street that shall have a “wrap-around” porch fronting onto the court and the street (see Figure 3.25).
- 3.5.2.8 The major focus of each courtyard development shall be the courtyard garden or court. The garden or court provides the transition from the public realm of the street to the private realm of the home and it is the gathering point for the residents of the courtyard.
- 3.5.2.9 The courtyard garden should be rectilinear in shape to provide good visibility into and out of the court, and to be efficient with the land.

- 3.5.2.10 The garden should have a minimum width (parallel to the street) of forty-five (45) feet and a minimum depth of seventy-five (75) feet. The exception is for gardens or courts that are wider than sixty (60) feet, which may have a depth of fifty-five (55) feet.
- 3.5.2.11 Each home within the courtyard should be connected from its front porch to the adjacent public sidewalk by a minimum four (4) feet clear width paved pathway which is included within the courtyard dimensions.

3.5.3 Commercial and Civic Buildings

- 3.5.3.1 Primary entrances should generally face pedestrian streets and public open spaces rather than parking lots in order to emphasize the primary importance of the pedestrian realm.
- 3.5.3.2 Where commercial buildings meet residential uses, building height impacts on privacy and solar access should be mitigated by stepping down in height to meet adjacent residential buildings.
- 3.5.3.3 Special architectural features, such as bay windows, decorative roofs, and entry features should avoid projecting onto front setbacks and rights-of-way such that they dominate the sidewalk and/or intrude into the clear space defined by the ordinance.
- 3.5.3.4 Prominent features, such as towers, should be placed at street corners and/or highlight main entrances.
- 3.5.3.5 The primary entry(s) for commercial establishments and the entrances to the second floor uses should be within the primary façade and should be accessible directly from a public street, park, or plaza.
- 3.5.3.6 Articulation should provide interest and shade, and reduce the feeling of “exposure” for the pedestrian. Development directly abutting the street should provide additional shading with methods such as awnings and arcades.
- 3.5.3.7 Accessways, or Pedestrian Pass-throughs, can minimize walking distances by allowing pedestrians access between buildings or lots. Accessways should be attractive spaces and places where pedestrians feel safe.
- 3.5.3.8 Accessways should be as straight as possible to improve sightlines and security, and have a preferred width of twenty-five (25) feet.



Figure 3.26 Example of a courtyard garden in a new development.

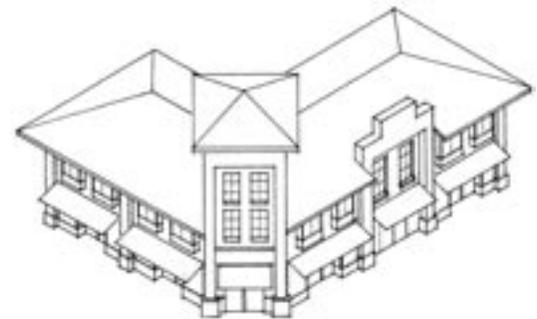


Figure 3.27 Corner towers and prominent entry features clearly define main entrances, while awnings call out small shop entrances

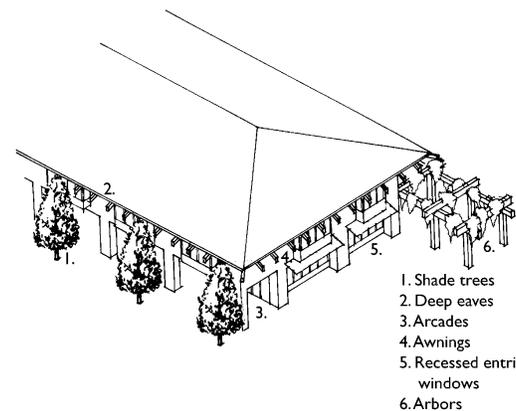


Figure 3.28 Non-mechanical climate control devices create attractive pedestrian environments and break down building mass.



Figure 3.29 Pedestrian accessways provide access to parking and opportunity for intimate public spaces



Figure 3.30 This solid block wall creates an unfriendly frontage to the street.



Figure 3.31 Trees within a parking lot create comfortable microclimates for cars as well as pedestrians.

3.5.4 Fences and Walls

- 3.5.4.1 Unless otherwise noted within these Standards and Guidelines, walls and fences used for screening purposes within the Specific Plan are not to exceed six (6) feet in height. Trellises, arbors, and semi open structures are acceptable substitutions for solid walls if landscaping is used to enhance the visual buffer.
- 3.5.4.2 Walls and fences buffering residential uses from non-residential uses should take on the character of the residential use.
- 3.5.4.3 Chain link fencing should not be used unless they are completely screened from view by a hedge or other landscaping.
- 3.5.4.4 All walls should demonstrate a high level of architectural detail, articulation, and design, and be constructed of durable materials.
- 3.5.4.5 Walls and fences should be accompanied by a combination of trees, shrubs, groundcovers, and climbing vines to soften their appearance.
- 3.5.4.6 If a wall is used vines or other landscaping should be used to soften the appearance of the wall from the street.

3.5.5 Surface Parking Lot Design

The design of parking within the Transit Village is a key consideration in creating pedestrian-friendly places. In order for retail, employment, and residential uses to be successful in the market, adequate and convenient parking must be provided. However, the “perception” of auto dependency is fostered where the urban landscape is dominated by parking lots, therefore, their presence must be controlled and minimized.

- 3.5.5.1 Parking lots on adjoining properties should be interconnected whenever possible to allow pedestrians to trip link by parking their car in one lot and making several trips on foot, and to offer drivers more flexible parking choices.
- 3.5.5.2 The use of permeable paving to reduce surface runoff should be used for parking stall surfaces. Where possible, drainage should be directed to planting areas to maximize percolation.
- 3.5.5.3 Parking lots should be well-lit to create a safe environment for persons going to and from their cars.

- 3.5.5.4 Walkways running parallel to the parking rows (perpendicular to parked cars) should be provided for every four (4) rows, and walkways running perpendicular to the parking rows (parallel to parked cars) should be no further than twenty (20) parking stalls apart. Walkways should also be provided at the edges of parking lots.
- 3.5.5.5 Walkways should be raised to standard sidewalk height of six (6) inches and provide a minimum five (5)-foot clear space from car fenders.
- 3.5.5.6 Where the path bisects the travel lane, crossings should be clearly delineated by a contrasting color, pattern, material change, and/or be raised slightly to form a “speed table”.
- 3.5.5.7 Well-maintained landscape elements such as trees, shrubs, groundcover, and landscape structures within a parking lot and along pedestrian pathways should be utilized to reduce the perceived size of the lot and create a more pleasant microclimate for pedestrians.
- 3.5.5.8 All parking lots greater than twelve (12) stalls (approximately one eighth of an acre or about 5,000 square feet) should provide a tree canopy that will cover fifty percent (50%) of the lot at time of the trees’ maturity, approximately ten (10) years. This will affect the spacing of the trees depending upon the species and their growing habits.
- 3.5.5.9 Trees should be planted along the interior pedestrian paths to provide needed shade. Trees should be planted such that at least fifty percent (50%) of the path is intermittently in shade.
- 3.5.5.10 Additional interior landscaping should comprise a minimum of ten percent (10%) of the total parking area exclusive of the perimeter planting strip used for screening purposes.
- 3.5.5.11 Each planted area should not be less than twenty-five (25) square feet and drought-tolerant plants should be used to reduce watering needs.
- 3.5.5.12 Landscaped parking islands may be the appropriate location for required storm drainage swales that facilitate natural infiltration. In such cases, landscaped area should be no less than ten (10) feet wide with the sides having a slope no greater than 1:4. Drain inlets should be placed accordingly within these swales and elsewhere in the parking area to eliminate pooling.



Figure 3.32 Clearly delineated pedestrian paths in parking lots



Figure 3.33 A trellis softens the visual impact of surface parking.



Figure 3.34 Biofiltration swales are common use for parking lots, but they can be used in a variety of other types of open spaces.

- 3.5.5.13 A landscape buffer between a sidewalk and a parking lot should be at least six (6) feet in width. At a minimum, the buffer should contain trees and shrubs that create a visual separation, but could also incorporate a trellis structure.

3.5.6 Park and Plaza Design

Parks and plazas are an important element of public space within all communities. They are the gathering places that allow for leisure and recreational activities as part of public life. They are an important amenity and provide opportunities to meet friends, neighbors and co-workers.

- 3.5.6.1 Parks and plazas should not be an afterthought in the design process. Public gathering spaces should be integral to the design process as they should become the main focus around which civic life revolves.
- 3.5.6.2 Parks and plazas should be fronted by public streets, pedestrian accessways, and/or active building frontages and entries. Surface parking should not front directly onto a public park or plaza.
- 3.5.6.3 Circulation within parks and plazas should support direct connections into the park from the surrounding neighborhoods, commercial areas, and near-by semi-private courtyards.
- 3.5.6.4 In no case should a fence prohibit access into the park, although fences may be installed around children's play areas for security and control.
- 3.5.6.5 Activities should be visible from the surrounding area to improve security. Example uses for enlivening parks and plazas, include: chessboards, stages and amphitheaters, vendor carts, children's play areas, and fountains.
- 3.5.6.6 Seating should be arranged to allow the user maximum choice depending on the desired level of privacy and visibility, sun/shade, and proximity to activity.
- 3.5.6.7 At least twenty-five percent (25%) of a plaza should be composed of planted landscape areas (planters, planting beds, etc.). At least fifty percent (50%) of the entire open space should have a tree canopy after ten years of installation. This helps to make a comfortable gathering place and a relaxing environment.

Stormwater Benefits

The City will likely require each new development in the Transit Village area to reduce their post-development run-off rates to eighty-five percent (85%) of the pre-development runoff rates. In Palmdale, detention basins are the most common practice in stormwater management. The creation however of a greenway network, as well as private courtyards, provides the City and developers the opportunity to integrate stormwater facilities such as bio-filtration swales and “rainwater garden” (planted areas using bioretention) into the development pattern. By doing so, parcels of land do not have to be solely dedicated to detention basins, but can also be used as recreational open space. This is referred to as a “green streets” approach elsewhere in the country such as the Portland, OR region. The Green Streets concepts are aimed at providing a more complete integration of these necessary functions (i.e. water quality treatment and high flow conveyance) in an environmentally friendly approach. Traditionally designed impervious surfaces concentrate and intensify stormwater runoff – being designed on the basis of conveyance only. The increased runoff produced is destabilizing receiving channels and lowering the quality of downstream aquatic resources. The Green Streets approach seeks to minimize these impacts while providing better implementation of the required functions (i.e. water quality mitigation and high flow conveyance).

3.5.7 Lighting

Lighting is an essential amenity along streets, accessways, pathways, parking lots, plazas, and parks. They create a safe environment which is conducive to lively nighttime activity. Lights can also create interest by illuminating special architectural or landscape features, special places, and convey a feeling of activity during the evening. Lighting standards within the Transit Village should be pedestrian-friendly.

- 3.5.7.1 Adequate and aesthetically pleasing lighting should be provided for safety, security, and a greater sense of comfort for pedestrians.
- 3.5.7.2 It is preferable for fixtures to be spaced close together with lower light levels than further apart with intense and varied light levels which can be uncomfortable for pedestrians.
- 3.5.7.3 Pedestrian scale lights should be lower than typical auto-oriented light standards. Heights should be approximately twelve (12) feet to twenty (20) feet in height at a maximum.



Figure 3.35 Shallow detention basins provide opportunity for recreational open space the majority of the year.



Figure 3.36 Pedestrian scale lighting can create a sense of neighborhood identity.



Figure 3.37 Highly detailed signs containing small-scale type styles cater to the pedestrian.



Figure 3.38 Example of public art incorporated into an ordinary street element such as a tree guard

3.5.7.4 The spacing of lighting fixtures should be coordinated with tree plantings and should not cause the spacing of trees to not satisfy the landscaping standards and guidelines.

3.5.7.5 “Cobra Head” lighting, and other designs that cater to the automobile, should be avoided. Such designs are typically mounted on taller poles to illuminate a larger area and are lacking in detailing that is critical to creating an interesting pedestrian realm.

3.5.7.6 Light standards may also be combined on one post. Low, pedestrian-oriented lights can be affixed to a post and direct light onto sidewalks, while the same post may also accommodate auto-oriented lights directed at roadways.

3.5.8 Signage

Much like the character of its buildings, signage should reflect the character of a place. Plastic, internally illuminated signs are typically associated with mini-malls and drive-thrus, which convey a preference for auto-orientation, while finely crafted signage with ample detailing conveys that shops wish to attract the pedestrian.

3.5.8.1 Signs should be integrated within the project’s architecture.

3.5.8.2 Signage placement should be limited to awnings, arcades, display window fascias, and/or suspended placards. Internally illuminated signs (other than neon) and back-lit awnings should not be permitted.

3.5.8.3 Signage dimensions should be kept at a pedestrian scale and demonstrate a high level of detailing and craftsmanship. Pole-mounted signs, other than official public signs, are not permitted.

3.5.8.4 Externally illuminated signs should be used as lights tend to illuminate signs and not pedestrians, minimizing glare. Internally illuminated signs, with the exception of neon, should be avoided as they are typically designed to attract drivers and are too intense for pedestrians.

3.5.9 Public Art and Features

Public art can be an important element for humanizing public space, providing visual interest and a human-scale to the environment. It also helps to define the uniqueness of a place that will set it apart from others. On a large scale, public art has

the ability to unify a district with a theme and educate users. At a pedestrian-scale it can provide visual interest for the passer-by and infuse a place with a sense of playfulness.

- 3.5.9.1 Public art should not be a replacement for good urban design. A mural can mitigate the effects of a blank façade along a sidewalk, however initial attempts should be taken to minimize the presence of a blank façade or other detrimental design features.
- 3.5.9.2 Public art may be used to create neighborhood identity. Efforts should be made to reflect the character and history of the community.
- 3.5.9.3 Public art may be incorporated into site and building design. Art can be cleverly incorporated into otherwise mundane street elements such as light poles, benches, trash cans, paving, etc.
- 3.5.9.4 Water can be incorporated into public art installations or be simple fountains onto their own. In a climate such as Palmdale, the sound and sight of water can provide a pleasant and cool respite for the pedestrians, but water elements should support conservation efforts by circulating water and using non-potable water.

3.5.10 Vacant Lots and Buildings

Given that the Transit Village will be “in transition” for several years as it developed, it is important to require a level of maintenance and care even for vacant lots.

- 3.5.10.1 Vacant lots should be kept clear of debris.
- 3.5.10.2 Physical maintenance of buildings has an impact on the pedestrian. The repair and cleanliness of buildings demonstrates whether a neighborhood is being cared for and if it is safe to be there. Vacant buildings should be maintained to the level of occupied buildings.



Figure 3.39 One of the many vacant lots within the Village area

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4. CIRCULATION ELEMENT

4.1 THE STREET NETWORK - CREATING PEDESTRIAN AND BICYCLE-FRIENDLY STREETS

Safe and direct sidewalk connections are of key importance to creating a pedestrian and bicycle-friendly environment within the Palmdale Transit Village. Street design should support activities that will occur in the area and provide a comfortable place for pedestrians to take part in various activities. But creating a high quality pedestrian realm that supports and encourages walking takes much more than simply providing sidewalks.

The following are guiding principles of planning for pedestrian-supportive environments, and form the basis for design guidelines in this chapter:

- **Give pedestrians more, comfortable, and interesting walking space.** Pedestrians need wide enough pathways to feel comfortable, ample shelter from sun and rain, and a sense of being enclosed by nearby buildings or trees, rather than exposed in a barren asphalt expanse. Pathways also need to be visually interesting, with amenities such as seating to render a walk more enjoyable.
- **Protect pedestrians from vehicular and rail traffic.** Fast-moving traffic is both risky to pedestrians crossing streets, as well as uncomfortable for those walking along them. Traffic calming techniques in the design of streets can prompt drivers to slow down and exercise caution, while design treatments at street crossings can reduce crossing distances and make pedestrians more visible. Buffers between sidewalks and passing traffic, such as parked cars and landscaping, also increase pedestrian comfort. Furthermore, consideration should be given to keeping pedestrians from trespassing on the railroad right-of-way.
- **Create great outdoor spaces.** Well-designed urban public spaces near transit stops and high-pedestrian areas can cater to both groups by making outdoor spaces enjoyable destinations.
- **Shorten walking distances.** Pedestrians are particularly sensitive to circuitous routes because, at low speeds, longer distances translate into much longer travel times. Shortcuts for pedestrians such as mid-block accessways can make previously infeasible trips walkable.



Figure 4.1 Existing major road network

“It’s on foot that you see people’s faces and statures and that you meet and experience them. That is how public socializing and community enjoyment in daily life can most easily occur. And it is on foot that one can be most intimately involved with the urban environment; with stores, houses, the natural environment, and with people.”

Allan B. Jacobs, “Great Streets”

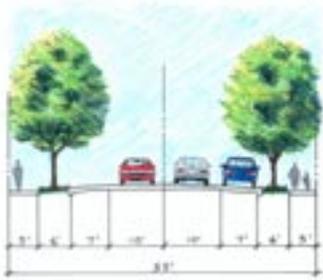


Figure 4.2 Typical residential street section

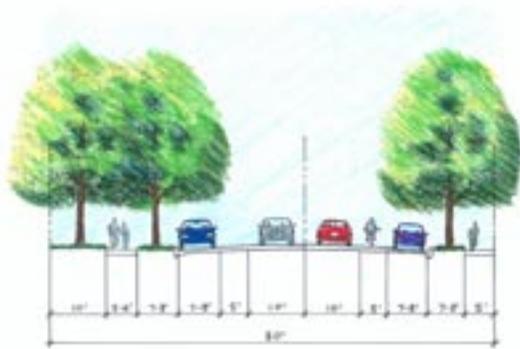


Figure 4.3 Redesign of Avenue Q



Figure 4.4 Avenue Q Greenway Extending to Division



Figure 4.5 Possible Avenue P-14 greenway segment

4.1.1 Street Design

The proposed street network for the Palmdale Transit Village as illustrated in the plans in the previous chapter maintains an interconnected street pattern. The street pattern not only creates feasible development parcels, but also ensures that the pedestrians have a shorter and more direct connection between the neighborhood and the transportation center and major streets. The design of the streets themselves are also vitally important to the character of the community.

Within residential neighborhoods, sidewalks should be a minimum of 5 feet and separated from the travelway by a planting strip with a minimum width of 6 feet creating an overall pedestrian right-of-way width of a minimum of 11 feet (see Figure 4.2).

Along Avenue Q, it is possible to create a greenway connection between the neighborhoods to the west and 6th Street East. Along this street overall pedestrian right-of-way width for the “greenway” along the north side of the street should be a minimum of 22 feet that includes a separated sidewalk with a minimum width of 5 feet (see Figure 4.3).

Guidelines presented within this chapter also provides guidance for the possible redesign, over time, of existing streets within and along the perimeter of the Village area. In general, it is recommended that sidewalks adjacent to employment or mixed-uses should have a minimum 10-foot clear space for pedestrian circulation, and in constrained conditions on existing residential streets, the overall sidewalk width can be reduced to 6 feet.

4.1.2 Developing a Greenway Network

The City of Palmdale currently has an attractive greenway in proximity to the Transit Village area. The Dr. Robert C. St. Clair Parkway has the potential to link the civic center with the Transit Village via the proposed pedestrian bridge that will cross the rail tracks at Avenue Q. Additionally, it is likely that the vacated properties along the west side of 3rd Street East between Avenue Q and Desert Sands Park will be developed into another linear park (see Figure 4.4). These two linear parks effectively form the beginning of a greenway network within the neighborhood. The excess right-of-way along Avenue Q (as illustrated in Figure 4.3) is an opportunity for the city to develop a greenway that links the two linear parks, and eventually extend west to Division Street (see Figure 4.4).

There is a possibility to create a linear park/greenway that will extend into the Transit Village along the new segment of Avenue P-14 from the 3rd Street East linear park to a central green within the new development. It is possible that this greenway

could be part of the open space requirements for the adjacent development and be privately developed and maintained (see Figure 4.5).

Within the existing neighborhood south of Avenue Q, where the blocks exceed 1050 feet, the City, through the Parks and Recreation Department, may wish to acquire four residential parcels between 4th and 5th Street East and one commercial parcel on Sixth Street East to create a mid-block linear park connecting the neighborhood with envisioned commercial activity on 6th Street East (see Figure 4.6).



Figure 4.6 Possible greenway connection within existing blocks south of Avenue Q

4.2 STREET AND PEDESTRIAN DESIGN GUIDELINES

This section provides guidelines related to designing street segments and crossings. The actual “pedestrian realm” also includes elements such as lighting, signage and architectural design requiring reference to those guidelines provided in the previous chapter. Specific recommendations and guidelines related to bicycle access and amenities are presented in Section 4.3 of this chapter.

4.2.1 Street and Sidewalk Design

4.2.1.1 The sidewalk should be considered to be composed of four distinct zones: the Edge Zone, the Furnishing Zone, the Throughway Zone and the Frontage Zone (see Figure 4.7):

- **The Edge Zone** is the interface between the roadway and the sidewalk. At a minimum this zone includes the 6” wide curb. In more active mixed-use areas with on-street parking this zone should be a minimum of 1’-6” to accommodate the door swing of a parked car to prevent conflict with elements within the Furnishing Zone. At transit stops with shelters, this zone should be widened to 4 feet to provide wheelchair access to the shelter.
- **The Furnishing Zone** also accommodates street trees and landscaping. It is the zone that provides the buffer between the active pedestrian walking area, the Throughway Zone, and street traffic. Street trees, tree lawns, street furniture, utility poles and cabinets, phone booths, parking meters, traffic signal cabinets, fire hydrants, bicycle racks and the like are consolidated in this zone to keep them from being obstacles in the Throughway Zone.

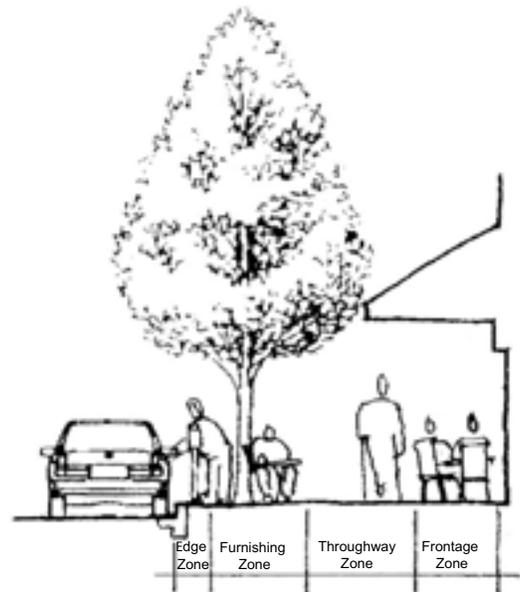


Figure 4.7 Sidewalk zones



Figure 4.8 An example of a “well-zoned” sidewalk

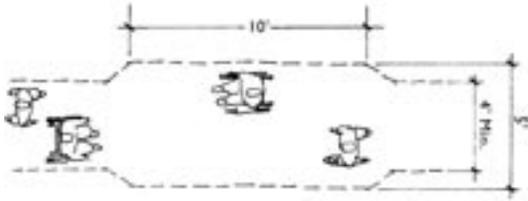


Figure 4.9 Accessible passing area



Figure 4.10 New sidewalks constructed along Avenue Q-3 illustrate preferred design.

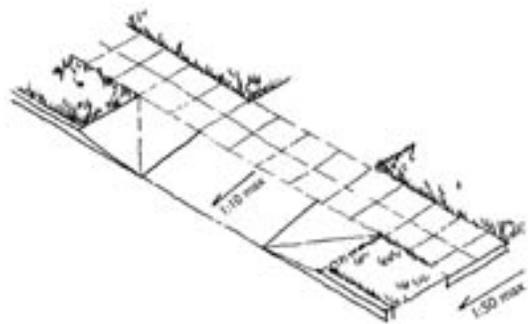


Figure 4.11 Preferred driveway/sidewalk interface

- **The Throughway Zone** is intended for pedestrian travel only and should be entirely clear of obstacles, including driveway aprons. At an absolute minimum this zone must be at least 4 feet wide for streets with low pedestrian volume for ADA accessibility purposes (allowing opportunities to widen to 5 feet at least every 200 feet, see Figure 4.9).
- **The Frontage Zone** is the area adjacent to the property line that may be defined by a building façade, landscaping, or a fence. This is also the zone where pedestrians slow down and window shop, and exit and enter buildings and should be a minimum of 1' 6". Adjacent businesses may use this zone for outdoor displays and seating, and municipalities must ensure that there is adequate space to accommodate these uses without impeding the Throughway Zone. Where no Furnishings Zone exists, elements that would normally be sited there such as benches, light poles, signals, trash cans, etc. may occupy the Frontage Zone in order to keep the Throughway Zone clear and maintain at least minimum ADA requirements. Where the sidewalk passes a parking lot, there must be some type of buffer such as a hedge or a low wall that prevents parked vehicles from overhanging into the Frontage Zone and that maintains a more aesthetic frontage along the sidewalk.

- 4.2.1.2 In residential areas sidewalks should be at least five feet wide and be separated from the street by a planting strip with a minimum six foot width.
- 4.2.1.3 Along commercial and mixed-use streets, with storefronts close to the street the preferred width of a sidewalk is 10 to 16 feet. This allows for pedestrian circulation and window-shopping. The minimum possible width for new development should be ten feet. Widths over 13 feet provide space for pedestrian amenities, for local business activity to spill out onto the sidewalk, and for leisurely walking pace without vehicle traffic dominating the pedestrian realm.
- 4.2.1.4 Pathways should be designed with materials that are stable, firm and slip-resistant; preferably Portland concrete cement (PCC) (see Figure 4.11).
- 4.2.1.5 The surface of the pathway should remain continuous even at driveways and maintain a continuous cross slope of no greater than two percent. This signals to the

drivers that it is they who are crossing the pedestrian realm and must yield accordingly.

- 4.2.1.6 To avoid the possibility of cars parking on sidewalks and impeding the pedestrian, box curbs should be used instead of rolled curbs (see Figure 4.12).
- 4.2.1.7 A welded wire mesh or tubular fence should be provided along the property line of parcels abutting the railroad right-of-way to dissuade pedestrians from trespassing onto the rail tracks and help guide them to appropriate crossing locations.

4.2.2 Street Crossings

Intersections are often the most vital and vibrant areas along a street, but they are also the areas where the paths of people and vehicles come together making them a challenging part of the pedestrian network. Intersections must therefore be designed with pedestrian safety and accessibility in mind.

- 4.2.2.1 Curb radii at intersections within pedestrian areas should be 10 to 15 feet where curb bulbouts are not used. While wider curb radii (25'-30') may be generally preferred where vehicle capacity is an issue, wider radii can result in higher speeds by vehicles in turning right at intersections. This however not only increases the distance pedestrians have to walk, but it also puts them at risk of greater bodily injury as the greater maneuverability of large turning radii allow drivers to turn corners at higher speeds (see Figure 4.13).
- 4.2.2.2 Pedestrian bulb-outs should be considered at intersections to reduce pedestrian crossing distances and make pedestrians more visible to drivers. The extensions often occupy space formerly used as a parking lane (see Figure 4.14).
- 4.2.2.3 Where used, sidewalk bulb-outs should extend into the street for the width of a parking lane (or a minimum 5 feet) in order to provide for a shorter crossing width, increased pedestrian visibility, more space for pedestrian queuing, and a place for sidewalk amenities and planting.
- 4.2.2.4 Bulbouts should be designed such that 13 feet of lane width remains, so that bicycles and cars can both safely pass.
- 4.2.2.5 Bulbouts may be inappropriate for use on corners where frequent right turns are made by trucks or buses.



Figure 4.12 Rolled curbs allow vehicles to encroach upon the sidewalk, block passage and cultivate the perception that the space is dominated by cars.

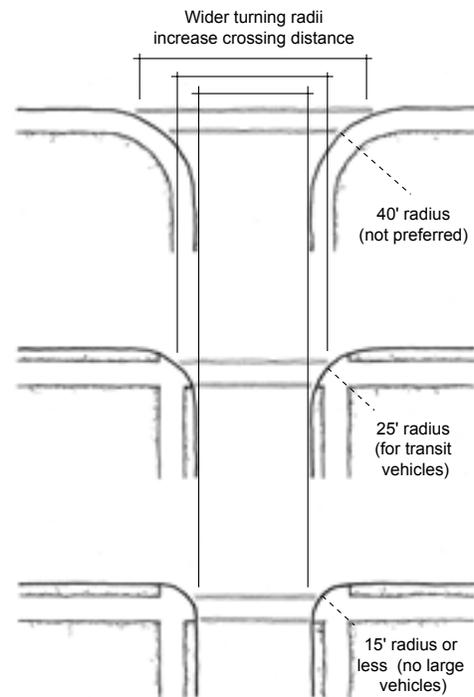


Figure 4.13 The effect of turning radii on crossing distance.

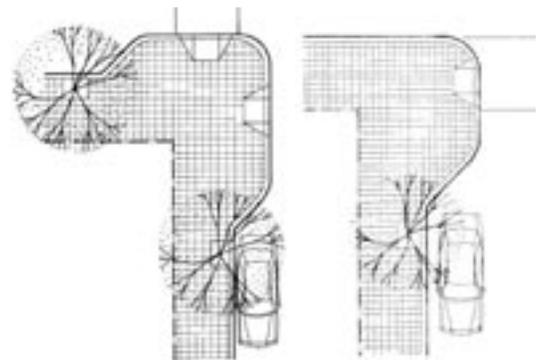


Figure 4.14 Pedestrian bulbout types



Figure 4.15 Bulbouts are good locations to provide pedestrian amenities

Palmdale can explore initiating a “Cool Communities” study similar to Sacramento’s where city initiated or funded projects incorporate cool community design features such as cool roofing, cool parking surfaces, solar photovoltaic panels, ample shade trees and utilize other “green” building technology. Based on NASA overflight data, this program looks at the relationship between “urban forests”, urban land uses and heat islands. Results of the study will help determine which types of trees, natural surface areas and building surfaces contribute to the cooling of ground temperatures and associated heat islands. The study has demonstrated that by cooling a city, it is possible to directly reduce energy use by buildings, improve air quality, and improve the pedestrian realm.

4.2.3 Pedestrian Amenities

The placement of pedestrian amenities such as trash receptacles and benches should not be “regimented” (i.e. “placed every 40 feet” etc.), but rather have a relationship to the needs of a specific location. This is particularly important given that funds for installing and maintaining such amenities are generally limited.

- 4.3.3.1 Sidewalk amenities should be located within the Furnishings or Frontage Zones, or within bulb-outs where sidewalk widths are extended into the parking lane (see Figure 4.15).
- 4.3.3.2 Seating should be provided adjacent to destination points, such as shops and restaurants, and community and senior facilities.
- 4.2.3.3 Seating and other amenities should be made of durable, high-quality materials which visually reinforce community identity and the design of nearby buildings.
- 4.2.3.4 Seating may be incorporated as part of building form or landscape features, such as seat-walls as an option to free-standing benches.
- 4.2.3.5 No sidewalk amenity should reduce the clear width of a sidewalk or walkway path to less than 4 feet and all amenities should comply with ADA requirements.

4.2.4 Landscape

Vegetation, especially trees, provide for a pleasant pedestrian experience. Trees themselves may be the most visibly significant improvement made to a street if properly selected, planted, and maintained. They provide much-welcomed shade, create a pleasing rhythm to the street and create an effective buffer between the sidewalk and the street.

To be effective street landscaping requires routine care. Urban street conditions are harsher environment to plants in general. Reflected heat off the pavement, limited soil volumes, poor soil conditions (subterranean debris, compaction, base rock, concrete spoils, variable fill soils), inadequate irrigation, heat radiating from cars (engines and radiators), various automotive fluids dripping into the soil and vandalism give plant life on streets a tougher environment in with to grow and perform. If the plant species selection, soil condition, and irrigation system have be well designed and installed, the landscape maintenance should be fairly easy. However, defects in the design and/or installation typically cannot be made up with extra maintenance.

- 4.2.4.1 Vegetation planted should reflect the identity of the Antelope Valley region.
- 4.2.4.2 Landscape practices should follow xeriscape principles, meaning that native, drought-tolerant species should be used as appropriate.
- 4.2.4.3 Watering needs must be considered in selecting appropriate vegetation.
- 4.2.4.4 Street trees should be planted between 15 and 25 feet on center, depending upon species, to allow a continuous canopy and to create a desired buffering affect between the roadway and the sidewalk.
- 4.2.4.5 Pruning to street trees should be done so as branches do not interfere with pedestrians and parked vehicles. The minimum height for vertical clearance should be 8 feet along the sidewalk at the edge of tree well and, 13 feet along the street from the top of curb. As well trees should be pruned to allow a minimum of 1 to 2 feet clearance to building façade and building signage. All pruning should be done under the supervision of a certified arborist (see Figure 4.16).
- 4.2.4.6 Palmdale should explore the use of “structural soil” as the planting median for trees adjacent to roadways and sidewalks and within parking lots to both improve the health of the tree as well as reducing pavement upheaval (see Figure 4.17)
- 4.2.4.7 Where a landscape strip (the landscaped area between the street and the sidewalk - also known as a lawn, verge, or boulevard) is provided, it should be a minimum of 6 feet.
- 4.2.4.8 Trees should be kept out of the “edge zone” of the sidewalk to protect them from car doors and overhangs. Tree guards may also be used to protect them from vandalism.
- 4.2.4.9 Topping and severe pruning should be avoided. Proper maintenance of trees should allow trees to retain their natural form.

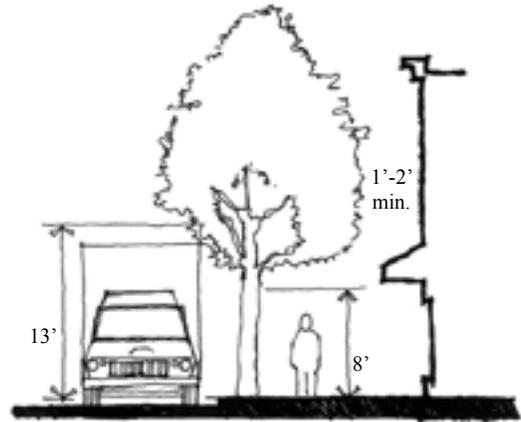


Figure 4.16 Street tree clearance

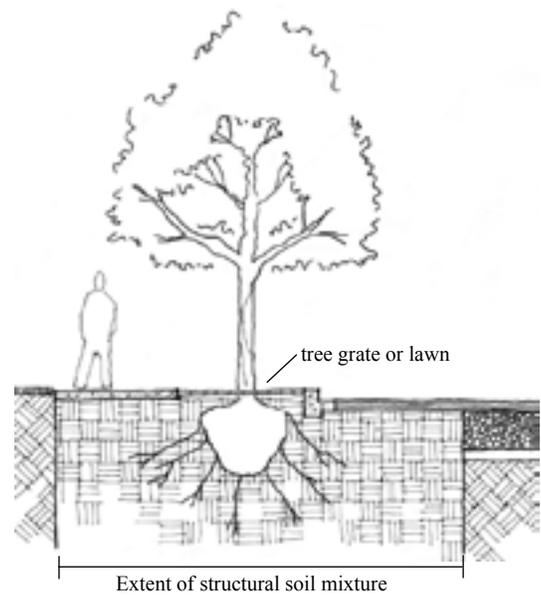


Figure 4.17 Sidewalk section with structural soil.

Structural soil is a gap graded base rock material with a clay loam soil component. The rock easily compresses and in between the rocks are large pores only partially filled with soil. The remaining pore space allows for water, and root growth, and has been shown to direct the tree's root growth down rather than to the surface where it may damage paving.

4.2.5 Traffic Calming Techniques

Beyond education and enforcement and standard traffic engineering design techniques, physical interventions into the roadway may be necessary to mitigate traffic speed and increase driver awareness of the pedestrian. Traffic calming techniques discussed in this section and presented in Table 4.1 can achieve “pedestrian equivalence” by:



Figure 4.18 Traffic calming circles slow vehicles at intersections and provide opportunities for special landscaping.



Figure 4.19 "Share the Road" signage reminds drivers of the multi-modal role of streets

- reducing the number of accidents involving pedestrians;
- reducing the severity of all accidents;
- giving more space and priority to cyclists and pedestrians;
- slowing traffic volumes to less than 25 mph for residential streets and less than 30 mph for commercial streets;
- separating pedestrian pathways from vehicle traffic; and,
- encouraging better driver discipline.

- 4.2.5.1 Traffic calming features must take all aspects of ADA into consideration, as the resulting streets and pedestrian circulation may not be "typical," which can make them particularly confusing to those with visual impairments.
- 4.2.5.2 Prior to implementing traffic-calming, effort must be spent on establishing neighborhood consensus to ensure an equitable strategy that does not provide benefits for some residents at the expense of others.
- 4.2.5.3 Where speeds of less than 25 mph are desired, such as within residential neighborhoods, traffic calming features may need to be continuous (in the case of landscaping or narrowed lanes) or positioned as close as every 200-300 feet (in the case of speed undulations or horizontal deflections) in order to deter unnecessary acceleration and braking.
- 4.2.5.4 Signage should be used to remind drivers that they are entering a traffic-calming zone and an overall posted low speed limit should be maintained in residential areas.
- 4.2.5.5 Traffic calming features should be integrated with aesthetic improvements, such as landscaping, that will make the street more attractive and be more inviting for pedestrians and cyclists.

Type	<p><i>Pedestrian Refuge Islands</i></p>	<p><i>Traffic Calming Circles</i></p>
Description and Application	<p>Pedestrian refuges in wide or busy streets improve safety for pedestrians and vehicles. They are defined as areas within an intersection or between lanes of traffic where pedestrians may safely wait until vehicular traffic clears, allowing them to complete a street crossing. These islands are particularly helpful for older and disabled pedestrians unable to cross the street during the available signal time. Many existing streets with medians do not include pedestrian refuge areas. Providing refuges should be considered as an important part of future retrofit projects.</p>	<p>Located at street intersections, traffic calming circles are generally between 10 and 20 feet in diameter and are used to slow traffic by forcing cars to drive around them. The circles have a raised curb edge and landscaping to provide visual interest and reduce the length of vistas down streets, which can also help to slow traffic. In areas with high truck or bus traffic volumes, mountable curbs can help with large-vehicle navigation while maintaining the traffic calming effect.</p>
Example Configuration	<div data-bbox="331 856 747 1104" data-label="Image"> </div> <p data-bbox="289 1108 505 1136"><i>Pedestrian refuge island</i></p> <div data-bbox="289 1192 802 1545" data-label="Image"> </div> <p data-bbox="289 1549 751 1623"><i>A "corral-style" pedestrian refuge island encourages pedestrians to look in the direction of oncoming traffic.</i></p>	<div data-bbox="886 856 1377 1209" data-label="Image"> </div> <p data-bbox="889 1213 1230 1241"><i>Traffic calming circle with landscaping</i></p> <div data-bbox="954 1310 1295 1667" data-label="Diagram"> </div> <div data-bbox="992 1682 1256 1787" data-label="List-Group"> <p>Legend</p> <ul style="list-style-type: none"> A Street Width - varies B Cross Street Width - varies C OR Set Distance - 10' (where A ≤ B) D Circle Diameter - minimum 12' E Opening Width - minimum 18' </div> <p data-bbox="894 1797 1321 1824"><i>Diagram adapted from the San Diego Street Design Manual.</i></p>

Table 4.1 Traffic Calming Measures (continued)

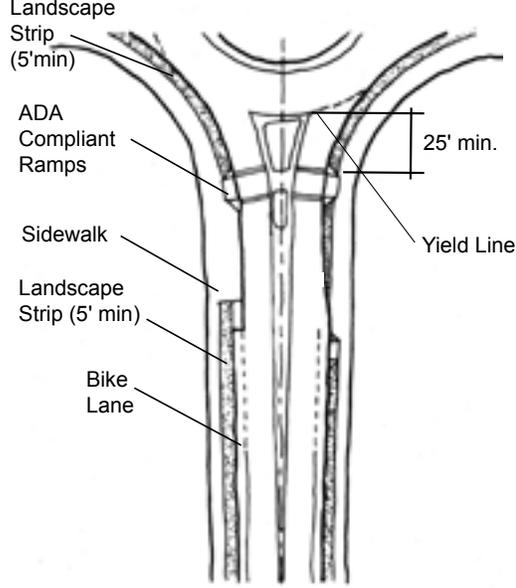
Type	<i>Roundabouts</i>	<i>On-Street Parking</i>
Description and Application	<p>Roundabouts are circular intersections that are used to slow traffic, maintain adequate capacity and provide for safer pedestrian crossings at medium- to high-volume intersections. A raised center island slows traffic and provides a visually interesting gateway element. A roundabout's more formal system of traffic control, and subsequently higher traffic through-put, distinguish it from a neighborhood traffic circle.</p> <p>Roundabouts require tactile strips for the sight impaired.</p>	<p>On-street parking has been shown to help moderate traffic speeds. Pedestrians also tend to feel safer walking on sidewalks adjacent to parked vehicles, as the solid buffer created between the sidewalks and moving traffic on the street provides a sense of security. Where possible, it is also desirable to have additional clearance between the edge of curb and primary sidewalk area to accommodate opening and closing car doors.</p>
Example Configuration	 <p><i>Roundabout with splitter islands, yield control, and center island</i></p>  <p>Diagram labels include: Landscape Strip (5' min), ADA Compliant Ramps, Sidewalk, Landscape Strip (5' min), Bike Lane, Yield Line, and 25' min. clearance.</p>	 <p><i>On-street parking buffers the sidewalk from the street.</i></p>

Table 4.1 Traffic Calming Measures (continued)

Traffic signals in downtown Portland are timed for speeds of 20-25 km/h (12-16 MPH), allowing bicyclists to easily “hit the green lights” and reducing the temptation to run red lights.

In areas where bike lanes need to be retrofitted, it is worth noting that a 10 foot travel lane, placed beside a five foot wide bicycle lane, provides more space and comfort for the driver passing a cyclist than the commonly seen practice of building a 12 foot wide slow lane, which is shared between both drivers and cyclists.

In Portland, Oregon, narrowing travel lanes by adding bicycle lanes on N. Ida Avenue resulted in speed reductions of 2-5 mph in 85th percentile speeds, as measured at four stations along the street.

4.3 BICYCLE ACCESS AND CIRCULATION

The following is a proposed Bicycle Access Plan for the Palmdale Transit Village. Any decision on bicycle facility provision presents numerous tensions and trade-offs, as bicycle lanes and paths inevitably compete for right-of-way space with other uses, ranging from space for sidewalk cafes to room for travel lanes and parking. Some of the criteria considered in this access plan were:

- **Avoid excessive motor vehicle delay.** The best alternatives would not create unacceptable delays for motorists, so streets where the addition of a bicycle lane would create substantial delays are avoided. However, it should be noted that on healthy retail and residential streets, some congestion helps to slow traffic, making for a more comfortable and safe pedestrian realm.
- **Minimize bicycle delay.** Good alternatives, particularly those routes intended for commuter cyclists, allow cyclists to maintain a high average speed: they minimize stop signs (as each stop is equivalent to approximately 500 additional feet of cycling distance); provide signalized crossings or equivalent assistance where cyclists need to cross a high-traffic cross-street; and provide signal timing that favors cyclists.
- **Provide bike lanes on higher-volume routes.** While the presumption should be that all streets need to accommodate bicycles, dedicated provision is only necessary on higher-volume, higher-speed routes. On residential streets in the plan area, bike lanes are not required. A good rule of thumb is that streets with more than 2,000 vehicles per day warrant the presence of a bike lane or striped shoulder. A 5’ bike lane adjacent to an 8’ parking lane, or a 6’ bike lane with a 7’ parking lane will generally suffice.
- **Consider the wider functions of bicycle lanes.** Bicycle facilities do not only benefit bicyclists. On the streets in the plan area, providing a bike lane would narrow the perceived width of the roadway for motorists, helping to keep vehicle speeds to within the posted limit and create a safer environment for pedestrians. For example, even on higher-speed arterials, the bike lane can function as an emergency shoulder.
- **Provide continuous and direct routes to major destinations,** which carry cyclists over barriers like creeks and train tracks, with an absence of stop signs and favorable signal timing. The preferred alternative should offer fast, direct connections to residential neighborhoods, downtown Palmdale and other

destinations.

- **Avoid extremely wide streets.** A large number of travel lanes typically reduces cycling comfort: left turns and U-turns are made more difficult because cyclists must merge across multiple lanes of traffic; and traffic moves at higher speeds because passing is enabled. All else being equal, therefore, a preferred alternative will minimize the number of travel lanes on streets that serve as bikeways.

No alternative can satisfy all of these criteria perfectly. The recommended alternative offers, in our opinion, a framework of bicycle lanes which can be implemented swiftly, on the routes and in the manner which provides the best resolution of the inevitable tensions and trade-offs between criteria.

The City's existing bikeways plan places the emphasis on Class I facilities, i.e. multi-use trails. These are valuable in many instances, particularly where the route follows a creek or railroad right-of-way, or has few potential conflicts at intersections. A parallel network of Class I routes will also benefit recreational cyclists and children. For most commuting cyclists, however, on-street bike lanes provide the most direct, fastest and safest routes.

Most conflicts and collisions occur at intersections, and therefore design features which allow high speeds at intersections, including exclusive right turn lanes, free right turn lanes with high-speed geometries, large curb radii and/or high speed merge lanes, will reduce cycling comfort and safety. Changing intersection geometries or installing traffic calming measures (such as raised intersections or roundabouts) can both increase the likelihood that turning drivers will properly yield to cyclists, and number and severity of any accidents. (For further information, the reader is referred to: Nabti, Jumana & Ridgeway, Matthew (2002), *Innovative Bicycle Treatments*, Chapter 3. Institute of Transportation Engineers.)

4.3.1 Existing Bicycle Provision and Gaps

There are two existing facilities which serve the plan area, and which will form the backbone of the future bicycle network:

Sierra Bike Trail is a 6-mile Class I bikeway which parallels Sierra Highway from Avenue M (the northern City limit) to Avenue S. There is a gap in the trail at Avenue Q, where the route crosses the Southern Pacific Tracks.

6th Street East. There are on-street bike lanes on this street between Technology Drive and Avenue R. To the south of Avenue R, the lanes continue on 5th Street East to Avenue S,



Figure 4.20 Bicycle lanes are required on higher-volume, higher-speed routes. 2,000 vehicles per day is a useful threshold.



Figure 4.21 Bike lanes should be striped to the left of right turn lanes, as in this example from Portland, OR. Also note the signage which reminds motorists to yield to bikes.

according to the Sierra Bikeway Trail map (City of Palmdale Traffic Engineering Department, August 1999).

The Sierra Bike Trail and 6th Street bike lanes will provide excellent north-south connectivity along the Southern Pacific alignment, once the railroad overcrossing bridges the gap. However, additional facilities, some of which are already adopted in the Bikeway and Multi-Purpose Trail Plan, are required to access other neighborhoods. A brief summary of key destinations follows:

City Facilities. City Hall, the Main Library, Cultural Center and other civic institutions are clustered around Poncitlan Square, to the south of the Transportation Center. These will be easily accessed via the Sierra Trail, once the overcrossing at Avenue Q is completed.

East-West Access. The City's Bikeway and Multi-Purpose Trail Plan indicates that neighborhoods to the west will be accessed from the Transportation Center via trails along Technology Dr and Avenue Q. To the east, Avenue Q will provide the main access, once the railroad overcrossing is completed. The key issues, discussed below, relate to (1) the design of these facilities; and (2) access to them from the Transportation Center.

Neighborhoods to North. The Sierra Bike Trail provides good access from the Transportation Center to Lancaster and points in between, provided that a connection is made via 6th Street East. Given the incomplete nature of the east-west grid, however, additional provision could be explored on 3rd Street East, to access Avenues P-1 to P-6 between 3rd Street East and Division.

Neighborhoods to South. As noted above, the Avenue Q overcrossing will link downtown with the Transportation Center via the Sierra Bike Trail. To the west of the tracks, cyclists can use the 6th Street East/5th Street East bike lanes.



Figure 4.22 Multi-use paths can lead to conflicts with turning vehicles at intersections, and are not recommended for Avenue Q. (Photo: Dan Burden)

4.3.2 Potential Improvements

The following bicycle facilities are recommended for consideration and, in some cases, further study:

Avenue Q. This street is the logical east-west arterial bikeway for the City of Palmdale, and needs to cater to high-speed, longer-distance cyclists as well as less experienced and recreational riders. To the west, it underpasses Highway 14 (Antelope Valley Freeway) and links to the Elizabeth Lake Road and Amargosa Creek alignment.

On-street Class II bike lanes are recommended on Avenue Q. In the plan area, with a 7' parking lane, a 6' bike lane is sufficient

to provide protection from opening car doors, and traffic in the adjacent travel lane. Alternatively, the parking lane could be 8' and the bike lane 5', or the division between the two need not be striped. The key is to encourage cyclists to position themselves out of range of opening car doors. Outside the plan area, different striping may be appropriate but bike lanes are a priority for use of the right-of-way.

An alternative would be to have a Class I bicycle path in the greenway on the north side of Avenue Q. This is not recommended, due to the relatively high frequency of intersections on this street. Motorists making turning movements or approaching on cross-streets focus on traffic on the surrounding streets; they may fail to notice approaching cyclists on a sidepath, even if the cyclist has the right of way. (Installing stop signs for cyclists at all intersections would result in unacceptable delay.)

Avenue Q and 6th Street East. At this intersection, a roundabout is possible. Motor vehicles will be turning left or right, while cyclists will be turning left, right or continuing straight to the railroad future overcrossing. To accommodate these bicycle movements and minimize conflicts with turning traffic, a single-lane roundabout designed for low speeds is recommended. These permit cyclists to circulate in the roundabout at speeds equal to or faster than motor vehicles. Bike lanes that lead to this type of roundabout should be terminated 30 to 60 feet before reaching the roundabout, and cyclists encouraged to circulate in mixed traffic. Less experienced cyclists may prefer to cross pedestrian-style, using the pedestrian crosswalks, and curb cuts and signage should be provided to facilitate this.

It is desirable for the bridge to align as closely with Avenue Q as possible, to allow cyclists coming from the Transportation Center to make the left turn at the roundabout, rather than having to cut across traffic lanes to the north of the intersection. This will also provide the most direct path for eastbound cyclists continuing across the railroad right-of-way.

To the west of 3rd Street East, Avenue Q widens, and further study of appropriate striping is required.

6th Street East. This street is earmarked as the future commercial corridor for the transit village, and the bike lanes here will continue to be a valuable asset. There are two specific issues:

Connectivity past the Transportation Center. At present, the street is discontinuous at the Transportation Center. A bicycle-only path should be constructed to bridge this gap, which is particularly important since the northern segment of 6th Street connects to the Sierra Bike Trail. In other words, this will be a link in the City's main north-south bicycle "freeway", not



Figure 4.23 A single-lane roundabout should be designed for low speeds, and encourage cyclists to take the lane.



Figure 4.24 Wide median refuges are highly desirable where multi-use paths cross streets

simply an access link to the Transportation Center. To reduce conflicts with pedestrians, the path could be constructed at the elevation of the roadway rather than at sidewalk level. (If the crosswalk across the bus access lanes to the northwest is to be raised, this treatment should be continued across the bicycle path.) Alternatively, the path could be at sidewalk level using clear striping and curb cuts. Cyclists should not need to dismount here; nor should they need to make a significant detour.

4.3.3 Striping

North of the Transportation Center, the curb-to-curb width of 6th Street East is 36'. Since only minimal traffic is likely to use this dead-end street (access to the Transportation Center will be via Transportation Way), the standard residential street section can be used, with 8' parking lanes and 10' travel lanes. Even if parking is not required for the adjacent uses, it can provide additional parking for transit commuters.

Between the Transportation Center and Avenue P-14, striping of the 34' curb-to-curb width will depend on traffic volumes. If they are light (under 2,000 vehicles/day), it makes sense to provide on-street parking, with 7-8' parking lanes and 9-10' travel lanes shared between bicycles and motor vehicles. If traffic volumes are heavy, 7' bicycle lanes and 10' travel lanes are recommended.

South of Avenue P-14, the roadway widens to 50' curb-to-curb. A parking lane (9'), bicycle lane (6') and travel lane (10') can all be accommodated. The parking lane will be important given the adjacent commercial uses.

Technology Drive. This route is included on the City's adopted Bikeway and Multi-Purpose Trail Plan. This route would provide access to the Transportation Center from the west, with bicyclists continuing via 6th Street East. This is a five-lane street with a median, with additional left-turn lanes at intersections. It appears to have ample width to permit bike lanes to be striped while retaining two traffic lanes. Projected peak-hour volumes are generally in the range of 300-500 vehicles. For the same reasons as with Avenue Q, on-street Class II lanes are preferable to a Class I trail.

Attention must be given to the Sierra Highway/Technology Drive intersection, where the Sierra Bike Trail crosses. Eastbound cyclists on Technology Drive will be turning in both directions. Right-turning cyclists should be encouraged to take the right-turn lane. Left-turning cyclists will be passing through the intersection in order to access the Sierra Bike Trail on the east side of the Sierra Highway.

In the longer-term, should the railroad tracks be elevated, an additional crossing could be “punched through” the tracks as an eastward continuation of the Technology Drive facility. This will avoid cyclists heading to this neighborhood needing to backtrack to the Avenue Q crossing, or backtrack in the opposite direction via Rancho Vista Blvd.

Additional North-South Corridors. To the south of Avenue Q, the Sierra Bike Trail will continue on the east side of the Southern Pacific tracks, via the new overcrossing. For cyclists wishing to remain on the west side of the tracks, bike lanes are provided on 6th Street East/5th Street East, which are important to retain and incorporate into adopted plans. There are two additional options which should be explored to provide routes further to the west:

3rd Street East. This street has the advantages of low traffic volumes (projections of <250 vehicles in the PM peak hour, according to the Transportation Center traffic study). Apart from a “jog” at Avenue Q. It is also continuous from Avenue P to Avenue Q-10. However, the 33’ curb-to-curb width only allows for a 6.5’ parking lane and 10’ travel lane in each direction. While bike lanes are not required for the current low traffic volumes, any increase in traffic would warrant them. If possible during redevelopment, the potential to add 11-13’ to the right-of-way should be explored, allowing for 7-8’ parking lanes and 5’ bike lanes.

5th Street East. This would be a more direct route for cyclists headed due south.

4.3.4 Bicycle Parking

Bicycle parking is necessary for commuters at the Palmdale Transportation Center, and also to serve residential and commercial uses. A mixture of provision is recommended, as follows:

4.3.4.1 Lockers for transit riders (Class I parking).

Demand is difficult to forecast in advance, and will be affected by ease and cost of parking, feeder transit and the amount and type of development. This type of parking should be driven by availability. Lockers should be sited in a well-lit place in easy view of staff and passing pedestrians, and as close as possible to the station entrance.

4.3.4.2 Bike racks for transit riders (Class II parking).

Again, demand will vary depending on a number of factors, and additional racks should be installed as needed to ensure that peak occupancy does not exceed 90%. The same criteria on locker siting apply to racks.



Figure 4.25 Bicycle lockers (Class I parking) are required at the Transportation Center (Photo: Dan Burden)



Figure 4.26 Class II racks are necessary on commercial streets in the Plan area, and at the Transportation Center. They should be securely bolted to the sidewalk

4.3.4.3 Parking for other uses. For non-residential uses, the number of bicycle parking spaces should be 5% of the number of automobile parking spaces. For office and manufacturing, 80% of these should be Class I (bicycle lockers, restricted access facilities such as a locked room or garage, or an enclosed cage), and 20% Class II. For retail, 20% of spaces should be Class I and 80% Class II, ideally in the form of on-street bicycle racks at least every 50' along the commercial frontage. For residential uses, at least 1 Class I bicycle parking space per unit should be provided (this may be simply a bicycle rack in a garage).

5. INFRASTRUCTURE

Refer to Figure 5.1 and Table 7.2 in the Appendix for detailed cost estimates. For existing infrastructure, see Section 2.6 in Chapter 2. All assumptions made for infrastructure improvements will be refined during final design and development phases with adherence made to the city's sewer and stormwater master plans.

5.1 UTILITY CORRIDORS

Planning for and understanding future utility demands is the key to long-term installations of on-site utilities. Utility corridors can be mapped out between existing and future developments to adjust to their needs. The following information will give design direction for the supply of each necessary utility. Please note that future code changes and design developments may require a change in these directions.

5.2 DOMESTIC WATER

The design of domestic water systems are based on proposed and future usage. Pipes should be based on flow rates, pressure, soil corrosivity, and plan check requirements. Typically water system pipes are cast iron pipe (CIP), ductile iron pipe (DIP), and polyvinyl chloride (PVC) pipe buried with 36-inches depth of cover. Each time the pipe angles in a new direction (horizontally), then the angle point should be protected with a thrust block so that undue and damaging stresses are not placed on the joint. These water lines should be kept a safe distance from non-potable water, gas lines, sewer lines, and dry utilities.

Water meters are placed within or near public sidewalks as to keep the water purveyor's (PWD) meter reading task as simple as possible. A water line can be metered once while feeding many buildings. PTV should take this opportunity to upgrade buildings that may need newer service or more pressure. During the design process, the civil engineer will work with the mechanical engineer to properly size and place the domestic water system.

5.3 FIRE WATER

The fire sprinkler and fire hydrants will be connected to a fire water system. Many times it is best to create a fire loop system so that if water is not available at one line it can still be drawn from another active line. Fire hydrants should be strategically placed throughout the site in coordination with the fire department to ensure maximum safety and protection.

Fire water lines can tap directly into the street trunk lines and through a detector check typically located near the property line. The detector check will allow for maximum water flow when necessary and also provides the fire department with a connection point for their fire hoses. Near each building post indicator valves (PIVs) will be placed along the fire water line before reaching the building fire safety system. These PIVs can open or close the valve supply to the building, and they have a glass façade showing the fire department that the line is charged and ready. Fire water lines are typically the same material as domestic water, but the PVC material is a C-900 classification. The depth of cover is typically 42-inches.

5.4 RECLAIMED WATER

If PWD does install reclaimed water lines, then PTV can reconnect their non-potable water needs to this system. Typically, this water is cheaper and more environmentally sensitive. These systems are connected and metered in the same fashion as the domestic water system.

5.5 SEWER

The sewer systems should be designed for future loads, protection from destructive elements, and ease of maintenance. Sewer trunk lines should be a minimum 8" diameter made of VCP, PVC solid wall (SDR 35), or ABS solid wall (SDR 23.5) at a 0.40% slope (minimum). Individual sewer laterals should normally be 4" or 6" diameter, a 2% slope, and 5' of cover. Placement of sewer lines at the PTV should be coordinate with both existing and future utility lines and buildings. Sewer lines need to stay isolated from other utility lines, especially potable water, a minimum of 10'. In areas of heavy vegetation, sewer lines should be encased with concrete or encased by an outer steel pipe. Sewer cleanouts should be placed at 80-foot intervals to allow for proper maintenance.

5.6 GAS

Site gas lines and meters shall be sized based on the available gas pressure and required gas load (determined by the project mechanical engineer). These lines should be polyethylene (PE) at 3'-6" depth of cover with metallic tracer wire above them to help locate in the future. These lines should also be isolated from other utilities to minimize the risk of damaging them during future construction activities.

5.7 TELEPHONE / FIBER OPTICS / CABLE TV / ELECTRICAL

These systems should be designed by a mechanical engineer.



Figure 5.1 Proposed Utility Infrastructure

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6. IMPLEMENTATION

6.1 INTRODUCTION

There are typically two paths that the implementation of the Transit Village Specific Plan could take: incremental development following the existing ownership patterns over time or master plan development of the entire planning area by a “master developer” or a consortium of property owners. Given the market conditions in Palmdale, it is reasonable to assume that actual implementation may well occur as a combination of these two methods with a developer consolidating several, but not all of the properties over a period of time that could exceed ten years.

The Implementation Element consists of five major sections:

6.2. Planning Actions: This section addresses parallel actions that must be undertaken by the City to fully implement the Specific Plans policies, namely General Plan and Zoning Ordinance Amendments.

6.3 Phasing Concepts: The development of the Transit Village will occur over the course of a number of years. Proper program phasing will be critical to the success of the early efforts, which will in turn increase the opportunities for later efforts. Phasing strategies provide recommendations for the preferred order of redevelopment efforts. The actual timing of these efforts will be affected in large part by the relocation efforts, the strength of the real estate market, and infrastructure financing availability.

6.4 Financing of Public Improvements: This section provides options for different degrees of public/ private collaboration through time in developing and financing the infrastructure, financing options, and the allocation of infrastructure development responsibilities are provided.

6.5 Relocation: Requirement and strategies for relocating households are provided.

6.6 Environmental Regulations: Strategies for complying with major environmental issues are provided.

6.2 PLANNING ACTIONS

A major goal of the Transit Village Plan is to create a land use pattern that supports increased access, particularly transit-ridership, within the City of Palmdale. A compact and mixed-use land use pattern is needed to achieve this goal. The existing urban form and configuration of opportunity sites in the station area supports development of a compact land use pattern. There



Figure 6.1 Aerial photo of the Palmdale Transit Village site



Figure 6.2 Detail of Build-Out Illustrative Plan

are however some disconnects between the goals of supporting compact development and existing policies and development practices such as the requirement that the minimum residential lot size is to be 7,000 square feet.

6.2.1 Facilitate Parcel Assembly

Parcel sizes in the Transit Village north of Avenue Q are generally large enough to allow substantial development to occur in phases without the need for parcel assembly; the exceptions being the development along Avenue P-14 and the mobile home park that is under jurisdiction of the County. South of Avenue Q where lots are more typically the 7,000 square foot norm, private for-profit and non-profit developers may need assistance in assembling properties. The process of negotiating with several property owners may dissuade potential developers from entering a community. The City of Palmdale's Redevelopment Agency should continue to institute programs to assemble key properties through development agreements or purchasing properties.

6.2.2 General Plan Amendments

The City of Palmdale's General Plan Land Use Element designates the parcels north of Avenue Q as either Industrial (IND) or Business Park (BP) for the 40 parcels located along Avenue P-14 (although the existing land use for this area is single family residential, when the City of Palmdale annexed these parcels from Los Angeles County, it was intended that this area would transition to industrial use). These designations would preclude residential and possibly some types of office development desired in a Transit Village.

The Land Use Map of the General Plan will need to be amended to reflect adoption of the Palmdale Transit Village Specific Plan. This will be done in conjunction with adoption of the Specific Plan.

6.2.3 Zoning Consistency

The area north of Avenue Q is currently zoned either as M-1 (Light Industry) or Planned Industrial (M-4). Parcels south of Avenue Q have R-2 (Medium Residential) designation along the west side of Fourth Street East and R-3 (Multiple Residential) between Fourth Street East and the Sixth Street East Alley. The remaining parcels along Sixth Street East have a C-5 designation (Service Commercial). The M-1 and M-4 zoning district designations are not consistent with the goal of the Transit Village Specific Plan. Following, or in concurrence with, the adoption of the Specific Plan the City should rezone the area as the Palmdale Transit Village Specific Plan Area.

All proposed development would therefore be referred to the Specific Plan for its development standards and guidelines, implementation requirements, etc.

6.2.4 Relationship to Redevelopment Policies

A portion of the Palmdale Transit Village is within one of the City's Redevelopment Project areas. This designation gives the City additional funding options to finance improvements such as infrastructure deficiencies in support of development planned for the project areas.

6.3 PHASING CONCEPTS

This section outlines general implementation actions necessary to achieve the proposed Program Phasing options illustrated in Section 3.2 in Chapter 3.

Phase One - Near Term

Summary Actions:

- Support existing revitalization efforts in the existing residential neighborhood.
- Vacate existing cul-de-sacs and assemble surrounding parcels to create a courtyard housing.
- Determine location of existing city owned 4th Street East r.o.w. between Avenue Q and Avenue P-14.
- Acquire r.o.w. easement (or determine if city owns) for Fourth Street East from Avenue P-14 north to Avenue P-14; for Avenue P-14 from Fourth Street East to Third Street East; for Avenue P-15 from Fourth Street East to Fifth Street East.
- Develop/improve streets with traffic calming devices such as pedestrian bulbouts at corners and traffic calming circles in the intersections.
- Acquire a minimum of three parcels on the P-14 block and the r.o.w. easement from the Transportation Center south to Avenue P-15.
- Acquire necessary parcels to develop a roundabout at the intersection of Avenue Q and 3rd Street East.

Phase Two - Mid Term

Summary Actions:

- Encourage local-serving, pedestrian-oriented businesses to develop on Sixth Street East.
- Create a more pedestrian oriented environment along the street, and a more positive identity for the street (possibly facade improvements, marketing, etc.).



Figure 6.3 Newly constructed ADA accessible ramp in the Village area



Figure 6.4 4th Street East deadending north of Avenue P-14



Figure 6.5 Existing condition along 6th Street East

- Acquire right-of-way for remaining segment of Fourth Street East from Avenue P-14 north to Avenue P-12; For Sumac Avenue from Avenue Q north to Avenue P-14.

Phase Three - Long Term

Summary Actions:

- Redevelop Transportation Center’s parking lot.
- Acquire and redevelop the continuation high school site.
- Continue to encourage pedestrian-oriented commercial uses along Sixth Street East.

6.4 FINANCING OF PUBLIC IMPROVEMENTS

6.4.1 Purpose of the Financing Concept

This section evaluates the financial feasibility and presents a financing strategy for providing the project wide infrastructure improvements required for the Transit Village Specific Plan. The financing strategy is designed to provide guidance to the City as well as potential developers regarding infrastructure phasing, the type of financing mechanisms available to fund the improvements, and the key implementation issues that need to be resolved before development can proceed.

A preliminary financial analysis of the project as a whole suggests that the preferred alternative is likely to generate enough revenue to fund necessary public improvements discussed in the previous section, assuming market support for the proposed uses. However, because the project is expected to occur over time and significant investments maybe necessary at the early phase of the project, outside funding sources may be needed in order to jumpstart the project. As such, it is critical to prepare a financing strategy that can serve as a framework for future development.

6.4.2 Financial Feasibility

When evaluating a project of this nature, financial feasibility refers to the ability to fund project wide infrastructure given available funding and the expected market value of the proposed vertical development. As shown in the Appendix Table 7.3, approximately 52 net acres are expected to be redeveloped over the course of time. The timing of planned infrastructure investments will be based on development phasing, which in

turn will be driven primarily by market conditions. Certain improvements, such as open space, can come after the residential construction begins whereas certain utility and street improvements must be in place before any homes are built.

Appendix Table 7.4, summarizes the major public improvements required and estimated total costs. As shown, the Project will require about \$5 million in public improvements by build out, which includes a 30 percent contingency. Before any major developments can take place, various public improvements such as streets and utility lines need to be in place. As such, the majority of the total cost is allocated to the first phase of development for new/improved street and utility infrastructure.

Based on the current real estate market conditions in the City of Palmdale and Antelope Valley, single-family units at the Project Site may command average sales price of \$250,000 per unit; multi-family units may achieve monthly rent of \$1,000 per unit; retail may achieve monthly rent of \$1.30 per net square foot; and office may achieve monthly rent of \$1.00 per square foot Appendix Table 7.5. These rates assume that the development will occur in response to adequate demand, and therefore, will achieve competitive market price. As shown on Appendix Table 7.6, these price points translate to total gross project revenue of \$167.8 million for the entire Project. In other words, if a developer were to develop according to the Project plan, the residential units and commercial space would bring in \$167.8 million in gross revenue (through sales and lease). The total gross revenue would then pay for various costs associated with the development (i.e., land acquisition, site preparation and building construction costs).

One common test of financial feasibility is a cost-to-value ratio. This standard ratio compares total backbone infrastructure cost to the projected market value of the finished product. It is used in the real estate and municipal finance industry to determine if required infrastructure costs are affordable. Under current market conditions the ratio of cost to value should be within the range of 15 to 20 percent or less. In order for a project to be apparently feasible, therefore, its total public improvement costs need to be much less than 20 percent of the final project value (i.e., estimated gross revenue).

The cost-to-value ratio for the Transit Village project is summarized in Table 7.6 by phase. As shown, total public improvement costs estimated for the entire project represent three percent of the final project gross revenue (ranging from two to five percent by phase), indicating an apparent financial feasibility. However, it is important to note that this calculation assumes market support for the product mix defined in the preferred alternative.

6.4.3 Financing Mechanisms

Although the Project as a whole may be financially feasible, securing funds for initial public improvements can be challenging. Because significant investment may be needed up front to prepare the land for development (e.g., major streets and utility improvement), various financing mechanism may be needed to jumpstart the project. Ultimately, the City and/or developers may have to rely on a number of funding mechanisms to facilitate the development program. Below are select financing mechanisms that may be applicable to the Transit Village development.

Mello-Roos Bonds

Mello-Roos bonds are commonly used mechanism in California to finance public improvements. A key advantage is that they offer relatively lower interest rates than are available through private markets. Public agencies are allowed to levy a special tax on properties to pay debt service on bonds sold to fund construction and/or acquisition of public capital facilities. Special taxes may also directly fund facilities and services. However, two-thirds voter approval of the subject property owners is required for the bond measure to pass. As shown in (Appendix Table 7.7), the raw land value at the Project Site may be sufficient to cover the necessary improvements. As such, the land owners may have financial incentives to approve the bond measure to fund the necessary improvements. However, because there are multiple landowners with varying interests, it may be difficult to garner support for the bond. Therefore, working with and gaining the support of the land owners will be critical. Because Mello-Roos bonds generally cannot exceed the amount equivalent to one-third of the land value, alternative financing mechanisms will need to be used in order to fund the entire project.

Redevelopment Tax Increment Financing

A portion of the Transit Village project site falls within the City's redevelopment area. As new developments occur on the project site, the property value of the site will increase, resulting in tax increment revenue for the City's redevelopment agency (RDA). The tax increment revenue could be used to implement roadway and landscape improvements, public parking (if made available to the general public), and possibly open space. Because the generation of tax increment depends on the amount and timing of the development that would occur on the project site, the financing available from bonding the projected tax increment may not be accessible until the project is underway. However, the RDA may seek to use existing revenues or cross-subsidize with increment from other project areas.

Federal/State/Local Grants

The Transit Village project may also tap into various federal, state, local, and private grants that are particularly applicable to the project. In particular, the project's focus on increasing transit ridership, promoting pedestrian friendly environment, and relieving traffic congestion may help the project qualify for various grants dedicated to these goals. For example, most, if not all, of the transit villages near various Bay Area Rapid Transit (BART) stations were successfully subsidized through various grants. A select listing of potential grant programs includes:

- Federal TEA-21 Program (Transportation Equity Act for the 21st Century)
- State Transportation Plan/Congestion Management Air Quality
- State Transportation Improvement Program
- State Traffic Congestion Relief Program

Private Venture

To the extent the Transit Village site can attract private developers, private investments may fund a portion/all of the necessary public improvements. Private developers (including private non-profit developers such as southern California Housing Corporation) often make the initial investments in anticipation of the final project profit. For example, the City may be able to attract a housing developer who would be willing to assemble some of the land at the Project Site and make initial public improvements that would be necessary for the new housing units that would be developed. Given the current strength of housing market in the City, attracting housing developers may be a promising first step to get the project off the ground. Successful development of housing in the first phase is also likely to help attract private developers for further development at the Site (such as retail and office). However, because there are multiple landowners, and the Project Site is currently in need of major redevelopment, the City may need to provide financial/procedural incentives in order to attract developer(s) to this Project. For example, the City may exercise its eminent domain power to assemble the portions of the land that fall within the City's redevelopment area. The City may also provide an expedited entitlement process for the developer.

6.4.4 Financing Principles

This section describes the general principles that will guide the pursuit and expenditure of funding the public improvements. These financing principles are designed to inform future actions regarding the sources and uses of project funds and should be

reflected in the design and implementation of the project itself. The financing strategy should be guided by the following principles:

1. The public improvements that are ultimately adopted must be financially feasible, i.e., funding sources that match improvement expenditures must be identified and quantified. Given the high public improvement costs up front, it will be important to develop a strategic approach to project financing and prioritization of investments. As a general principal, the investment in discrete improvement items should only be undertaken once an adequate funding package has been secured (for e.g., sale of Mello-Roos bond). This principle may mean more slowly phasing the improvement plans currently laid out in the preferred alternative. The actual project schedule and phasing will need to be adapted to funding realities.

2. A strategic yet flexible approach to project phasing must be adopted in accordance with the market demand. A strategic approach to project phasing will be critical to ensure successful implementation over the long term. The goal of project phasing should be focused on (1) sequencing of public improvements to correspond with the actual commencement and absorption of the development (i.e., avoid having a long time gap between the public improvements and the actual sale of the products being developed) and (2) maintain flexibility so that certain improvements can be pursued first or delayed based on changing market circumstances. While the phasing plan will serve as an overall development guide for the Transit Village, an opportunistic approach must be adopted to respond to the market demand (for e.g., a small corporation may want to develop an office park near the new transit hub even before new residential units are developed).

3. Innovative and diverse ways of covering project costs should be pursued. Although a brief financial feasibility and raw land value analyses indicate apparent feasibility and overall capability of the project to fund itself, the actual feasibility and funding capability will depend heavily on time factors. Beyond the near term development (i.e., Phase 1), it is difficult to predict market conditions and achievable price points in the future. The actual project value and the cost of development are likely to change over time as the real estate market evolves. As such, it is critical to leverage the development plan with various funding mechanisms, and opportunities for public-private partnerships should be explored. This will include an aggressive pursuit of state and federal sources as well as local funds.

6.5 RELOCATION REQUIREMENT ASSESSMENT

6.5.1 Relocation in the Transit Village Area

Any public acquisition and/or redevelopment of property will trigger relocation requirements. If no federal dollars are used for the project, California Relocation Codes and Regulations will apply. Should federal funds be used, the Uniform Relocation Act will be triggered, and in addition, when residential property occupied by low- or moderate-income households is acquired, Section 104(d) will also be triggered. A Relocation Plan for the Palmdale Transit Village must be adopted, and the financial implications of relocation addressed in the financing and phasing of the project.

It is likely that the acquisition of vacant land will have the least financial and regulatory impacts. Still, both California or Federal Relocation Rules and Regulations must be followed closely to avoid any negative implications, as the property owner must be paid at least the appraised value of the property.

Housing units in the planning area appear to have lower gross rent and mortgage costs than other areas of the city. In the event that relocation of residents is necessary and comparable housing at a comparable price cannot be found, the City may be required to pay replacement housing payments. These payments are a differential between the household's existing rent or mortgage payment and the cost of replacement housing in the event the new costs are higher. This differential payment will be required for 48 months, and are in addition to any costs associated with acquisitions, relocation advisory services, and actual relocation costs (e.g. moving expenses).

The relocation benefits will accrue to the relocated party whether or not the public agency purchases the property directly or indirectly, under an agreement with a private party.

Next Steps

A relocation plan for the project should be developed. This plan should include some or all of the following information:

- A description of the project and definition of who will be a "displaced person".
- Characteristics of the households and businesses to be displaced, including the race/ethnicity of those to be displaced, income ranges and a description of how any persons with special needs will be provided for.
- A budget identifying the relocation expense as well as sources and uses of funds.

Programs Governing Relocation

Uniform Relocation Act

The Uniform Relocation Act (URA) is government-wide legislation that applies to the use of HUD funds. Should the City of Palmdale use HUD funds to acquire any of the sites, or after acquisition plan to use HUD funds for development activities, and displacement occurs, the Uniform Relocation Act will likely apply. There are three major types of requirements that cover relocation and acquisition in HUD programs.

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Section 104(d) of the Housing and Community Development Act of 1974; and
- Individual HUD program regulations

Section 104 (d)

Section 104(d) of the Housing and Community Development Act provides minimum requirements for federally funded programs or projects when units that are part of a community's low-income housing supply are demolished or converted to a use other than low- or moderate-income dwellings. Section 104(d) requirements are triggered by the use of HOME, CDBG, Section 108 Loan Guarantee, or UDAG funding in a project involving the demolition or conversion of low- or moderate-income housing.

California Relocation Requirements

California Government Code, Section 7260-7277 sets forth the relocation requirements that apply whenever a program or project to be undertaken by a public entity will result in the displacement of any person. The regulations require that the public entity adopt rules and regulations to implement payment and to administer relocation assistance.

**Programs Governing Relocation
(cont.)**

California Redevelopment Law

California Redevelopment Agencies have specific authority to use condemnation as a tool to revitalize the designated redevelopment project area. However, with some minor exceptions, state law requires that any public agency, before it condemns property, obtain an appraisal of the property it wants to acquire and make a reasonable effort to acquire the property by negotiation. Therefore, unless there is an unwilling seller, condemnation will not usually be used. California Redevelopment Agencies, as public agencies under California law, are also subject to the relocation requirements found at Government Code Section 7260-7277, and Code of Regulations, Section 600, which set forth the procedural and financial requirements and obligations of the agency.

- A project schedule for beginning and ending the displacement-causing activity.
- Description of available resources, including the supply of affordable replacement housing in the area. If there will be displaced homeowners, the type and typical costs of housing that is generally on the market and include the same for renters, including rents and the expected utility costs.
- Description of what staff will do to help displaced persons who may be hard to house because of family size or social problems.
- Sample notices to be sent to displaced persons.
- If anyone will be encouraged to return to the project after the work is complete, describe the temporary relocation to be provided – what services, the amount of assistance, the timing, the housing units to be used.
- The organization that will be providing the relocation services must be described, including information about the level of experience in relocation.
- Description of the records to be maintained.

6.5.2 Environmental Justice

Environmental justice is a public policy goal of promoting the fair treatment and meaningful involvement of all people in transportation and land use decision-making. Satisfying this goal means ensuring that low-income and minority communities receive an equitable distribution of the benefits of transportation activities without suffering disproportionate adverse impacts. Achieving environmental justice requires both analytical techniques as well as the full and fair participation by all potentially affected communities in the decision making process.

According to the census data, the corresponding census block groups have a sizeable low-income population. Minority populations comprise the majority of the block group’s population, or approximately 77% of the total. The Hispanic/Latino population is the most sizeable group at 2,024 (63%). The White population is 727 (23%), the Black/African American population is 392 (12%), and the other population, including Asian and Pacific Islanders and multi-racial individuals, is 86 (3%). Potentially, these populations will be affected by the City’s plan for the Transit Village in the event relocation is necessary.

The first step in addressing environmental justice will be the development of an agency policy on incorporating environmental

justice and/or social equity in land use planning and permitting decisions. Although, developing a formal environmental justice policy is not required of local and regional agencies, many agencies feel that it is a vital step. Formal policies can make clear to all staff and the public that the agency's leaders are serious about considering environmental justice. There are a number of environmental justice policies that have been adopted by local jurisdictions, and examples of best practices in implementing environmental justice can be found in the California Department of Transportation's Environmental Justice Desk Guide, developed by ICF Consulting. It can be accessed on the Caltrans website.

6.6 ENVIRONMENTAL REGULATIONS

6.6.1 Compliance

All development submittals within the Specific Plan Area shall comply with the following requirements:

Geotechnical, Soils, and Seismicity Requirements

The City shall be provided with a detailed evaluation of geotechnical and seismic conditions at the sites of proposed structures and slope modifications within the Specific Plan Area shall be prepared by California-licensed geologists and engineers, as part of the site design for the project.

Hazardous Materials Requirements

A Phase I Site Assessment shall be submitted to the City for all projects within the Palmdale Transit Village Specific Plan.

Water Quality Requirements

All projects larger than five acres are required to submit a description of a proposed construction program in accordance with all applicable provisions of the Federal Clean Water Act, which protects the quality of waters through the NPDES. The project proponent shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for the review and approval of the Regional Water Quality Control Board (RWQCB), and provide the City a copy as evidence of its approval by the RWQCB.

For all projects within the Specific Plan Area, the project proponent shall prepare a "source control program" to remove non-point source pollutants before they are picked up by stormwater runoff. This program shall be prepared by a registered Civil Engineer (or other licensed professional acceptable to the City) and reviewed and approved by the City.

Strategy for Compliance – Refer to Stormwater Management Benefits in Section 3.5.6 of Chapter 3.

Air Quality Requirements

If any uses generate air quality emissions, Antelope Valley Air Quality Management District (AVAQMD) review and compliance documentation shall be provided.

Noise Requirements

If any uses generate excessive noise, a noise attenuation measure or compliance study shall be provided.

6.6.2 Construction Procedures

The following policies and requirements shall apply to construction projects within the Specific Plan area.

Hazardous Materials Requirements During Construction

Based upon the age of some of the structures within the Specific Plan area, these structures may contain asbestos, lead paint, and possibly polychlorinated biphenyls. Removal of such materials could result in accidental release of one or more of these contaminants to the environment.

Therefore, a site-specific Hazardous Materials Management Plan (HMMP) shall be developed prior to structure demolition. Material to be demolished shall be analyzed for asbestos content according to methods described in the HMMP. Asbestos wastes shall be handled, transported, and disposed of as required by applicable laws and ordinances.

Air Quality Construction Mitigation

All development and construction projects within the Specific Plan area shall employ feasible control measures for construction activities that involve site grading or preparation or are located near sensitive receptors.

At a minimum, the following actions shall be taken during the course of construction:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads and parking areas at construction site.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) if visible soil material is carried onto adjacent streets.

In addition to the above, the following measures shall be implemented at construction sites greater than four acres in area:

- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

Archaeological Requirements During Construction

At a minimum, the following actions shall be taken during the course of any construction within the Specific Plan area:

Should archeological materials be discovered during the future development, it is recommended that all activity be temporarily halted in the vicinity of the find(s) and that a qualified archeologist be retained to evaluate the find(s) and to recommend mitigation procedures, if necessary. Prehistoric archeological materials include, but are not limited to, obsidian, chert, basalt flakes, artifacts, grindstones (such as mortars and pestles), and human graves. Historic archeological materials include, but are not limited to, glass bottles, and ceramics.

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7. APPENDIX

GLOSSARY OF TERMS

Accessory Dwelling – units that are “secondary” or subordinate to the primary residence and situated on the same lot as the primary residence.

Accessway – a formalized path, walkway, or other physical connection that allows pedestrians to efficiently reach destinations.

Arcade – a covered walkway attached to a building and supported on the sides not attached to the building by columns.

Articulation – the visible expression of architectural or landscape elements through form, structure, or materials that “break up” the scale of buildings and spaces to achieve a “human scale.”

Balcony – an exterior platform that projects from or into the façade of a building and is surrounded by a railing, balustrade, or parapet.

Bay Window – a large window or grouping of windows projecting from the outer façade of a building and forming an alcove in the interior of the building.

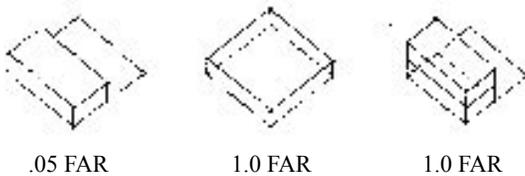
Build-to Line – a given distance from a property line where the façade of the building within that property must be located.

Compact Development – the planning concept of using site design and urban design techniques to decrease the amount of land needed to develop a given amount of land use. In the case of TOD, this is done with the goal of improving transit access.

Density – a unit of measurement that divides persons, floor area, or dwelling units per the gross or net measurement of a discreet area e.g., acres, square feet, square miles. Density requirements in this document are expressed as gross densities with the land area including the area of the parcel, specific to the use including its yard and any parking provided, plus the area of one-half of the street right-of-way upon which the parcel fronts.

Drive-Through Facility – facilities allowing transactions for goods or services without leaving a motor vehicle.

Fast Food Establishment – a food service business that offers relatively immediate service of semi-prepared or prepared foods for take-out or in-house consumption in disposable containers and serving walk-in and/or drive-through customers.



Floor Area Ratio

Finished Floor – the ultimate grade at which a structural floor will be constructed including added decorative and finished surfaces.

Floor Area Ratio (FAR) – the amount of enclosed gross floor area per lot or parcel of land on which such building or buildings are located in relation to the amount of site area. For example, a floor area ratio of 0.5 is equal to one square foot of floor area for every two square feet of site area.

Frontage – the linear edge of a property adjacent to the property line abutting a street, public right-of-way.

Gradient – the change in density, height, and/or land use occurring in stages, degrees, or even and continuous change.

Greenway – a singular or a series of vegetative, linear corridors, natural or man-made, which may contain active or passive recreational uses or which may prohibit human activity altogether in order to preserve sensitive areas. These are usually associated with riparian systems, but may also include transportation corridors.

Human Scale – the size and proportion of a physical element that closely relates to the human body e.g., a 16-foot lamp post vs. a 30 foot lamp post, and a façade with vertically oriented framed windows vs. a façade with a continuous and unarticulated window wall.

Live-Work – a residential unit that is also used for commercial purposes for a time, with minimum of 50% of the total building area given to the commercial use within the same structure as the residential component.

Lot Coverage – Areas of a lot or parcel covered by buildings (as defined by foundation perimeters) and other structures with surfaces greater than 36 inches above the finished and natural grade.

Major Pedestrian Route – the primary route or space used by “Pedestrians” as defined in this section.

Mixed-Use – Development contained within a single-parcel (horizontally or vertically) or adjacent parcels that contains different uses that are complementary to each other and provide activity throughout the day.

Opaque – not transparent.

Open Space – a private or public open land area that is currently undeveloped; it may be maintained as open space into the future or it could be developed.

Overhang – the part of a building that extends horizontally beyond the wall.

Parking Structure – a parking garage located above ground or underground consisting of one or more levels, not surface parking.

Park-and-Ride Lot – A parking structure or surface parking lot intended primarily for use by persons riding transit or carpooling, and that is owned or operated either by a transit agency or by another entity with the concurrence of the transit agency.

Parking, Off-Street – formal or informal parking located within a parcel and outside a private or public right-of-way.

Parking, On-Street – formal or informal parking located within a private or public right-of-way and outside of a parcel.

Pedestrian – people who walk, sit, stand, or use a wheelchair in public spaces, be they children, teens, adults, elderly, people with disabilities, workers, residents, shoppers or people watchers, etc.

Pedestrian Activity – the congregation of persons in an area whose primary means of transportation is by foot.

Pedestrian-oriented Design (PeD) – The design of communities, neighborhoods, streetscapes, sites, and buildings that emphasizes pedestrian access, comfort, and visual interest. Transit-Oriented Design is a particular type of PeD that includes design and intensity of land use to support transit in addition to pedestrians.

Pedestrian Way – a linear space or an area where the primary users are pedestrians and that may also accommodate bicyclists.

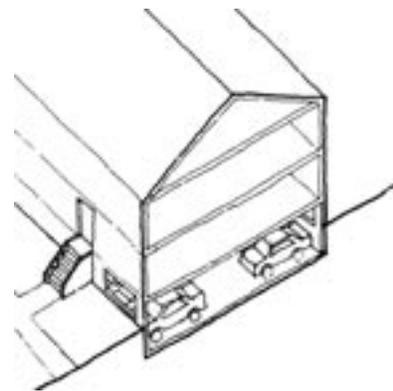
Pergola – an arbor or passageway with a roof or trelliswork on which climbing plants can be trained to grow.

Podium Parking – a parking configuration where parking is either at-grade or partially below grade (but not fully underground) with the building's use above.

Portico – a porch or walkway with a roof supported by columns, often leading to the entrance of a building.

Porch – an open or enclosed gallery or room attached to the outside of a building, typically serving as a semi-public space prior to a building entry.

Primary Front Façade – the façade of a building that is meant to take importance over the remaining façades of a building, typically fronting onto a public or private street or pedestrian accessway.



Podium Parking

Setback – the distance between the building façade and the property line of the parcel in which the building is located.

Shared Parking – parking that is utilized by two or more uses taking into account the variable peak demand times of each use; the uses can be located on more than one parcel.

Street-Facing – the façade of a building that is adjacent to a public or private right-of-way.

Transit-Oriented Development (TOD) – a development pattern characterized by a mix of uses surrounding a transit platform where streets have a high level of connectivity, blocks are small, and streetscape, buildings, and uses cater to the pedestrian.

Transit Platform – A designated transit loading and waiting area as assigned by the public transit agency.

Transit Station – the area including the platform which supports transit usage and that is owned by the transit authority.

Transit Street – a street that contains s transit line.

Transparent – a surface which allows objects on the other side to be easily seen.

Trellis – a light framework of horizontal and vertical members that can be freestanding or attached to a building often supporting climbing plants.

Visual Permeability – the ability of vertical surfaces to allow viewers to see through to the other side e.g., windows and open fencing. (See also “Transparent.”)

Walking Radius – the distance beyond a central point from which a person is willing to walk. This distance will vary depending on existing barriers, the walking environment, and the availability of destinations.

SUPPLEMENTARY FIGURES AND TABLES

Table 7.1 Detailed Parcel Analysis

Assessor's Identification Number (AIN)	Current Land Uses	Zoning Designation	Property Type	Tenure of Land Uses (Owner/Renter)	Jurisdiction
3006006005	IND	M-1	Vacant Land	Non-Residential	City
3006006006	IND	M-1	Vacant Land	Non-Residential	City
3006006011	IND	M-1	Comm/Indus	Non-Residential	City
3006006031	IND	M-1	Vacant Land	Non-Residential	City
3006006903	IND	M-1	Vacant Land	Non-Residential	City
3006006904	IND	M-1	Vacant Land	Non-Residential	City
3006006905	IND	M-1	Vacant Land	Non-Residential	City
3006006906	IND	M-1	Vacant Land	Non-Residential	City
3006006908	IND	M-1	Vacant Land	Non-Residential	City
3006007001	BP	M-4	SFR	Owner Occupied	City
3006007002	BP	M-4	SFR	Renter Occupied	City
3006007003	BP	M-4	SFR	Owner Occupied	City
3006007004	BP	M-4	SFR	Owner Occupied	City
3006007005	BP	M-4	SFR	Owner Occupied	City
3006007006	BP	M-4	SFR	Renter Occupied	City
3006007007	BP	M-4	SFR	Owner Occupied	City
3006007008	BP	M-4	SFR	Renter Occupied	City
3006007009	BP	M-4	SFR	Renter Occupied	City
3006007010	BP	M-4	SFR	Renter Occupied	City
3006007011	BP	M-4	SFR	Renter Occupied	City
3006007012	BP	M-4	SFR	Renter Occupied	City
3006007013	BP	M-4	SFR	Owner Occupied	City
3006007014	BP	M-4	SFR	Renter Occupied	City
3006007015	BP	M-4	SFR	Renter Occupied	City
3006007016	BP	M-4	SFR	Renter Occupied	City
3006007017	BP	M-4	SFR	Renter Occupied	City
3006007018	BP	M-4	SFR	Renter Occupied	City
3006007019	BP	M-4	SFR	Renter Occupied	City
3006007020	BP	M-4	SFR	Renter Occupied	City
3006007021	BP	M-4	SFR	Renter Occupied	City
3006007022	BP	M-4	SFR	Renter Occupied	City
3006007023	BP	M-4	SFR	Owner Occupied	City
3006007024	BP	M-4	SFR	Renter Occupied	City
3006007025	BP	M-4	SFR	Owner Occupied	City
3006007026	BP	M-4	SFR	Owner Occupied	City
3006007027	BP	M-4	SFR	Renter Occupied	City
3006007028	BP	M-4	SFR	Renter Occupied	City
3006007029	BP	M-4	SFR	Renter Occupied	City
3006007030	BP	M-4	SFR	Owner Occupied	City
3006007031	BP	M-4	SFR	Renter Occupied	City
3006007032	BP	M-4	SFR	Owner Occupied	City
3006007033	BP	M-4	SFR	Renter Occupied	City
3006007034	BP	M-4	SFR	Owner Occupied	City

Table 7.1 Detailed Parcel Analysis (continued)

Assessor's Identification Number (AIN)	Current Land Uses	Zoning Designation	Property Type	Tenure of Land Uses (Owner/Renter)	Jurisdiction
3006007035	BP	M-4	SFR	Renter Occupied	City
3006007036	BP	M-4	SFR	Renter Occupied	City
3006007037	BP	M-4	SFR	Owner Occupied	City
3006007038	BP	M-4	SFR	Owner Occupied	City
3006007039	BP	M-4	SFR	Renter Occupied	City
3006007040	BP	M-4	SFR	Renter Occupied	City
3006008001	IND	M-1	Vacant Land	Non-Residential	City
3006008002	County-Vacant Land	CPD	Vacant Land	Non-Residential	County
3006008006	IND	M-1	Vacant Land	Non-Residential	City
3006008007	County-MFR	RA	MFR	Renter Occupied	County
3006008008	IND	M-1	Comm/Indus	Non-Residential	City
3006008009	IND	M-1	Comm/Indus	Non-Residential	City
3006008010	IND	M-1	Vacant Land	Non-Residential	City
3006008014	IND	M-1	Vacant Land	Non-Residential	City
3006008015	IND	M-1	Comm/Indus	Non-Residential	City
3006008902	IND	M-1	Vacant Land	Non-Residential	City
3006008903	IND	M-1	Vacant Land	Non-Residential	City
3006008904	IND	M-1	Vacant Land	Non-Residential	City
3006008905	IND	M-1	Vacant Land	Non-Residential	City
3008007001	MR	R-2	SFR	Renter Occupied	City
3008007002	MR	R-2	SFR	Owner Occupied	City
3008007003	MR	R-2	SFR	Renter Occupied	City
3008007004	MR	R-2	SFR	Renter Occupied	City
3008007005	MR	R-2	SFR	Renter Occupied	City
3008007006	MR	R-2	SFR	Owner Occupied	City
3008007007	MR	R-2	Vacant Land	Non-Residential	City
3008007008	MR	R-2	SFR	Renter Occupied	City
3008007009	MR	R-2	SFR	Owner Occupied	City
3008007010	MR	R-2	SFR	Owner Occupied	City
3008007011	MR	R-2	Vacant Land	Non-Residential	City
3008007012	MR	R-2	Vacant Land	Non-Residential	City
3008007013	MR	R-2	SFR	Renter Occupied	City
3008007014	MR	R-2	Vacant Land	Non-Residential	City
3008007015	MR	R-2	Vacant Land	Non-Residential	City
3008007016	MR	R-2	SFR	Owner Occupied	City
3008007017	MR	R-2	SFR	Renter Occupied	City
3008008001	MFR	R-3	MFR	Renter Occupied	City
3008008002	MFR	R-3	SFR	Owner Occupied	City
3008008003	MFR	R-3	SFR	Owner Occupied	City
3008008004	MFR	R-3	MFR	Renter Occupied	City
3008008005	MFR	R-3	MFR	Renter Occupied	City
3008008006	MFR	R-3	MFR	Renter Occupied	City
3008008007	MFR	R-3	MFR	Renter Occupied	City
3008008008	MFR	R-3	MFR	Renter Occupied	City

Table 7.1 Detailed Parcel Analysis (continued)

Assessor's Identification Number (AIN)	Current Land Uses	Zoning Designation	Property Type	Tenure of Land Uses (Owner/Renter)	Jurisdiction
3008008009	MFR	R-3	MFR	Renter Occupied	City
3008008010	MFR	R-3	Vacant Land	Non-Residential	City
3008008011	MFR	R-3	Vacant Land	Non-Residential	City
3008008012	MFR	R-3	SFR	Renter Occupied	City
3008008013	MFR	R-3	Vacant Land	Non-Residential	City
3008008014	MFR	R-3	Vacant Land	Non-Residential	City
3008008015	MFR	R-3	MFR	Renter Occupied	City
3008008016	MFR	R-3	MFR	Renter Occupied	City
3008008017	MFR	R-3	MFR	Renter Occupied	City
3008008018	MFR	R-3	Vacant Land	Non-Residential	City
3008008019	MFR	R-3	Vacant Land	Non-Residential	City
3008008020	MFR	R-3	Vacant Land	Non-Residential	City
3008008021	MFR	R-3	SFR	Renter Occupied	City
3008008022	MFR	R-3	SFR	Renter Occupied	City
3008008023	MFR	R-3	MFR	Renter Occupied	City
3008008024	MFR	R-3	MFR	Renter Occupied	City
3008008025	MFR	R-3	MFR	Renter Occupied	City
3008008026	MFR	R-3	MFR	Renter Occupied	City
3008008027	MFR	R-3	SFR	Renter Occupied	City
3008008032	MFR	R-3	SFR	Owner Occupied	City
3008008033	MFR	R-3	SFR	Owner Occupied	City
3008008034	MFR	R-3	MFR	Renter Occupied	City
3008008035	MFR	R-3	MFR	Owner Occupied	City
3008008900	MFR	R-3	Vacant Land	Non-Residential	City
3008009001	MFR	R-3	MFR	Renter Occupied	City
3008009002	MFR	R-3	MFR	Renter Occupied	City
3008009003	MFR	R-3	MFR	Renter Occupied	City
3008009004	MFR	R-3	MFR	Renter Occupied	City
3008009005	MFR	R-3	SFR	Renter Occupied	City
3008009006	MFR	R-3	SFR	Renter Occupied	City
3008009007	MFR	R-3	SFR	Renter Occupied	City
3008009010	MFR	R-3	Vacant Land	Non-Residential	City
3008009011	MFR	R-3	SFR	Owner Occupied	City
3008009012	MFR	R-3	SFR	Renter Occupied	City
3008009013	MFR	R-3	MFR	Renter Occupied	City
3008009014	MFR	R-3	MFR	Renter Occupied	City
3008009015	MFR	R-3	MFR	Renter Occupied	City
3008009016	MFR	R-3	MFR	Renter Occupied	City
3008009017	MFR	R-3	MFR	Renter Occupied	City
3008009018	MFR	R-3	MFR	Renter Occupied	City
3008009019	MFR	R-3	MFR	Renter Occupied	City
3008009020	MFR	R-3	MFR	Renter Occupied	City
3008009021	MFR	R-3	Vacant Land	Non-Residential	City
3008009022	MFR	R-3	MFR	Renter Occupied	City

Table 7.1 Detailed Parcel Analysis (continued)

Assessor's Identification Number (AIN)	Current Land Uses	Zoning Designation	Property Type	Tenure of Land Uses (Owner/Renter)	Jurisdiction
3008009023	MFR	R-3	MFR	Renter Occupied	City
3008009024	MFR	R-3	SFR	Renter Occupied	City
3008009025	MFR	R-3	SFR	Renter Occupied	City
3008009026	MFR	R-3	N/A	N/A	City
3008009027	MFR	R-3	Vacant Land	Non-Residential	City
3008009028	MFR	R-3	SFR	Renter Occupied	City
3008009029	MFR	R-3	MFR	Renter Occupied	City
3008009030	MFR	R-3	SFR	Owner Occupied	City
3008009031	MFR	R-3	SFR	Renter Occupied	City
3008009032	MFR	R-3	SFR	Renter Occupied	City
3008009033	MFR	R-3	MFR	Renter Occupied	City
3008009034	MFR	R-3	Vacant Land	Non-Residential	City
3008009901	MFR	R-3	Vacant Land	Non-Residential	City
3008010001	MFR	R-3	MFR	Owner Occupied	City
3008010002	MFR	R-3	MFR	Renter Occupied	City
3008010003	MFR	R-3	MFR	Renter Occupied	City
3008010004	MFR	R-3	MFR	Renter Occupied	City
3008010005	MFR	R-3	MFR	Renter Occupied	City
3008010006	MFR	R-3	N/A	N/A	City
3008010007	MFR	R-3	Vacant Land	Non-Residential	City
3008010008	MFR	R-3	MFR	Renter Occupied	City
3008010009	MFR	R-3	Vacant Land	Non-Residential	City
3008010010	MFR	R-3	Vacant Land	Non-Residential	City
3008010011	MFR	R-3	Vacant Land	Non-Residential	City
3008010012	MFR	R-3	MFR	Owner Occupied	City
3008010013	MFR	R-3	Vacant Land	Non-Residential	City
3008010014	MFR	R-3	MFR	Renter Occupied	City
3008010017	MFR	R-3	MFR	Renter Occupied	City
3008010018	MFR	R-3	MFR	Renter Occupied	City
3008010019	MFR	R-3	MFR	Renter Occupied	City
3008010021	MFR	R-3	Vacant Land	Non-Residential	City
3008010022	MFR	R-3	Vacant Land	Non-Residential	City
3008010023	MFR	R-3	Vacant Land	Non-Residential	City
3008010024	MFR	R-3	Vacant Land	Non-Residential	City
3008010025	MFR	R-3	Vacant Land	Non-Residential	City
3008010902	MFR	R-3	Vacant Land	Non-Residential	City
3008011001	CM	C-5	Comm/Indus	Non-Residential	City
3008011002	CM	C-5	Vacant Land	Non-Residential	City
3008011003	CM	C-5	Comm/Indus	Non-Residential	City
3008011004	CM	C-5	Vacant Land	Non-Residential	City
3008011005	CM	C-5	Vacant Land	Non-Residential	City
3008011006	CM	C-5	Vacant Land	Non-Residential	City
3008011007	CM	C-5	Comm/Indus	Non-Residential	City
3008011008	CM	C-5	Comm/Indus	Non-Residential	City

Table 7.1 Detailed Parcel Analysis (continued)

Assessor's Identification Number (AIN)	Current Land Uses	Zoning Designation	Property Type	Tenure of Land Uses (Owner/Renter)	Jurisdiction
3008011009	CM	C-5	Vacant Land	Non-Residential	City
3008011010	CM	C-5	Vacant Land	Non-Residential	City
3008011011	CM	C-5	Vacant Land	Non-Residential	City
3008011012	CM	C-5	Vacant Land	Non-Residential	City
3008011013	CM	C-5	Comm/Indus	Non-Residential	City
3008011014	CM	C-5	Comm/Indus	Non-Residential	City
3008011015	CM	C-5	Comm/Indus	Non-Residential	City
3008011016	CM	C-5	Comm/Indus	Non-Residential	City
3008011017	CM	C-5	Comm/Indus	Non-Residential	City
3008011018	CM	C-5	Comm/Indus	Non-Residential	City
3008011019	CM	C-5	Vacant Land	Non-Residential	City
3008011020	CM	C-5	Comm/Indus	Non-Residential	City
3008011021	CM	C-5	Vacant Land	Non-Residential	City
3008011022	CM	C-5	Vacant Land	Non-Residential	City
3008011023	CM	C-5	Vacant Land	Non-Residential	City
3008011024	CM	C-5	Vacant Land	Non-Residential	City
3008011025	CM	C-5	Vacant Land	Non-Residential	City
3008011026	CM	C-5	Vacant Land	Non-Residential	City
3008011027	CM	C-5	Vacant Land	Non-Residential	City
3008011028	CM	C-5	Comm/Indus	Non-Residential	City
3008011029	CM	C-5	Comm/Indus	Non-Residential	City
3008011030	CM	C-5	Comm/Indus	Non-Residential	City
3008011033	CM	C-5	Comm/Indus	Non-Residential	City
3008011034	CM	C-5	Comm/Indus	Non-Residential	City
3008027016	CM	C-5	Vacant Land	Non-Residential	City

Table 7.2 Infrastructure Cost Estimate Table

		QTY	UNIT	UNIT COST	TOTAL
Palmdale Transit Village					
Avenue P-12					
02510	WATER DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (36"D,12"W)	1,100	LF	\$ 0.85	\$ 935
	6" WATER PIPE, CLASS 50	1,100	LF	\$ 28.00	\$ 30,800
	FIRE HYDRANT, 3'-0"	1	EA	\$ 1,025	\$ 1,025
	HAUL & DISPOSAL- WATER PIPE	0	LF	\$ 0.10	\$ -
02530	SANITARY SEWER				
	EXCAVATING, TRENCH (12'D,2"W)	978	CY	\$ 6.40	\$ 6,258
	8" SEWER PIPE, CONCRETE	1,100	LF	\$ 15.00	\$ 16,500
	MANHOLE	4	EA	\$ 4,500	\$ 16,500
	BACKFILL	978	CY	\$ 1.95	\$ 1,907
	HAUL & DISPOSAL- SEWER PIPE	0	LF	\$ 2.00	\$ -
02550	GAS DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	1,100	LF	\$ 1.00	\$ 1,100
	4" GAS PIPE, POLYETHYLENE	1,100	LS	\$ 12.70	\$ 13,970
	HAUL & DISPOSAL - GAS PIPE	0	LF	\$ 1.50	\$ -
02580	ELECTRICAL & TELEPHONE UNDERGROUND				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	1,100	LF	\$ 1.00	\$ 1,100
	HAND HOLES (6' X 8' X 7' DEEP)	2	EA	\$ 3,300.00	\$ 6,600
	UNDERGROUND DUCT BANK (6 @ 4")	1,100	LF	\$ 151.00	\$ 166,100
	REMOVE EXISTING AG UTILITY SYSTEM	1,100	LF	\$ 30.00	\$ 33,000
				Avenue P-12 Subtotal	\$ 262,794
Avenue P-14					
02510	WATER DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (36"D,12"W)	700	LF	\$ 0.85	\$ 595
	6" WATER PIPE, CLASS 50	700	LF	\$ 28.00	\$ 19,600
	FIRE HYDRANT, 3'-0"	0	EA	\$ 1,025	\$ -
	HAUL & DISPOSAL- WATER PIPE	0	LF	\$ 0.10	\$ -
02530	SANITARY SEWER				
	EXCAVATING, TRENCH (12'D,2"W)	622	CY	\$ 6.40	\$ 3,982
	8" SEWER PIPE, CONCRETE	700	LF	\$ 15.00	\$ 10,500
	MANHOLE	2	EA	\$ 4,500	\$ 10,500
	BACKFILL	622	CY	\$ 1.95	\$ 1,213
	HAUL & DISPOSAL- SEWER PIPE	0	LF	\$ 2.00	\$ -
02550	GAS DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	700	LF	\$ 1.00	\$ 700
	4" GAS PIPE, POLYETHYLENE	700	LS	\$ 12.70	\$ 8,890
	HAUL & DISPOSAL - GAS PIPE	0	LF	\$ 1.50	\$ -
02580	ELECTRICAL & TELEPHONE UNDERGROUND				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	700	LF	\$ 1.00	\$ 700
	HAND HOLES (6' X 8' X 7' DEEP)	2	EA	\$ 3,300.00	\$ 6,600
	UNDERGROUND DUCT BANK (6 @ 4")	700	LF	\$ 151.00	\$ 105,700
	REMOVE EXISTING AG UTILITY SYSTEM	0	LF	\$ 30.00	\$ -
				Avenue P-14 Subtotal	\$ 168,981

Table 7.2 Infrastructure Cost Estimate Table (continued)

Palmdale Transit Village					
Avenue P-12					
Avenue P-15					
02510	WATER DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (36"D,12"W)	600	LF	\$ 0.85	\$ 510
	6" WATER PIPE, CLASS 50	600	LF	\$ 28.00	\$ 16,800
	FIRE HYDRANT, 3'-0"	1	EA	\$ 1,025	\$ 1,025
	HAUL & DISPOSAL- WATER PIPE	0	LF	\$ 0.10	\$ -
02530	SANITARY SEWER				
	EXCAVATING, TRENCH (12'D,2'W)	533	CY	\$ 6.40	\$ 3,413
	8" SEWER PIPE, CONCRETE	600	LF	\$ 15.00	\$ 9,000
	MANHOLE	2	EA	\$ 4,500	\$ 9,000
	BACKFILL	533	CY	\$ 1.95	\$ 1,040
	HAUL & DISPOSAL- SEWER PIPE	0	LF	\$ 2.00	\$ -
02550	GAS DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	600	LF	\$ 1.00	\$ 600
	4" GAS PIPE, POLYETHYLENE	600	LS	\$ 12.70	\$ 7,620
	HAUL & DISPOSAL - GAS PIPE	0	LF	\$ 1.50	\$ -
02580	ELECTRICAL & TELEPHONE UNDERGROUND				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	600	LF	\$ 1.00	\$ 600
	HAND HOLES (6' X 8' X 7' DEEP)	1	EA	\$ 3,300.00	\$ 3,300
	UNDERGROUND DUCT BANK (6 @ 4")	600	LF	\$ 151.00	\$ 90,600
	REMOVE EXISTING AG UTILITY SYSTEM	0	LF	\$ 30.00	\$ -
				Avenue P-15 Subtotal	\$ 143,508
Sumac Avenue					
02510	WATER DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (36"D,12"W)	775	LF	\$ 0.85	\$ 659
	6" WATER PIPE, CLASS 50	775	LF	\$ 28.00	\$ 21,700
	FIRE HYDRANT, 3'-0"	1	EA	\$ 1,025	\$ 1,025
	HAUL & DISPOSAL- WATER PIPE	0	LF	\$ 0.10	\$ -
02530	SANITARY SEWER				
	EXCAVATING, TRENCH (12'D,2'W)	689	CY	\$ 6.40	\$ 4,409
	8" SEWER PIPE, CONCRETE	775	LF	\$ 15.00	\$ 11,625
	MANHOLE	3	EA	\$ 4,500	\$ 11,625
	BACKFILL	689	CY	\$ 1.95	\$ 1,343
	HAUL & DISPOSAL- SEWER PIPE	0	LF	\$ 2.00	\$ -
02550	GAS DISTRIBUTION				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	775	LF	\$ 1.00	\$ 775
	4" GAS PIPE, POLYETHYLENE	775	LS	\$ 12.70	\$ 9,843
	HAUL & DISPOSAL - GAS PIPE	0	LF	\$ 1.50	\$ -
02580	ELECTRICAL & TELEPHONE UNDERGROUND				
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	775	LF	\$ 1.00	\$ 775
	HAND HOLES (6' X 8' X 7' DEEP)	2	EA	\$ 3,300.00	\$ 6,600
	UNDERGROUND DUCT BANK (6 @ 4")	775	LF	\$ 151.00	\$ 117,025
	REMOVE EXISTING AG UTILITY SYSTEM	0	LF	\$ 30.00	\$ -
				Sumac Avenue Subtotal	\$ 187,403

Table 7.2 Infrastructure Cost Estimate Table (continued)

4th Street East						
02510	WATER DISTRIBUTION					
	EXCAVATING, TRENCH & BACKFILL (36"D,12"W)	1,400	LF	\$ 0.85	\$	1,190
	6" WATER PIPE, CLASS 50	1,400	LF	\$ 28.00	\$	39,200
	FIRE HYDRANT, 3'-0"	3	EA	\$ 1,025	\$	3,075
	HAUL & DISPOSAL- WATER PIPE	0	LF	\$ 0.10	\$	-
02530	SANITARY SEWER					
	EXCAVATING, TRENCH (12'D,2'W)	1,244	CY	\$ 6.40	\$	7,964
	8" SEWER PIPE, CONCRETE	1,400	LF	\$ 15.00	\$	21,000
	MANHOLE	5	EA	\$ 4,500	\$	21,000
	BACKFILL	1,244	CY	\$ 1.95	\$	2,427
	HAUL & DISPOSAL- SEWER PIPE	0	LF	\$ 2.00	\$	-
02550	GAS DISTRIBUTION					
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	1,400	LF	\$ 1.00	\$	1,400
	4" GAS PIPE, POLYETHYLENE	1,400	LS	\$ 12.70	\$	17,780
	HAUL & DISPOSAL - GAS PIPE	0	LF	\$ 1.50	\$	-
02580	ELECTRICAL & TELEPHONE UNDERGROUND					
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	1,400	LF	\$ 1.00	\$	1,400
	HAND HOLES (6' X 8' X 7' DEEP)	3	EA	\$ 3,300.00	\$	9,900
	UNDERGROUND DUCT BANK (6 @ 4")	1,400	LF	\$ 151.00	\$	211,400
	REMOVE EXISTING AG UTILITY SYSTEM	0	LF	\$ 30.00	\$	-
			4th Street East	Subtotal	\$	337,736
Avenue P-13 N-S Branch						
02510	WATER DISTRIBUTION					
	EXCAVATING, TRENCH & BACKFILL (36"D,12"W)	900	LF	\$ 0.85	\$	765
	6" WATER PIPE, CLASS 50	900	LF	\$ 28.00	\$	25,200
	FIRE HYDRANT, 3'-0"	3	EA	\$ 1,025	\$	3,075
	HAUL & DISPOSAL- WATER PIPE	0	LF	\$ 0.10	\$	-
02530	SANITARY SEWER					
	EXCAVATING, TRENCH (12'D,2'W)	800	CY	\$ 6.40	\$	5,120
	8" SEWER PIPE, CONCRETE	900	LF	\$ 15.00	\$	13,500
	MANHOLE	3	EA	\$ 4,500	\$	13,500
	BACKFILL	800	CY	\$ 1.95	\$	1,560
	HAUL & DISPOSAL- SEWER PIPE	0	LF	\$ 2.00	\$	-
02550	GAS DISTRIBUTION					
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	900	LF	\$ 1.00	\$	900
	4" GAS PIPE, POLYETHYLENE	900	LS	\$ 12.70	\$	11,430
	HAUL & DISPOSAL - GAS PIPE	0	LF	\$ 1.50	\$	-
02580	ELECTRICAL & TELEPHONE UNDERGROUND					
	EXCAVATING, TRENCH & BACKFILL (42"D,12"W)	900	LF	\$ 1.00	\$	900
	HAND HOLES (6' X 8' X 7' DEEP)	2	EA	\$ 3,300.00	\$	6,600
	UNDERGROUND DUCT BANK (6 @ 4")	900	LF	\$ 151.00	\$	135,900
	REMOVE EXISTING AG UTILITY SYSTEM	0	LF	\$ 30.00	\$	-
			Avenue P-13 N-S Branch	Subtotal	\$	218,450
	PERMITS FOR COUNTY WORK ABOVE	1	LS	\$ 50,000	\$	50,000

SUBTOTAL		\$	1,368,873
DIVISION 1 GENERAL CONDITIONS	15.0%	\$	205,331
GENERAL CONTRACTOR OVERHEAD AND PROFIT	10.0%	\$	157,420
BONDS AND INSURANCE	2.50%	\$	43,291
TOTAL (w/ 30% Contingency)		\$	2,307,389

Table 7.3 Preferred Alternative Development Acreage by Phase

Land Use	Total Gross Acres	Net Acres (1)			Total
		Phase 1	Phase 2	Phase 3	
Residential	45	19	11	5	35
Retail	7	0	1	4	5
<u>Office</u>	<u>15</u>	<u>0</u>	<u>0</u>	<u>12</u>	<u>12</u>
Total	66	19	12	21	52

(1) Assumed to be 80 percent of gross acres to account for right of ways, utilities and other roads

Source: CD&A; Economic & Planning Systems, Inc.

Table 7.4 Public Improvement Cost Estimate for the Preferred Alternative

(Refer to Figure 3.8 in Chapter 3, Figure 5.1 in Chapter 5, and Table 7.2 in the Appendix)

Items	Phase 1	Phase 2	Phase 3	Total Cost
Utility Infrastructure				
Avenue P-12			\$262,794	\$262,794
Avenue P-14	\$168,981			\$168,981
Avenue P-15	\$143,508			\$143,508
Sumac Avenue		\$187,403		\$187,403
4th Street East	\$337,736			\$337,736
Avenue P-13 N-S Branch			\$218,450	\$218,450
Other				
Permits	\$50,000			\$50,000
Division 1 General Conditions	\$105,034	\$28,111	\$72,187	\$205,331
General Contractor Overhead and Profit	\$80,526	\$21,551	\$55,343	\$157,420
Bonds and Insurance	\$22,145	\$5,927	\$15,219	\$43,291
Contingency	<u>\$272,379</u>	<u>\$72,898</u>	<u>\$187,198</u>	<u>\$532,474</u>
Subtotal	\$1,180,308	\$315,890	\$811,192	\$2,307,389
Improved and New Streets				
Avenue Q	\$367,200			\$367,200
All other	<u>\$1,083,880</u>	<u>\$273,340</u>	<u>\$426,600</u>	<u>\$1,783,820</u>
Subtotal	\$1,451,080	\$273,340	\$426,600	\$2,151,020
Public Open Space		\$500,400		\$500,400
Total Improvement Cost	\$2,631,388	\$1,089,630	\$1,237,792	\$4,958,809

Source: John M. Cruikshank Consultants, Inc.; CD&A

Table 7.5 The Preferred Alternative Project Value by Land Use

Cash-Flow Item	Residential		Commercial	
	Single-Fam.	Multi-Fam.	Retail	Office
Project Summary				
Gross Sq.Ft.Total/ Unit	2,000	1,100	49,000	446,000
Efficiency Ratio	100%	85%	95%	95%
Net SF Total/Unit	2,000	935	46,550	423,700
Revenues				
Avg. Price per Unit/Lease Per Sq.Ft./mo. (1)	\$250,000	\$1,029	\$1.30	\$1.00
less Vacancy Losses	n/a	10%	10%	15%
less Operating Expenses (% of Gross Income)	n/a	30%	5%	5%
less Capital Reserves (% of Gross Income)	n/a	3%	3%	3%
Annual Net Operating Income	n/a	\$7,542	\$13	\$9
Capitalization Rate	n/a	8%	9%	9%
Per Unit/Sq.Ft. Gross Revenue	\$250,000	\$94,277	\$144	\$104
Total Gross Revenue	\$45,500,000	\$71,368,032	\$6,691,749	\$44,249,816

(1) Assumes competitive market rate.

Source: The Siracusa Company; Loopnet; Economic & Planning Systems, Inc.

Table 7.6 The Preferred Alternative Project Value by Phase

Cash-Flow Item	Phase 1	Phase 2	Phase 3	Total
Single-Fam.				
Total Units	149	29	4	182
Per Unit Gross Revenue	\$250,000	\$250,000	\$250,000	\$250,000
Total Gross Revenue	\$37,250,000	\$7,250,000	\$1,000,000	\$45,500,000
Multi-Fam.				
Total Units	200	485	72	757
Per Unit Gross Revenue	\$94,277	\$94,277	\$94,277	\$94,277
Total Gross Revenue	\$18,855,491	\$45,724,564	\$6,787,977	\$71,368,032
Retail				
Total Net Sq.Ft.	-	14,250	32,300	46,550
Per Sq.Ft. Gross Revenue	\$144	\$144	\$144	\$144
Total Gross Revenue	\$0	\$2,048,495	\$4,643,254	\$6,691,749
Office				
Total Net Sq.Ft.	-		423,700	423,700
Per Sq.Ft. Gross Revenue	\$104	\$104	\$104	\$104
Total Gross Revenue	\$0	\$0	\$44,249,816	\$44,249,816
Gross Revenue	\$56,105,491	\$55,023,059	\$56,681,046	\$167,809,596
Public Improvement Cost	\$2,631,388	\$1,089,630	\$1,237,792	\$4,958,809
Public Improvement Cost/Gross Revenue	5%	2%	2%	3%

Source: The Siracusa Company; Loopnet; Economic & Planning Systems, Inc.

Table 7.7 Illustrative Land Value Calculations by Phase for the Preferred Alternative

Land Use	Value/Acres (1)	Phase 1	Phase 2	Phase 3	Total
<u>Raw Land Value (2)</u>					
Residential	\$150,000	\$2,892,000	\$1,620,000	\$720,000	\$5,232,000
Retail	\$200,000	\$0	\$160,000	\$880,000	\$1,040,000
Office	\$225,000	\$0	\$0	\$2,610,000	\$2,610,000
Subtotal		\$2,892,000	\$1,780,000	\$4,210,000	\$8,882,000
<u>Total Improvement Costs (3)</u>		\$2,631,388	\$1,089,630	\$1,237,792	\$4,958,809
Net Value		\$260,612	\$690,370	\$2,972,208	\$3,923,191
<u>Net Value/Sq.Ft.</u>					
Gross		\$0.25	\$1.09	\$2.62	\$1.39
Net		\$0.31	\$1.37	\$3.28	\$1.74

(1) Assumes current competitive market rate for raw land in the City for the various land uses. The actual value of the project site may be different than these rates depending on the market condition at the time of actual transactions.

(2) See Table 1 for the development program.

(3) See Table 2 for detailed cost estimates.

Source: FARES; Loopnet; ReMax; Economic & Planning Systems, Inc.

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