FINAL PLAN

ORANGE LINE BUS RAPID TRANSIT

SUSTAINABLE CORRIDOR IMPLEMENTATION PLAN

JUNE 29, 2012

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

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ORANGE LINE BUS RAPID TRANSIT SUSTAINABLE CORRIDOR IMPLEMENTATION PLAN

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This is a project for the Los Angeles County Metropolitan Transportation Authority (Metro) with funding provided by the Southern California Association of Governments' (SCAG) Compass Blueprint Program. Compass Blueprint assists Southern California cities and other organizations in evaluating planning options and stimulating development consistent with the region's goals. Compass Blueprint tools support visioning efforts, infill analyses, economic and policy analyses, and marketing and communication programs. This report was prepared in fulfillment of Agreement No. 10-777: Sustainable Development Pilot Projects in the SCAG Region by SCAG under the partial sponsorship of the California Air Resources Board (ARB). Work was completed as of October 7, 2011.

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CHAPTER 1: INTRODUCTION

PROJECT PURPOSE

In spring of 2011, the Los Angeles County Metropolitan Transportation Authority (Metro), in partnership with the City of Los Angeles, was awarded a grant from the Southern California Association of Governments (SCAG) to prepare the Orange Line Bus Rapid Transit Sustainable Corridor Implementation Plan (Orange Line BRT Sustainable CIP). Metro, the City of Los Angeles, and SCAG retained Raimi + Associates and its consultant team of The Center for Transit-Oriented Development and Nelson\Nygaard to assist with the planning effort.

The Orange Line BRT Sustainable CIP identifies a range of improvements to the Orange Line and the fourteen station areas on its original alignment – such as land use changes, catalyst projects, streetscape improvements, and transit connections – that will increase transit use for commuters and discretionary riders, reduce greenhouse gas (GHG) emissions, and advance Metro's sustainable development principles. The four main goals of the Orange Line BRT Sustainable CIP are to:

- Identify strategies to better integrate transportation and land use decisions;
- Identify transportation measures that support station-area and community plans;
- Identify and prioritize staff time and resources to implement TOD-related projects by determining where improvements will have the most positive impact; and
- Support Metro's Sustainability Principles.

The Orange Line BRT Sustainable CIP is intended to build on the success of the Orange Line by providing recommendations to create a network of transit-oriented districts (TODs) at station areas along the corridor. The study further develops the concepts identified in the 2010 CTOD report on Transit-Oriented Districts titled "Creating Successful Transit-Oriented Districts in Los Angeles: A Citywide Toolkit for Achieving Regional Goals."[1]

Creating transit-oriented districts is one strategy to achieve sustainability in the Los Angeles region. To provide direction for planning and programming activities, Metro developed the Sustainable Communities Planning Framework and associated Countywide Sustainability Planning Policy. The Framework establishes an approach for embedding social, economic, and environmental sustainability throughout Metro's functions, and these principles are at the core of the Orange Line BRT Sustainable CIP. Metro plays a unique role in facilitating a more sustainable future for the Los Angeles region. The agency plans, funds, constructs, and operates a transportation system that improves Angelenos' health and well-being, strengthens the economy, and enhances the natural environment.

[1] Creating Successful Transit-Oriented Districts in Los Angeles: A Citywide Toolkit for Achieving Regional Goals. Center for Transit Oriented Development (CTOD), February 2010.

Recognizing this, Metro has adopted the following principles:

1. **Connect People and Places**
    - **Access.** Better integrate land-use and transportation planning to reduce trip lengths and increase travel choices.
    - **Prosperity.** Reduce transportation costs for residents and provide the mobility necessary to increase economic competitiveness.
    - **Green Modes.** Promote clean mobility options to reduce criteria pollutants, greenhouse gas emissions, and dependence on foreign oil.
2. **Create Community Value**
    - **Healthy Neighborhoods.** Improve public health through traffic safety, reduced exposure to pollutants, and design for walking and biking.
    - **Community Development.** Design and build transportation facilities that promote infill development, build community identity, and support social and economic activity.
    - **Urban Greening:** Enhance and restore natural systems to mitigate the impacts of transportation projects on communities and wildlife.
3. **Conserve Resources**
    - **Context Sensitivity.** Build upon the unique strengths of Los Angeles County's communities through strategies that match local and regional context and support investment in existing communities.
    - **System Productivity**. Increase the efficiency and ensure the long-term viability of the multimodal transportation system.
    - **Environmental Stewardship**. Plan and support transportation improvements that minimize material and resource use through conservation, re-use, re-cycling and re-purposing.

The Orange Line BRT Sustainable CIP explicitly supports these key priorities, working to advance Metro's Sustainable Communities Planning Framework and Countywide Sustainability Planning Policy by creating transit-oriented districts along the Orange Line. This study and the districts that result can be a model for how other transit corridors and stations areas within Metro's service area can develop and how multiple agencies can work together to create transit-oriented districts.

STUDY AREA

The Orange Line BRT is an eighteen-mile bus rapid transit system that runs from North Hollywood in the east to Warner Center and Chatsworth in the west (via separate branches). The line traverses the San Fernando Valley from east to west and connects multiple neighborhoods and job centers within the City of Los Angeles. The 260-square mile San Fernando Valley is an urbanized valley located primarily in the City of Los Angeles, defined by the dramatic mountains that encircle it. Home to 1.76 million people and

nearly half of the land area in the City of Los Angeles, the San Fernando Valley lies north of the Los Angeles Basin.

The fourteen stations along the original segment of the Orange Line, from east to west, are:

- North Hollywood
- Laurel Canyon
- Valley College
- Woodman
- Van Nuys
- Sepulveda
- Woodley
- Balboa
- Reseda
- Tampa
- Pierce College
- De Soto
- Canoga
- Warner Center

There are multiple destinations of note near the Orange Line, including the bustling North Hollywood neighborhood, Valley College, Pierce College, the Van Nuys Civic Center, Lake Balboa Park, the Van Nuys Airport, Ventura Boulevard, and the major job and retail destination in Warner Center.

What is BRT?

BRT (bus rapid transit) is an innovative, flexible, and high performance transit mode that uses buses or specialized vehicles on roadways or dedicated lanes to quickly and efficiently transport passengers to their destination. BRT systems can equal or exceed the performance of most rail systems but at a fraction of the cost due to reduced construction, infrastructure, and maintenance needs. Common features of a bus rapid transit system – and of the Orange Line – that are different from most conventional bus systems include:

- High-capacity vehicles
- Exclusive bus lanes separated from other roadways
- Rail-like station amenities with level boarding platforms
- Rail-like spacing between stations for fewer stops and express travel times
- More frequent service
- Traffic signal priority
- Real-time passenger location and schedule information
- Off-vehicle fare collection

A BRIEF HISTORY OF THE ORANGE LINE

The Metro Orange Line is one of the first full-featured BRT systems anywhere in the United States. In 1991, Metro used $44.8 million in Proposition 108 funds (the Passenger Rail and Clean Air Bond Act of 1990) to purchase an abandoned railroad line parallel to the Ventura Freeway (U.S. 101). However, the voter-approved bond specifically states that funds are to be used only for rail infrastructure and operation. Therefore, funding was contingent on the California Transportation Commission being repaid in current dollars unless the Orange Line is converted to rail within ten years of busway completion (by the year 2015)[2].

Initially, Metro considered building rail in the corridor, but this was deemed infeasible both politically and as a result of Metro's decline in revenue at the time. In 1991, State legislation was passed that prohibited the use of the corridor for any form of rail transit other than a "deep bore subway located at least twenty-five feet below ground." Los Angeles County voters then passed 1998's Proposition A, which prohibited Metro from using its county sales tax funding to build subways anywhere in the county. As a result, converting the corridor into a subway or light rail was legally prohibited, but political pressure was mounting to use the right-of-way. After a successful Metro Rapid Demonstration Program of street-running rapid bus services, Metro proposed the only available legal option, building a BRT line, which was also highly contested by some neighborhood groups who fought against its development.

With a $324 million construction cost, the Metro Orange Line opened in October 2005 as a fourteen-mile route primarily consisting of a two-lane dedicated busway, operating sixty-foot articulated vehicles powered by compressed natural gas. The route crosses thirty-four streets and five midblock pedestrian crosswalks. At signalized intersections, it has loop detectors installed to give Orange Line vehicles traffic signal priority. In order to mitigate noise impacts on adjacent neighborhoods, it operates on rubberized asphalt with sound walls on portions of the busway. Adjacent to the busway, Metro has built eight miles of bicycle and pedestrian paths, with designated on-street bike lanes for the remaining six miles. There is extensive landscaping along the corridor.

On June 30, 2012, a four-mile spur was opened off of the main line, toward the north from a point near its western end. This extension utilizes a continuation of the same former rail right-of-way used by the original segment.

THE ORANGE LINE TODAY

The Orange Line has proven to be one of Metro's most successful routes, outperforming other Metro rapid transit lines. The Orange Line has exceeded ridership projections, reduced travel times, and eased congestion within the San Fernando Valley. It has also provided greater access to destinations in the

[2] William Vincent and Lisa Callaghan, A Preliminary Evaluation of the Metro Orange Line Bus Rapid Transit Project, April 2, 2007, http://www.gobrt.org/Orange_Line_Preliminary_Evaluation_by_BTI.pdf.

Valley and attracted new riders. Metro's Orange Line serves as an example of what transit agencies can do to feasibly implement sustainable rapid transit through the cost-effective option of BRT.

The Orange Line operates seven days a week, twenty-two hours per day. Vehicles depart every four minutes during the morning and evening peaks. During off-peak hours and on weekends, headways range from ten to twenty minutes. The Orange Line also accommodates a series of transit connections. The busway connects to the Metro Rail Red Line subway terminus at North Hollywood. When developing the Orange Line, Metro rerouted several bus lines in the area and added buses to several north-south lines in order to ease transit connections with the Orange Line. Orange Line schedules are coordinated with the Red Line to facilitate transfers.

The fourteen original Orange Line stations are spaced approximately one mile apart, and they are located near residential areas, commercial activity centers, and major north/south arterials. Each station provides bicycle racks and/or lockers, covered seating, telephones, lighting, and security cameras. Stations also feature variable message signs and real-time bus arrival information. Six of the fourteen stations have park and ride lots, supplying a total of 3,800 free parking spaces. Overall, the Orange Line provides a level of service and performance that is often associated with more expensive rail systems.

DEVELOPING THE PLAN

The Orange Line BRT Sustainable CIP was developed between July 2011 and June 2012. The project consisted of three distinct phases: Discovery, Analysis, and Content Development. The Discovery phase occurred between July and October 2011 and involved a significant review of existing conditions of the Orange Line corridor. The results of this phase are included in the appendices to this report and published as a separate document.

The second phase was the Analysis phase. During this time, the team identified and analyzed barriers to increasing transit use in the corridor as a whole and at each of the fourteen station areas. After conducting this analysis, the team developed various approaches – physical, policy, and programmatic – to add additional transit riders. The approaches developed during the process included improving existing transit service, enhancing bicycle and pedestrian access to the stations, and facilitating new development within the station areas. This phase occurred from approximately November 2011 through February 2012.

The final phase of the project was Content Development. During this phase, the team summarized the results of the Analysis phase and outreach process and prepared the final report. This phase occurred between March and June 2012.

Throughout the process, the consultant team worked closely with community members, non-governmental organizations, and public agency staff at Metro and the City of Los Angeles. The following activities occurred during the process:

- Numerous one-on-one stakeholder interviews.

- Two public workshops in November 2011 to obtain information on key issues and opportunities around each Orange Line station.
- An online survey that provided information on the issues and opportunities in each station area along the corridor.
- Four meetings with the Corridor Working Group, which consisted of approximately 20 interest groups and individuals who provided input to the process.
- Meetings with individual Neighborhood Councils and neighborhood associations along the corridor. The team met with Mid Town North Hollywood, Tarzana, Valley Village, Valley Glen and Van Nuys. The meetings are listed below:
    - Midtown North Hollywood Neighborhood Council – January 31, 2012; March 14, 2012; and April 24, 2012
    - Valley Village Neighborhood Council – February 23, 2012 and April 26, 2012
    - Van Nuys Neighborhood Council – April 30, 2012
    - Tarzana Neighborhood Council – April 24, 2012
    - Valley Glen Neighborhood Association – February 21, 2012
- Working meetings with Metro and City of Los Angeles staff, including a two-day team charrette in February 2012.

The result is a plan that received input from a wide variety of individuals and organizations.

PLAN CONTENTS

The Orange Line Sustainable Corridor Implementation Plan includes the following sections:

- **Chapter 1: Introduction.** This chapter introduces the purpose of the report and provides a background on the Orange Line BRT system.
- **Chapter 2: An Overview of Transit-Oriented Districts.** This chapter summarizes the concept and benefits of Transit-Oriented Development.
- **Chapter 3: Corridor-Level Conclusions and Recommendations.** This chapter provides an overview of the conclusions of the study and specific recommendations for future corridor-wide improvements.
- **Chapter 4: Recommended Station-Area Improvements.** This chapter provides more detailed information for each station area, including background information, the future intent of each station area, and specific recommendations for improvements that go beyond the corridor-wide recommendations.
- **Chapter 5: Moving Forward.** This chapter provides a high-level roadmap for how the recommendations in the plan will be implemented over time. It includes potential funding

sources, priorities for each station area, initial actions, and a list of partners needed to implement the vision and recommendations in this plan.

- **Appendices.** At the end of the report area a series of appendices that provide additional information on the project. The appendices are:
    - Appendix A: Relevant Policy Documents and Implementation Activity
    - Appendix B: Corridor Conditions
    - Appendix C: Station-Area Profiles
    - Appendix D: Results from Public Workshops
    - Appendix E: Results from Online Survey
    - Appendix F: Corridor Working Group Outreach List
    - Appendix G: GHG and Health Analysis

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CHAPTER 2: AN OVERVIEW OF TRANSIT-ORIENTED DISTRICTS

This chapter provides a brief overview of the characteristics and benefits of transit-oriented districts (TODs), which are one tool to achieve the sustainability principles from Chapter I. While TODs share certain attributes, it is important to note that TODs vary greatly in terms of their design, development intensity, and role along a corridor. Some are lower intensity and suburban in character, while others are major destinations with a mix of high-intensity uses. Overall, a diversity of TODs is critical to a corridor's success, since each plays a unique role in the overall function of the transit network. The following characteristics and benefits are a guide to the elements of successful TOD.

WHAT ARE TODS?

Transit-oriented districts, or TODs, are areas designed to maximize access and use of public transportation to both reduce auto dependence for residents and workers and increase transit ridership. TODs accomplish these goals by integrating transit planning, development, urban design, streetscape improvement, and reinvestment to create compact, walkable, mixed-use neighborhoods that link jobs and housing and are within an easy walk of transit stations. TODs offer people more trip choices, provide additional transit stops and transit lines, and make multiple modes of transportation – including walking, cycling, taxis, and car-sharing – more convenient and connected. Successful TODs exhibit a mutually reinforcing land use and transportation pattern.

Typically, TODs are medium- or high-density mixed-use neighborhoods centered on one or more transit facilities, such as a rail station or a bus stop. They are built with a focus on pedestrian scale, pedestrian friendliness, and neighborhood connectivity, utilizing features such as high intersection density, high quality pedestrian street crossings, pedestrian-oriented building entries and facades, and sidewalks with adequate widths and buffers. This pedestrian-oriented design makes it easier and more comfortable for residents and workers to access transit, since most transit users are pedestrians for at least some portion of their journey to and from a transit stop.

WHAT ARE THE FEATURES OF A SUCCESSFUL TOD?

Creating a successful TOD involves more than just locating development next to a transit stop. A successful TOD requires safe, comfortable, attractive connections between transit and the surrounding neighborhood, promoting pedestrian movement and transit use. The basic characteristics and strategies of a successful TOD are described individually below, although most are inter-related and successful TODs use many at once.

Pedestrian-Friendly Design

Pedestrian-friendliness is a key characteristic of TODs. A friendly pedestrian environment helps maintain activity around transit stops, which generally makes other pedestrians feel more comfortable, enhances safety through additional eyes on the street, and helps support neighborhood commercial activity. Typically, pedestrian-friendly design means that blocks are shorter and more walkable, sidewalks are adequately sized, there are buffers between pedestrians and street traffic, crossings are well marked, sidewalks and pathways are continuous and safe, sidewalk-fronting buildings are inviting and interesting to pedestrians, and the street environment has a pedestrian scale.

Mix of Uses

A mix of land uses is important for creating vibrant, attractive transit-oriented development. A mix of uses makes it easier to take care of daily needs without driving, such as shopping, working, or dropping kids off at school. This type of activity also, as a result, supports neighborhood businesses thus reinforcing economic vitality of local commercial areas. As a rule of thumb, most successful TODs should seek to have a high level of activity for at least sixteen hours per day, seven days per week. High levels of consistent activity are best achieved through a diverse mix of residential, office, retail, and entertainment destinations. A mix of local, city-wide, and regional destinations also increases the attractiveness of a transit stop to people living outside an area.

Compact Design

The goal of compact design is to use land efficiently by intensifying land use in specific locations such as adjacent to transit stations. Compact design allows more efficient use of public amenities like sidewalks, streets, and parks, and complements mixed-use, pedestrian-friendly design to make pedestrian and bicycle use more convenient by reducing trip lengths.

Easy Access to Frequent and Reliable Public Transit

For a development to be transit-oriented, it must be easily accessible to frequent, reliable public transit. One important TOD strategy is to ensure that prospective riders can easily find nearby transit stops along a clear, direct, and convenient route. Another basic TOD strategy is to ensure that transit stops are close to where people work, live, and shop. Typically, this means no more than a quarter- to half-mile walk distance, beyond which studies show that most people are unwilling to walk. Good integration of the transit stop with other modes of travel is also critical, since it maximizes people's choice of routes and mode. This may include co-locating bus and train stops, integrating quality bicycle and pedestrian routes and signage, providing better bicycle parking at transit stops, and providing bicycle storage on buses and trains.

Housing Choices

A TOD will be most vibrant and viable for the long run if it provides residents of all ages, income levels, and family sizes with adequate housing choices. Without a range of housing types, it is difficult for

communities to accommodate a diverse work force, preferences for housing, and the changes in housing needs.

Walkable and Bikeable Neighborhoods

Walkable neighborhoods are a central strategy for transit-oriented development. A walkable neighborhood is one that feels safe at all hours of the day and night both from crime and traffic, and is easily accessible by foot or bicycle, or other means besides an automobile. Encouraging walkable neighborhoods and easy pedestrian access to a transit stop and its surrounding uses supports the vitality, well-being and long-term success of both the neighborhood, local businesses and the transit that serves them. Bikeable neighborhoods have many of the same benefits and characteristics of walkable neighborhoods – high connectivity, a mix of uses and destinations, compact development patterns – but often require different on-street and off-street facilities.

WHAT ARE THE BENEFITS OF TOD?

TODs offer residents and communities benefits that range from environmental to economic. These include enhanced quality of life for community residents, increased transportation options, reduced household expenses, improved air quality, reduced energy consumption, reduced infrastructure costs, increased bicycle and pedestrian safety, increased economic activity, increased access to community resources, and preservation of open space.

Enhanced Quality Of Life for Community Residents

While quality of life is a subjective term that means different things to different people, it generally includes such characteristics as health, safety, mental well-being, and comfort. TODs provide quality of life enhancements in a number of ways. They tend to be more walkable, which can lower residents' health risks from diabetes and heart disease. They tend to be safer, improving conditions through reduced crime, stress, and traffic accidents. And they tend to be vital and active, providing residents with more amenities and greater personal interaction within their communities.

Increased Options for Mobility

TODs offer increased options for mobility and accessibility, especially in congested urban and suburban areas. This is accomplished through a focus on mixed-uses, compact design, and making non-automobile trips more convenient, with increased accessibility to multiple transit lines and enhanced bicycle and pedestrian facilities. In practice, the increase in options provided to residents results in less time commuting, less miles traveled by automobile, less money spent on transportation, and more options for those residents who are unable to drive. This is a particularly critical benefit as our nation's population becomes older, and more Americans will be unable to drive and will rely on these types of transportation choices.

Improved Air Quality and Reduced Energy Consumption

Automobile use is one of the primary sources of air pollution and energy consumption in the United States, resulting in high rates of asthma and respiratory illnesses along congested freeways and in regions with high automobile use. TODs can improve local and regional air quality and reduce energy consumption and greenhouse gas emissions by facilitating transit use, pedestrian activity, and bicycling.

Reduced Infrastructure and Public Service Costs

Because TODs rely on compact, mixed-use development, they often use infrastructure much more efficiently. For example, compact communities can more easily provide utility service for the same number of people using shorter pipelines. Similarly, when land uses are closer together and automobile use is reduced, communities have less need to maintain long stretches of wide roadways and police and fire response areas can offer service to more people. Though studies have shown that some of the greatest cost savings available to communities are from reduced roadway construction and maintenance costs, compact development can also lower demand for water service, sewer service, and even schools. Additionally, public services such as transit, police and fire protection services become more economically sustainable as well when fewer stations and employees are necessary to serve the same population size.

Increased Safety for Pedestrian and Bicyclists

Increased walkability and better bicycle infrastructure creates direct safety benefits for bicyclists and pedestrians. It does this through improved traffic control and safety enhancements, which reduce the number and severity of collisions with automobiles. The promotion of non-motorized travel modes can help reduce high-speed aggressive driving, likely by providing more people with the experience of using multiple transportation options while increasing general awareness of bicyclists, pedestrians, and transit. Simply increasing pedestrian or bicycle activity in an area can also increase safety as these users become more visible and well-established. In addition, increased pedestrian and bicycle activity produces more “eyes on the street” for greater periods of time, which helps discourage crime.

Economic Benefits

TODs provide many economic benefits. Studies from across the country of areas surrounding transit show that residences close to transit have higher resale values. Increased foot traffic, such as the type encouraged by TODs, tends to increase opportunities for nearby businesses. Reduced automobile use also lowers costs for households and allows for more discretionary income for other activities.

CHAPTER 3: CORRIDOR-LEVEL CONCLUSIONS AND RECOMMENDATIONS

The Orange Line will continue to serve as an important corridor in the San Fernando Valley and in the greater Los Angeles region. Less than a decade old, the line will continue to evolve, attracting new riders, drawing new residents and jobs nearby and refining its local and regional identity. Its critical role as a Valley amenity will be enhanced by the extension to the Chatsworth Metrolink Station, the evolution of the Warner Center and North Hollywood transit districts into major walkable regional mixed-use centers, the gradual transformation of other station areas with more transit-supportive land uses, and the expansion of connecting north-south transit service throughout the Valley and the region. In addition, the Orange Line will naturally gain ridership and popularity over time as Angelenos shift their employment and housing choices to take advantage of the high-quality transit service provided by the Orange Line.

The station areas along the corridor are and will continue to be diverse places with different identities and roles. Some station areas will continue to be suburban and residential in character, while others will intensify and serve as major regional destinations. As a result, the ridership at each station will not be constant, and land use, transportation, and other interventions will need to be targeted and recalibrated to the unique needs and vision of each changing station area.

This chapter contains recommendations for corridor-level improvements to both the transit line as a whole, and within the fourteen station areas located along the original corridor. The section is organized by four topic areas: transit; land use and development; pedestrian environment and access; and bicycle environment and access. Figure 1 shows the station areas along the initial segment of the Orange Line. Table 1, located at the end of Chapter 3, summarizes the corridor-level improvements recommended for each station area.

TRANSIT

CONCLUSIONS

Since it began service in October 2005, the Orange Line has become one of the most important east-west connectors in the San Fernando Valley, and one of the few fully functional bus rapid transit systems in the United States. The Orange Line provides links to the broader Los Angeles metropolitan area and has brought opportunities for new transit-oriented districts around Orange Line stations. Although it could still be improved in many ways, the Orange Line has been a great success, with high levels of ridership. As a result, the Orange Line is projected to operate at capacity within the next five to eight years, and is already near capacity during peak commute times. This is a key issue to resolve as Metro and the City of Los Angeles seek to increase station access and improve the transit-oriented district around each station. In addition, Metro must continue to expand transit service and transit facilities in the San Fernando Valley in order to increase transit mode share, reduce driving and reduce

greenhouse gas emissions. This includes both local and regional transit service as well as continued expansion of the Orange Line.

Combined with increased transit service, improving passenger comfort and information along the Orange Line will be an important task for the coming years, and this has been identified as a priority by many agency staff and members of the public. Finally, given that options for increasing development along the corridor are limited, some of the most promising options to increase transit ridership involve coordinating with nearby employers, schools and residents to provide transit discounts, information, and ridership programs. Students, commuters, and nearby residents are some of the Orange Line's core riders, and will continue to be in the future.

With appropriate improvements, in the coming years, the Orange Line will continue to develop as an important regional connector and local anchor for neighborhood activity while offering a clean, healthy, low-emitting alternative to driving. And as other transit systems and metropolitan areas throughout the United States explore possibilities for bus rapid transit – particularly as rail has proved too expensive for many – the Orange Line will also continue to be an important national model.

RECOMMENDATIONS

Specific Orange Line corridor-level recommendations for transit improvements are listed below:

- **Expand Orange Line capacity and improve travel time**: According to Metro staff, the Orange Line is operating near capacity during peak periods, with headways of four minutes on its combined segment east of Canoga. In order to both accommodate growing demand for transit and improve customer service (passengers are sometimes "passed up" by full buses), this issue must be addressed and resolved. Metro should explore a number of policy and physical changes in both the short- and long-term in order to expand capacity and reduce travel time along the corridor. These strategies include the following:
    - *Short term recommendations to expand capacity and reduce travel time:*
        - **Signal timing.** Metro and LADOT should consider alterations to signal timing and transit signal priority policy and equipment (which would effectively increase capacity by reducing delay).
        - **Longer buses.** Metro and LADOT should encourage State legislators to consider a policy change allowing Metro to operate longer bi-articulated buses on city streets. Orange Line vehicles are already scheduled to be replaced in a few years. There are other strategies that have been considered but should not be implemented: scheduled "platoons" or convoys of buses that run back-to-back can create "transit-on-transit" delays, and "double-decker" buses increase dwell times (i.e., the time it takes for passengers to get on and off of a bus).

- *Long-term recommendations to expand capacity and reduce travel time:*

  Construct crossing gates. Metro and LADOT should reconsider adding crossing gates at non-grade-separated intersections. While this idea has been rejected in the past due to its impacts on intersecting automobile traffic, gates could improve transit speed and reliability while increasing safety for motorists, Orange Line passengers, pedestrians, and cyclists alike. **Build grade separations in select locations.** Grade separations where the Orange Line intersects arterial streets would improve both capacity and speed, and grade separations near the line's busy eastern end could maximize benefits for riders while providing additional flexibility for operations. Using a turnaround at Reseda, short-line service could operate east of that station during peak periods, and some Van Nuys Boulevard BRT service could potentially operate in the transit right-of-way east of that street. (It should be noted, however, that construction of grade separations would impact neighborhoods, and that it might be difficult to accommodate grade separations in some locations.)

  - **Convert BRT to rail.** While carrying logistical, political, and fiscal challenges, converting the Orange Line to Metro Rail service would increase capacity and improve cost-effectiveness, as greater volumes of passengers could be accommodated without an increase in the number of operators required.

- **Improve connections to Burbank Airport, Downtown Burbank and Pasadena**. Metro has in the past studied a "Tri-City Express" service connecting the Orange Line to the Gold Line in Pasadena via Burbank and Glendale. Orange Line extensions to Bob Hope Airport and Downtown Burbank have also been proposed. We would not recommend extension of the Orange Line in typical mixed-flow traffic conditions, since traffic delays would reduce the reliability of service along the existing Orange Line. However, it might be possible to reliably operate buses along Chandler Boulevard in Burbank by locating platforms adjacent to the Bikeway, thereby allowing buses to stop "inline" in the traffic lane. (Alternately, the inside lanes might be converted to transit-only use, either in a "contraflow" configuration or using buses with left-side doors.) Metro staff have proposed new Rapid service extending to Downtown Burbank, Glendale and Pasadena along Magnolia, Glenoaks, Brand, and Colorado Boulevards. However, existing services between North Hollywood and Burbank operate relatively infrequently, so while increased service could increase ridership, there may not be enough potential transit riders to justify a major investment.

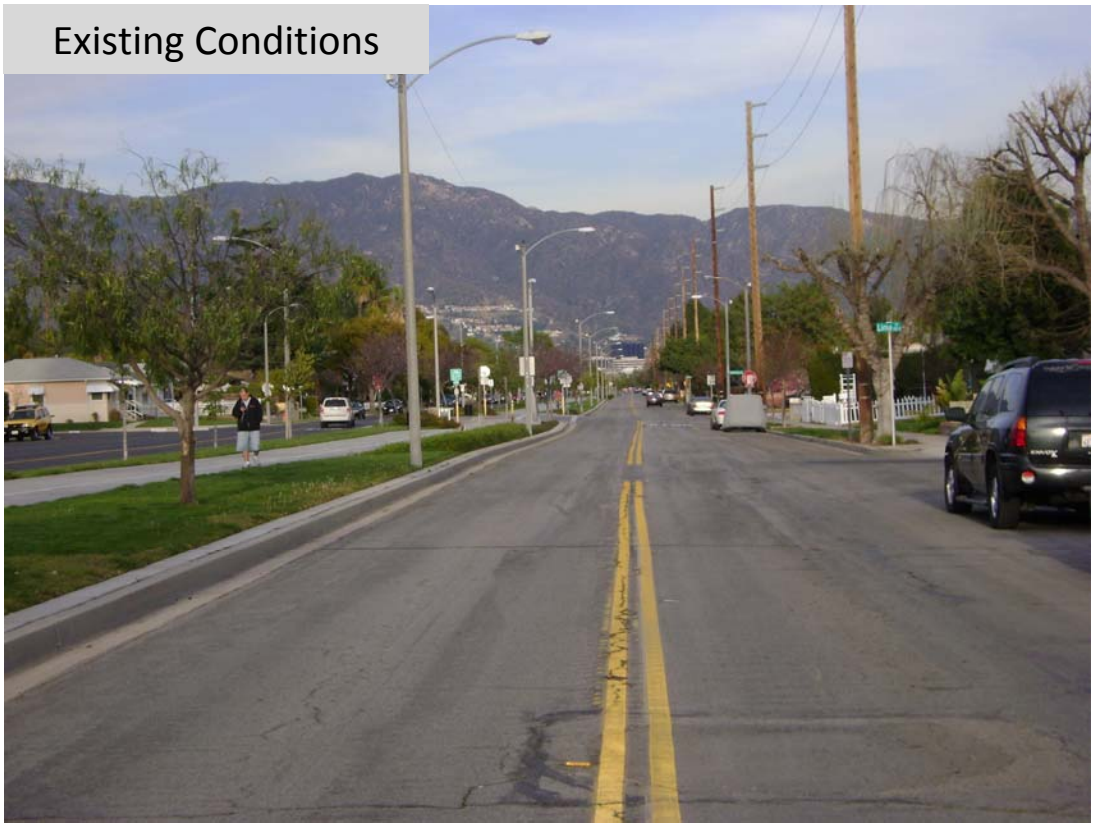
- **Ensure consistent, high-quality amenities at nearby bus stops**. All bus stops near Orange Line stations should provide shelters, pedestrian-scale lighting, seating, and maps and schedules. Some station-area recommendations below provide additional guidance on priority station amenities.

- **Institute employer and college incentives**. Opportunities may exist for Metro to work with colleges, hospitals, and other major institutions and employers along the Orange Line to incentivize and market transit use. In particular, opportunities may exist at Pierce College, Los Angeles Valley College, Van Nuys Civic Center, and major employers near Warner Center and North Hollywood. (It should be noted that some of these institutions already offer low-cost transit passes, and there has been very little response from students and faculty. In these cases, measures ranging from increased

marketing to additional transportation demand management measures such as parking-cash out and universal pass programs may be necessary to increase demand and program effectiveness.)

- **Improve speed, reliability and frequency of connecting transit service**. A significant number of Orange Line riders reach the corridor via local and regional transit services and the stations with the highest number of boardings are located on corridors with high-frequency transit service. Thus, one strategy to increase Orange Line ridership is to expand local and regional transit service. In the near term, Metro should pursue a strategy of improving transit connections and access to the Orange Line by improving the speed and reliability of connecting services. In some cases, increased speed can allow for improved frequencies at no added cost. Metro is already pursuing such a strategy within the North-South Rapidway corridors, but limited capital investments in other corridors may be worth considering. Alternately, nearby stops can be consolidated, although access impacts must be carefully considered. Over the longer term, Metro should pursue a strategy of locating additional resources to allow for improved frequencies and hours of service (including later evening and weekend service) on connecting routes.
- **Create a Metro-wide "access hierarchy" policy**. Finally, Metro should consider development of a formal "access hierarchy" like that used by other transit agencies to prioritize access for different modes in investment and design decisions. Such hierarchies can prove very useful in station design; for example, a typical policy will make clear that accommodations for shared vehicles (kiss-and-ride, taxi, carshare, and carpool) should be located closer to platforms than single-occupant vehicle parking.

Photo-transformation of Chandler Boulevard with Orange Line Service to Downtown Burbank



LAND USE AND DEVELOPMENT

CONCLUSIONS

Transportation and land use are inextricably linked; the way that one is designed and functions will determine how the other responds. Transit – the Orange Line or any other corridor – will not reach its full potential without jobs, housing, commercial services, and other supportive land uses within a short distance of its stations. This means that land use will play an important role in the long-term success of a transit corridor like the Orange Line.

For the Orange Line BRT Sustainable CIP, transit-oriented districts within one-half mile of each Orange Line station were identified and studied for opportunities to increase transit-supportive development. As is discussed in Chapter 2, transit-oriented districts share a number of common characteristics, including a mix of uses, compact design, and pedestrian-friendly patterns of development. Using these definitions of TOD, the station areas were closely examined to evaluate the existing development pattern and future development potential within each station area, and to determine whether land use and development changes would increase transit ridership.

The overall land use and development strategy along the Orange Line should be one of targeted, strategic improvement, not wholesale change. In the majority of station areas along the Orange Line corridor, analysis of existing conditions and future development potential revealed limited opportunities for new development. Within these station areas, significant changes to land use and development patterns would only occur at a detrimental expense to the character of the surrounding neighborhoods. While such change may be a possibility in the future, the majority of those who participated in the Orange Line BRT Sustainable CIP process expressed reservations and concerns about changes to the identity of each station area.

While the majority of station areas will experience limited change in the future, Warner Center, Canoga, De Soto, Sepulveda, Van Nuys and North Hollywood could experience intensification over time. For most of these areas, particularly North Hollywood, Warner Center, Canoga, and De Soto the process of redevelopment and land use change has already begun. In addition, most major change areas along the Orange Line are already covered by existing area plans that will continue to be implemented in the future (such as Warner Center, De Soto and Canoga, which are covered by the Warner Center Specific Plan, or North Hollywood and Reseda, which each have plans of their own).

In general, the level of potential for land use change and new development in each station area falls into three general categories:

1. Station areas that are relatively stable, where little development will occur in the future. These stations are:
    a. Valley College
    b. Woodman

c. Woodley

d. Balboa

e. Tampa

f. Pierce College

g. De Soto (in areas outside of the Warner Center Specific Plan area)

2. Station areas where a limited amount of development may occur in select locations. These stations are:

   a. Laurel Canyon, where mixed-use and multifamily residential development may occur primarily along Laurel Canyon Boulevard, protecting the character of the single- and multifamily residential areas.

3. Station areas where there is the potential for significant new, transit-supportive development. The stations in this category are:

   a. North Hollywood, where development may occur along major corridors and expand the existing arts, entertainment, office and multi-family housing development pattern.

   b. Sepulveda, where development may occur along Sepulveda Boulevard and in the existing industrial areas that may be converted to higher intensity job uses.

   c. Reseda, where mixed use and higher-intensity job uses may occur near the station area.

   d. Van Nuys, where development may occur along Van Nuys Boulevard north of the station and in the existing industrial areas that may be converted to higher intensity job uses.

   e. De Soto, in areas covered by the Warner Center Specific Plan.

   f. Canoga, in areas covered by the Warner Center Specific Plan.

   g. Warner Center, in areas covered by the Warner Center Specific Plan.

Recommendations

Based on the analysis and the results of the stakeholder and public outreach process, a series of specific Orange Line corridor-level recommendations are below:

- **Create policy to target funding to stations with the greatest capacity to change.** Station areas along the Orange Line vary greatly. Some TODs will evolve significantly over time, while others will remain relatively stable with little growth and development. Station areas with a greater capacity for change should receive higher levels of public support, as these are the places that will ultimately be most supportive of existing and expanded transit service.

- **Create programs and activities to enhance the identity of the Orange Line.** While transit ridership is relatively high, the Orange Line suffers from a lack of identity and visibility both in the San Fernando Valley and in the Los Angeles region. Relatively few people know about the corridor and even fewer have ridden on the Orange Line. Over time, Metro and the City of Los Angeles should

create an outreach and education program to better market the Orange Line so that it is more heavily used and is more widely recognized as a community benefit. Activities that could be pursued include the following:

  - Branding campaign to create a unique image and identity that resonates with San Fernando Valley residents;
  - Marketing campaigns to expand the public's knowledge of the Orange Line, such as a CicLAvia event elevating the Orange Line bike path as a major regional amenity;
  - Publication of destinations along the Orange Line through marketing materials;
  - Promoting the use of the Orange Line to major employment centers and for special events; and
  - Use of the Orange Line parking lots during non-peak times for community events such as festivals and farmer's markets.

- **Enhance destinations along the corridor.** Not only will the overall success of the Orange Line be dependent on expanding access to stations from nearby residential areas, but its long-term success will also be related to making station areas regional destinations. Many such destinations currently exist, including the North Hollywood Arts District, employment and shopping in Warner Center, Valley College, Pierce College, the Van Nuys Civic Center, and Balboa Park. As the corridor continues to mature and evolve, more destinations and existing destinations should be publicized, which will have the benefit of enhancing the identity of the corridor, promoting ridership during non-peak hours and promoting ridership in both directions during peak hours.
- **Create TOD Design Guidelines.** Where new development does occur, Metro and the City of Los Angeles should develop comprehensive TOD design guidelines for all new development within station areas, ensuring that new development and public infrastructure improvements are supportive of transit, neighborhood connectivity, and pedestrian activity. The design guidelines should include standards for building location, parking location, façade, window and entryway treatments, building scale and massing, and streetscape design. Over time, buildings that support more pedestrian-oriented public space will be an important strategy for more successful transit-oriented districts.
- **Create TOD-supportive development incentives**. The City of Los Angeles is set to begin work updating the City's zoning code and development standards. As part of this process, the City should identify incentives for new development with transit-supportive uses and designs. The incentives do not necessarily need to intensify land uses; they should make it easier for projects to achieve the development densities outlined within the existing zoning code. This will allow redevelopment to occur naturally over time, leading to increases in transit ridership. Potential development incentives include the following:
  - A land use mix that increases transit-supportive uses, including neighborhood-serving retail and services around stations;

- Reduced minimum parking requirements in transit-oriented districts to support non-automobile travel;
- Urban design for walkable streets, including building location, parking location, façade, window and entryway treatments, and building scale and massing ; and
- Incentives or requirements for green building (such as LEED or GreenPoint Rated) and sustainable redevelopment of larger sites (such as LEED for Neighborhood Development).

- **Implement existing land use and specific plans**. There are a large number of vision studies and plans (including Specific Plans, design for development documents, design guidelines and recommendations reports) that have already occurred in the station areas along the Orange Line corridor, including studies for Warner Center, Reseda, Van Nuys and North Hollywood. The City of Los Angeles and local partners should implement existing development plans already in place in these station areas, as many of these plans are supportive of transit-oriented districts.
- **Create new specific plans or updated Community Plans**. Several stations have the potential for new transit-supportive development but lack the unified vision and supporting development standards. New specific plans or updated Community Plans should be developed for the following station areas:
    - **Sepulveda.** This area has a high development potential. There are opportunities to increase land use mix and intensity at the Metro park and ride lot, along Sepulveda Boulevard, and in the non-residential areas surrounding the station, but the station area lacks a cohesive vision for the future.
    - **North Hollywood.** While there are multiple design plans for portions of the North Hollywood station area, a single consolidated specific plan should be created that weaves these plans together into a unified vision for the area. The specific plan should guide new development and public improvements to ensure that future investment is supportive of transit, while also respecting the current identity and character of the district.
    - **Van Nuys.** Although much of the station area is currently covered by an ordinance that promotes and protects automobile dealers, the entire area should be studied as a potential transit-oriented district.
    - **Laurel Canyon.** There is potential for new low-scale mixed-use, multifamily, and townhouse development along Laurel Canyon Boulevard near the Orange Line station. During the next Community Plan update, changes in land use should be considered in this corridor.
    - **Reseda.** The Reseda station area can be transformed into an urban transit village with a diverse mix of residential, retail and employment uses in a pedestrian-oriented design.
- **Revisit Industrial Lands Policy.** Many of the Orange Line station areas currently have land uses that are zoned as heavy industrial. While the industrial are important sources of jobs, they are generally not as supportive of transit as higher intensity employment uses. The City of Los Angeles should develop a clear policy on the future of these lands, so that over time, they may better support transit through increases in job intensity and project design. For example, the City could allow for

higher intensity non-residential uses, while prohibiting residential development in these areas. This would ensure that the industrial areas remain a source of jobs for Valley residents and make certain these industrial lands support transit.

- **Pursue joint development of Metro property at Orange Line stations.** Metro currently owns a significant amount of land around Orange Line stations. Much of this land is currently used as park and ride lots, but all stations, with the exception of North Hollywood, are undersubscribed. Metro should continue with its current program to develop select properties along the Orange Line in order to provide a long-term source of transit riders and revenue, while also enhancing the quality of life in the station area. Station areas with the potential for joint development are:
    - North Hollywood
    - Van Nuys
    - Sepulveda
    - Balboa
    - Reseda
    - Canoga
- **Pursue workforce, senior and low-income housing**. The creation of housing within station areas is critical to the success of transit. Likewise, the San Fernando Valley does not have enough workforce housing and many Orange Line riders qualify as low-income, or earn 80% or less than the city median income of about $48,000. Senior housing and special-needs housing near transit are also important to locate near transit. Constructing this housing in select Orange Line TODs will have the co-benefits of adding potential transit riders (70% of transit riders in the City earn less than $25,000) and providing more housing to this critical demographic. Stations where workforce housing should be pursued include: North Hollywood, Van Nuys, Sepulveda, Reseda, Canoga, and Warner Center. North Hollywood and Canoga stations should be particularly considered for affordable housing, as they offer ready access to a range of job opportunities for the City's lower income residents.
- **Create Modified Parking Requirement (MPR) districts and Off-Street Parking Strategies**. With the exception of North Hollywood (where changes to station parking are recommended), there is no shortage of parking at any Orange Line station. However, with future development and increased transit demand, it may become necessary to manage parking supply at and around stations in order to ensure availability for transit riders, shoppers, and residents. Fortunately, the City of Los Angeles has recently adopted a robust tool for doing so, Modified Parking Requirement (MPR) districts. MPR districts are designed to be flexible, offering communities a menu of options for parking management, including change of use parking requirements, off-site parking allowances, parking maximums, and commercial parking credits. Additional off-street parking strategies should also be considered including shared parking, incentives for reduced parking requirements, unbundling parking and reduced parking when transportation demand management (TDM) strategies are in place.

PEDESTRIAN ENVIRONMENT AND ACCESS

CONCLUSIONS

While land use changes are only feasible or desirable around some Orange Line stations, nearly all station areas would benefit from better pedestrian access and facilities. This includes low-density, suburban station areas, such as Laurel Canyon or Woodley, as well as more urban station areas including North Hollywood and Van Nuys. In fact, some stations areas, such as Warner Center and Valley College, have transit-supportive land uses but incomplete pedestrian facilities, which serves to depress ridership. As a result, improved pedestrian access is a major theme of this Orange Line BRT Sustainable CIP. Regardless of how other changes to land use, transit service, and bicycle facilities proceed, improvements to pedestrian access will continue to be a reliable way to improve Orange Line ridership in the future.

The Plan's Station Area Recommendations include a variety of pedestrian improvements for nearly every station along the Orange Line. Common types of improvements recommended include:

- More direct pedestrian pathways, where possible, throughout the station area, increasing pedestrian connectivity;
- Safer crossings of arterials streets, particularly near stations;
- Traffic calming measures, such as bulb-outs or road diets, near stations and in areas of heavy pedestrian activity;
- Beautification of streetscapes, particularly adjacent to and within a quarter-mile of stations;
- Better signage and pedestrian wayfinding around stations;
- Increased open space around Orange Line stations; and
- Detailed pedestrian access studies for one-half mile distances around all stations.

RECOMMENDATIONS

Specific Orange Line corridor-level recommendations are as follows:

- **Complete pedestrian and streetscape planning around each Orange Line station**. The recommended station area improvements in the following chapter address the highest-priority pedestrian needs in the immediate vicinity of each station. However, given the limited scope of this Orange Line BRT Sustainable CIP, there should be an additional detailed study and/or plan for pedestrian facilities and streetscape improvements within a one-half mile radius of each station. The study and/or plan should identify priority improvements to crosswalks, sidewalks, wheelchair ramps, street trees, street furniture (including lighting and benches) and other pedestrian amenities, as well as traffic-calming improvements to roadways.. In particular, the plan should identify locations where pedestrian volumes are relatively high and pedestrian paths relatively indirect, and prioritize locations for new signalized street crossings. It should also consider other elements of pedestrian

level of service, such as street crossing distances and wait times. It should identify "gaps" where sidewalks are missing, as well as other areas where facilities may not conform to Americans with Disabilities Act (ADA) guidelines, In general, it should seek to ensure that Orange Line stations are accessible for persons of all ages and mobility levels. A result of the process should be an inventory of the conditions and configurations of sidewalks and wheelchair ramps in each station area. The Non-Motorized Access Plan completed for Van Nuys Station in 2006 by Metro and the Los Angeles Bicycle Coalition serves as an example.

- **Improve pedestrian wait and crossing times.** Arterial streets adjacent to Orange Line stations are typically very wide, and the time allotted for pedestrians to cross them can be inadequate and potentially dangerous for those with limited mobility, including persons using mobility devices, the elderly, and children. Furthermore, the combination of short phases for crossing pedestrians (and where there are intersections and not just signalized crosswalks, cross traffic) and long (often 90-second) signal cycles results in long waits to cross the street. LADOT will, upon request, study signals cycles for possible adjustment, and it is recommended that they do so at all crosswalks near Orange Line stations, in particular the busy stations of North Hollywood, Van Nuys, Sepulveda and Reseda.
- **Improve signage**. While Orange Line signage is generally consistent and attractive, additional signage is needed to more clearly identify availability of pedestrian routes to connecting transit services, as well as station-area destinations. Some station-area recommendations provide additional guidance on priority signage improvements (Note: as of early 2012, the Metro Board of Directors had approved funding for study of signage and wayfinding improvements at rail stations.)
- **Construct Parks and Plazas**. A common theme expressed by the communities along the Orange Line is a lack of parks and open spaces in the Orange Line station areas. As redevelopment occurs along the corridor over time, the City of Los Angeles and Metro should seek opportunities to increase the amount of open space near transit stations. Stations where new parks and plazas should be prioritized as part of new development include: North Hollywood, Laurel Canyon, Van Nuys, Sepulveda, and Reseda.

BICYCLE ENVIRONMENT AND ACCESS

CONCLUSIONS

Providing safe and comfortable bicycle access to Orange Line stations is another way of expanding ridership and reducing greenhouse gas emissions in the San Fernando Valley. The Orange Line already features a multi-use trail that parallels the transitway and the City of Los Angeles has adopted a bicycle plan (City of Los Angeles Bicycle Plan 2010) that identifies a future bicycle network. Attention, however, must be given to improving the bicycle network within the three-mile access shed around each station.

In addition to bicycle network improvements, the Orange Line BRT Sustainable CIP identifies a need for additional bicycle parking at several stations and more capacity for bicycles on buses. The CIP also calls

for a number of improvements to the Orange Line Bikeway, both generally and in specific locations. These include better crossings of arterials and other streets, better lighting, and fully connected off-street facilities in stretches where the Bikeway has gaps. Taken together, these recommendations will increase the number of residents and workers who have safe and convenient bicycle access to the Orange Line.

RECOMMENDATIONS

Specific Orange Line corridor-level recommendations are as follows:

- **Complete bicycle access planning around each Orange Line Station**. Given the limited scope of this Orange Line BRT Sustainable CIP and an expressed desire by multiple stakeholders for more focused bicycle planning, there should be a detailed study and/or plan for bicycle access and facilities within the three-mile "bikesheds" around each Orange Line station. Four existing plans could serve as a foundation for this effort: the City of Los Angeles Bicycle Plan, the Metro Orange Line Mode Shift Study, and the non-motorized and bicycle-only station-area plans completed for Van Nuys in 2009 and North Hollywood in 2006 (the latter as part of the Metro Bicycle Transportation Strategic Plan). The station-area bicycle planning should identity specific bicycle parking needs, as well as potential markets for additional bike stations (see station-area recommendation under North Hollywood Station) and/or bike sharing pods (particularly at and around Van Nuys, Canoga, and Warner Center).
- **Make targeted improvements to the Orange Line Bicycle Path**. Create a single plan or priority list for all desired improvements to the Orange Line Bicycle Path, ideally in coordination with the detailed station-area bicycle planning described above. In addition to the high-priority needs identified in this CIP, important issues to address include:
    - Points of conflicts between cyclists and private vehicles (including intersections with actuated signals where loop detector sensors could be added, and where curb cuts are not aligned with the path)
    - Points of conflict between cyclists and pedestrians along the path itself
    - Gaps in the Bicycle Path
    - Signage
- **Add Class II lanes on station-area arterials**. Just as north-south bus routes act as feeders to the Orange Line, north-south bicycle routes can serve as connectors to the Orange Line Bicycle Path and the Orange Line itself, significantly increasing its reach. The City of Los Angeles's 2010 Bicycle Plan identifies a "Backbone Network" of streets where there should be Class II bicycle lanes. A high number of the north-south arterials passing by Orange Line Stations are included in this Backbone Network, and these should all have Class II lanes, as further specified in station-area recommendations below.
- **Create more bicycle-friendly neighborhood streets.** In addition to a "Backbone Network" along arterials, the City of Los Angeles Bicycle Plan 2010 identifies a "Neighborhood Network" along less-

trafficked collector streets. While not specifically identified under the station-area recommendations, there should be efforts throughout the Orange Line station areas to make these neighborhood streets more bicycle friendly, with diverters, bicycle boulevard treatments, streetscape improvements, on-street stencils, or other improvements.

- **Eliminate bicycle-unfriendly storm drain covers**. Drains at and near stations with wide slats in which tires can get caught are a hazard to cyclists, and should be replaced immediately.
- **Increase carrying capacity on buses**. As currently configured, Orange Line buses can carry up to three bicycles on their external racks. MTA could consider on-board bicycle racks similar to those provided on BRT systems in Oregon and Washington State. (During peak periods, re-configured bicycle racks could have some impact on capacity, depending on their design.)
- **Expand bicycle parking and improve safety at stations**. Many stations currently provide bicycle parking, but over time the amount of parking will need to be expanded, and the types of parking available diversified. This could include additional bicycle racks, electronic day use and long-term lockers, and "bike stations" with secure indoor parking and other amenities in select locations. Secure parking, in particular, is an amenity highly valued by commuters and other "choice riders." In addition, steps should be taken to discourage bicycle theft at the stations. This could include improved lighting, increased police presence, enforcement of bicycle-related crimes, and increased use of video cameras.

Figure 1: Orange Line Corridor Map

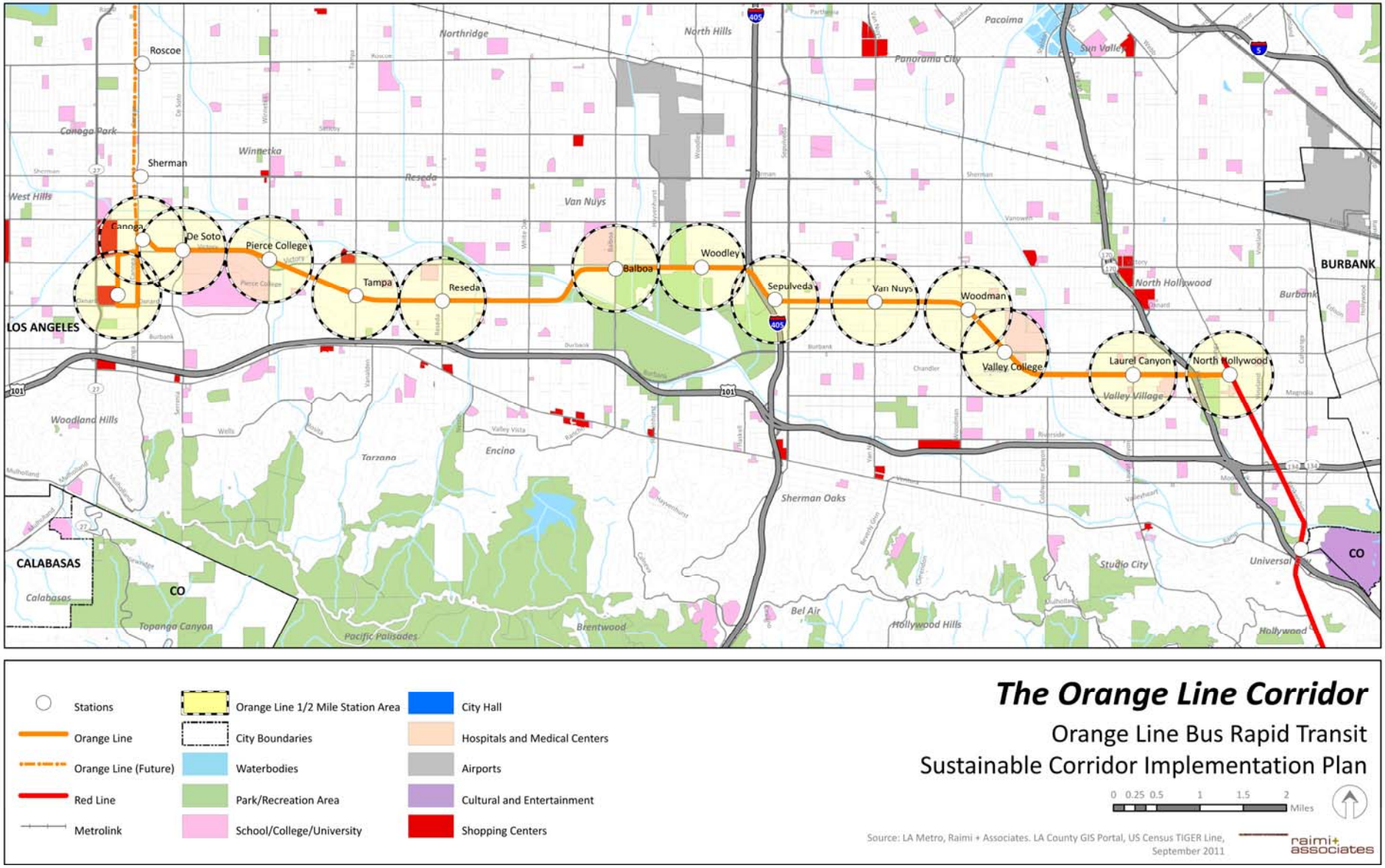


Table 1: Orange Line Corridor Recommendations by Station Area

Improvement	Corridor-Wide	North Hollywood	Laurel Canyon	Valley College	Woodman	Van Nuys	Sepulveda	Woodley	Balboa	Reseda	Tampa	Pierce College	De Soto	Canoga	Warner Center
Transit															
Expand Orange Line capacity and improve travel time	●														
Improve connections to Burbank Airport, Downtown Burbank and Pasadena	●														
Improve speed, reliability and frequency of north-south transit service	●	●				●	●			●					
Ensure consistent, high-quality amenities at nearby connecting bus stops	●	●				●	●			●					
Institute employer and college incentives		●		●		●						●	●	●	●
Create a Metro-wide mode “access hierarchy” policy	●														
Land Use and Development															
Create policy to target funding to stations with the greatest capacity to change	●	●	●			●	●			●			●	●	●
Create programs and activities to enhance the identity of the Orange Line	●														
Enhance destinations along the corridor	●	●		●		●		●	●			●		●	●
Create TOD design guidelines	●														
Create TOD-supportive development incentives	●														
Implement existing land use and specific plans		●								●			●	●	●
Create new specific plans or updated Community Plans		●	●			●	●								
Revisit City's industrial land policy	●	●				●	●			●					
Pursue joint development of Metro property at Orange Line stations		●				●	●		●	●				●	
Pursue workforce and affordable housing		●				●	●			●				●	●
Create "modified parking requirement" (MPR) districts		●	●			●				●					

Pedestrian Environment and Access															
Complete pedestrian and streetscape planning around each Orange Line Station	●	●	●			●	●			●				●	●
Improve pedestrian wait and crossing times	●														
Improve signage	●	●		●				●	●					●	●
Construct parks and plazas	●	●	●			●	●			●					
Improvement	**Corridor-Wide**	**North Hollywood**	**Laurel Canyon**	**Valley College**	**Woodman**	**Van Nuys**	**Sepulveda**	**Woodley**	**Balboa**	**Reseda**	**Tampa**	**Pierce College**	**De Soto**	**Canoga**	**Warner Center**
Bicycle Environment and Access															
Complete bicycle access planning around each Orange Line Station	●	●				●								●	●
Make targeted improvements to the Orange Line bicycle path	●	●		●	●				●	●	●				●
Add Class II lanes on station-area arterials	●	●	●		●	●	●		●	●	●	●	●		●
Create more bicycle-friendly neighborhood streets	●														
Eliminate bicycle-unfriendly storm drain covers	●														
Increase carrying capacity on buses	●														
Expand bicycle parking and improve safety at stations	●									●				●	●

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CHAPTER 4: RECOMMENDED STATION-AREA IMPROVEMENTS

This chapter provides a general direction and a detailed list of recommendations for each of the fourteen station areas (one-half mile from each station) along the Orange Line corridor. Each station-area section below contains the following sections:

- **Station-Area Description.** A description of the station location and station features.
- **Station-Area Intent.** Recommendations for the future character of the station area and its role in increasing transit ridership on the Orange Line.
- **Priority Improvements by Type.** This includes a list of recommended improvements in each station area. The list is not intended to be exhaustive and comprehensive but rather a reflection of the recommendations expressed by the public or developed by the CIP team during the process of developing the Orange Line Sustainable Corridor Improvement Plan. These recommendations are intended to support and further the corridor-wide recommendations presented in Chapter 3. The categories are:
    - Transit services and facilities
    - Streetscape and pedestrian environment
    - Bicycle access and parking
    - Land use and design
    - Multimodal access
    - Automobile parking

  Note: If no improvements were identified for a particular category, this is expressed with the phrase "none identified."

WARNER CENTER

STATION-AREA DESCRIPTION

The Warner Center Station is located on Owensmouth Avenue between Erwin and Oxnard Street in Woodland Hills. The station is the western terminus of the current fourteen-station Orange Line, which presently runs in street traffic from the Canoga station to this station. The station area is a major employment and retail destination, but it is designed in an auto-oriented format with large surface parking lots and buildings located at a great distance from the street. Except for a portion on the western edge, the entire one-half mile area around the station is covered by the Warner Center Specific Plan.

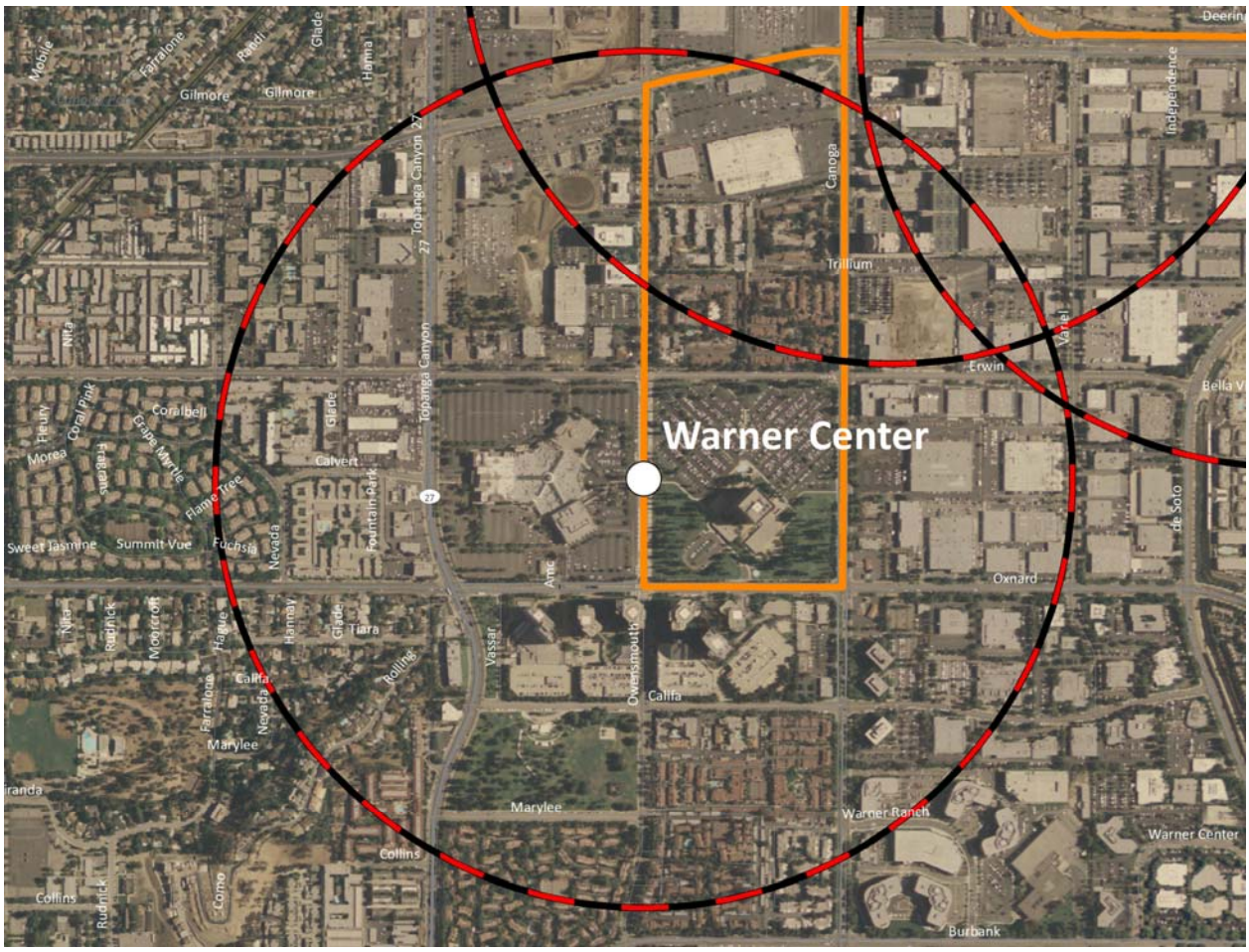


Figure 2: Warner Center Station Area. Map shows one-half mile distance from station.

Station-Area Intent

The Warner Center station area, which includes the area around the Warner Center and Canoga and a portion of the De Soto station areas, will transform over time from an auto-oriented commercial district into a walkable, mixed-use area with office, retail, and multi-family housing. While the station area has some of the highest densities of all the Orange Line stations, transit ridership is relatively low due in part to the design of the area. Over time, the area will transition into a more walkable area designed to be supportive of transit, and as a result, transit ridership is likely to increase. With the opening of the Chatsworth extension and the implementation of the Specific Plan, the Warner Center area will play a critical role in the future of the Orange Line as one of the major destinations along the corridor, and the station area will support two-way, peak-time travel along the corridor.

Note: The Warner Center Specific Plan will be the guiding policy document for the redevelopment of the Warner Center area. The recommendations below are designed to supplement this document and to support the corridor-wide recommendations.

Priority Improvements by Type

Transit Service and Facilities

- **Improve wayfinding.** Directional signage in and around Warner Center Station should be improved over time. Unlike other Orange Line stations, Warner Center is a curbside bus stop, rendering it less visible than other Orange Line stations. Signs should provide directions and, ideally, distances to destinations, and the wayfinding should be designed and located so as to be visible to both pedestrians and cyclists.

Streetscape and Pedestrian Environment

- **Upgrade street crossings.** The pedestrian network in Warner Center suffers from a number of problems, including an abundance of surface parking lots fronting onto sidewalks and "superblocks" serving as obstacles to pedestrian pathways. To the extent possible, these issues should be addressed over time. In the near term, however, corner bulb-outs could be used to reduce the distances required to cross arterials, and stop sign-controlled or signalized crosswalks could be added where long gaps (600 feet or more) exist between them. While the Orange Line station and adjacent bus stop would make bulb-outs along Owensmouth Avenue at West Valley Way impractical, they could be installed along major pedestrian paths leading to and away from the station.

- **Create intra-block pedestrian paths.** Where possible, the pedestrian network should be improved by creating pedestrian cut-throughs, midblock passages, and new through streets on the large blocks in the station area, particularly as sites are redeveloped.

Bicycle Access and Parking

- **Add bicycle lanes.** Class II on-street lanes should be added in the area recommended by the City of Los Angeles 2010 Bicycle Plan, Owensmouth and Topanga Canyon Boulevard.

- **Create secure bicycle parking**. Warner Center is the only Orange Line station without bicycle lockers. In this case, lockers would have to be located on City of Los Angeles rather than Metro property, and staff has expressed concern about the availability of space on the sidewalk.
- **Install bicycle signage.** Signs for cyclists identifying bicycle routes as well as destinations should be installed in the station area. In particular, signs should be used to direct cyclists to the Orange Line Bicycle Path at Canoga Station.

Land Use and Design

- **Implement the Warner Center Specific Plan**. Land use and design recommendations in the Warner Center Specific Plan should be used to guide future development in order to make the area more supportive of transit-oriented districts.

Multimodal Access

- None identified

Automobile Parking

- None identified

CANOGA

STATION-AREA DESCRIPTION

The Canoga Station is located mid-block off Canoga Avenue between Vanowen Street and Victory Boulevard in Canoga. The station is less than a mile east of Route 27, Topanga Canyon Boulevard, and approximately a mile and a half north of the Canoga Avenue on-ramp to the Ventura Freeway (US-101). The entire station area is part of the Warner Center Specific Plan area and the station area (a one-half mile buffer around the station) overlaps with both the De Soto station area and the Warner Center station area. The Canoga Station is situated at the junction of and is the transfer point between the two branches of the Orange Line, the original alignment extending south to Warner Center and the more recent extension to Chatsworth to the north.

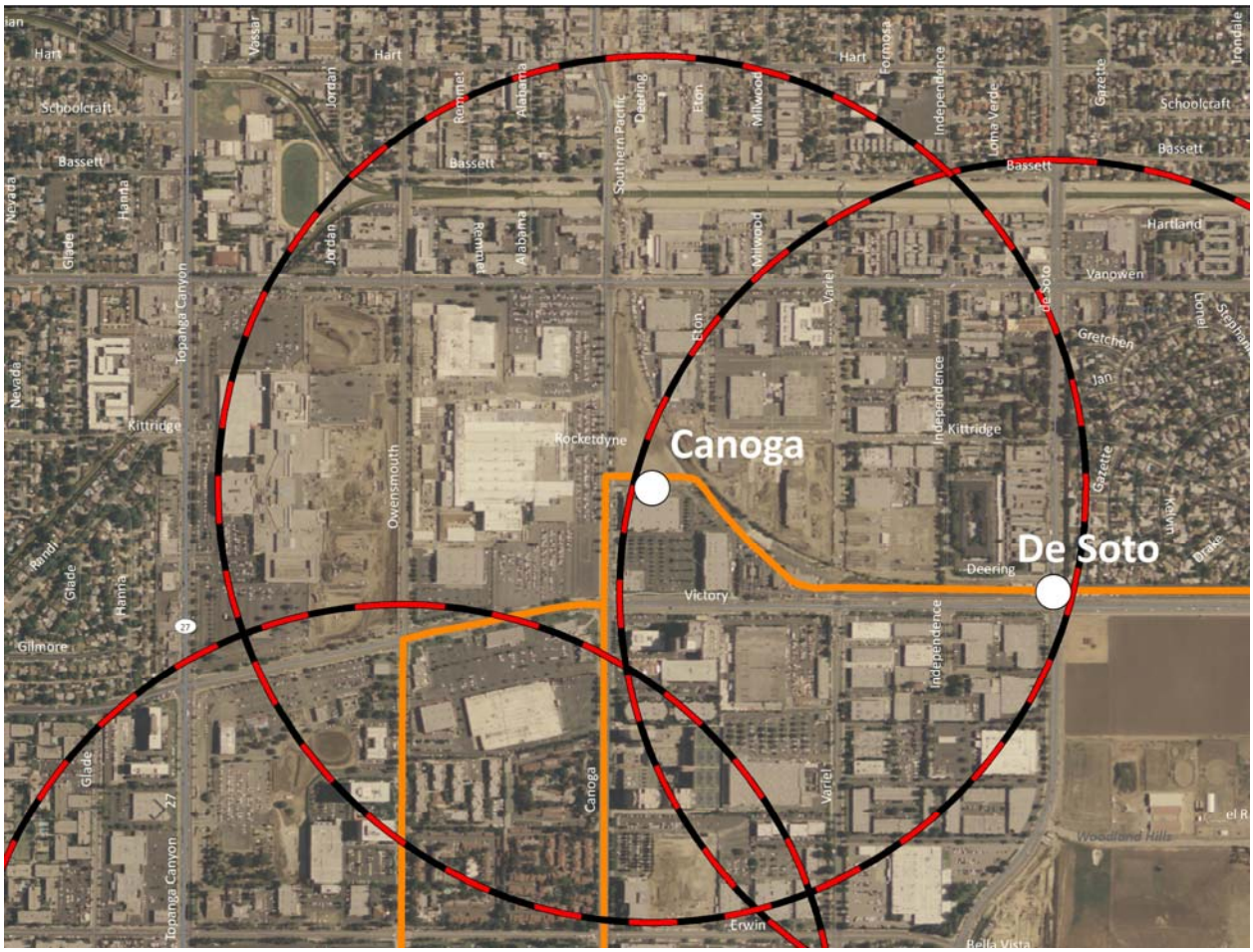


Figure 3: Canoga Station Area. Map shows one-half mile distance from station.

Station-Area Intent

The Canoga station area, which includes the area around the Warner Center and a portion of the De Soto station area, will transform over time from an auto-oriented commercial district into a walkable, mixed-use area with office, retail, and multi-family housing. While the station area has some of the highest densities of all the Orange Line stations, transit ridership is relatively low due in part to the design of the area. Over time, the area will transition into a more walkable area designed to be supportive of transit, and as a result, transit ridership is likely to increase. With the opening of the Chatsworth extension and the implementation of the Specific Plan, the Canoga station area will play a critical role in the future of the Orange Line as one of the major destinations along the corridor, and the station area will support two-way, peak-time travel along the corridor.

Note: The Warner Center Specific Plan will be the guiding policy document for the redevelopment of the Warner Center area. The recommendations below are designed to supplement this document and to support the corridor-wide recommendations.

Priority Improvements by Type

Transit Service and Facilities

- None identified

Streetscape and Pedestrian Environment

- **Remove obstacles to pedestrian pathways.** In particular, the fence separating the station from the apartment complex to the northeast acts as a barrier. Ideally, an opening should be provided adjacent to the new platforms now under construction.
- **Plant shade trees**. The need for additional shade-providing canopied trees on sidewalks is especially acute near Canoga Station.
- **Create intra-block pedestrian paths.** Where possible, the pedestrian network should be improved by creating create pedestrian cut-throughs, midblock passages, and new through streets on the large blocks in the station area, particularly as sites are redeveloped.

Bicycle Access and Parking

- **Extend the Orange Line Bicycle Path**. Metro and the City of Los Angeles should explore ways to extend the Orange Line Bicycle Path, which currently ends at Canoga, south into Warner Center. In particular, it should be considered as part of developing a path through the Pratt & Whitney site connecting to Owensmouth, which as a Bicycle Plan Backbone Network route should feature Class II lanes.
- **Increase the number of bicycle racks**. While no data are available, anecdotal experience suggests that additional parking is needed at this station. Racks would need to be located on the sidewalk adjacent to the station, and not on Metro property.

Land Use and Design

- **Implement the Warner Center Specific Plan**. Land use and design recommendations in the Warner Center Specific Plan should be used to guide future development in order to make the area more supportive of transit-oriented districts.

Multimodal Access

- None identified

Automobile Parking

- **Develop easier access to the Canoga parking lot**. Time should be added to the left-turn phase of the signal at Canoga Avenue and the station parking lot entrance, thereby improving station access and safety.

DE SOTO

STATION-AREA DESCRIPTION

The De Soto Station is located northwest of the intersection of Victory Boulevard and De Soto Avenue in Winnetka, immediately adjacent to a portion of Pierce College that is primarily in agricultural use. The station is a mile east of Route 27, Topanga Canyon Boulevard, and approximately a mile and a half north of the De Soto Avenue on-ramp to the Ventura Freeway (US-101). The station area is just east of the Topanga Plaza, southwest of Sherman Plaza Shopping Center, and north of Woodland Hills Kaiser Hospital. The station area overlaps significantly with the Canoga Station and to a lesser degree with the Warner Center station area. Most of the western half of the station area is covered by the Warner Center Specific Plan.

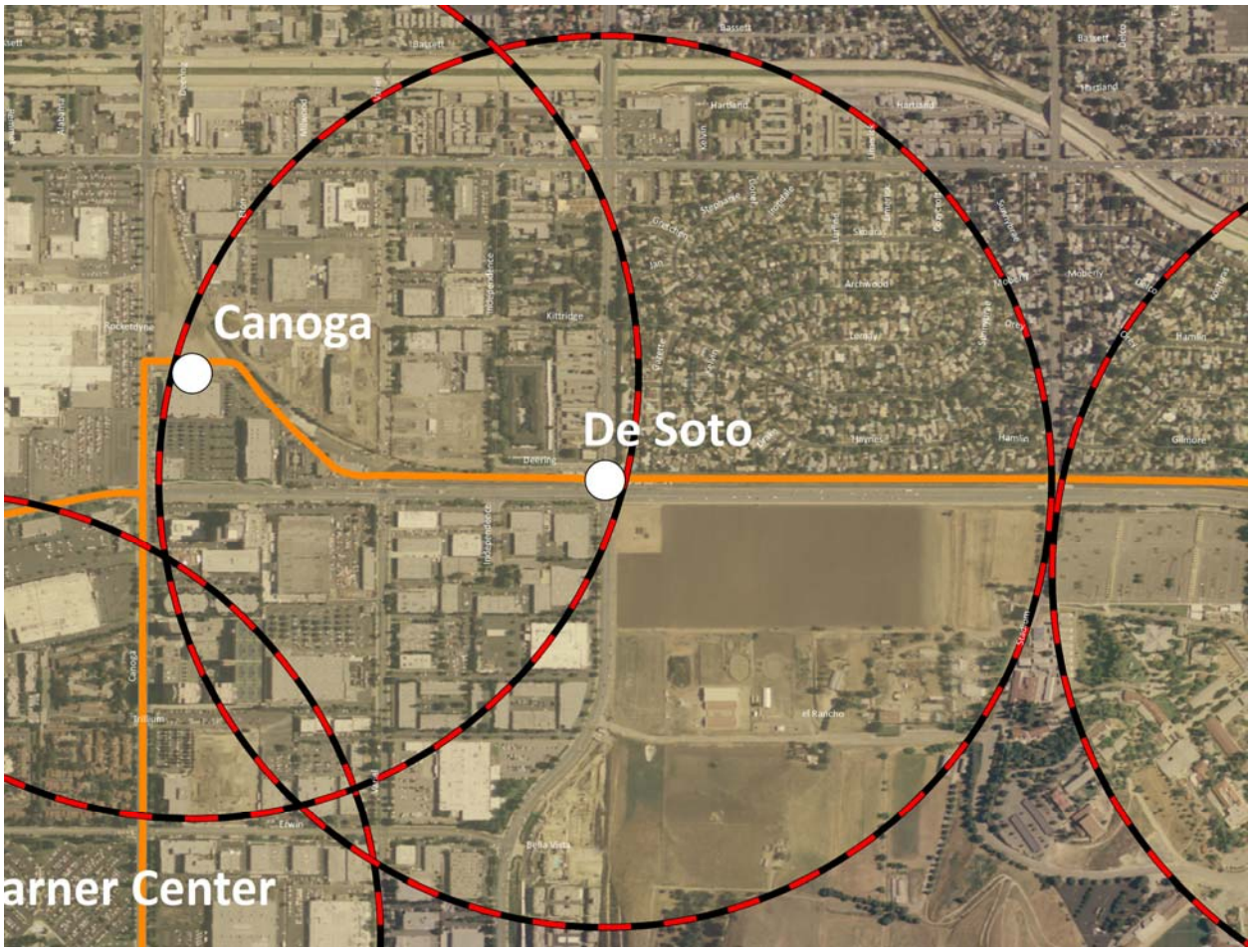


Figure 4: De Soto Station Area. Map shows one-half mile distance from station.

Station-Area Intent

In the future, a portion of the station area may experience new development, while the remainder will maintain its current pattern. This portion of the station area covered by the Warner Center Specific Plan will experience new mixed-use, commercial, and office development in the future, as defined in the Specific Plan. This portion of the station area will support increased transit use through higher density development and physical design improvements that make the area more walkable. The remainder of the area station area is currently single family homes and agricultural land owned by Pierce College. This portion of the station area is not envisioned to experience any change in use or intensity over time. Efforts should be taken to improve the pedestrian and bicycle access from the adjacent single family neighborhood to the station area, and Metro should work with Pierce College to improve pedestrian connections to the main college campus.

Priority Improvements by Type

Transit Service and Facilities

- None identified

Streetscape and Pedestrian Environment

- **Provide a sidewalk on the south side of Deering Circle behind the westbound platform**. There is no curbline at this location, only an unpaved shoulder. Additionally, platform access should be provided at the western end of the station.
- **Ensure that all pedestrian actuation devices at area crosswalks are functional**.
- **Create intra-block pedestrian paths.** Where possible, the pedestrian network should be improved by creating pedestrian cut-throughs, midblock passages, and new through streets on the large blocks in the western portion of station area, particularly as sites are redeveloped.

Bicycle Access and Parking

- **Bicycle lanes on De Soto.** De Soto Avenue north of Victory Boulevard is a Bicycle Plan Backbone Network route where Class II on-street lanes should be provided.

Land Use and Design

- None identified

Multimodal Access

- None identified

Automobile Parking

- None identified

PIERCE COLLEGE

STATION-AREA DESCRIPTION

The Pierce College Station is located northeast of the intersection of Victory Boulevard and Winnekta Avenue in Winnetka. The station is approximately one-mile north of the Winnekta Avenue on-ramp to the Ventura Freeway (US- 101) and a little more than two-miles east of the Route 27, Topanga Canyon Boulevard. The station is located just northeast of Pierce College.

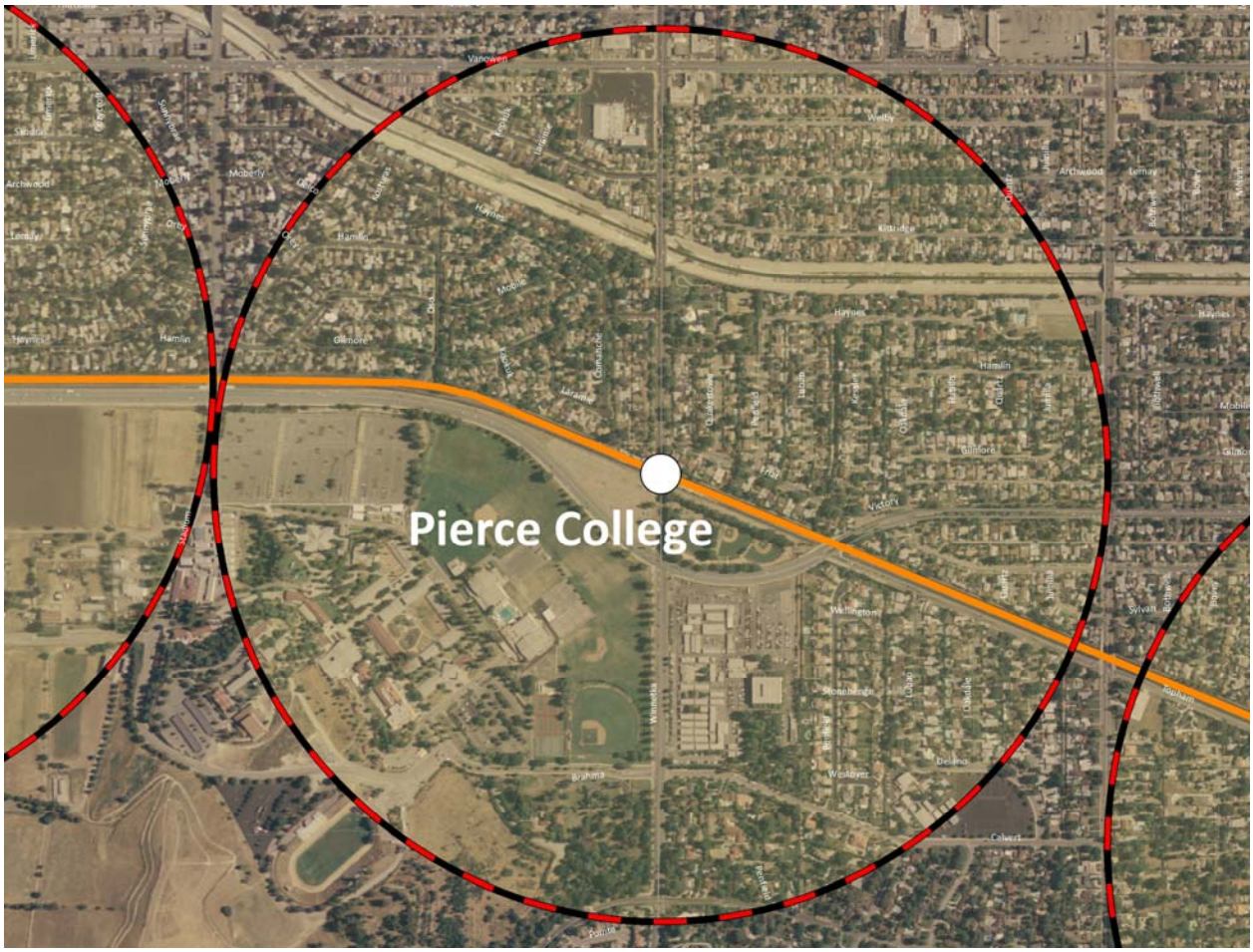


Figure 5: Pierce College Station Area. Map shows one-half mile distance from station.

STATION-AREA INTENT

The Pierce College Station plays an important role along the Orange Line as a college and the vocational training school that could become a major destination along the corridor. This may occur through the provision of transit incentives and increased awareness of the corridor. As a result, ridership is expected to increase over time. While ridership may rise, there is very limited opportunity for new development in the station area, outside of the Pierce College campus. The station also sits across from the West Valley Occupational Center, which is at the south east corner of Winnetka and Victory.

Priority Improvements by Type

Transit Service and Facilities

- **Provide transit incentives and education.** Work with Pierce College to provide transit passes and vouchers to their students and employees. This should be part of a larger effort on the Orange Line as described in Chapter 3.

Streetscape and Pedestrian Environment

- **Improve pedestrian connections to Pierce College and West Valley Occupational Center.** As with Valley College, a significant barrier exists between the campus, the West Valley Occupational Center and Pierce College Station. Athletic fields on the southwest corner of Winnetka Avenue and Victory Boulevard increase the distance from the campus to the station. Unlike at Valley College, where the barrier is a parking lot, the fields do not degrade the quality of the pedestrian environment. Nonetheless, pathways are indirect: if they are not to cut across the fields, pedestrians must walk either south to Brahma Drive, or west to Stadium Way. A new signalized crossing of Victory, perhaps near Oso Avenue at the western edge of the fields and eastern edge of a large parking lot, could improve both safety and convenience. This new pathway should be marked with clear, highly visible signage. Signage and sidewalk improvements should also occur between the Orange Line station and the West Valley Occupational Center.

- **Provide a refuge in the median of Winnetka.** The striped median in the crosswalk by the station should be converted to a safety island.

Bicycle Access and Parking

- **Add bicycle lanes on Winnetka**. From Oxnard extending north to Sherman Way, Winnetka is a Bicycle Plan Backbone Network route where Class II on-street lanes should be provided.

Land Use and Design

- **Intensify Pierce College**. Pierce College should be encouraged to develop a facility plan that increases the number of facilities near the Orange Line station. At present, the campus is set back from the Orange Line and is designed as a commuter campus. As the college expands, new academic and administrative buildings should be located near to the Orange Line station.

- **Explore joint development on the park-and-ride lot.** The potential for joint development on the exiting park and ride lot should be explored. The joint development could provide goods and services for Pierce College students and increase the attractiveness of the Orange Line for students, faculty, and staff.

Multimodal Access

- None identified

Automobile Parking

- None identified

TAMPA

Station-Area Description

The Tampa Station is located northeast of the intersection of Topham Street and Tampa Avenue in Reseda. The station is approximately half a mile north of the Tampa Avenue on-ramp to the Ventura Freeway (US-101), approximately three miles east of Route 27, and five miles west of the San Diego Freeway (I-405). The station rests west of the Sepulveda Basin Recreational Area, southwest of the Van Nuys Airport, and south of California State University Northridge.

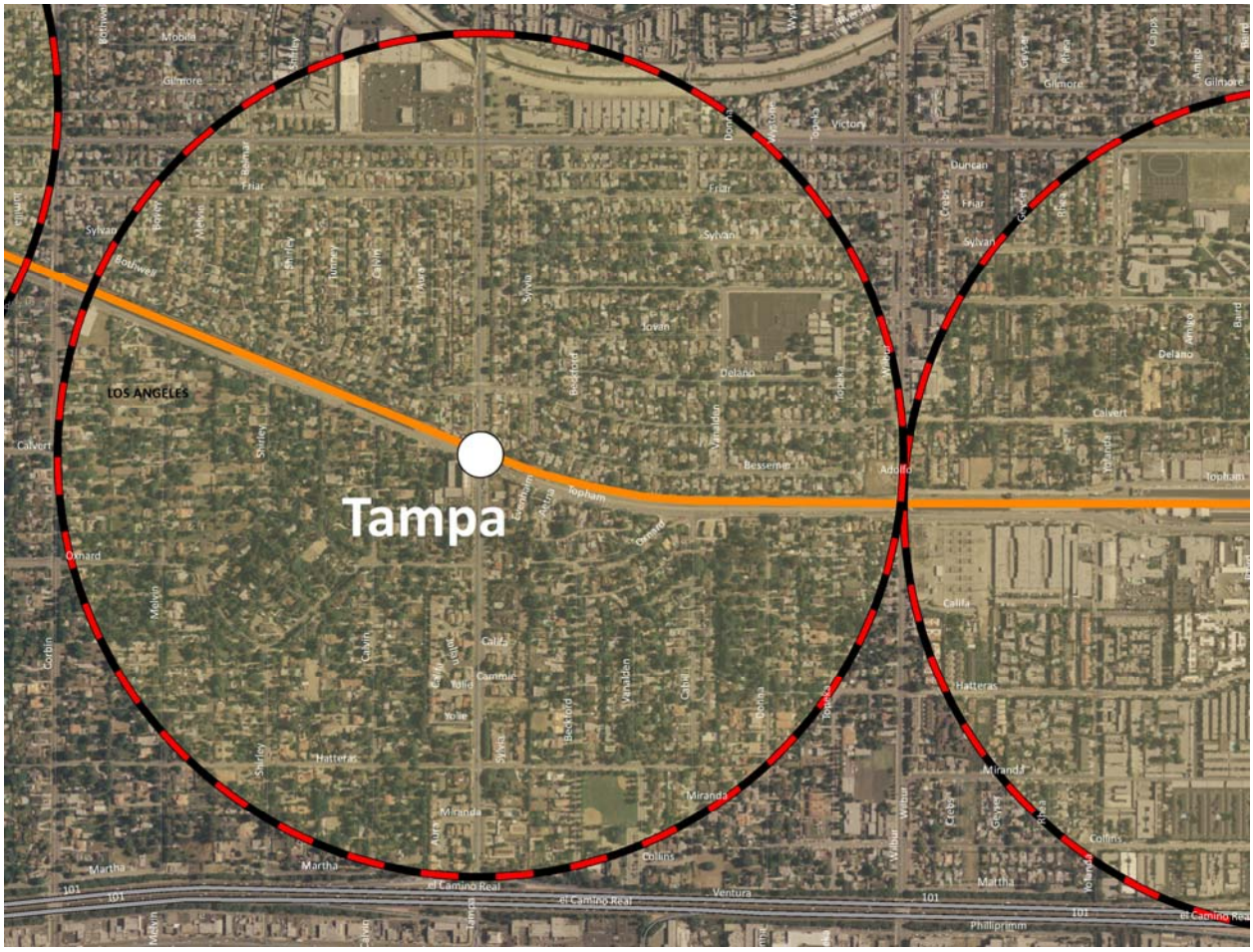


Figure 6: Tampa Station Area. Map shows one-half mile distance from station.

Station-Area Intent

The Tampa Station will remain a suburban TOD, experiencing limited new development in the future. Development that will occur will likely be of a scale and intensity that is slightly higher than existing development. In addition, future improvements should focus on increasing pedestrian, bicycle, and transit access for existing residents and workers.

Priority Improvements by Type

Transit Service and Facilities

- None identified

Streetscape and Pedestrian Environment

- **Provide a sidewalk on the south side of Topham west of the station.** Missing sidewalks so close to a station present obstacles to access (however, a sidewalk in this location would require removal of several mature trees).
- **Provide corner bulb-outs on the north side of Topham at Tampa**. On the north side of Topham adjacent to the station, the crossing of Tampa Avenue is skewed at an angle and nearly 100 feet long. Reconfiguring Tampa to provide parking on its east side (see following recommendation) would present an opportunity to extend the sidewalk at both corners.

Bicycle Access and Parking

- **Consider adding bicycle lanes on Tampa between Highway 101 and Victory.** While Tampa is not a Bicycle Plan route, several factors combine to suggest that Class II on-street lanes could be added without significant traffic impacts by removing the third northbound travel lane (which ends at Victory Boulevard) and restriping the remaining lanes. The factors supporting adding bicycle lanes on Tampa include: there are no existing or planned north-south lanes or paths for one mile in either direction, it is the largest such gap in the corridor, and it has an asymmetrical configuration of the street and existing traffic volumes (average daily traffic, or ADT, of approximately 28,000 at Topham in 2008). If a bike path is developed at some future point along the Los Angeles River, just north of Victory, bike lanes on Tampa could provide an important connection.
- **Provide a buffer between the Bicycle Path and Topham east of Tampa**. Where the Bicycle Path is adjacent to traffic just east of Tampa, consider removing the right-turn lane from westbound Topham onto northbound Tampa and providing a landscaped buffer.

Land Use and Design

- None identified

Multimodal Access

- None identified

Automobile Parking

- None identified

RESEDA

STATION-AREA DESCRIPTION

The Reseda Station is located immediately north of the intersection of Reseda Boulevard and Oxnard Street in Reseda. The station is approximately one-half mile north of the Reseda Boulevard on-ramp to the Ventura Freeway (US-101), four miles east of Route 27, Topanga Canyon Boulevard, and less than four miles west of the Victory Boulevard on-ramp of the San Diego Freeway (I-405). The station area is located northwest of the Sepulveda Basin Recreational Area, south of California State University Northridge, and southwest of the Van Nuys airport.

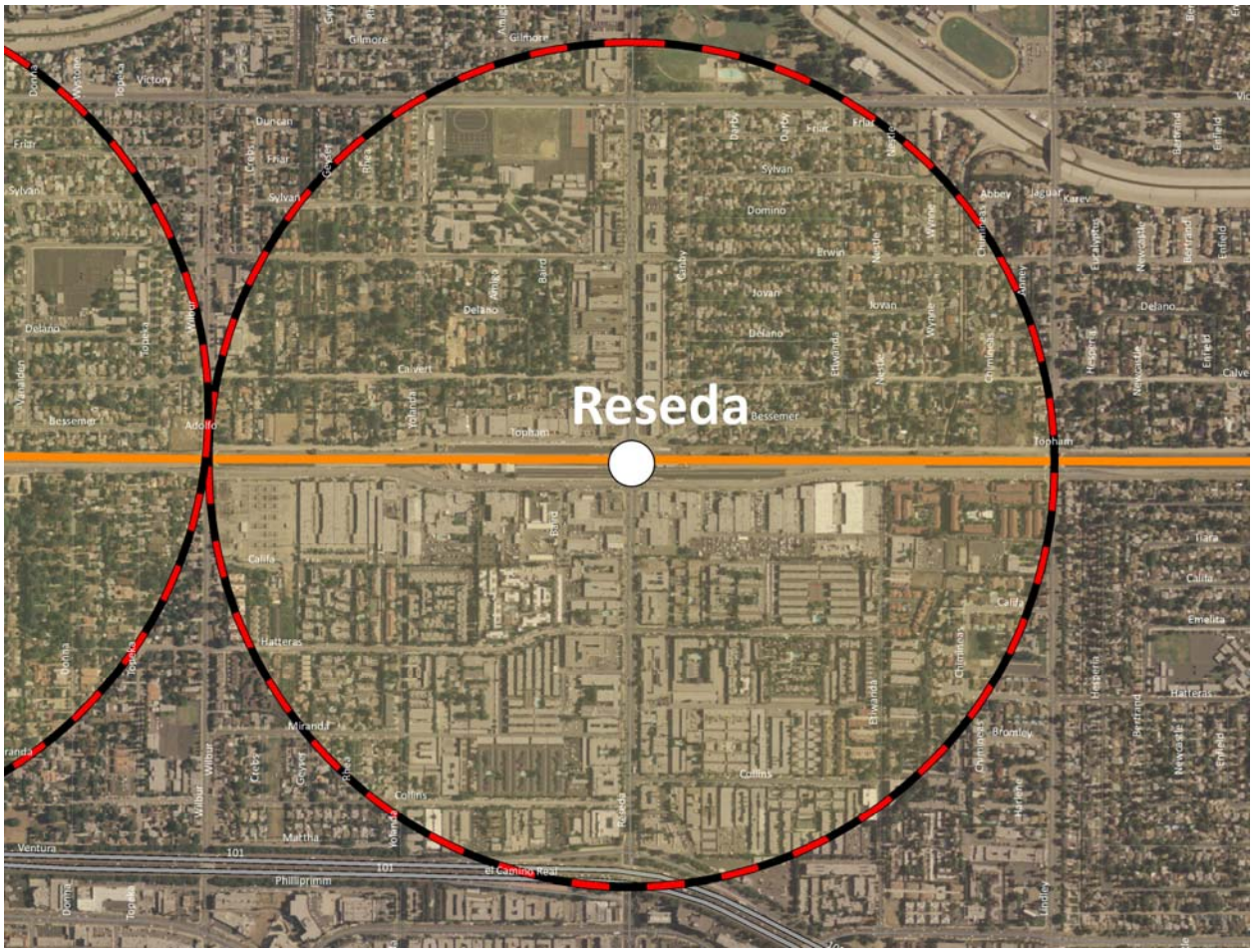


Figure 7: Reseda Station Area. Map shows one-half mile distance from station.

Station-Area Intent

Over time, the area around the Reseda station will transform into an urban transit village with a diverse mix of retail, residential and employment uses. The area will become significantly more walkable and bikable with wide sidewalks, street trees, improved pedestrian crossings and public spaces. The area immediately around the Orange Line station will include mixed use development of three to four stories with neighborhood-serving retail on the ground floor and residential or office uses on the upper floors. Uses along Oxnard east and west of the station and on Topham west of the station will generally remain as employment uses but transform over time with greater employment densities and more attractive frontages. Outside of these areas, the development will taper down in building height and intensity to the single- and multi-family residential areas. Future development in this area should be guided by a new specific plan or zoning/design overlay for the station area and informed by the Tarzana Crossing study prepared by the City of Los Angeles in 2010.

Priority Improvements by Type

Transit Service and Facilities

- None identified.

Streetscape and Pedestrian Environment

- **Create public plaza near the station.** Identify a location at or near the intersection of Reseda and Oxnard to create a public plaza for the residents, workers and transit riders.
- **Provide bump-outs or a median on Reseda.** Along Reseda Boulevard near the station, construct bump-outs or a center median refuge island to improve pedestrian safety and reduce crossing times.
- **Beautify Oxnard Street.** Construct a variety of pedestrian improvements along Oxnard Street near the Reseda station. Such improvements could include additional street trees, pedestrian crosswalks, traffic calming, green streets, mini-parks, and shared use of alleys.
- **Replace chain-link fencing with landscaping**. The chain-link fencing adjacent to the Orange Line parking lots should be replaced with landscaping or more attractive fencing, and it should provide more frequent pedestrian cut-throughs.

Bicycle Access and Parking

- **Improve the Orange Line Bicycle Path between Reseda and Balboa.** The Bicycle Path in this segment is currently discontinuous, with poorly signed alternate routes. Off-street bike paths exist along Balboa and Oxnard, as well as a connecting path through Sepulveda Basin, and the path along Oxnard is parallel to the transitway; with improvements and signage, these could effectively be made part of the Orange Line Bicycle Path. (This route is preferable to the northern route along Victory Boulevard, White Oak Avenue, and Reseda Boulevard, which includes on-street bike lanes. The proposed route would improve the safety and comfort of riders because it is entirely off-street, and because it more closely follows the transitway, meaning it provides greater legibility.)

- **Improved bicycle lanes on Reseda.** The lane markings on the existing Class II bicycle lanes along Reseda should be improved.
- **Increase the number of bicycle racks**. While no data are available, anecdotal experience suggests that additional parking is needed at this station. Racks would need to be located on the sidewalk adjacent to the station, and not on Metro property.

Land Use and Design

- **Prepare a Specific Plan or zoning/design overlay for the Station Area.** One of the initial tasks should be to prepare a station area Specific Plan or zoning/design overlay for the Reseda station. The plan should engage the community to identify specific zoning and development regulations and implementation actions that will transform the area into a mixed use transit district.
- **Implement the Tarzana Crossing Plan.** Specific urban design recommendations in the Tarzana Crossing plan should be incorporated into the zoning code and other regulatory documents.
- **Attract neighborhood goods and services**. A variety of neighborhood-serving goods and services should be attracted to the station area and could include a grocery store and/or other fruit and vegetable store.
- **Programming of park and ride lots.** Allow the community to use the Metro parking lots for regular and special events. Such events could include weekly farmers markets, flea markets or arts and crafts fairs.
- **Explore joint development on park and ride lots**. Over time, Metro should explore the development of the park and ride lots with transit-supportive uses, while maintaining some of the parking at the station.

Multimodal Access

- **Reconfigure Oxnard**. With an ADT near Reseda Boulevard of between 11,000 and 12,000 vehicles, Oxnard is a strong candidate for reconfiguration to improve pedestrian conditions. The street currently features four through lanes near Reseda and left and right turn lanes at Reseda. Given existing volumes, however, traffic could be accommodated using two fewer lanes. At Reseda adjacent to the station, the curb along the north side of the street should be realigned and bulb-outs provided at the corners to reduce street width. Elsewhere, the street could simply be restriped, allowing parallel parking that was recently removed from the north side of the street to be restored.

Automobile Parking

- **Implement shared parking districts.** One barrier to adding new uses, such as restaurants and retail, is the significant amount of new parking that is required. Since Metro may not pursue joint development on the park and ride lots, the City should explore the use of the parking lots to allow for new uses and more intense uses on the surrounding the station. This could allow for new uses over time without needing to build new high-cost parking.

Photo-transformation of the Reseda station area into a vibrant, mixed use transit village.

BALBOA

STATION-AREA DESCRIPTION

The Balboa Station is located at Victory and Balboa Boulevard, a main arterial intersection in Van Nuys. It is located at the southeast corner of the intersection adjacent to Balboa Lake Park, a major destination along the Orange Line corridor. The station is approximately one mile from the Balboa entrance and exit to the Ventura Freeway, US-101. Across from the station is a small commercial plaza to the north, Birmingham High School to the northwest, and a series of office buildings to the west. The station is centrally located along the Orange Line and is between the Woodley and Reseda Stations.

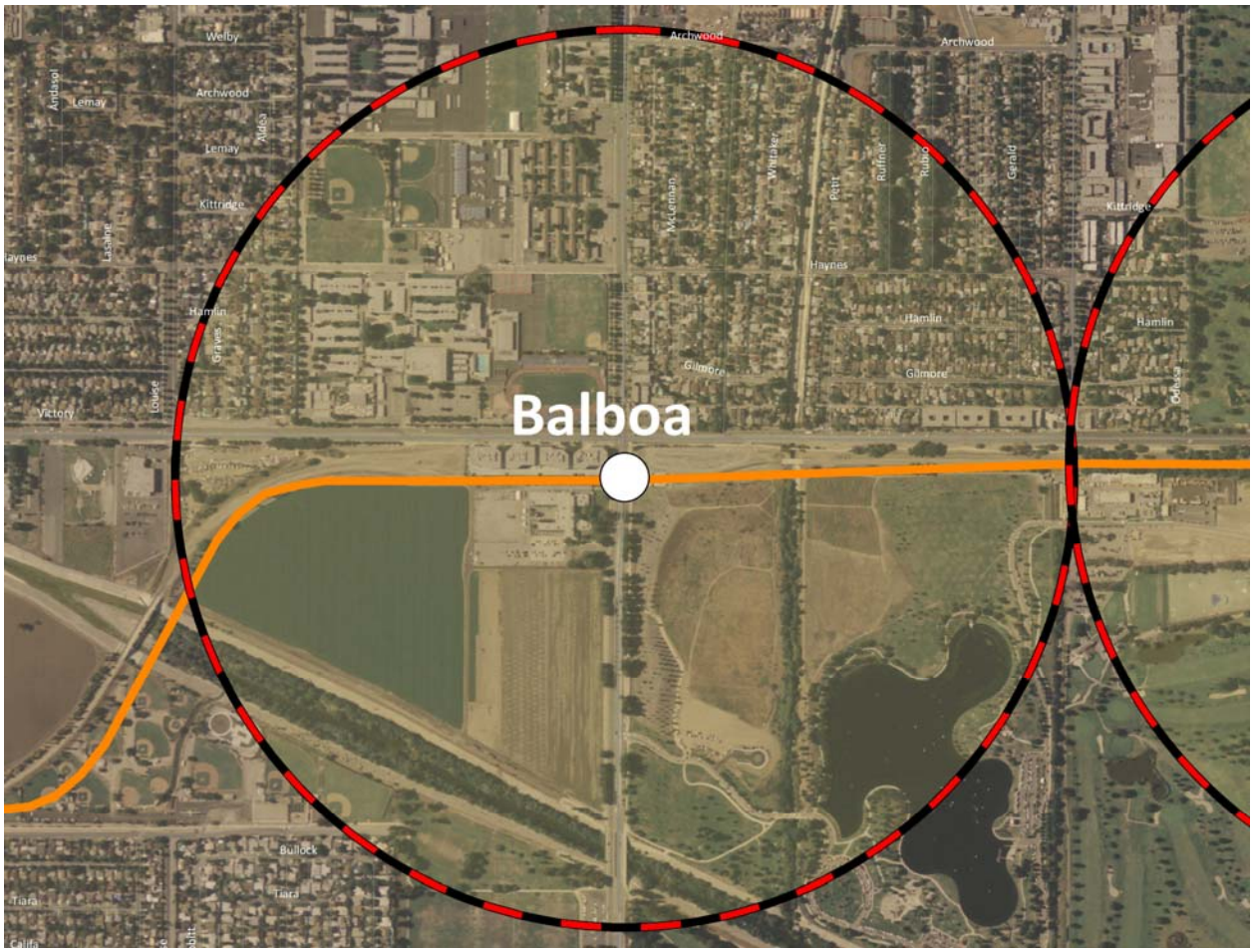


Figure 8: Balboa Station Area. Map shows one-half mile distance from station.

STATION-AREA INTENT

The Balboa station area will remain suburban-oriented, experiencing little land use change or intensification in the future. This is because the area is primarily single family, public facilities, and publicly-owned open space. While there may be little new development, Lake Balboa Park, the Sepulveda Basin Recreation Area, and other public amenities should be promoted as destinations in

order to increase non-peak ridership. To do so, pedestrian and bicycle connections between the Orange Line station and the recreational facilities should be improved, signage should be added, and Metro and the City of Los Angeles should promote the recreation amenities as a destination along the corridor.

Priority Improvements by Type

Transit Service and Facilities

- **Promote Lake Balboa Park and other recreational amenities.** Metro and the City of Los Angeles should promote Lake Balboa Park, Sepulveda Basin, and the other recreation amenities as destinations along the corridor.

Streetscape and Pedestrian Environment

- **Add pedestrian crossings.** A crosswalk at the Orange Line, to the south of the transitway, should be added.

Bicycle Access and Parking

- **Improve the Orange Line Bicycle Path between Reseda and Balboa.** The Bicycle Path in this segment is currently discontinuous, with poorly signed alternate routes. Off-street bike paths exist along Balboa and Oxnard, as well as a connecting path through Sepulveda Basin, and the path along Oxnard is parallel to the transitway; with improvements and signage, these could effectively be made part of the Orange Line Bicycle Path. (This route is preferable to the northern route along Victory Boulevard, White Oak Avenue, and Reseda Boulevard, which includes on-street bike lanes. The proposed route would improve the safety and comfort of riders because it is entirely off-street, and because it more closely follows the transitway, meaning it provides greater legibility.)
- **Add bicycle lanes on Balboa**. North of Victory, Balboa is a Bicycle Plan Backbone Network route, and Class II on-street lanes should be provided. Also, directional signage indicating the route should be installed at the transition point between the lanes and Class I path paralleling Balboa south of Victory.
- **Improve bicycle connections to Sepulveda Basin**. Bicycle connections into the Sepulveda Recreation Area from the Orange Line Bicycle Path and the Class I bicycle path along Balboa should be improved. These improvements should include lighting along paths.

Land Use and Design

- None Identified

Multimodal Access

- None identified

Automobile Parking

None identified

WOODLEY

STATIO -AREA DESCRIPTION

The Woodley Station is located directly south of the intersection of Victory Boulevard and Woodley Avenue in Van Nuys. The station is half a mile west of the Victory Boulevard on-ramp to the San Diego Freeway (I-405) and approximately two miles northeast of the Balboa on-ramp to the Ventura Freeway (US-101). The station area is located directly north of the Sepulveda Basin Recreational Area and south of the Van Nuys Airport.

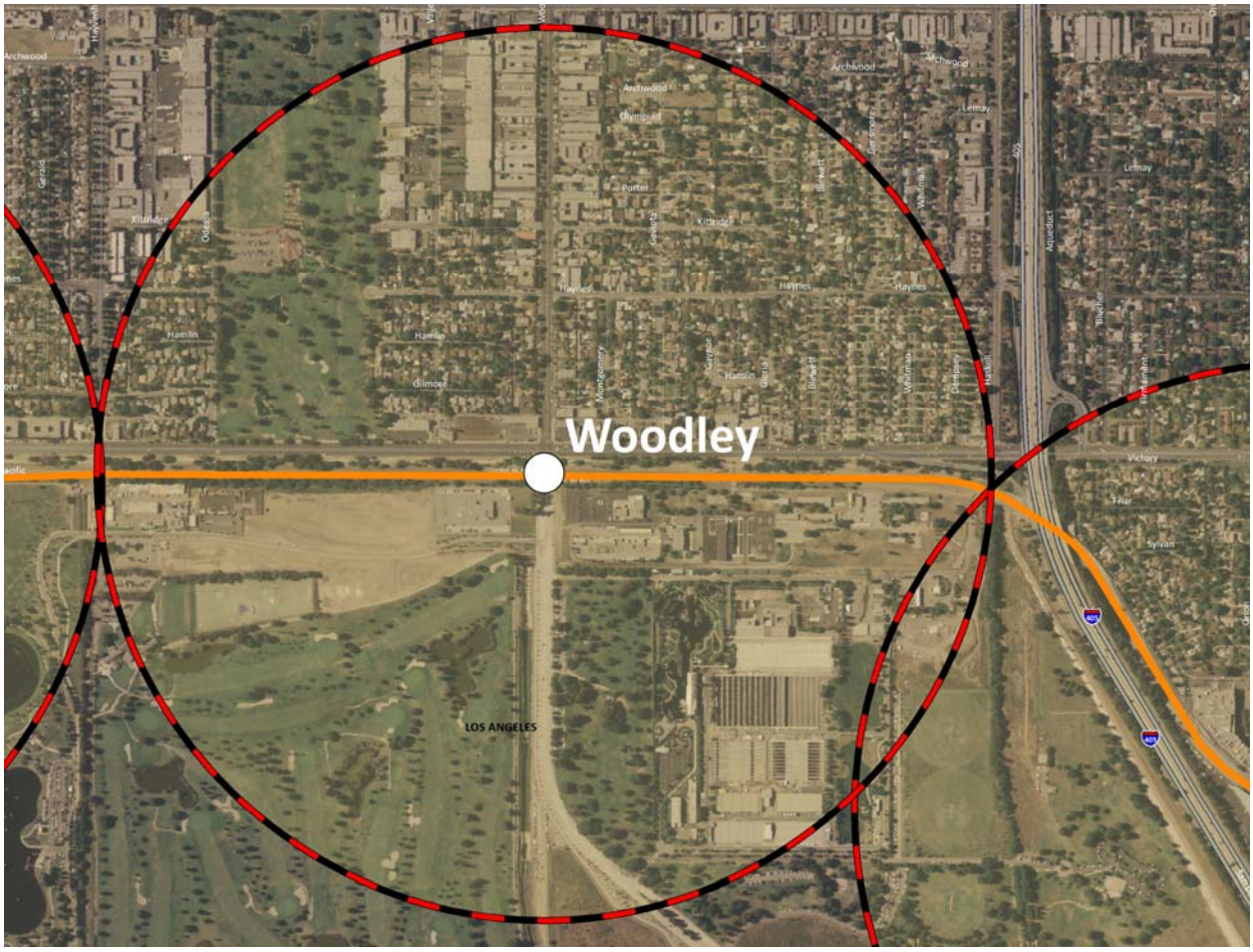


Figure 9: Woodley Station Area. Map shows one-half mile distance from station.

STATION-AREA INTENT

The Woodley station area will remain suburban-oriented, and it will experience little land use change or intensification in the future. This is because the area is primarily single family, public facilities, and publicly-owned open space. While there may be little new development, Lake Balboa Park, the Sepulveda Basin Recreation Area, and other public amenities should be promoted as destinations along the Orange Line in order to increase non-peak ridership. To do so, pedestrian and bicycle connections

between the Orange Line station and the recreational facilities should be improved, signage should be added, and Metro and the City of Los Angeles should promote the recreation amenities as a destination along the corridor.

Priority Improvements by Type

Transit Service and Facilities

- **Promote Lake Balboa Park and other recreational amenities.** Metro and the City of Los Angeles should promote Lake Balboa Park, Sepulveda Basin, and the other recreation amenities as destinations along the corridor.

Streetscape and Pedestrian Environment

- **Add a bulb-out on the southeast corner of Woodley and Victory**. This bulb-out should extend into Woodley, and it would require closing the right-turn lane from northbound Woodley onto eastbound Victory. This crossing is particularly important, as it is aligned with the Orange Line Bicycle Path.
- **Install sidewalks on Woodley**. To improve access to the surrounding open space, a new sidewalk on both sides of Woodley should be added for at least the first several blocks south of Woodley Station.
- **Install sidewalk on south side of Victory**. A new sidewalk should be installed on the south side of Victory extending in both directions from Woodley Station. The Orange Line Bicycle Path in this segment is not suitable for pedestrian use.

Bicycle Access and Parking

- **Improve bicycle connections to Sepulveda Basin**. Bicycle connections should be improved from the Orange Line Bicycle Path and Woodley Class II on-street lanes to the Sepulveda Basin Recreation Area.
- **Improve the transition between bicycle lanes and path on Woodley**. Wayfinding signage and on-street markings should be improved to help cyclists transition between the Class II bicycle lanes on Woodley north of Victory and the Class I bicycle path along Woodley south of Victory.

Land Use and Design

- None identified

Multimodal Access

- None identified

Automobile Parking

- None identified

SEPULVEDA

Station-Area Description

The Sepulveda Station is located northwest of the intersection of Sepulveda Boulevard and Oxnard Street in Van Nuys. The station is half a mile southeast of the Victory Boulevard on-ramp to the San Diego Freeway (I-405) and immediately east of the freeway. The station area is bisected by the 405 freeway and approximately one-third of the station area is west of the freeway and inaccessible to the station. One feature of the station is its location approximately 800 feet west of the Orange Line's intersection with Sepulveda Boulevard. This, combined with the proximity to the 405 freeway limits the amount of active land uses within half a mile of the station.

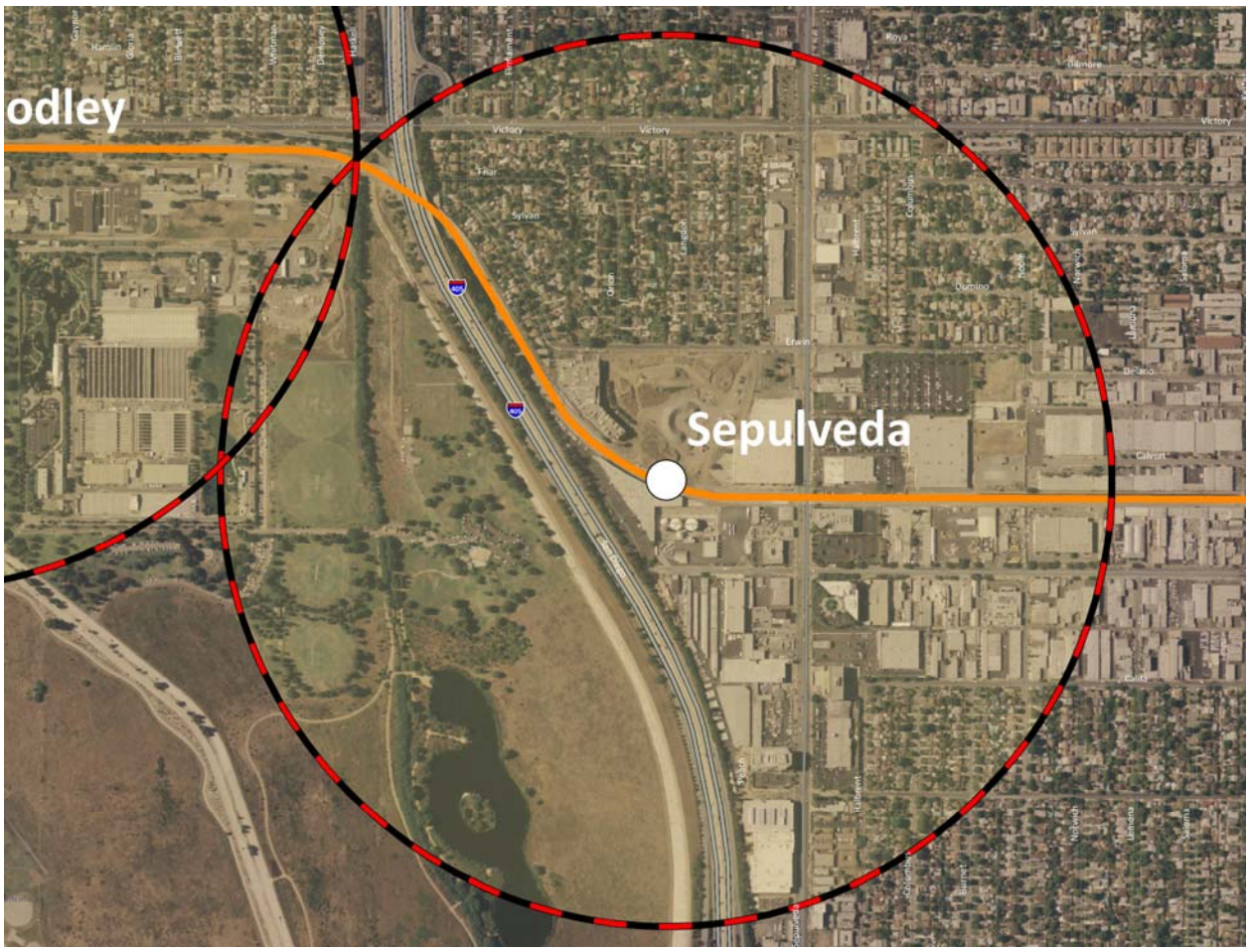


Figure 10: Sepulveda Station Area. Map shows one-half mile distance from station.

Station-Area Intent

The Sepulveda Station has the potential to become a significant new transit-oriented district. Primary areas for development include a Metro joint development site on the existing park and ride lot, redevelopment of the industrial parcels, and new development along Sepulveda Boulevard. With the addition of new uses, the area could transform from an auto-oriented corridor into a vibrant destination and mixed-use district. Such a direction would increase ridership along the corridor and provide walkable destinations for area residents and businesses.

Priority Improvements by Type

Transit Service and Facilities

- **Move station closer to Sepulveda Boulevard**. Sepulveda Station is approximately 800 feet west of Sepulveda Boulevard and connecting bus stops. If funding can be found, the platforms should be relocated to a point just west of Sepulveda (to accommodate the eastbound platform, the transitway and bikeway would have to be realigned, and the access lane from Sepulveda to the parking lot closed; a new lane could be provided as part of future redevelopment). Alternately, the access lane could be replaced by a sidewalk wider than the existing narrow sidewalk to the south of the transitway.

Streetscape and Pedestrian Environment

- **Add bulb-outs and colorize crosswalk at Sepulveda.** This crossing is both very wide and very important, as it aligns with the Orange Line Bicycle Path, it connects the station to the northbound Route 734 Rapid stop, and there are no crosswalks to the north or south for some distance. Bulb-outs would have to be relatively modest in order to avoid acting as obstacles to curbside bus operations on Sepulveda, but could serve to visually narrow the street and provide a visual cue for drivers. Application of the same red color treatment used for crosswalks in the Van Nuys Civic Center/Van Nuys station area would also serve to increase visibility and safety.
- **Improve pedestrian connections to Orange Line station**. Over time and as possible, pedestrian pathways across nearby barriers such as the station parking lot and large industrial parcels (the adjacent 405 freeway is also a barrier, but only open space lies on its other side, accessible via the Orange Line bikeway) should be created or improved. If the parking lot is not redeveloped in the near term, pedestrian entrances could be added at Orion and Langdon Avenues.
- **Extend the neighborhood streetscape to the station**. The high-quality streetscape and tree cover of the surrounding neighborhoods – such as along Erwin Street and Butcher Avenue northwest of the station – should be extended into the non-residential area around Sepulveda Station.
- **Prioritize street cleaning and maintenance**. Street and sidewalk cleaning and maintenance around Sepulveda Station should be prioritized, as they appear to be dirtier and less well maintained than other station areas along the Orange Line.

Bicycle Access and Parking

- **Add bicycle lanes on Sepulveda**. Sepulveda is a Bicycle Plan Backbone Network route, where Class II on-street lanes should be provided.
- **Reduce Orange Line Bicycle Path loitering**. Responsible agencies should reduce loitering and homeless encampments on the bicycle path between Van Nuys and Sepulveda Stations.

Land Use and Design

- **Create a new specific plan**. A Specific Plan for the Sepulveda station area should be created. The Specific Plan should explore how to make the station area a more transit-supportive district with a more diverse mix of uses.
- **Expand event venue**. Opportunities to use the station as a venue for large public events could be explored.
- **Improve transitions between residential and commercial**. New commercial or mixed-use buildings should match the scale and character of the adjacent homes, use height step-backs, and avoid parking lots or fencing fronting housing. Combined with better a streetscape (i.e., trees and landscaping) and pedestrian facilities, this will improve transitions between residential neighborhoods and the commercial and industrial areas surrounding Sepulveda Station, while encouraging access to the station.
- **Pursue joint development**. Metro is currently pursuing a joint development opportunity at the Sepulveda Station, and these efforts should continue. This is because the park and ride lot is significantly undersubscribed.

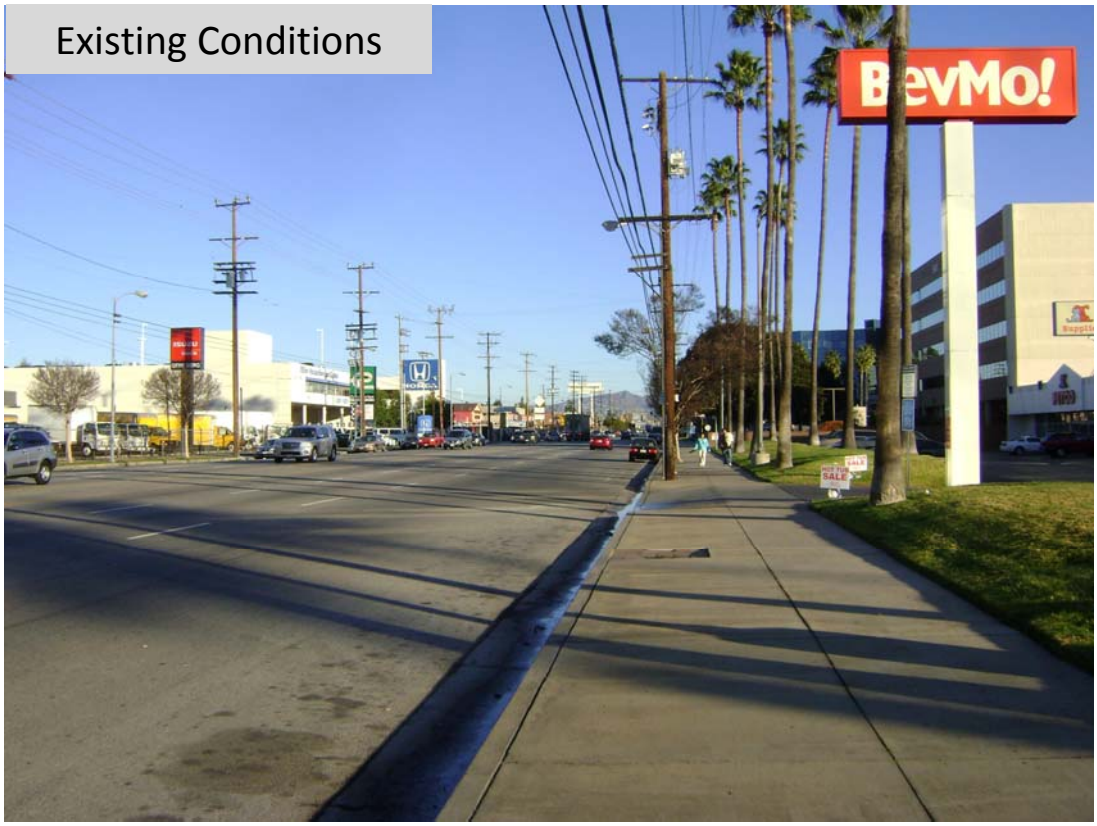
Multimodal Access

- None identified

Automobile Parking

- None identified

Photo-transformation of the Sepulveda Boulevard south of the Orange Line into a mixed use, pedestrian-oriented corridor.



Future Conditions

VAN NUYS

STATION-AREA DESCRIPTION

The Van Nuys Station is located one block north of the intersection of Van Nuys Boulevard and Oxnard Street, two main arterials in Van Nuys. The station is roughly two miles east of the Victory Boulevard on-ramp to the San Diego Freeway (I-405), a mile and a half north of the Van Nuys Boulevard on-ramp to the Ventura Freeway (US-101), and approximately three miles west of the Hollywood Freeway, California Route 170. The station area is located directly north of the Sherman Oaks Hospital, east of the Sepulveda Basin Recreational Area, and south of the Van Nuys Government Center.

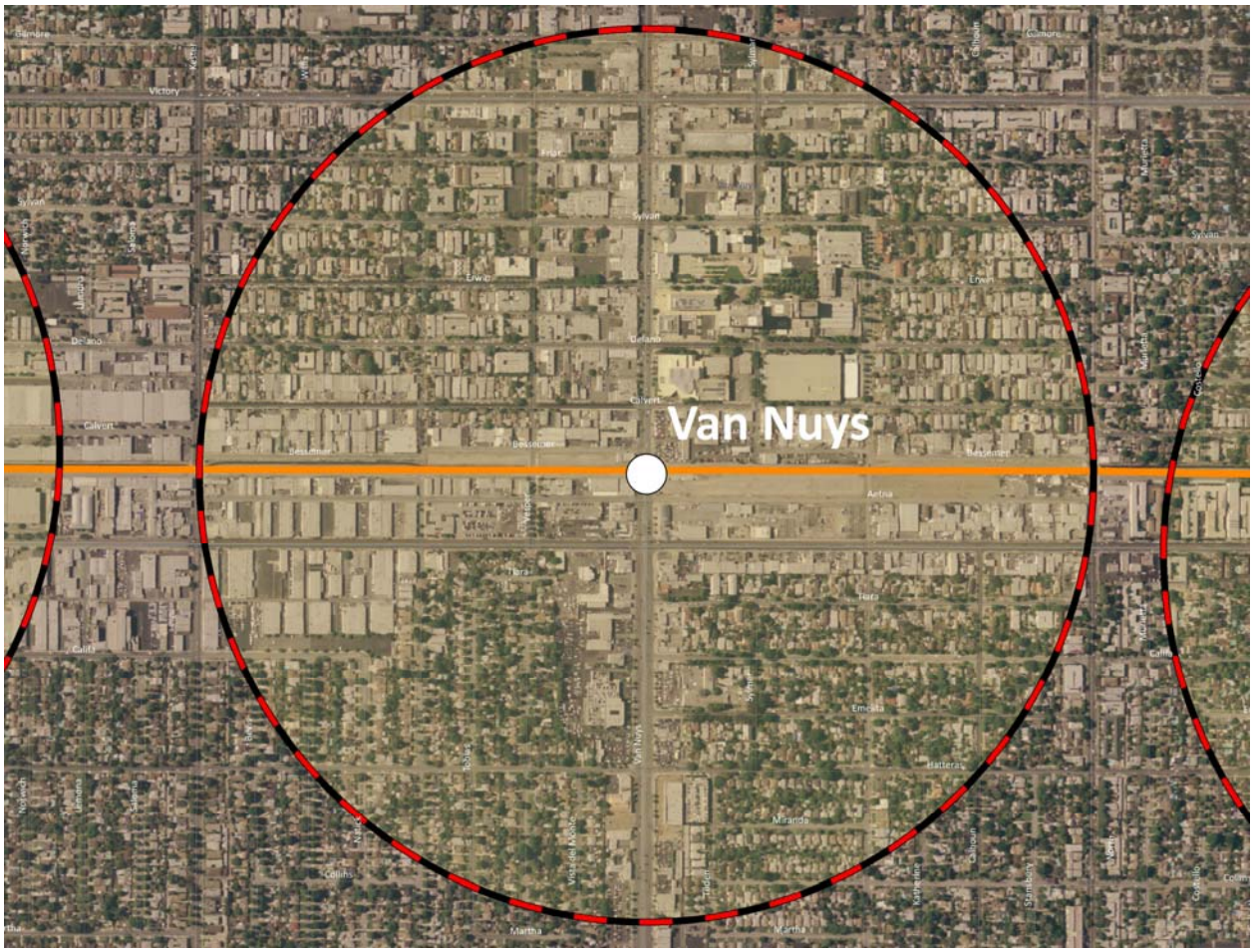


Figure 11: Van Nuys Station Area. Map shows one-half mile distance from station.

Station-Area Intent

The Van Nuys station area will continue to expand its role as a destination on the Orange Line corridor. Over time, revitalization could occur within the station area, building on the Van Nuys Civic Center and the main street character of Van Nuys Boulevard between the Orange Line right-of-way and Victory Boulevard. In addition, Van Nuys Boulevard is a candidate for expanded bus service that, if implemented, will likely increase transit service on the corridor. Potential development areas are the industrial parcels south of the Orange Line, Van Nuys Boulevard south of the station on under-performing retail parcels , and the park and ride lot located southeast of the station. In addition, there are significant opportunities to improve bicycle and pedestrian connections to the station from surrounding areas. These improvements should only occur after a future development plan for the area is created.

Priority Improvements by Type

Transit Service and Facilities

- **Develop seamless connections to rapid transit on Van Nuys**. Major transit improvements to this corridor, a North-South Rapidway, are currently under study as part of a separate environmental process. Care should be taken to ensure that connections between this service and Orange Line platforms are as short, direct, and clear (in terms of both sightlines and signage) as possible.
- **Add signage for Rapid connections**. Signs directing passengers from Orange Line platforms to Route 761 stops, which are some distance from platforms (Rapid buses cannot fit into stops closer to the station), should be added.
- **Create a Civic Center marketing plan**. Metro and the City should work together to create a coordinated program of marketing, transit incentives, parking policies, and/or other measures to increase transit ridership to the Civic Center, which is one of the most important centers of jobs and activity along the Orange Line.

Streetscape and Pedestrian Environment

- **Implement recommendations from the Transit Hub Non-Motorized Access Plan**. The plan, a joint effort of Metro and the Los Angeles Bicycle Coalition completed in 2009, made a number of recommendations for improvements to intersections throughout the station area, including zebra crosswalks, upgraded wheelchair ramps, corner bulb-outs, median refuges, advance stop lines, countdown signals, and audible push buttons. Many of these recommendations are relatively low-cost, yet they have not yet been implemented. (Note: LADOT policy is to provide ladder rather than zebra crossings, and only at select locations such as mid-block adjacent to schools. If ladder crossings cannot be provided, high-visibility alternatives should be used instead.)
- **Improve crosswalk at station.** The left-turn lane on northbound Van Nuys Boulevard at Bessemer should be removed, and a median refuge island and a bulb-out on the east side of Van Nuys Boulevard at the Orange Line crosswalk (a bulb-out could not be provided on the west side without relocating the Route 233 bus stop farther from the station) should be provided.

- **Make streetscape improvements north of the station**. Significant streetscape improvements on Van Nuys north of the station and along other major roadways should be made, emulating the high-quality streetscape on the east side of Van Nuys south of Delano. Streetscape improvements should be governed by the Van Nuys CBD Streetscape improvement plan. Where possible, plant shade-providing canopied trees.
- **Update and install new station landscaping.** New landscaping should be updated and installed at the Van Nuys Station, including landscaping in place of the fence around the station parking lot.
- **Provide a pedestrian connection between parking lot and area to east.** An additional opening in the fence or replacement landscaping should be provided at the northeastern corner of the parking lot.
- **Reduce pedestrian crossing distances along Van Nuys.** Particularly north of the station towards the Civic Center, measures should be implemented to reduce crossing distances and increase safety and comfort including median refuges and curb bulb-outs.

Bicycle Access and Parking

- **Implement recommendations from the Transit Hub Non-Motorized Access Plan**. In addition to pedestrian recommendations, the plan made a number of recommendations to stripe bike lanes or "sharrow" stencils on bike routes in the station area. These recommendations are generally even less expensive than the plan's pedestrian recommendations, yet they have not yet been implemented.
- **Add bicycle lanes on Van Nuys**. Given changes to the street to be identified through the Van Nuys Rapidway environmental process, Class II bicycle lanes on Van Nuys Boulevard could be added as called for in Bicycle Plan.
- **Increase enforcement against parking on the bicycle path**. Sheriff's Deputies and other vehicles could be prevented from using the Orange Line bicycle path for vehicle parking, and then ensure that deputies have designated parking options in another location.
- **Reduce bicycle path loitering**. Loitering and homeless encampments should be reduced on the bicycle path between Van Nuys and Sepulveda Stations.

Land Use and Design

- **Prepare a specific plan for the station area.** This area has the potential to become a more intense transit-oriented district with a diverse mix of transit-supportive uses. While there is a streetscape improvement plan and design guidelines for Van Nuys Boulevard north of the station, no comprehensive vision and development plan exists for the station area. Preparing a specific plan for this area should be a priority given the large opportunity that exists in the station area. Specific ideas that should be addressed in the development of the specific plan include:
    - Exploring the potential for creating urban format auto-dealerships (such as auto-dealers mixed vertically with other uses) to better capitalize on the proximity to the Orange Line station;

- Determining if the industrial parcels can be converted to higher intensity employment uses that increase the number of workers within ½ mile of the Orange Line;
- Determining whether there will be increased bus service (such as BRT) in Van Nuys Boulevard and revising the streetscape plan accordingly;
- Exploring a redesign of the Van Nuys government center to face the street rather than being an inward facing campus (which is its current design); and
- Re-visiting the Van Nuys design guidelines and exploring zoning and development standards for Van Nuys Boulevard north of the station.

- **Pursue joint development on Metro Parcels.** The Metro-owned park and ride parcels present an opportunity for new, transit-supportive development given their size and utilization rate. Metro should continue to explore development on these parcels, particularly in conjunction with a specific plan for the station area.
- **Attract neighborhood goods and services**. A variety of neighborhood-serving goods and services should be attracted to the station area that could include a grocery store and/or other fruit and vegetable store.

Multimodal Access

- None identified

Automobile Parking

- None identified

WOODMAN

STATION-AREA DESCRIPTION

The Woodman Station is located one block east of the intersection of Woodman Avenue and Oxnard Street in Sherman Oaks. The station is just over half a mile from the Valley College Station and is half a mile from the western boundary of Valley College. Unlike many of the other stations, the Woodman Station is not located on a street with high traffic volumes.

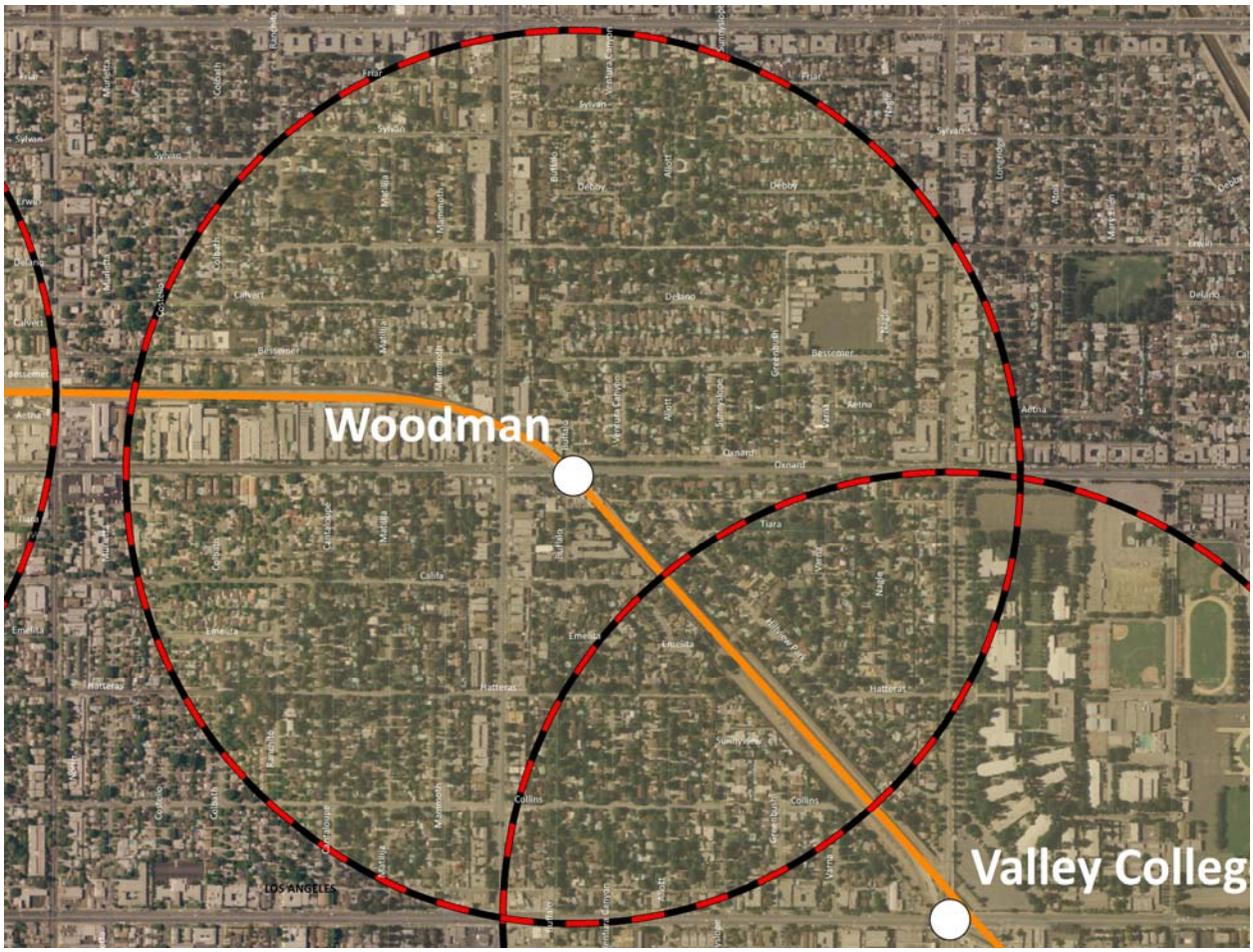


Figure 12: Woodman Station Area. Map shows one-half mile distance from station.

STATION-AREA INTENT

The Woodman Station will remain a suburban transit district, experiencing no change in use or intensity over time. There is the potential to add a limited amount of mixed-use development and neighborhood goods and services on the non-residential parcels immediately adjacent to the station. To increase transit ridership, improvements should be made to the pedestrian and bicycle facilities around the station to enhance connectivity from the surrounding residential neighborhoods.

Priority Improvements by Type

Transit Service and Facilities

- **Add signage at Woodman and Oxford directing pedestrians to station.** Additionally, signage at the Orange Line station should provide directions to nearby bus stops.

Streetscape and Pedestrian Environment

- **Create a pedestrian cut-through to Woodman**. A designated pedestrian cut-through between Oxnard Street and Woodman Avenue, parallel to, but separate from, the Orange Line Bicycle Path should be created to reduce conflicts with cyclists.

Bicycle Access and Parking

- **Improve the Orange Line Bicycle Path crossing of Woodman**. The Orange Line Bicycle Path crossing of Oxnard is especially problematic for both cyclists and pedestrians, as it heavily skewed or angled, resulting in a very long crossing distance. A number of measures could be used to improve the safety and convenience of this crossing, including loop-detection sensors, flashing beacons, colorization and other measures. Similar measures could be implemented at the adjacent crossing of Woodman; here, a bulb-out on the east side of the street could improve connections between Woodman, a major bicycle route, and the Path by providing northbound cyclists with a place to "corral" before proceeding west.
- **Add a bicycle lane to Woodman**. Woodman is a Bicycle Plan Backbone Network route and a Priority II project in the Five-Year Implementation Strategy. Bike lanes already exist between Oxnard and Burbank Boulevard; these could be extended south to the existing lanes on Chandler, improving network connectivity, for relatively little cost, and this should be done in the short term. Ultimately, the lanes should be extended farther north and south.

Land Use and Design

- None identified

Multimodal Access

- None identified

Automobile Parking

- None identified

VALLEY COLLEGE

STATION-AREA DESCRIPTION

The Valley College Station is located at both the northeast and southwest corner of Fulton Avenue and Burbank Boulevard in Sherman Oaks. The station area is located immediately southwest of Los Angeles Valley College.

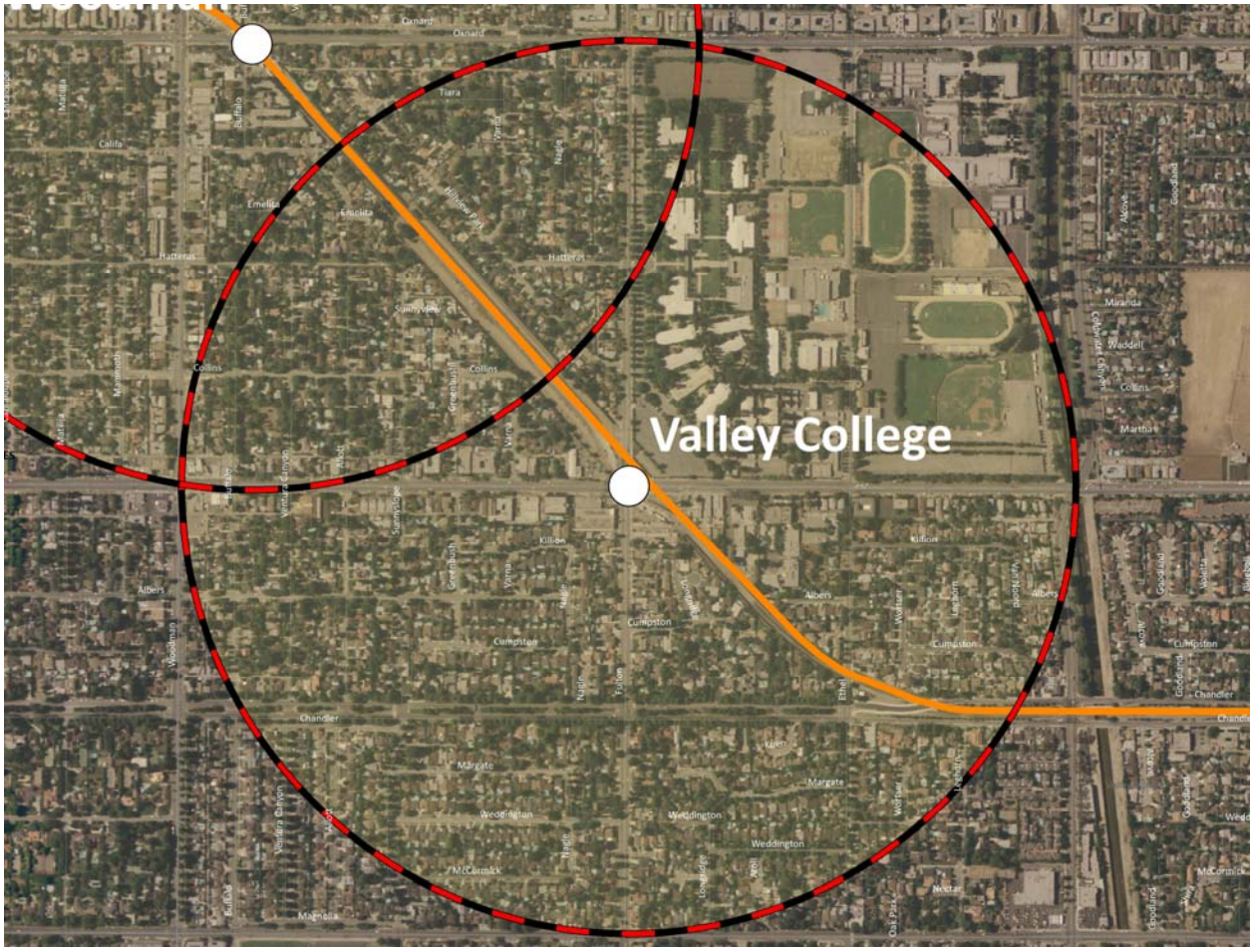


Figure 13: Valley College Station Area. Map shows one-half mile distance from station.

STATION-AREA INTENT

The Valley College Station will remain a suburban transit district, and it will generally experience no change in use or intensity over time. There is the potential to add a limited amount of mixed-use development and neighborhood goods and services on the non-residential parcels immediately adjacent to the station. In addition, there is a potential for the construction of new academic and administrative buildings on the Valley College campus that could increase transit ridership. Improvements should also be made to the pedestrian and bicycle facilities around the station to increase connectivity from the surrounding residential neighborhoods.

Priority Improvements by Type

Transit Service and Facilities

- **Provide transit incentives.** Valley College could provide transit passes and vouchers to their students and employees. This should be part of a larger effort on the Orange Line as described in Chapter 3.

Streetscape and Pedestrian Environment

- **Improve pedestrian paths to Valley College and Grant High School.** The Valley College parking lot adjacent to the Orange Line station acts as a barrier and degrades the quality of pedestrian paths alongside it. If possible, Metro should work with Valley College to provide a pedestrian path through the parking lot, and shade-providing canopied trees should be planted between the lot and the sidewalk along Burbank Boulevard. These pathways should be marked with clear, highly-visible signage.
- **Where possible, add bulb-outs at the intersection of Burbank and Fulton.** It should be possible to add bulb-out at most corners of this skewed section, with its long crossings, without interfering with bus movements. In particular, sidewalk extensions into Fulton on the north side of the intersection would enhance safety and convenience for cyclists using the Orange Line Bicycle Path.
- **Extend Valley College pedestrian character**. In conjunction with the Valley College, the pedestrian orientation and character of the campus should be extended into surrounding neighborhoods and commercial areas.

Bicycle Access and Parking

- **Create a bicycle connection to Valley College**. A direct bicycle connection between Valley College Station and Valley College should be created using bicycle lanes on Fulton.

Land Use and Design

- **Add affordable housing**. Affordable housing could be added to the station area, which currently has none.
- **Add a variety of neighborhood goods and services**. A variety of neighborhood goods and services such as a grocery store, fruit and vegetable vendor, and/or other food vendors could be added to the Valley College station area, encouraging activity in the station area and providing students and station users with healthy food options.
- **Intensify Valley College.** Valley College should be encouraged to develop a facility plan that increases the number of facilities near the Orange Line station. At present, the campus is set back from the Orange Line and is designed as a commuter campus. As the college expands, new academic and administrative buildings should be located near to the Orange Line station.

Multimodal Access

- None identified

Automobile Parking

- **Provide on-street parking on Fulton**. With an ADT of approximately 13,000 vehicles, Fulton provides excess capacity for traffic. Currently, some curbside parking is provided on the east side of the street. Parallel parking should be provided along both curbs, and the street should be restriped to provide one through lane in each direction plus left-turn lanes, as well as Class II on-street bicycle lanes between the Orange Line Bicycle Path and Hatteras Street, the western entrance to the Valley College campus.

LAUREL CANYON

STATION-AREA DESCRIPTION

The Laurel Canyon Station is located at the intersection of Laurel Canyon Boulevard and Chandler Boulevard in North Hollywood. The station is a mile north of the Laurel Canyon Boulevard on-ramp to the Ventura Freeway (US-101) and less than a mile southwest of the Burbank Boulevard on-ramp to the Hollywood Freeway, California Route 170.

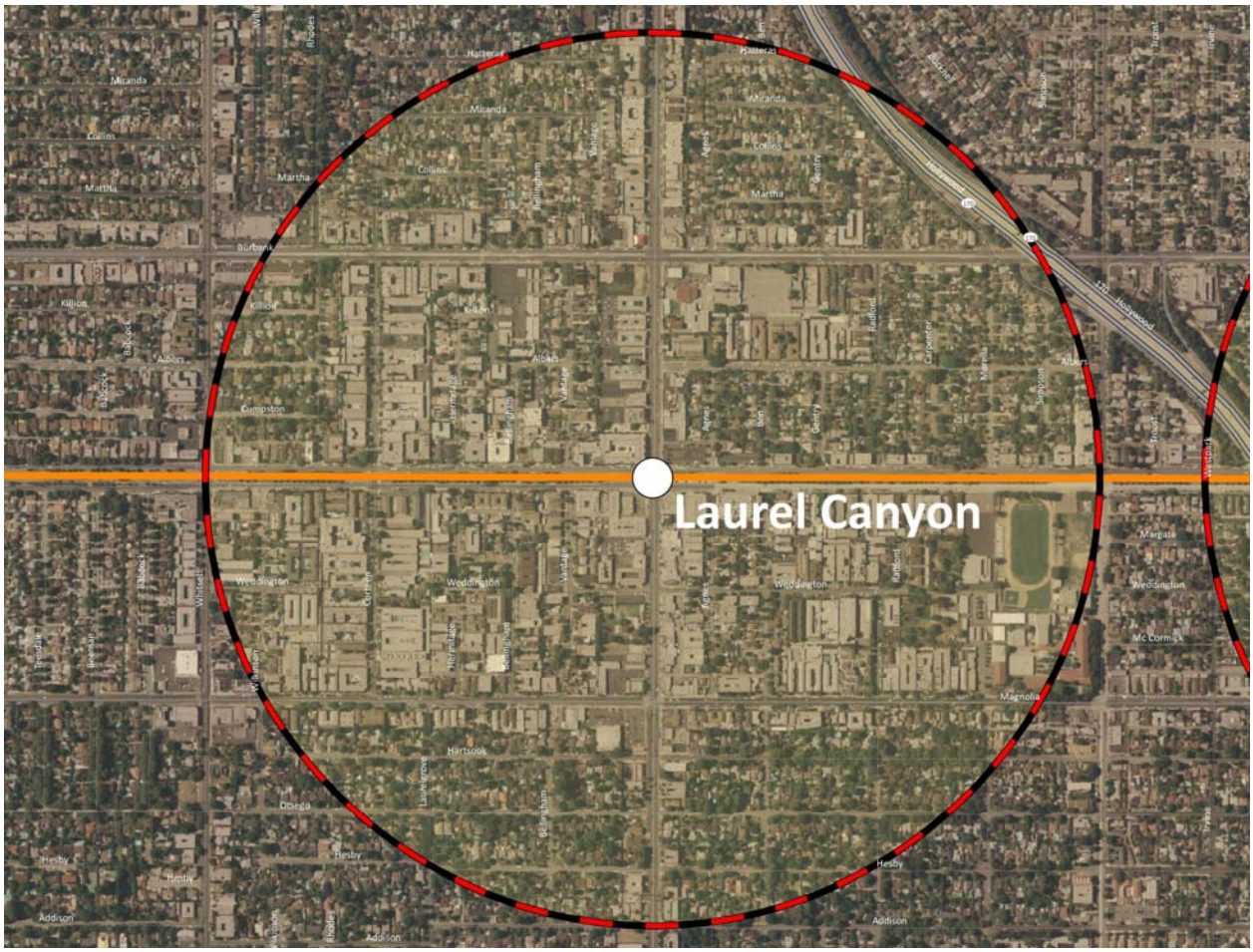


Figure 14: Laurel Canyon Station Area. Map shows one-half mile distance from station.

Station-Area Intent

Located approximately one mile from the North Hollywood Orange and Red Line stations, the Laurel Canyon Orange Line station area has some of the highest residential densities of any station area along the Orange Line corridor. The area contains a mix of single and multi-family residential uses supported by neighborhood and sub-regional retail and commercial uses. As such, the station is a feeder station for the Orange Line and not a destination. Despite its advantages, the area has relatively low transit ridership compared with other stations.

Given the existing intensity of the area, the Laurel Canyon station is not expected to change significantly in the future. The future conditions in the station area should be of a "village" character along Laurel Canyon supported by a range of single- and multi-family housing within half a mile of the station. New mixed-use and townhouse and multi-family housing of two to three stories could occur along Laurel Canyon Boulevard to enhance the village character desired by the residents. While there may not be significant development in the future, efforts should be made to capitalize on the large number of housing units within one half mile of the Orange Line station. These recommendations include outreach and education about transit to area residents, improvements to the streetscape to enhance pedestrian comfort and safety, and enhances to the bicycle network serving the Orange Line station. Taken together, the transit district can become a more complete neighborhood mixed-use center, and transit ridership can increase over time.

Priority Improvements by Type

Transit Service and Facilities

- None identified

Streetscape and Pedestrian Environment

- **Calm traffic along Chandler.** While there is currently a proposal to increase the speed on Chandler Boulevard between Lankershim Boulevard and Coldwater Canyon Avenue from 35 to 45 miles per hour, traffic speeds should be reduced and traffic calming devices should be installed. Among the techniques that should be considered are: "speed feedback" signs to increase awareness of speeding; coloring the existing bicycle lanes; making crosswalks more visible and potentially using textured pavers at Laurel Canyon and other intersections; adding corner bulb-outs; and, visually narrowing the roadway by planting trees with arching canopies. Additional signalized crossings could also improve pedestrian connectivity while slowing traffic. These could be similar in design to the existing crossings at Agnes, Goodland, and Leghorn Avenues; Bellingham Avenue, midway between Laurel Canyon and Corteen Place, is one candidate for such treatment. (Note: these signals would have the greatest traffic impact if they were timed on a fixed cycle and synchronized for a slower progression; however, this would have a greater impact on Orange Line running times than pedestrian-actuation.)

- **Provide additional median refuges.** Redesign left-turn lanes on Chandler so that the Orange Line medians can be extended across crosswalks. The current "high-speed" configuration of these lanes is unnecessary, and tightening their radii would have an additional traffic-calming effect.

Bicycle Access and Parking

- **Improve connections between the Orange Line Bicycle Path and Chandler Bicycle Path**. Between the eastern end of the Orange Line Bicycle Path at Coldwater Canyon Avenue and the western end of the Chandler Bicycle Path at Vineland Avenue is a 2.6-mile segment in which Class II on-street bicycle lanes exist. It may be possible to improve these lanes, and connectivity between the off-street paths, using a combination of improved signage, wider lanes, colored pavement and "buffers" from traffic consisting of striping, and/or "soft hit" posts.
- **Implement consistent striping of the Laurel Canyon bicycle lane**. The existing Class II bicycle lane along Laurel Canyon Boulevard should be more consistently striped, and it should be extended past Oxnard, as called for in the Bicycle Plan.

Land Use and Design

- **Consider mixed-use on Laurel Canyon Boulevard.** A study should be conducted to explore how to attract mixed-use development or multi-family housing along Laurel Canyon Boulevard. This study could be a focused design study, or it could be conducted as part of a future community plan update. The goal will be to create a "village" character to the neighborhood that many Valley Village residents desire.
- **Enhance artisan and artistic support businesses.** The community expressed an interest in attracting specific artisan and artistic-support businesses to the blocks between Magnolia and Chandler along Laurel Canyon, and to blend these new businesses with the existing unique businesses in that corridor, such as the Airbrush makeup institute, Frend's Beauty Supply Store, Carter-Sexton, Metropolitan Pit Stop, Eclectic Company Theater, and Kulak's Woodshed. Specific ideas include a community theater, art gallery, hobby shop, antique shop, bike shop, used record store, and service-oriented businesses, such as a wine and cheese shop, pub, or café. The goal would be to attract businesses that would augment or complement, not threaten the existing business base.

Multimodal Access

- None identified

Automobile Parking

- None identified

NORTH HOLLYWOOD

STATION-AREA DESCRIPTION

The North Hollywood Station is located at the intersection of Tujunga Avenue and Chandler Boulevard in North Hollywood. The station is east of the North Hollywood Arts District. This station is a transfer point between the Red Line and the Orange Line and is the eastern terminus of the Orange Line system. The station area is also a location of redevelopment over the past decade.

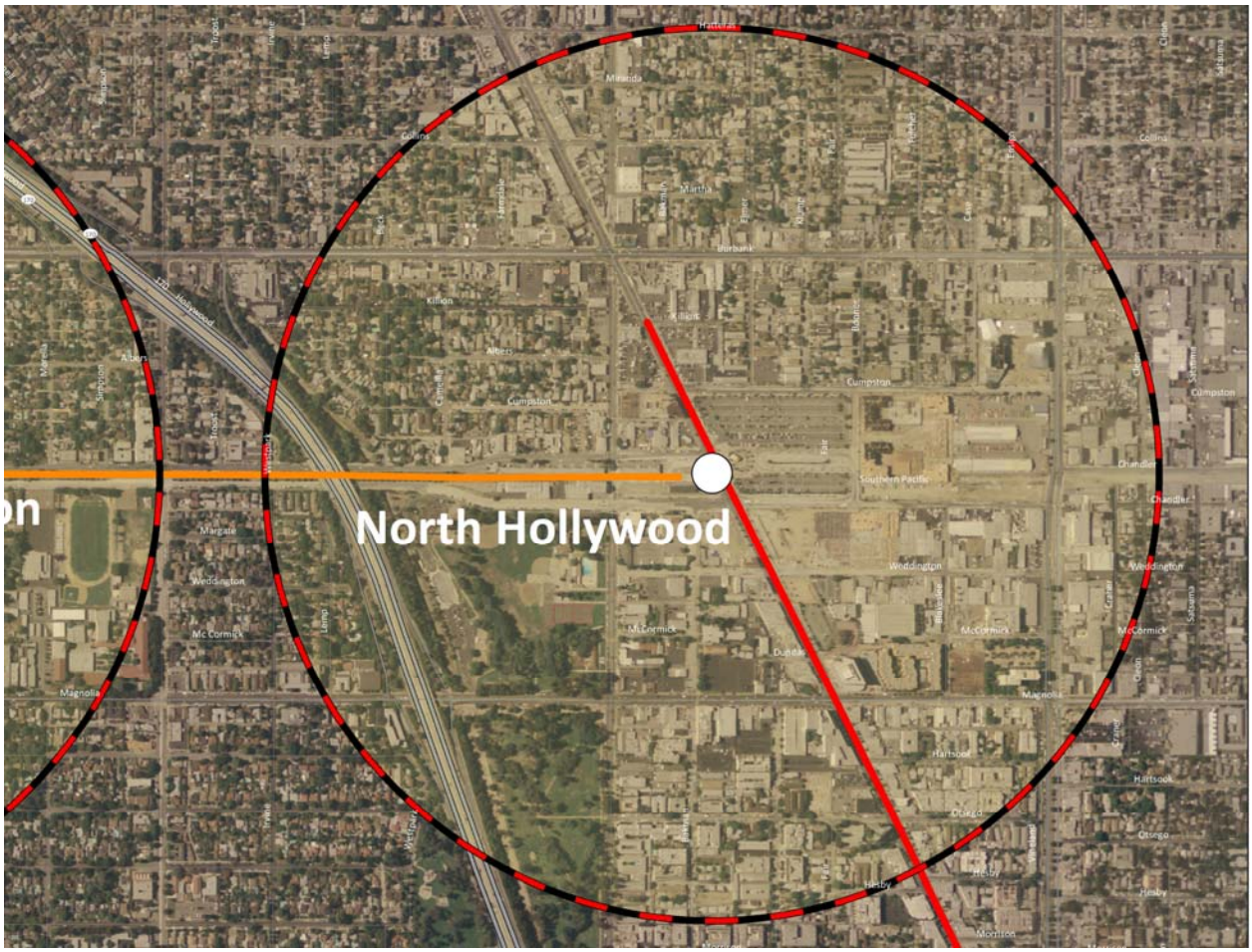


Figure 15: North Hollywood Station Area. Map shows one-half mile distance from station.

STATION-AREA INTENT

The North Hollywood station area will continue to evolve as a diverse, mixed-use, and high-intensity transit district, as currently envisioned in existing planning documents prepared by the City of Los Angeles. The transit district should be both an origin (with significant residential uses) and a destination (with office and arts and cultural uses) and the district will be one of the major activity centers along the Orange Line. Components of the vision are as follows:

- Expand the district's role as an arts and culture destination with new galleries, theaters, and creative office space;
- Expand the office uses in the area to continue the trend of being a major office destination for the San Fernando Valley;
- Continue the development of multi-family housing and mixed-use development along the major corridors in the area including Lankershim, Burbank, Vineland Tujunga, and Magnolia;
- Pursue joint development in the park and ride lot so long as replacement parking is provided with new development;
- Preserve existing residential areas and buffer these areas from the new development;
- Improve the streetscape throughout the area with street trees and pedestrian amenities, such as pedestrian-scaled lighting and benches;
- Build new small parks and plazas to provide meeting spaces and recreation areas for residents, visitors, and employees of the area; and
- Transition the roadways from auto-oriented streets to multi-modal roadways that provide safe and attractive space for all users, including bicycles, pedestrians, and transit.

Priority Improvements by Type

Transit Service and Facilities

- **Connect the Orange Line and Red Line.** Construction is planned to begin soon on a Red Line station entrance on the west side of Lankershim. If for some reason this project should not go forward, the existing at-grade crossing of Lankershim could be improved by adding bulb-outs at both ends of the crosswalk (in tandem with this, the bus stop just to the south would need to be shifted closer to the corner of Chandler's southern branch) and by eliminating the northbound left-turn lane from Lankershim onto the northern branch of Chandler and replacing it with a median island refuge for pedestrians.
- **Relocate the bus stop.** If the parcel on the northwestern corner of Lankershim and Chandler's northern branch is redeveloped, eliminate the existing curb cut and relocate the southbound Metro bus stop currently located to the south of Chandler's southern branch to this location.
- **Ensure station elevator accessibility**. Improve access for persons with mobility difficulties at North Hollywood Station elevators, which are currently obstructed and difficult to access.
- **Provide stop amenities**. As recommended at the corridor-level, all bus stops in the vicinity of Orange Line stations should provide shelters, pedestrian-scale lighting, seating, and maps and schedules. At North Hollywood, this should include the off-street bus bays to the east of the Red Line portal.
- **Improve signage and wayfinding**. It is especially important that signage directing pedestrians between transit stops be improved in the area of North Hollywood Station, a major regional hub.

Streetscape and Pedestrian Environment

- **Improve arterial pedestrian improvements**. Pedestrian volumes are relatively high in the North Hollywood station area, and there are multiple broad arterial streets along and across which pedestrian conditions could be improved. Corner bulb-outs along Lankershim within the NoHo Arts District should be a high priority (see recommendation under "Multimodal Access").
- **Install new pedestrian crossing lights**. Stop sign or signal-controlled mid-block crosswalks in arterial segments where distances between pedestrian crossings are greater than six hundred feet, such as Lankershim between Magnolia and Weddington and Magnolia at Blakeslee, should be installed.
- **Repair sidewalks**. Broken and crumbling pavement in the station area should be repaired.
- **Enhance station landscaping**. Trees and landscaping, including shade-producing canopied trees, at the station itself, should be used to enhance the experience of visitors and neighbors.
- **Improve pedestrian connections under the Hollywood Freeway**. Using wider sidewalks, lighting and other measures, pedestrian connections under the freeway should be improved.

Bicycle Access and Parking

- **Provide a bikestation/multi-mobility hub.** An enhanced facility for cyclists should be provided at this regional transportation hub. This plan makes no recommendations regarding staffing, valet parking, day-use lockers, repair and rental facilities, showers, or other elements of a bikestation; decisions on amenities should be made by Metro staff upon assessment of demand and costs. We would recommend inclusion of a carsharing pod and electric vehicle charging stations.
- **Implement recommendations from the Metro Bicycle Transportation Strategic Plan**. The plan, completed in 2006, made eighteen recommendations to stripe bike lanes and make other improvements within a fifteen hundred-foot radius of North Hollywood Station. Most of the recommended improvements are relatively low-cost – in most cases, a few thousand dollars – yet few have been made.
- **Improve connections between the Orange Line Bicycle Path and Chandler Bicycle Path**. Between the eastern end of the Orange Line Bicycle Path at Coldwater Canyon Avenue and the western end of the Chandler Bicycle Path at Vineland Avenue is a 2.6-mile segment in which Class II on-street bicycle lanes exist. It may be possible to improve these lanes, and connectivity between the off-street paths, using a combination of improved signage, wider lanes, colored pavement and "buffers" from traffic consisting of striping, and/or "soft hit" posts.

Land Use and Design

- **Increase active, transit-oriented land uses**. The station area should continue to increase the intensity and variety of transit-oriented land uses that encourage ridership and cater to riders, including jobs, housing, and active ground-floor uses such as shops and restaurants.
- **Create a coordinated specific plan for North Hollywood**. A coordinated specific plan for the North Hollywood station area should be created to expand on existing activities and develop a unified vision for the future.

Multimodal Access

- **Add Lankershim bicycle lanes and parklets**. Lankershim Boulevard is designated by the Bicycle Plan as a Backbone Network route; Class II lanes should be added if possible. In the North Hollywood Arts District, sidewalks could also be widened at corners using bulb-outs and effectively widened elsewhere using "parklets." Parklets are platforms in the parking lane, at sidewalk level, providing seating and landscaping, and often tables; they are typically built and maintained by adjacent merchants. In San Francisco, where they have become relatively common, they are regulated to ensure that they are available for public use, and are not just for restaurant or cafe patrons. While fees are charged, San Francisco's program does not require that lost meter revenues be reimbursed, recognizing parklets as a contribution to the public realm. Southern California's first parklet debuted in Long Beach in January, and parklets are planned in Downtown Los Angeles.

- **Use parking revenues to improve access**. Current Metro policy allows fees to be charged only for reserved spaces in its parking lots, and caps the number of spaces that can be reserved, or for which a fee can be charged. This limits the agency's ability to manage its parking supply, and incentivizes driving to stations rather than using connecting Metro service or other modes (this is exacerbated by Metro's fare policy, which charges for each boarding rather than providing free or low-cost transfers). It also reduces the revenue available for improvements to access such as those recommended throughout this document. Among Orange Line station lots, only North Hollywood suffers from low availability. If policy were amended, it might be desirable to charge a nominal fee for unreserved parking here, to monitor occupancy, and to then adjust the fee as necessary to ensure availability of 10 or 15 percent. Alternately, the number of reserved/paid spaces could be increased. In either case, revenues from parking should ideally be used to fund improvements to access at that station, including both the improvements recommended here as well as the improvements recommended by the Metro Bicycle Transportation Strategic Plan in 2006.

Automobile Parking

- **Develop a parking management plan**. A comprehensive parking plan for the North Hollywood station area should be developed that jointly manages all public parking in the area, both at the station and curbside on surrounding streets (including permit and zone parking), replaces the existing surface parking at the station with structured parking as part of joint development (ideally, station and development parking should be shared, and the amount of patron parking provided may be reduced from existing levels depending on existing as well as projected future demand, thereby making available additional space for revenue-generating housing or commercial uses), and explores shared parking opportunities on nearby properties. This may require implementation of a MPR district (see corridor-level recommendations). This plan should focus on restricting "spillover" impacts from station patron parking in the surrounding area and may include demand management strategies

CHAPTER 5: MOVING FORWARD

This chapter describes who is responsible for different activities or investments that need to occur, where to seek funding for these strategies, and where to start.

RESPONSIBLE ACTORS

Public agencies and organizations in the land use planning, transportation, housing, and development fields all have some responsibility for implementation of the plan activities identified above. Table 2 shows the activities for which each actor typically takes primary responsibility, or plays a support role.

Table 2: Public and Private Agencies and General Responsibilities

Agency	General Responsibilities
Public	
City of Los Angeles Department of City Planning	Lead land use planning and visioning efforts.
City of Los Angeles Department of Transportation	Lead planning and investments related to transit services, bicycle, pedestrian, and street improvements.
City of Los Angeles Housing Department	Monitor existing income-restricted housing stock, support development of new housing for low-income residents.
Los Angeles Unified School District	Provide support role to offering transportation choices for students, teachers and staff as appropriate.
Los Angeles Community College District	Provide support role to offering transportation choices for students, teachers and staff.
Los Angeles County Metropolitan Transportation Authority	Lead transit improvements and joint development projects as appropriate. Support other transportation projects in partnership with city. Support land use efforts in station areas.
Los Angeles County Department of Public Health	Support land use, development, transportation, open space, and amenity improvements that benefit the health of County residents.
Private	
Business / Neighborhood Associations	Support land use visioning and planning, transportation improvement efforts. Advocate for broader support of efforts that might benefit business or neighborhood districts. Lead programs such as wayfinding, marketing, programs such as farmer's markets. Support broader use of transportation choices by employers, workers, local residents.
Developers (Market Rate)	Engage in land use planning and visioning efforts, work with Metro on Joint Development projects as appropriate, develop projects supporting land use vision and TOD principles, offer tenants incentives to use transportation choices.
Developers (Affordable)	Engage in land use planning and visioning efforts, work with Metro on Joint Development projects as appropriate, develop projects supporting land use vision and TOD principles, offer tenants incentives to use transportation choices.
Community Development Financial Institutions	Support development and preservation of affordable housing and community supportive uses for low income residents and workers, through financing mechanisms and technical assistance.

Table 3 shows the recommendations for each topic area and each actor that typically takes primary responsibility or plays a support role to other lead actors. The activities correspond with the list of activities described in Chapter 3.

Table 3: Corridor-Level Recommendations and Public and Private Agency Responsibilities

Improvement	Public						Private		
	City of Los Angeles			Other Public Agencies					
	Department of City Planning	Department of Transportation	Housing Department	Los Angeles County Metropolitan Transportation Authority	Los Angeles Unified School District	Los Angeles Community College District	Businesses / Neighborhood Associations and Councils	Developers (Market Rate)	Community Development Financial Institutions
Transit									
Expand Orange Line capacity and improve travel time		○		●					
Improve connections to Burbank Airport, Downtown Burbank and Pasadena		○		●					
Improve speed, reliability and frequency of north-south transit service		○		●					
Ensure consistent, high-quality amenities at nearby connecting bus stops		○		●					
Institute employer and college incentives				●	●	●	●	●	
Create a Metro-wide mode "access hierarchy" policy				●					
Land Use and Development									
Create policy to target funding to stations with the greatest capacity to change	●	●	●	●					
Create programs and activities to enhance the identity of the Orange Line	●			●			○		
Enhance destinations along the corridor	●			○	○	○	○	○	
Create TOD design guidelines	●			●					
Create TOD-supportive development incentives	●			○				○	○
Implement existing land use and specific plans	●	○	○				○	○	○
Create new specific plans or updated Community Plans	●	○	○				○	○	○

Primary Responsibility ●

Support Role ○

Improvement	Public						Private		
	City of Los Angeles			Other Public Agencies					
	Department of City Planning	Department of Transportation	Housing Department	Los Angeles County Metropolitan Transportation Authority	Los Angeles Unified School District	Los Angeles Community College District	Businesses / Neighborhood Associations and Councils	Developers (Market Rate)	Community Development Financial Institutions
Revisit City's industrial land policy	●						○	○	
Pursue joint development of Metro property at Orange Line stations	○			●				○	○
Pursue workforce and affordable housing			●	○				○	●
Create "modified parking requirement" (MPR) districts	●			●					
Pedestrian Environment and Access									
Complete pedestrian and streetscape planning around each Orange Line station		●		○					
Improve pedestrian wait and crossing times		●		○					
Improve signage	○	●		●			○		
Construct parks and plazas	●			○				●	
Bicycle Environment and Access									
Complete bicycle access planning around each Orange Line station		●		○					
Make targeted improvements to the Orange Line bicycle path				●					
Add Class II lanes on station-area arterials		●							
Create more bicycle-friendly neighborhood streets		●							
Eliminate bicycle-unfriendly storm drain covers		●							
Increase carrying capacity on buses				●					
Expand bicycle parking and improve safety at stations		○		●					

Primary Responsibility ●

Support Role ○

FUNDING AND FINANCING

There are a variety of federal, state, regional/county, and local funding mechanisms available to support implementation of the activities outlined in previous chapters. Grant programs from public agencies, however, regularly change or expire over time and therefore this chapter does not provide significant detail on individual grant programs. However, further detail on these programs can be gathered from a variety of sources and come from a specific set of public agencies or organizations including the following.

FEDERAL

- **Department of Transportation (DOT):** The Federal Highways Administration (FHWA) and the Federal Transit Administration (FTA) administer a range of grant programs that could be instrumental sources of funding for the Orange Line BRT Sustainable Corridor Implementation Plan. FHWA also maintains an office in Los Angeles that can provide information on grant opportunities. Current relevant funding activities include:
    - FTA Small Starts and New Starts (transit);
    - FTA Bus Livability Initiative (transit, bus facilities, intermodal transfers);
    - FTA Discretionary Bus and Bus Facilities: State of Good Repair (transit, bus facilities, intermodal transfers);
    - FHWA Transportation, Community, and System Preservation (planning, transit, bus facilities, pedestrian and bicycle facilities); and
    - Transportation Improvements Generating Economic Recovery (TIGER) (large-scale transit infrastructure improvements).
- **Department of Housing and Urban Development (HUD):** The federal Partnership for Sustainable Communities is currently administered by the HUD Office of Sustainable Communities. This Office may continue to function as a clearinghouse for grant opportunities from HUD, DOT, and the Environmental Protection Agency. Additionally, a range of HUD grants will be available for affordable housing production and preservation. HUD maintains an office in Los Angeles that can provide information on grant opportunities. Current relevant funding activities include:
    - Building Neighborhood Capacity Program Training and Technical Assistance (land use);
    - Capacity Building for Community Development and Affordable Housing (affordable housing); and
    - Affordable Housing Finance: Project-Based Section 8, Section 202 (elderly housing), Section 811 (disability housing).

- **Environmental Protection Agency (EPA).** While EPA does not generally provide significant grants for infrastructure improvements, its Brownfields and Smart Growth Implementation Assistance Programs may offer grant opportunities for eligible projects. Current activities include:
    - Brownfields Assessment Grant Program (land use);
    - Brownfield Economic Development Initiative (land use planning, job creation);
    - Brownfields and Lands Revitalization (land use planning and cleanup);
    - Smart Growth Technical Assistance (planning); and
    - Building Blocks for Sustainable Communities (planning).
- **Department of the Treasury.** The Department of the Treasury administers a number of tax credit programs that can be used for specific development-related activities. These, however, are typically regulated and allocated by other local agencies or organizations. Current relevant funding activities include:
    - Low Income Housing Tax Credits (California Housing Finance Agency); and
    - New Markets Tax Credits (CDFIs: Enterprise Community Partners and Low Income Investment Fund).
- **Other Agencies.** Recently the Center for Disease Control (CDC), the United States Department of Agriculture (USDA), the Economic Development Administration (EDA), and the Small Business Administration have offered programs or grants that address specific issues related to sustainability. Current relevant funding activities include:
    - USDA Healthy Food Financing Initiative;
    - EDA Planning and Local Technical Assistance Programs for Innovation-Based Economic Development Efforts (job creation); and
    - Small Business Innovation Research Program (job creation).

For further information and an updated list of federal grant opportunities, please consult with regional offices for the above agencies or visit http://www.reconnectingamerica.org/resource-center/federal-grant-opportunities/.

STATE

- **Department of Transportation (CalTrans).** CalTrans administers a number of planning and transportation infrastructure programs. Examples of these planning programs are listed below. Transportation infrastructure programs are typically coordinated with the Southern California Association of Governments (SCAG), or Metro, through the Long Range Transportation Plan. CalTrans, however, administers several programs that could be used to fund bicycle or pedestrian improvements. Current relevant funding activities include:
    - Bicycle Transportation Account (bicycle facilities);

    - Community Based Transportation Planning Grants (transit, pedestrian, bicycle, streets);
    - Environmental Justice Grants;
    - Highway Safety Improvements Program; and
    - Safe Routes to School.

- **Housing and Community Development (HCD).** HCD administers a number of programs supporting land use planning, transit-oriented development, and affordable housing preservation and production. Many of these programs have been funded by propositions or other legislation with an expiring time frame, but similar programs may exist in the future. Current relevant funding activities include:
    - Infill Infrastructure Grant Program;
    - Predevelopment Loan Program; and
    - Proposition 1c TOD Housing Program (now expired).

- **Strategic Growth Council.** Created by Senate Bill 732 (SB 732), the Strategic Growth Council administers several infrastructure and planning grants funded through Proposition 84 bonds. While the majority of the bond allocation has been committed to projects, there may be other funding sources administered by the Strategic Growth Council in the future. Current relevant funding activities include:
    - Proposition 84 Sustainable Communities Planning Grant Program (land use planning);
    - Proposition 84 Urban Greening Planning Grant Program (parks, open space, other greening); and
    - Proposition 84 Urban Greening Projects Grant Program (parks, open space, other greening).

- **Infrastructure and Economic Development Bank.** The State Infrastructure and Economic Development Bank provides revolving loan funds and bonds for infrastructure projects within the State of California. As they provide loans and not grants, some local revenue streams must be in place to take advantage of these programs. Current relevant funding activities include:
    - Infrastructure State Revolving Fund Program;
    - Industrial Development Revenue Bond Program (for upgrading of manufacturing facilities) (streets, transit facilities).

Regional and County

- **Southern California Association of Governments (SCAG).** As the region's Metropolitan Planning Organization (MPO), SCAG is responsible for developing the regional transportation plan, which prioritizes infrastructure investments. Additionally, SCAG leads a number of sustainability-related efforts and is responsible for implementation of SB 375. Current relevant funding activities include:

    - Compass Blueprint Demonstration Projects (planning).

- **Los Angeles County Metropolitan Transportation Authority (Metro).** In addition to managing local transportation funding, Metro allocates federal Surface Transportation Program (STP) and Congestion Management and Air Quality (CMAQ) funds to transportation-related planning, operations, and infrastructure. Current relevant funding activities include:
    - Call for Projects (transit, streets, pedestrian and bicycle facilities and operations); and
    - Transit Oriented Development Planning Grants (regulatory changes such as revision to general plans and/or specific plans).

LOCAL

Local funding mechanisms exist to fund planning, affordable housing, development, streetscape, pedestrian, bicycle, and other infrastructure improvements. The majority of City managed funding programs, such as the general fund, Community Development Block Grants (CDBG), and other sources, however, are highly constrained, particularly in this current time period. A number of other local funding mechanisms rely on the creation of districts that generate revenue from local businesses, property owners, or new development. These include Infrastructure Finance Districts (also known as "Mello Roos" districts), other types of assessment districts, impact fees on new development, business improvement districts, and property-based business improvement districts (PBIDs). Some of these types of districts already exist along the Orange line. For example, developers in the Warner Center Specific Plan Area pay a transportation impact fee based on the number of new auto trips that their development is expected to generate. Funds from this fee are devoted to transportation demand management programs and have been used to fund the Warner Center Specific Plan study that is currently underway. There is also some expectation that, with the dissolution of redevelopment agencies in California, the state legislature will pass a new law to allow for the use of tax increment financing districts in other ways.

These types of local financing mechanisms can be used for a number of activities described in this plan. However, some of these mechanisms, such as impact fees and Infrastructure Finance Districts, will only generate significant revenue in areas expected to accommodate new development. Therefore, those station areas that envision significant land use change should undergo specific planning or other land use planning efforts prior to implementation of any of these mechanisms. Some of the possible uses of these mechanisms include:

- Impact Fees, Assessment Districts, Infrastructure Finance Districts: streets, pedestrian and bicycle facilities, transit improvements, other infrastructure, transportation demand management (TDM), and affordable housing
- Business Improvement Districts / Property-Based Business Improvement Districts: wayfinding and signage, TDM, business façade improvements, business attraction

Additionally, a number of local funding and financing programs exist to support the development of affordable housing. Again, these sources are severely constrained, and are often packaged with other

affordable housing funding sources. The City of Los Angeles Housing Department administers these local sources. Current relevant funding activities include:

- Affordable Housing Bond Program;
- Affordable Housing Trust Fund; and
- New Generation Fund.

NEXT STEPS

While implementation of some of the activities identified in this report will require stronger political support than currently exists, other activities can be readily implemented, resulting in immediate, additional contributions of the Orange Line corridor to regional sustainability goals. Recommended short-term next steps are described below. These activities have been prioritized for a number of different reasons including:

- **Political feasibility**. These investments or activities have widespread support, based on the outreach completed for this plan.
- **Opportunity.** Investments or activities take advantage of a short-term opportunity (i.e. a funding source that might disappear later), or an opportunity that may not exist in the longer term due to changing circumstances (i.e. land that is available today that may be developed tomorrow).
- **Cost versus benefit.** If relatively low cost or low effort investments can potentially result in significant sustainability-related outcomes for the station area or corridor, these investments might be a higher priority.
- **Addressing existing or potential high performers first.** Station areas with high ridership or transit mode share may be prioritized first for investments that can maintain and enhance this ridership. Similarly, station areas may be prioritized if they are designated for significant change that can enhance sustainability outcomes (for example, in terms of development or new transit service).

The following are the immediate next steps that should be implemented as a result of this study:

1. **Address Orange Line capacity situation.** As is discussed earlier, the Orange Line is nearing capacity and ridership is expected to increase over time through mode shifts and the opening of the extension to Canoga. A critical first step in the continual improvement of the Orange Line is to address the expected capacity issues in the future. Given the long time frame to implement most of the potential capacity improvements, it is critical that a plan be developed in the near future for how this will occur.
2. **Improve North/South transit service and facilities.** Many Orange Line riders, access the Orange Line via connecting transit service. Thus, improving the quality of connecting service is critical to

the continued expansion of ridership. Immediate next steps include finalizing plans for new Metro Rapid service and improving bus facilities and stops near the Orange Line stations.

3. **Improve pedestrian environment around Orange Line stations.** There are a number of relatively low-cost pedestrian improvements identified in this report that could improve pedestrian safety around the Orange Line stations. These include modifying pedestrian signal timing and making improvements to crosswalks, particularly crosswalks that provide connections between Orange Line platforms and nearby bus stops. In the immediate future, the existing 35 mph speed limit on Chandler Boulevard should not be increased to 45 mph.
4. **Adopt the Warner Center Specific Plan Update.** The City is nearly complete in its adoption of the updated Warner Center Specific Plan. This will allow for greater intensification and pedestrian orientation of the Warner Center, which will offer more transportation choices to local residents and workers and strengthen the role of Warner Center as a destination on the corridor.
5. **Develop station-area plans for Sepulveda, Reseda, Van Nuys, North Hollywood Stations.** The market momentum already experienced in North Hollywood may face a stumbling block with the dissolution of CRA/LA. A station area plan for the North Hollywood area can solidify the vision of North Hollywood as a more intensive growth center. Likewise, opportunities created in the Van Nuys, Reseda and Sepulveda station areas through significant development potential, local support for growth and change, and planned Measure R North-South Rapid Bus improvements could be leveraged with a station area plan. The City of Los Angeles, with funding from Metro or other sources, should prepare specific plans or zoning updates within the next three years in order to leverage the next development cycle.
6. **Continue Joint Development opportunities.** Metro should continue its efforts on joint development at stations along the Orange Line corridor with a particular emphasis on North Hollywood and Sepulveda.
7. **Conduct detailed pedestrian access studies for one-half mile around key stations.** While this study identified a number of specific improvements around the Orange Line stations, a focused and detailed study should be conducted at all Orange Line stations, with a particular emphasis on several stations: Reseda, Van Nuys, Sepulveda, Laurel Canyon and North Hollywood. Once identified, the City and Metro should package the recommended pedestrian access improvements and seek federal and state funding for a package of improvements.
8. **Conduct detailed bicycle access studies for up to 3 miles around key stations.** This study identified a number of bicycle-related improvements around the Orange Line, however a detailed, thorough study is needed to identify the specific bicycle improvements needed around each station. These studies should build on the City of Los Angeles Bicycle Plan and other efforts. Once identified, the City and Metro should package the recommended bicycle network improvements and seek federal funding for a package of improvements.
9. **Apply for a Federal Bus Livability or State of Good Repair Grant for Improved Intermodal Transfers with North-South Rapid Buses.** Submit a combined grant application for improved bus

stops, crossings, and signalization at key north-south bus transfers such as Reseda, Sepulveda, and Van Nuys. This implementation plan provides support for such an application, and the grouping of multiple station areas into a single application results in efficiencies in securing grant funding.

10. **Expand bicycle parking at key stations.** Many Orange Line riders today access the stations on bicycle, but each bus can accommodate just three bikes, and parkingat some stations is limited. Expanding bicycle capacity is a cost-effective strategy for improving access to the Orange Line.

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APPENDIX A

RELEVANT POLICY DOCUMENTS AND IMPLEMENTATION ACTIVITY

RELEVANT POLICY DOCUMENTS AND IMPLEMENTATION ACTIVITY

1 INTRODUCTION

This section provides an overview of the policy documents and implementation actions relevant to the Orange Line BRT Sustainable Corridor Implementation Plan (CIP). It is organized by two topics: Land Use Policy and Transportation Policy. Each section includes a short description of the following documents and planned improvements. A list of the relevant policy and implementation documents is below.

- **Land Use Policy**
  - L.A. County General Plan and Zoning
  - Framework of Sustainable Transit Communities
  - Los Angeles Sustainable Transit Communities Initiative Market Report
  - Warner Center Regional Core Comprehensive Specific Plan
  - Tarzana Crossing Transit Oriented Development Study
  - Canoga Connect Transit-Oriented Development Study
  - City of Los Angeles Industrial Land Use Policy
  - Van Nuys Central Business District Community Design Overlay District and Streetscape Plan
  - Los Angeles Valley College Facilities Master Plan and EIR
  - Los Angeles Pierce College Facilities Master Plan and EIR
  - Metro Orange Line Sepulveda Station: Transit-Oriented Development Capstone Studio
  - Sustainable Communities Planning Framework
  - SCAG RTP/SCS Recommended Performance Measurement Framework Memo
  - Los Angeles River Revitalization Master Plan
  - Joint Development Policies and Procedures
  - North Hollywood Joint Development and Design for Development
  - Sepulveda Station Joint Development
  - Victory and Balboa Joint Development
- **Transportation Policy**
  - Transportation Strategic Plan
  - Metro Orange Line Mode Shift Study and Greenhouse Gas Emissions Analysis
  - City of Los Angeles Bike Plan
  - Van Nuys Metro Orange Line Busway Station Non-motorized Access Plan
  - Vehicle Parking Standards
  - Bicycle Parking Ordinance
  - Vehicular and Multi-modal LOS Policy
  - Tri-City Express Bus Study
  - East San Fernando Valley Rapidways Project

2 LAND USE POLICY

ORANGE LINE BRT SUSTAINABLE CORRIDOR IMPLEMENTATION PLAN

Status: In Progress

In Spring 2011, the Los Angeles County Metropolitan Transportation Authority (Metro), in partnership with the City of Los Angeles, was awarded a grant from the Southern California Association of Governments (SCAG) to prepare the Orange Line BRT Sustainable Corridor Implementation Plan, for which this existing conditions report provides background. Metro, City of Los Angeles and SCAG have retained Raimi + Associates and its consultant team of the Center for Transit Oriented Development and Nelson\Nygaard to assist with the planning effort.

L.A. COUNTY GENERAL PLAN AND ZONING

Status: Adopted 1995, Re-adopted 2001

The General Plan is the guiding policy document for the City of Los Angeles and, as required by State law, it covers a number of topics including land use, transportation, open space and housing. Due to its size, the City of Los Angeles created a very broad Citywide General Plan (which was adopted in 1995 and readopted in 2001) and then is implementing the vision and policy of the General Plan through 35 Community Plans. At the core of the General Plan is the General Plan Framework Element. This Element is a long-range, citywide, comprehensive growth strategy that sets a citywide context to guide the update of the community plan and citywide elements. The strategy framework does not include specific land use designations but rather provides the overall direction for land use change in the City if and when growth occurs.

The General Plan Framework sets forth a conceptual relationship between land use and transportation on a citywide basis and defines new land use categories which better describe the character and function of the city as it has evolved over time. The new categories - Neighborhood District, Community Center, Regional Center, Downtown Center and Mixed Use Boulevards - are broadly described (with ranges of intensity/density, heights and lists of typical uses) and generally shown on a long range land use diagram. Because it is citywide, the Framework cannot anticipate every detail. Therefore, the community plans must be looked to for final determinations as to boundaries, land use categories, intensities and heights that fall within the ranges described by the Framework.

The Orange Line study area is located in the San Fernando Region of the City of Los Angeles. The study area falls within numerous Community Plan areas as follows:

- North Hollywood/Valley Village – Covers the North Hollywood and Laurel Canyon station areas.
- Van Nuys/North Sherman Oaks – Covers the Valley College, Woodman, Van Nuys Sepulveda station areas
- Encino/Tarzana - Covers the southern half (the south side of the Orange Line) of the Woodley, Balboa, Reseda and Tampa Stations
- Reseda/West Van Nuys - Covers the northern half (the north side of the Orange Line) of the Woodley, Balboa, Reseda and Tampa station areas
- Canoga Park, Winnetka, Woodland Hills – Covers the Pierce College, De Soto, Canoga and Warner Center station areas.

Thus, land use and policy guidance for the Orange Line will be guided by multiple policy documents and some station areas - Woodley, Balboa, Reseda and Tampa – are guided by two Community Plans.

Overall, the General Plan Framework is supportive of the creation of transit oriented districts as it identifies the need to create dense, vibrant and mixed use areas of the City. In particular, the General Plan Framework identifies a range of proposed locations for districts, centers and mixed use boulevards. A review of the Long Range Land use Diagrams show that North Hollywood, part of Van Nuys, De Soto, Canoga and Warner Center, are all identified as “Regional Centers.” These areas are focal points for commerce, identity and activity that contain a diversity of uses and have FARs of between 1.5 and 6.0. The Laurel Canyon station area is identified as a “community center.” These areas are focal points for surrounding residential neighborhoods and contain small offices, schools and neighborhood-oriented services. The FAR in these areas is in the range of 1.5 to 3.0. The southern part of the Van Nuys station is identified as a mixed use boulevard, locations where mixed use development – residential and office above retail – is encouraged in buildings ranging from 2 to 6 stories. All other station areas are not categorized as “Districts,” “Centers” or “Mixed Use Boulevards” and are expected to maintain their current density and mix of uses.

At present, Community Plans have not been developed for the 5 community areas that fall within the Orange Line study area. There are, however, more detailed land use maps that identify the density and intensity of each parcel of land. These are similar to (and derived from) the City’s zoning code.

FRAMEWORK OF SUSTAINABLE TRANSIT COMMUNITIES

Status: Completed November 2010, with Scorecard finalized March 2011

The Framework of Sustainable Transit Communities was a project for the City of Los Angeles with funding from the Southern California Association of Governments' Compass Blueprint Program. It describes the key principles for creating "Sustainable Transit Communities" in Los Angeles and how this may be accomplished through land use and transportation planning efforts, public improvements and infrastructure projects, private development, and/or public/private partnerships. The project's Scorecard Analysis Summary, finalized in March of 2011, assesses all 49 stations and on all lines within the Metro system – the Blue, Red, Green, Purple, Gold, Orange, and Expo Lines. It includes both a Development Potential Analysis – which identifies if there are suitable sites for future development – and a transit "readiness analysis," which evaluates existing strengths and weaknesses for transit at each station. Within the system's 49 total stations, the Scorecard Analysis gives the following rankings for Development Potential for the 13 Orange Line Stations:

- Warner Center (#3)
- Canoga (#8)
- De Soto (#12)
- Sepulveda (#22)
- Van Nuys (#23)
- North Hollywood (#29)
- Reseda (#32)
- Tampa (#34)
- Pierce College (#37)
- Balboa (#40)
- Valley College (#41)
- Woodley (#42)
- Woodman (#43)
- Laurel Canyon (#46)

Only the top 22 stations for Development potential – which included just Warner Center, Canoga, De Soto, and Sepulveda – were analyzed for their readiness to become a "Sustainable Transit Community." This included analysis of strengths and weaknesses in the following categories: housing, employment, everyday uses, attractions, market outlook, urban form, pedestrian-oriented architecture, walkability, public transit, bicycles, vehicles, and sustainability. According to these criteria, the Orange Line's final rankings system-wide for readiness to become a Sustainable Transit Community were as follows:

- Warner Center (#10)
- Canoga (#12)
- De Soto (#15)
- Van Nuys (#16)
- Sepulveda (#17)

In connection with the Framework of Sustainable Transit Communities project, there is a May 31, 2011 memorandum to the Office of the Mayor outlining "Financing and Funding Opportunities for Sustainable Transit Communities," including "Priority Funding Sources" that are the most likely to apply to sustainable transit projects.

LOS ANGELES SUSTAINABLE TRANSIT COMMUNITIES INITIATIVE MARKET REPORT

Status: Completed October 2010

Bay Area Economics conducted this study on behalf of the Mayor's Office of the City of Los Angeles and in coordination with the Framework of Sustainable Transit Communities project. The results formed the basis of the economic evaluation criteria in the Sustainable Transit Community scorecard. The study identifies which station areas would benefit from public action to catalyze short-term private transit-oriented development. The analysis in this report uses demographic and economic data to assess each station area's existing market conditions and market readiness for residential, commercial, or mixed-use transit-oriented development.

WARNER CENTER REGIONAL CORE COMPREHENSIVE SPECIFIC PLAN

Status: June 1993 original adoption, last update adopted December 2005, current update targeted towards July 2012 adoption

The original Warner Center Specific Plan was adopted in June 1993. It has been amended multiple times, with the more recent amendment being adopted in December of 2005. An update has been underway since 2006, and upon adoption will receive a new name – until then, the working document's placeholder name is the Warner Center Regional Core Comprehensive Specific Plan. The update is directed by a citizen's advisory committee called the Warner Center CACA and adoption is targeted towards July 2012. The update will focus on the area's role as a Transit-Oriented District and is intended to both provide developers with certainty about what is permitted, and provide the community that appropriate community benefit will be provided.

The likely plan area of the Specific Plan, shown in Figure 3-1, will roughly be bounded by the Los Angeles River to the north, De Soto Avenue to the east, Highway 101 to the south, and Topanga Canyon Road to the west. The Warner Center, Canoga, and De Soto Stations are all located within this likely plan area for the updated Warner Ceneter Regional Core Comprehensive Specific Plan.

The initial draft of the Specific Plan Update, released in August 2011, includes development standards, identification of planned open space and activity nodes, proposed development incentives and bonuses, requirements for mobility and parking, urban design standards, directives for treatment of industrial land, implementation actions, and other guidance for future development in the area.

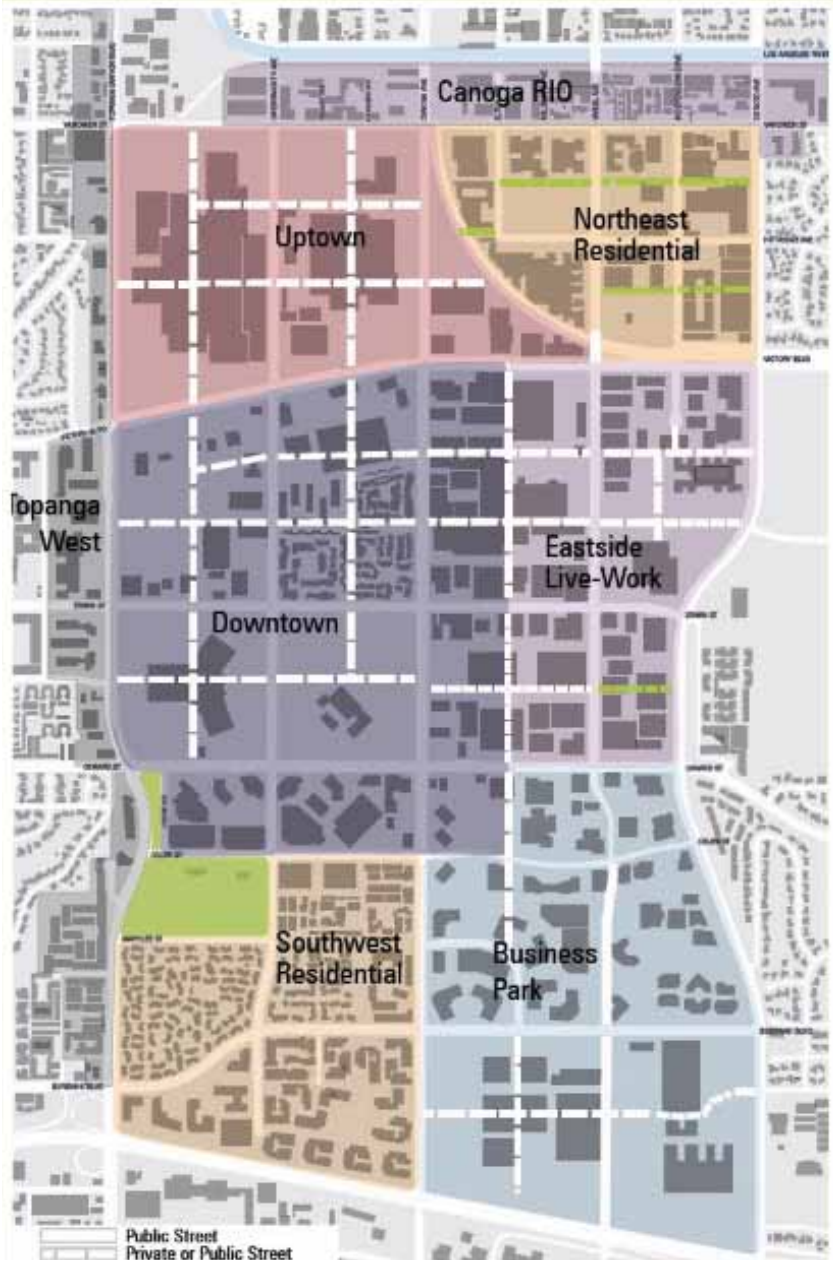


Figure 3-1: Warner Center Regiional Core Comprehensive Specific Plan

TARZANA CROSSING TRANSIT ORIENTED DEVELOPMENT STUDY

Status: Completed June 2010

The Tarzana Crossing Transit Oriented Development Study encompasses potential change areas within ¼ mile of the Reseda Orange Line BRT Station at Reseda Boulevard and Oxnard Street. It includes an evaluation of opportunities and constraints for development, as well as possible development prototypes, for the following specific opportunity sites near the station:

- Oxnard and Reseda Southeast Corner
- Former Unilab Site
- Tarzana Industrial Development
- Oxnard and Etiwanda
- Alley Network Adjacent to Industrial Uses
- Columbia College and Red Barn Feed
- Tarzana Treatment Center
- West of Oxnard and Yolanda

The Tarzana Crossing TOD Study also provides suggestions for open space and connectivity, parking strategies, a visual preference study, and market analysis for the entire study area.

CANOGA CONNECT TRANSIT-ORIENTED DEVELOPMENT STUDY

Status: Completed 2010

The Canoga Connect Transit-oriented Development Study was conducted in 2010 by the City of Los Angeles Planning Department, with funding from the SCAG Compass Blueprint program, on an area just north of the planning area for this Orange Line BRT Sustainable Corridor Implementation study. The Canoga Connect study is centered around the intersection of Canoga and Sherman Way, which is planned by METRO as a station along the future Orange Line extension that will run north up Canoga. The full project area is bounded by Valerio Street on the north, Variel Avenue on the east, Bassett Street to the south, and Owensmouth Avenue to the west. The Canoga Connect TOD study identifies multi-modal street improvements, areas to focus retail and pedestrian activity, and other public space improvements intended to support a high-performing BRT stop. Canoga Connect was completed within the context of the 2008 Canoga Transportation Corridor Study, which proposed extending the Orange Line north along Canoga to a termination near Lassen Street.

CITY OF LOS ANGELES INDUSTRIAL LAND USE POLICY

Status: Existing Policy

The City of Los Angeles has a general standing policy to retain industrial land for job producing uses and economic development. This has been established in the General Plan Framework and Community Plans, and reinforced in several Redevelopment Plans. In November 2006, the City released conclusions from an Industrial Land Use Policy (ILUP) Project to re-evaluate the viability of the City's industrial districts and prioritize areas for continued preservation. Conclusions are described in a January 3, 2008 staff Memorandum entitled "Staff Direction Regarding Industrial Land Use and Potential Conversion to Residential or Other Uses." Informed by the ILUP Project, the City has identified the following seven areas as priorities for industrial land preservation:

- Central City – Alameda
- Central City – Downtown
- Boyle Heights
- Southeast Los Angeles
- Central City North-Chinatown
- West Los Angeles
- Hollywood-Wilshire

None of these priority areas is within the study area for the Orange Line BRT

Sustainable Corridor Implementation Plan, and the nearest is Hollywood-Wilshire, across the Hollywood Hills about three miles to the south of the Orange Line. At the same time, the general, city-wide prioritization of industrial land preservation remains an important consideration for future development within the Orange Line BRT Sustainable Corridor Implementation Plan project area.

VAN NUYS CENTRAL BUSINESS DISTRICT COMMUNITY DESIGN OVERLAY DISTRICT AND STREETSCAPE PLAN

In 2001, the City of Los Angeles adopted design guidelines and standards for the portion of Van Nuys Boulevard from the Orange Line station (at Calvert Street) north to Vanowen Street. The document guides the development of commercial properties so that new projects are sensitive to the character and history of the district while allowing for design creativity. Overall the purpose of the plan is to preserve and enhance the pedestrian-friendly and small scale retail and commercial street environment. The document identifies three main themes:

- Consistency. By designing new buildings with no side yards and buildings to the lot line, parking lots located at the rear of parcels to create a pedestrian friendly character and building entrances oriented to the right of way.
- Safety. Implementing lighting and physical improvements to increase the safety of the area
- Simplicity. Creating simple yet well designed signs, facades and landscaping.

Specific uses and design standards are not in this plan but rather in the Community Plan. Complementing the Design Overlay District is a streetscape plan for the corridor that identifies street trees, crossings and sidewalk conditions that reinforce the pedestrian-oriented character of the street.

LOS ANGELES VALLEY COLLEGE FACILITIES MASTER PLAN AND EIR

Status: Adopted 2002, Updated 2003, Updated December 2010

Los Angeles Valley College is a 2-year public college, one of nine within the Los Angeles Community College District. It is located on 105 acres directly northeast of the Valley College Orange Line Station, bounded by Fulton Avenue on the west and Burbank Boulevard on the south. Campus development since 2002 has been guided by the Los Angeles Valley College Facilities Master Plan, which was updated in 2003 and again in 2010. The Master Plan has the following general goals:

- Providing a high-quality learning environment and campus life
- Stimulating community and economic development and cultural events
- Maintaining a park-like quality
- Integrating sustainable design
- Accommodating a diverse college population with a variety of gathering spaces
- Strengthening the college's identity by improving the campus' edges and wayfinding
- Linking disjointed areas through landscaping and visual axes

LOS ANGELES PIERCE COLLEGE FACILITIES MASTER PLAN AND EIR

Status: Adopted December 2002, Updated 2010

Los Angeles Pierce College is a 2-year public college, one of nine within the Los Angeles Community College District. It is located on 426 acres south of Victory Boulevard between De Soto and Winnetka Avenues – directly southeast of the De Soto Orange Line Station and directly southwest of the Pierce College Orange Line Station. More than half of the campus – 226 acres spanning the west side of campus – is a working and teaching farm featuring an equestrian center and livestock.

The Los Angeles Pierce County Master Plan has guided campus development since its environmental review and adoption in December 2002. The Master Plan was drafted in order to maintain the college's agricultural integrity and focus while providing new and modernized facilities for anticipated student enrollment of 22,800 in a target year of 2010. It is undetermined how much of the entire master plan has been implemented as of September 2011.

METRO ORANGE LINE SEPULVEDA STATION: TRANSIT ORIENTED DEVELOPMENT CAPSTONE STUDIO

Status: Completed Spring 2010

This study, which was conducted by students in UCLA's Master in Urban Planning program, presents a development proposal for the Orange Line Sepulveda station based on a market analysis and existing conditions at the site. Recommendations for future development of the site include development that is in scale with the existing community, prioritizing access between development and Sepulveda Boulevard, programming site development in response to the community's need, minimizing traffic on Erwin Street, and designing with an aim to encourage Orange Line ridership.

SUSTAINABLE COMMUNITIES PLANNING FRAMEWORK

Status: Ongoing

METRO is currently completing a system-wide sustainability framework that will include sustainability strategies, priorities, and performance metrics for the entire METRO system. The plan is being completed by Arup in coordination with METRO.

SCAG RTP/SCS RECOMMENDED PERFORMANCE MEASUREMENT FRAMEWORK MEMO

Status: Completed August 2011

An August 8, 2011 memorandum to SCAG's Performance Measures Subcommittee from System Metric Group and Naresh Amatya at SCAG recommends the framework for performance measurements for the 2012 SCAG RTP/SCS. It recommends metrics in the areas of mobility, transit accessibility and reliability, location efficiency, health and safety, environmental stewardship, social equity and economic prosperity, and investment efficiency.

LOS ANGELES RIVER REVITALIZATION MASTER PLAN

Status: Adopted April 2007

The Los Angeles River flows roughly parallel to the Orange Line from Canoga Station until it crosses under the Orange line about ½ mile west of the Balboa Station. For much of this stretch along the western portion of the Orange Line, the Los Angeles River is within ½ mile to 1 mile of the at any given point. After crossing under the Orange Line and continuing to the southeast along the foot of the Santa Monica Mountains, the River continues to flow roughly parallel to the Orange Line but is at least 1-2 miles away from the Orange Line at any given point. Two tributaries to the Los Angeles River also cross under the Orange Line – the Tujunga Wash about ½ mile east of Valley College Station, and the Central Branch of the Tujunga Wash just under ½ mile west of the North Hollywood Station.

The Los Angeles River Revitalization Master Plan, finalized in April 2007, contains policies and priorities for river revitalization and management, creating green and pedestrian-friendly nearby neighborhoods, creating economic value, re-inventing the River as a community asset, and capturing planned nearby development and environmental restoration for the long-term benefit of the river. The following is a list of Orange Line Stations within ½ mile of the LA River as well as which potential proposed projects are included in the LA River Revitalization Master Plan.

Canoga Station (LA River located 0.30 miles to the north)

- River Origin Park (at confluence of Bell Creek and Arroyo Calabasas)
- Basset Street Riverside Street (between Owens Mouth and De Soto)
- Canoga Ave. Arterial Green Street
- Future Orange Line Extension with River Underpass (north along Canoga)
- Canoga Park Regional Gateway and Canoga Ave. River Bridge (at Canoga crossing of LA River)
- Variel Avenue Local Gateway
- Variel Avenue Pocket Park (at intersection of Variel and River)
- Canoga Park River Greenway (along river from Canoga to Vanalden)
- Canoga Park River Park (along south bank of river between Canoga and De Soto, pending planned property acquisition along this stretch)
- Canoga Park Promenade (along north and south riverbank between Owens Mouth and Brown Canyon Wash)
- Proposed River Greenway – Bicycle Trail (beginning at Canoga extending east along the south riverbank)

De Soto Station (LA River located 0.45 miles to the north)

- Basset Street Riverside Street (between Owens Mouth and De Soto)
- Variel Avenue Local Gateway
- Variel Avenue Pocket Park (at intersection of Variel and River, pending planned property acquisition at this location)
- Canoga Park River Greenway (along river from Canoga to Vanalden)
- Canoga Park River Park (along south bank of river between Canoga and De Soto, pending planned property acquisition along this stretch)
- Canoga Park Promenade (along north and south riverbank between Owens Mouth and Brown Canyon Wash)
- Proposed River Greenway – Bicycle Trail (beginning at Canoga extending east along the south riverbank)

Pierce College Station (LA River located 0.25 miles northeast)

- Winnetka Avenue Arterial Green Street (from Victory Street north to Sherman)
- Winnetka Avenue River Bridge
- Proposed River Greenway – Recreational Trail (beginning at Browns Canyon Wash extending east along the north riverbank)
- Proposed River Greenway – Bicycle Trail (beginning at Canoga extending east along the south riverbank)
- Potential acquisition of property between Corbin and the River for river revitalization projects

Tampa Station (LA River located 0.45 miles to the north)

- Tampa Avenue and Victory Boulevard Enhanced Intersection
- Potential acquisition of property at Tampa and the River for river revitalization projects
- Proposed River Greenway – Recreational Trail (along the north riverbank)
- Proposed River Greenway – Bicycle Trail (along the south riverbank)
- Vanalden Avenue Pocket Park (northeast of intersection between Vanalden and the River, pending planned property acquisition)
- Vanalden Avenue Local Greenway (beginning at Vanalden heading east along the south riverbank)

Reseda Station (LA River located 0.55 miles to the northeast)

- Reseda Boulevard Arterial Green Street
- Reseda Park continuing to serve as river buffer
- Amigo Avenue Primary Local Green Street (north of Victory)
- Caballero Creek Non-motorized Bridge (over Caballero Creek at confluence with LA River)

Balboa Station (LA River 0.40 miles to the southwest; Bull Creek 0.15 miles to the east)

- Sepulveda Basin Opportunity Area and River Park Buffer (south of Balboa, Woodley, and Sepulveda Stations)
- Sepulveda Basin Agricultural Opportunity Area (southwest of Victory and Balboa)
- Sepulveda Basin Regional Gateway (at Balboa and Victory)
- Orange Line Bridge Non-motorized Bridge (where Orange Line crosses LA River)
- Proposed Sepulveda Basin Sports Complex (southwest of Victory and Balboa)
- Sepulveda Basin Outdoor Classroom, Birmingham High School (at Balboa crossing of LA River)
- Proposed River Greenway – Recreational Trail (along the north riverbank)
- Proposed River Greenway – Bicycle Trail (along the south riverbank)
- Habitat restoration and grouted rock removal along river from White Oak to Balboa

Woodley Station (LA River located 0.75 miles to the southwest)

- Sepulveda Basin Opportunity Area and River Park Buffer (south of Balboa, Woodley, and Sepulveda Stations)

Sepulveda Station (LA River located 0.80 miles to the southwest)

- Sepulveda Basin Opportunity Area and River Park Buffer (south of Balboa, Woodley, and Sepulveda Stations)

JOINT DEVELOPMENT POLICIES AND PROCEDURES

Status: Revised October 2009

This document defines transportation and land use coordination policies, development policies, and regulations that developers must adhere to when submitting proposals. Its overall goals are to "encourage comprehensive planning and development around station sites and along transit corridors" and to "Reduce auto use and congestion." It calls for development at any given station to enhance transit ridership, enhance the transportation corridor, contribute to larger land use and economic development goals, and create fair market return on public LACMTA investments.

NORTH HOLLYWOOD JOINT DEVELOPMENT AND DESIGN FOR DEVELOPMENT

Status: Joint Development Agreement approved by METRO in September 2007. Design for Development completed by Redevelopment Agency in September 2007.

In April 2006 Metro approved conceptual development guidelines for development of around 16 acres of Metro-owned land adjacent to the North Hollywood Station, where both the Red and Orange Lines terminate and intersect. In March of 2007, Metro issued a Request for Proposals for development teams capable of designing, financing, constructing, and operating an integrated mixed-use development on the site. The vision for the project was a high intensity development with landmark quality and mixed uses around the station that build upon North Hollywood's creative arts-oriented identity. In September 2007, METRO entered into an exclusive right to negotiate with Lowe Enterprises for development of the site. The proposal submitted by Lowe Enterprises included a 1.72 million square feet mixed-use development plan called "NoHo Art Wave" that includes over one million square feet of office space, 157,000 square feet of retail/entertainment, 562 residential units, 35,000 square feet of community space, and 6,200 parking stalls – of which 1,500 are dedicated to Metro.

Also in September 2007, the Community Redevelopment Agency of the City of Los Angeles adopted a Design for Development Establishing North Hollywood Redevelopment Project Commercial Core Urban Design Guidelines. This Design for Development provides standards and guidelines for an area around the North Hollywood Station that includes not only the Metro-owned land but also additional areas in the Chandler/Cumpston Neighborhood, the NoHo Park Neighborhood, the Back Lot District, the NoHo Arts District, the Burbank Boulevard Community Commercial area, and south along Lankershim Boulevard to Vineland Avenue. Guidelines address topics such as land use, development intensity, sidewalks and setbacks, building massing, ground floor treatment, circulation, open space, and signage. As of 2012, no further action has occured and the project has gone out to rebid.

SEPULVEDA STATION JOINT DEVELOPMENT

Status: Approved by METRO June 2008

In June 2008, the METRO board authorized entering into an Exclusive Negotiations Agreement with JPI West to develop a residential project on the Metro Orange line Sepulveda Station park-and-ride site. The site is 12.45 acres and is owned by Metro. The proposal submitted by JPI West included a 560 unit for-rent multifamily residential project that includes 20 townhomes along Erwin Street and 10 live-work units on the southeastern side of the site. Additionally, JPI West proposed including ground floor retail on two five-story residential buildings adjacent to the station and 103 parking spaces on one acre for Metro Orange Line riders. However, as of fall 2011 the project was not moving forward and LA Metro was exploring other possibilities.

VICTORY AND BALBOA JOINT DEVELOPMENT

Status: Approved by METRO October 2006

METRO's joint development agreement and ground lease with Remett provided for the development of approximately 1.9 acres of Metro-owned property located along Victory Boulevard, west of Balboa Boulevard, near the Metro Orange Line Balboa station for development of a low-rise office building and supporting parking as part of the existing, adjacent office park. As of fall 2011, the project has not moved forward.

3 TRANSPORTATION POLICY

Transportation plans and implementation actions pertinent to the Orange Line Bus Rapid Transit Sustainable Corridor Implementation Plan are described below.

TRANSPORTATION STRATEGIC PLAN

Status: Completed December 2010

This citywide strategic plan, completed for the City of Los Angeles, outlines priorities for transportation projects throughout the City of Los Angeles. It includes screening criteria for potential transportation projects and a comprehensive list of proposed transportation projects.

METRO ORANGE LINE MODE SHIFT STUDY AND GREENHOUSE GAS EMISSIONS ANALYSIS

Status: Completed June 2011

METRO, ICF International, Fehr and Peers, and the Los Angeles Bicycle Coalition sought to identify benefits derived from developing the Orange Line as an integrated transit, bicycle and pedestrian facility, with a bicycle path paralleling much of the alignment. The study included counts of cyclists and pedestrians on the Orange Line Bikeway, counts of cyclists on buses and a survey of cyclists and park-and-ride drivers. The information was used to estimate mode shift and reductions in greenhouse gas (GHG) emissions and vehicle miles traveled (VMT). Among the study's key findings were that "bikesheds," or the distances over which cyclists will travel to and from stations, were 13 times larger than walksheds, and that the average distance cyclists traveled to stations was 1.9 miles. This suggests that amenities for cyclists can serve to significantly extend the reach of the Orange Line.

CITY OF LOS ANGELES BICYCLE PLAN

Status: Approved March 2011

The 2010 Update of the Bicycle Plan calls for a 1,684-mile system of designated bicycle routes (up from 334 today) grouped into three categories: Backbone (primarily featuring bicycle lanes), Neighborhood Network ("Bicycle-Friendly Streets," or traffic-calmed streets with characteristics of bicycle boulevards) and Green Network (off-street paths). It also includes a range of programs and policies (including measures to better accommodate cyclists at transit stations and on vehicles) and a Five-Year Implementation Strategy that identifies priority segments for investment but would be "dynamic," depending on decisions to be made by groups including staff and community stakeholders.

VAN NUYS METRO ORANGE LINE BUSWAY STATION NON-MOTORIZED ACCESS PLAN

Status: Adopted June 2009

This study was conducted by METRO and the Los Angeles County Bicycle Coalition to assess existing conditions and make recommendations to improve pedestrian and bicycle access to the Van Nuys Metro Orange Line Busway station. Recommendations included adding highly visible zebra stripe crosswalks, installing countdown signals with audible push buttons, way-finding signage, improved lighting, constructing a landscaped median, and increased LAPD patrol by foot or bike.

VEHICLE PARKING STANDARDS

Status: Adopted Policy

Section 12.21 of the Los Angeles Municipal Code addresses off-street parking requirements. For multifamily residential developments, numbers of spaces required per unit are based on numbers of habitable rooms: one space if there are fewer than three rooms, one-and-a-half spaces if there are three rooms, and two spaces if there are more than three rooms. For commercial uses, requirements are based on gross floor area: generally, one space per 500 square feet, although for certain uses, more parking is required, including one space per 250 square feet for general retail and one space per 100 square feet for restaurants and bars larger than 1,000 square feet. Within the North Hollywood Redevelopment Area, the requirement for all commercial uses is one space per 500 square feet. Under proposed amendments to the Code, Modified Parking Requirement (MPR) Districts could be established by City Council. Within each District, up to seven types of modifications might be selected for application: change of use parking standards, Parking Reduction Permits, off-site parking (within 1,500 feet), decreased parking requirements, increased parking requirements, commercial parking credits and maximum parking limits.

BICYCLE PARKING ORDINANCE

Status: Proposed

Under this proposed ordinance, the Los Angeles Municipal Code would be amended to: require bicycle parking in some multifamily residential developments; increase the amount of bicycle parking required for new and expanded commercial, industrial and institutional uses of less than 10,000 square feet; require that both short- and long-term bicycle parking be provided; amend the amount of auto parking that may be replaced by bike parking; and provide guidelines for design of bike parking within public rights-of-way. The amount of bicycle parking required would remain much lower than the amount of auto parking required.

VEHICULAR AND MULTI-MODAL LOS POLICY

Status: Existing Procedure

Vehicular Level of Service (LOS) standards are used in environmental review processes to determine whether impacts may require mitigation. In Los Angeles County, the LOS standard is “E,” except where the base year (1992) LOS was “F,” in which case “F” is the standard. For arterial intersections, LOS “E” represents Volume to Capacity (V/C) ratio of 0.9-1.0. There is not currently a standard for multi-modal LOS.

TRI-CITY EXPRESS BUS STUDY

Status: Completed September 2007

This study was conducted by Metro staff and representatives from the cities of Glendale, Pasadena, and Burbank to evaluate the viability of the proposed Tri-City Express bus service. The proposed service would run between the North Hollywood Orange/Red Line stations and Pasadena Gold Line Stations to better connect the communities of Glendale, Pasadena, and Burbank with the Metro Rail and BRT system.

EAST SAN FERNANDO VALLEY RAPIDWAYS PROJECT

Status: Approved May 2010

The East San Fernando Valley North/South Rapidways on the Reseda, Sepulveda, Van Nuys and Lankershim/San Fernando corridors is a Measure R project and is included in the constrained element of the adopted 2009 Long Range Transportation Plan. The board concurred with the City of Los Angeles defining the East SFV North/South Rapidway's short, medium, and long term project components and approved taking on the role as the lead agency for environmental clearance. The project is currently underway (as of July 2011) and next steps include an alternatives analysis and public outreach.

APPENDIX B

CORRIDOR CONDITIONS

CORRIDOR CONDITIONS

1 CORRIDOR OVERVIEW

The Orange Line BRT is a 14-mile bus rapid transit system that runs from North Hollywood on the east to Warner Center on the west. The line is entirely within the City of Los Angeles, and it connects multiple neighborhoods and job centers as it travels through the center of the San Fernando Valley. The 260 square mile San Fernando Valley is a mostly urbanized valley located in the Los Angeles metropolitan area of southern California, defined by the dramatic mountains that circle it. Home to 1.76 million people, the Valley lies north of the larger and more populous Los Angeles Basin. Nearly half of the land area of the city of Los Angeles lies within the San Fernando Valley. The 14 stations along the Orange Line are as follows:

- North Hollywood
- Laurel Canyon
- Valley College
- Woodman
- Van Nuys
- Sepulveda
- Woodley
- Balboa
- Reseda
- Tampa
- Pierce College
- De Soto
- Canoga
- Warner Center

Along and near the Orange Line there are multiple destinations of note including the bustling North Hollywood neighborhood, Valley College, Pierce College, the Van Nuys civic center, Lake Balboa Park, Van Nuys airport and the major job and retail destination in Warner Center.

This appendix provides an overview of the Orange Line Corridor and covers topics where comparisons between station areas are essential to provide context and understanding. Other topics – such as land use, design and specific transportation conditions at the stations – are covered in the station area profiles later in this report. The appendix is divided into 3 sub-sections: Transportation, Demographics, and Health.

Stations
Orange Line
Orange Line (Future)
Red Line
Metrolink
Orange Line 1/2 Mile Station Area
City Boundaries
Waterbodies
Park/Recreation Area
School/College/University
City Hall
Hospitals and Medical Centers
Airports
Cultural and Entertainment
Shopping Centers

The Orange Line Corridor

Orange Line Bus Rapid Transit Sustainable Corridor Implementation Plan

0 0.25 0.5 1 1.5 2 Miles

Source: LA Metro, Raimi + Associates. LA County GIS Portal, US Census TIGER Line, September 2011

raimi+associates

2 TRANSPORTATION

Orange Line

The Metro Orange Line (Line 901) is operated by the Los Angeles County Metropolitan Transportation Authority (Metro). The Orange Line provides Metro Transitway bus rapid transit service between North Hollywood Station (the northern terminus of the Metro Rail Red Line) and Warner Center. The line is 14 miles long and includes 14 stations. Each station features amenities including (branded) shelters, informational kiosks, real-time wait-time displays and extensive signage. Vehicles are custom 60-foot articulated buses. All but the line's westernmost mile and station (Warner Center) are within the Orange Line transitway, which provides dedicated right-of-way along a former rail line, approximately 11 miles of which is off-street (with another two miles in the median of Chandler Boulevard). Orange Line vehicles receive priority at some traffic signals. Additional information is provided in Table B-1 and under each station profile.

Table B-1 ORANGE LINE SERVICE

Span		7 Days a Week, 3:43-1:31am
Frequency (in minutes)	*Weekday Peak Periods*	4
	Weekday Mid-Day	10-11
	Weekday Evening	20-21
	Weekend Mid-Day	12
On-Time Performance (no more than 1 minute early or 5 minutes late)	*Overall*	86%
	AM Peak Period (6-9am)	90%
	PM Peak Period (3-7 pm)	86%
Maximum Load Factor (weekdays, at maximum load point at North Hollywood)	*Eastbound*	1.23 (70 psgrs., 12-1pm)
	Westbound	1.16 (66 psgrs., 9-10pm)
Average Weekday Boardings	*North Hollywood*	7,088
	Laurel Canyon	1,064
	Valley College	969
	Woodman	798
	Van Nuys	3,718
	Sepulveda	1,523
	Woodley	698
	Balboa	1,255
	Reseda	2,212
	Tampa	520
	Pierce College	1,088
	De Soto	659
	Canoga	729
	Warner Center	1,072

(Source for all data: Metro)

In 2006 and 2007, Metro conducted an on-board survey of Orange Line riders. Table B-2 summarizes key findings from that effort. The survey showed that more than half of riders had access to an automible and 75% took the Metro 5 or more times per week. It found that nearly 80% of transit riders accessed transit by walking.

Table B-2 ORANGE LINE SERVICE

Span		
% who had an auto available for the trip	65%	
% with annual household income below $35,000	63%	
% riding Metro 5 or more times per week	74%	
% transferring as part of trip	81%	
Mode of access (from trip origin to 1st bus or train in trip)	*Walk*	48%
	Drop-off	18%
	Drive-alone	8%
	Carpool	8%
	Bicycle	1%
	Other	8%
	I don't know	9%
Origin	*Home*	42%
	Work	36%
Destination	*Home*	48%
	Work	27%

(Source for all data: Metro)

MAJOR TRANSIT CONNECTIONS (EXISTING)

At its eastern end, at North Hollywood Station, the Orange Line connects to the Metro Rail Red Line, which provides service to Downtown Los Angeles via Hollywood to the southeast. North Hollywood is by far the busiest Orange Line station. It is also the line's maximum load point in both directions -- meaning that the Orange Line effectively functions as an extension of the Red Line. Four Metro Rapid bus lines (three providing north-south connections, the fourth primarily paralleling the Orange Line to the south) also connect to the Orange Line; these are described under the station profiles for Van Nuys, Sepulveda, Reseda and Warner Center.

MAJOR TRANSIT CONNECTIONS (PLANNED)

A four-mile extension of the Orange Line north from Canoga to the Chatsworth Metrolink Station, in the western San Fernando Valley, is scheduled to open next year. The East San Fernando Valley North-South Rapidways project, meanwhile, will improve bus service in four corridors connecting to Orange Line stations:

Lankershim/San Fernando, Van Nuys, Sepulveda and Reseda. The four busiest Orange Line stations are located where each of these corridors intersect the Orange Line, and Van Nuys, Sepulveda, and Reseda already have existing rapid bus line. Future improvements to other bus lines would be incremental and have not yet been defined, although a target completion date of 2018 has been set. A dedicated busway has been proposed for the Van Nuys corridor, potentially including a tunnel in the area of the Orange Line station. For more information, see the Policy section of this document.

REGIONAL BICYCLE NETWORK

The level topography and grid street network of the San Fernando Valley would appear to provide good opportunities for cyclists. However, there are currently relatively few dedicated, well-connected facilities for cyclists on Valley streets (see City of Los Angeles Bicycle Plan, Policy section). An off-street bicycle path parallels much of the Orange Line; this is further described under the individual station profiles in Appendix C.

REGIONAL ROADWAY NETWORK

The San Fernando Valley's roadway network includes a grid of east-west and north-south arterial streets at half-mile intervals, collector/distributor streets at irregular intervals, and an irregular grid of neighborhood streets. Some neighborhood streets are discontinuous, and blocks vary in size. Freeways within the southern Valley include the Ventura Freeway (U.S. 101 and State Route 134, running generally east-west and roughly paralleling the Orange Line one to two miles to the south), the Hollywood Freeway (State Route 170 and U.S. 101, running generally north-south and crossing the Orange Line just west of North Hollywood Station), and the San Diego Freeway (Interstate 405, running generally north-south and crossing the Orange Line just west of Sepulveda Station). All three freeways are severely congested in segments during peak periods, as well as some off-peak periods. Arterial traffic is addressed under station profiles.

REGIONAL COMMUTE PATTERNS

Metropolitan Los Angeles is a polycentric region, with multiple job centers including several in the San Fernando Valley (most notably Warner Center). For this reason, commute patterns are relatively complex. However, the region's two largest job centers, Downtown Los Angeles and Century City, both lie to the south, over the Santa Monica Mountains. There are relatively few points at which to cross the mountains, resulting in "bottlenecks" where congestion can be severe during off-peak as well as peak hours. There are also large job centers just to the east of the Valley, in Burbank, Glendale and Pasadena.

WALK SCORE

Walk Score is a number between 0 and 100 that measures walkability based on criteria like available pedestrian facilities andnearby land uses. While it is not a prefered measure, it provides a broad comparison of walkability between different areas. The scale generally means the following:

- 90-100: Walker's Paradise
- 70-89: Very Walkable
- 50-69: Somewhat Walkable
- 25-49: Car-Dependent
- 0-25: Very Car-Dependent

As shown in Table B-3, the stations with the highest Walk Score along the Orange Line are North Hollywood, Warner Center, and Reseda. The stations with the lowest Walk Scores are Pierce College, Valley College, Woodman, and Balboa.

Table B-3 WALK SCORE BY STATION

Orange Line Station	Walkscore
Warner Center	83
Canoga	77
De Soto	71
Pierce College	49
Tampa	58
Reseda	80
Balboa	55
Woodley	72
Sepulveda	72
Van Nuys	72
Woodman	52
Valley College	49
Laurel Canyon	68
North Hollywood	89

Data Source: Google Walk Score, accessed October 2, 2011.

3 STATION AREA DEMOGRAPHICS

POPULATION

The typical Orange Line station area is less intense, in terms of total workers and residents, than the average station area in the City of Los Angeles. Half of the stations along the Orange Line have a lower intensity, residential place type (transit or suburban neighborhoods). In fact, Balboa, Tampa, and Valley College, Pierce College, and Sepulveda have fewer than 7,000 people in the half-mile around the station. This is less than the national standard recommended for basic transit service.[1]

Notably, four station areas (Canoga, Warner Center, De Soto, Sepulveda) along the Orange Line have more jobs than residents, which is rare for station areas in Los Angeles outside of the downtown. Densities are relatively low for these jobs-heavy stations. However, three of these four fall into the Warner Center Specific Plan area, and could potentially significantly increase in density over time.

Warner Center, Canoga, Reseda, Van Nuys, Laurel Canyon, and North Hollywood are the stations on the corridor with the highest overall intensity on the corridor (workers and residents), suggesting they have potential to support higher rates

1 Peter Newman and Jeff Kenworthy. "Urban Design to Reduce Automobile Dependence". Opolis, v. 2 no 1 (2006)

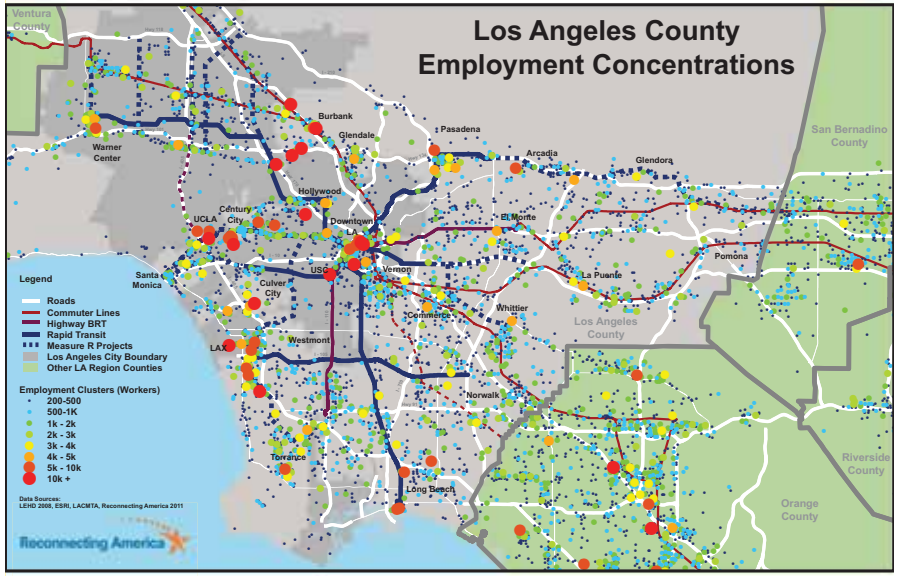


Figure B-2: Employment Clusters in Los Angeles County

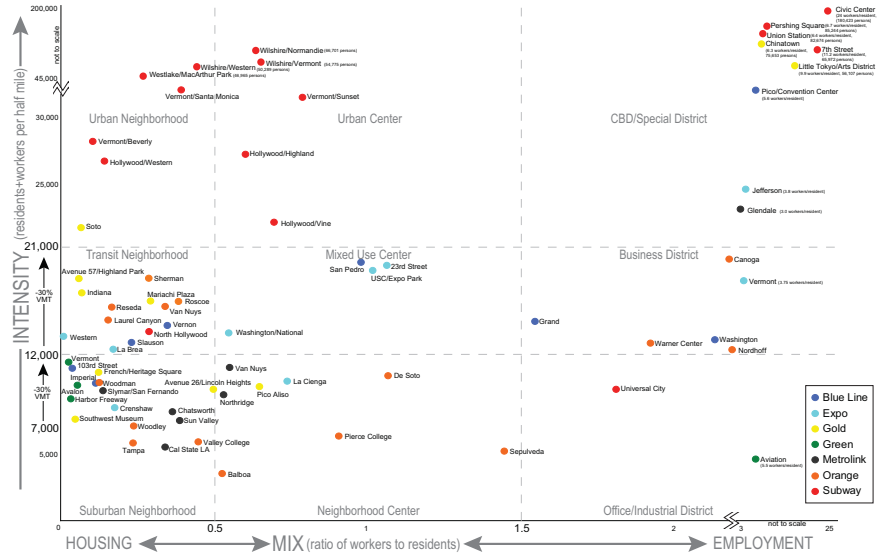


Figure B-3: Employment Clusters in Los Angeles County

of transit ridership than other stations.[2] However, these stations have different ratios of workers and residents, meaning some will be may be origin stations for transit trips, while others may be destinations.

The average Metro station area in Los Angeles has about 11,000 residents, but only three station areas on the Orange Line have more residents than the City average: Reseda (13,161), Van Nuys (13,026) and Laurel Canyon (13,111). Opportunities to increase walkable density in near various stations along the Orange Line Corridor could improve overall ridership and transit cost-effectiveness.

2 According to academic research, there is a strong correlation between the density of a place and the reduction of per capita vehicle miles traveled and the ability to support transit service. See Peter Newman and Jeff Kenworthy. "Urban Design to Reduce Automobile Dependence". Opolis, v. 2 no 1 (2006)

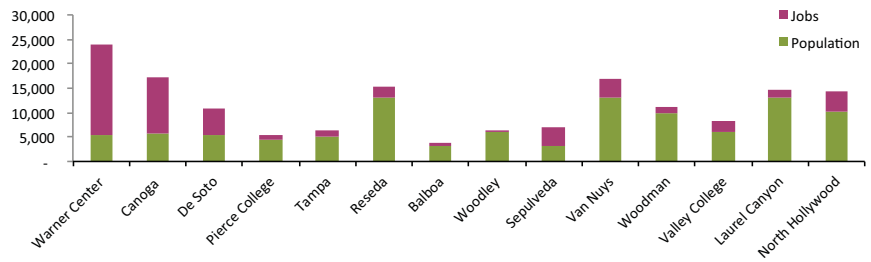


Figure B-4: Population and Jobs Intensity (American Community Survey, 2005-2009 and Longitudinal Household and Employment Dynamics, 2008)

INCOME

The average income for households along the Orange Line is similar to the median income in the City of Los Angeles as a whole ($48,570.) Of all of the station areas, Tampa has the highest average income ($83,738), while Woodley has the lowest ($42,424). Despite their significant socioeconomic differences, both of these neighborhoods are predominantly comprised of single-family homes.

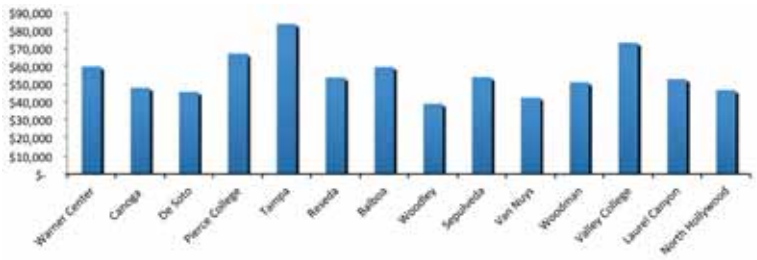


Figure B-5: Average Household Income (American Community Survey, 2005-2009 rolling average) [3]

Figure B-6 shows the share of low-income households (households earning less than 80% of the region's area median income of $58,987)[4]. The Van Nuys and Woodley station areas have the largest concentrations of lower income households on the corridor.

3 Average household income here is an average of the median incomes of block groups that make up each the station area.

4 The region refers to the Los Angeles Metropolitan Statistical Area, which includes Los Angeles County and Orange County. The five county SCAG region has a median income that is only slightly higher than the MSA; the median income of the SCAG region is $59,155

The Laurel Canyon, Van Nuys, Reseda, and North Hollywood station areas all have a significant number of low-income households. With the exception of Van Nuys, less than half of the households in those station areas are low income, indicating that they are more income diverse.

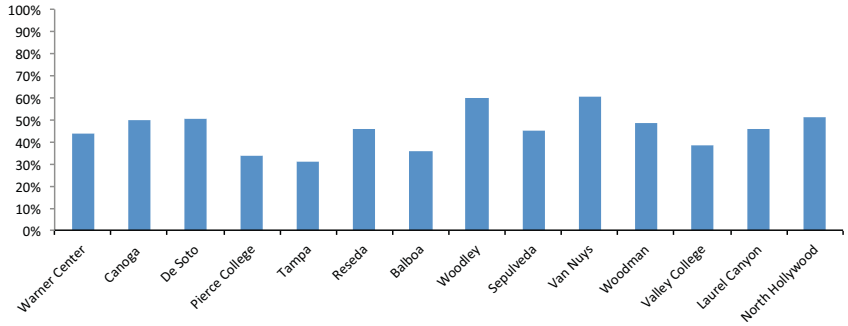


Figure B-6: Low Income Households (American Community Survey, 2005-2009 rolling average)

ETHNICITY

The racial and ethnic breakdown among the most dense residential station areas (Reseda, Van Nuys, and Laurel Canyon) is quite different. The Van Nuys station area has a much higher share of Hispanic residents, while Laurel Canyon and Reseda have a higher share of white residents.

Woodman and North Hollywood are similar in terms of their number of residents and racial and ethnic breakdown. While Woodley has fewer residents overall, a very high percentage residents in that station area are Hispanic.

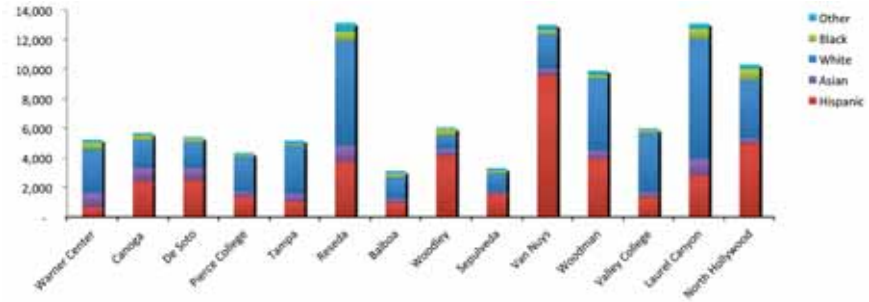


Figure B-7: Race and Ethnicity (American Community Survey, 2005-2009 rolling average)

HOUSING UNITS / TENURE

The majority of households in Orange Line station areas are renters (69.4%), higher than the City of Los Angeles average (60.6%). However, there are some concentrations of homeowners in station areas whose land use patterns are predominantly single-family detached units. These include Pierce College, Tampa, and Valley College.

The highest concentrations of renters fall in the station areas to the west and eastern ends of the Orange Line: 72% to 85% of households are renters at Warner Center, Canoga and De Soto while 80% to 89% of households are renters at Laurel Canyon, and North Hollywood. Van Nuys, towards the middle of the corridor, also has a relatively large share of renters at 82%.

While Van Nuys and Laurel Canyon have more low-income renters, renters near the Warner Center area are higher income. This is likely due to the proximity of Warner Center area stations to the Warner Center job cluster, and the presence of more recently built rental units near the DeSoto, Canoga, and Warner Center stations.

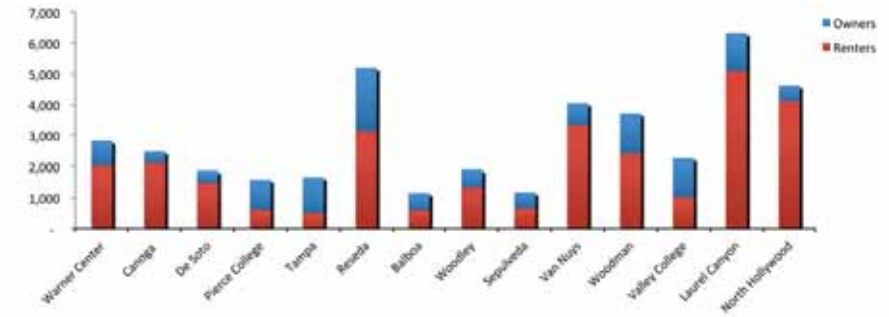


Figure B-8: Tenure (American Community Survey, 2005-2009 rolling average)

Figure B-9 shows the number of households paying more than 30% of their income for housing costs. The national standard for housing affordability considers 28% of income towards housing to be a reasonable expenditure, and households paying more than 30% are considered to have a housing cost burden.[5] About 52% of corridor households spend more than 30% of their income on housing, and this share is fairly even across station areas. Households at the Reseda and Laurel Canyon station areas are somewhat more likely to be experiencing a housing cost burden.

Renters on the Orange Line are more likely to experience a housing cost burden than owner households. However, there are large shares of owner households at the Pierce College and Tampa station areas who are experiencing a housing cost burden.

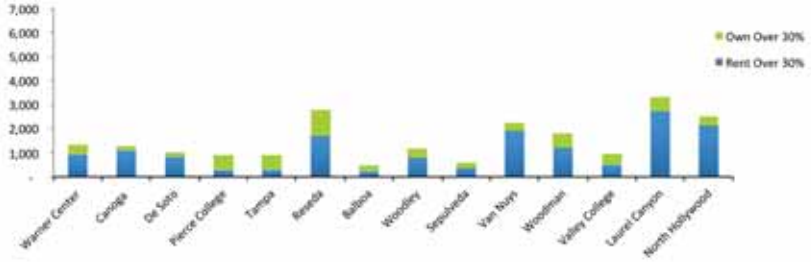


Figure B-9: Tenure (American Community Survey, 2005-2009 rolling average)

HOUSEHOLD TYPE

Overall, the Orange Line includes a slightly higher share of family households than the citywide average (58%). Station areas with more family households are concentrated in the middle of the Orange Line, while the station areas to the edges (Warner Center, Laurel Canyon, and North Hollywood) have more nonfamily households. Station areas with concentrations of nonfamily households are, not surprisingly, some of the same station areas with higher shares of renters.

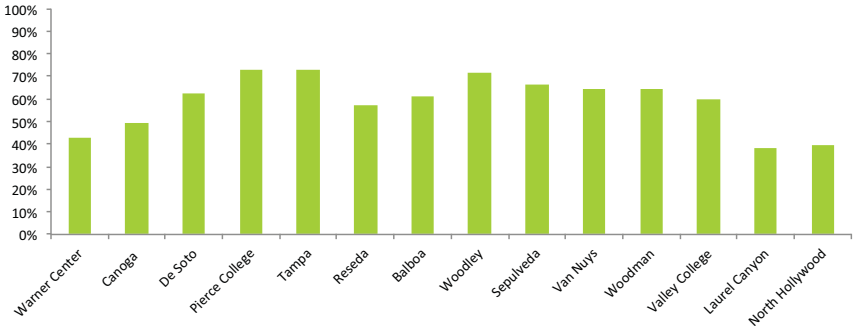


Figure B-10: Family Households (American Community Survey, 2005-2009 rolling average

5 Source: The Affordability Index: A New Tool for Measuring the True Affordability of a Housing Choice. Center for Transit-Oriented Development and the Center for Neighborhood Technology. The Brookings Institution, January 2006.

EDUCATIONAL ATTAINMENT

Woodley and Van Nuys have higher shares of residents without a high school degree or equivalent. Warner Center, Tampa, Valley College, and Laurel Canyon have higher shares of residents with a Bachelors Degree or higher.

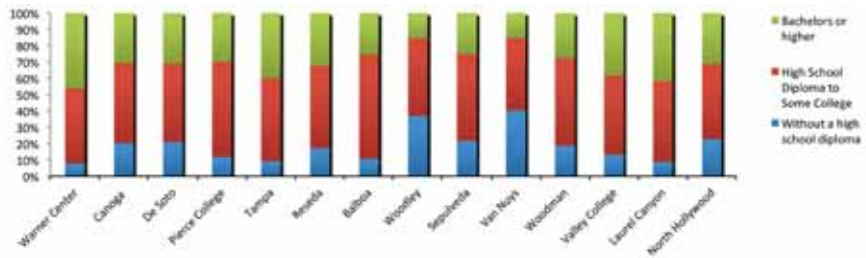


Figure B-11: Educational Attainment (American Community Survey 2005-2009 rolling average)

MODE TO WORK / CAR OWNERSHIP

While one would expect higher intensity station areas including Warner Center, Canoga, Reseda, Van Nuys, Laurel Canyon and North Hollywood to perform better in terms of transit mode share and reduced rates of car ownership, the performance of these higher intensity station areas is, in fact, highly variable, as shown in the charts below.

Van Nuys has the highest share of non-auto commutes along the Orange Line by a large margin. (Non-auto commutes include transit, walking and biking.) After Van Nuys, the North Hollywood, De Soto, Canoga, and Reseda station areas have the next highest shares of non-auto commuters. The high transit mode shares at Reseda, Van Nuys, and North Hollywood can be partially explained by intermodal connections with the rapid bus lines, and the Red Line, which give these station areas better transit connectivity than other station areas. Those high transit shares are echoed in the station boardings along the Orange Line, as shown in Figure B-13.

De Soto does surprisingly well, given the lower scale of intensity in that station area, while Laurel Canyon is underperforming relative to its intensity. Given the close proximity of Laurel Canyon to the North Hollywood Red Line station and thus shorter potential commutes to major LA basin job centers, one would expect better than average performance from Laurel Canyon, not worse. This suggests that demographic, urban form, or other characteristics of the Laurel Canyon station area are hindering the ability of its residents to take transit.

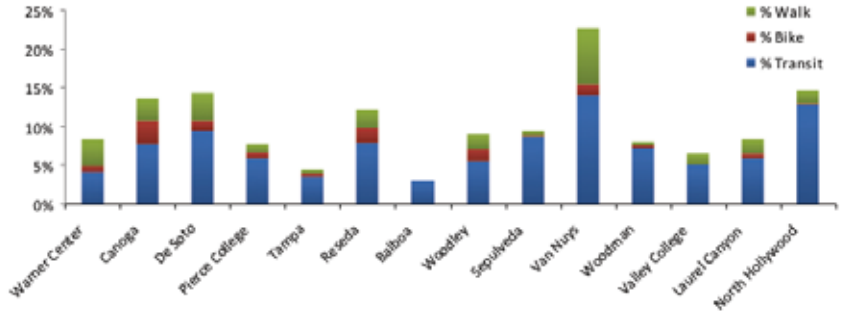


Figure B-12: Non-Auto Commute Mode Share (American Community Survey, 2005-2009 rolling average)

Figure B-13: Orange Line Boardings (Metro, 2009)

Vehicle ownership does not differ significantly from station area to station area along the Orange Line. However, almost all Orange Line station areas have higher rates of car ownership than the City of Los Angeles overall. Balboa is the only station area with higher share of households with 1 or 0 cars than in the City of Los Angeles (51.2%).

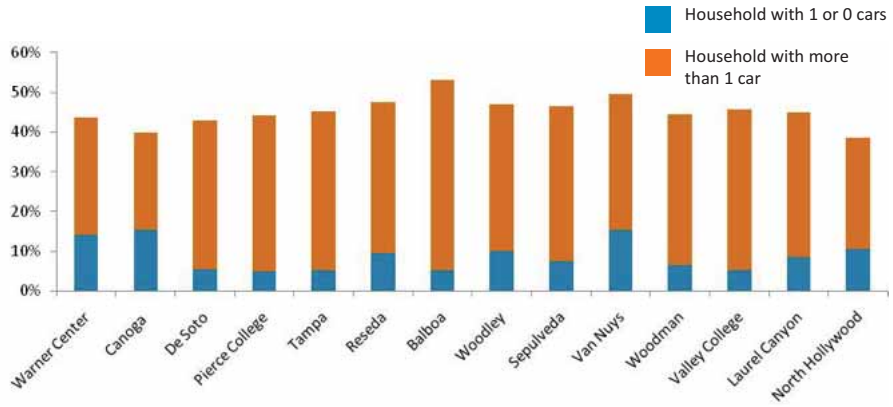


Figure B-14: Vehicle Ownership (American Community Survey, 2005-2009 rolling average)

AFFORDABLE HOUSING: RENT STABILIZATION ORDINANCE RESTRICTED PROPERTIES

Rent Stabilization Ordinance Units, or rental units on properties with 2 or more units built before 1978, are subject to a number of municipal requirements guiding allowable rent increases, the registration of units with the City, just-cause eviction, and relocation assistance payment to tenants. These units therefore often serve as a more stable housing stock for lower income renter households who might otherwise be vulnerable to displacement.

Rent Stabilization Ordinance (RSO) subject units are concentrated in the Warner Center station areas (Warner Center, Canoga, and De Soto), Reseda, and Laurel Canyon/North Hollywood station areas. Not surprisingly, these are also the station areas with some of the highest shares of renter households. However, given more recent development trends in the North Hollywood station areas, there are many rental units that are not subject to RSO.

It will be important to monitor development and market trends at high RSO station areas (Warner Center, Reseda, Laurel Canyon). If these station areas experienced reinvestment and redevelopment of multifamily properties, the loss of RSO units would need to be weighed against the benefits of reinvestment.

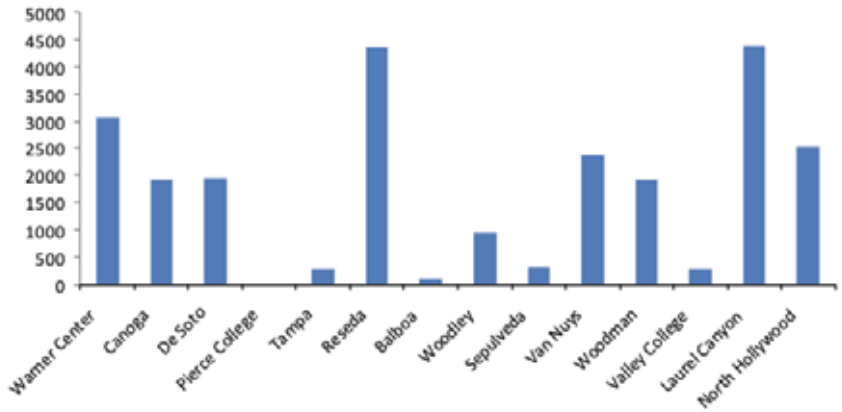


Figure B-15: Number of Rent Stabilization Ordinance (RSO) Units by Station Area (City of Los Angeles Housing Department, 2011)

4 HEALTH CONDITIONS

HEALTH CONDITIONS

The places where people live, work, and play profoundly shape the health of a community. Transportation options, accessible parks, crosswalks and walkable streets, the availability of grocery stores, the prevalence of fast food restaurants, and real or perceived levels of crime and safety are all physical factors that have been shown to impact community levels of health and fitness. A growing body of evidence supports the idea that urban form and design have a strong impact on public health. Since 1980, obesity has doubled to more than one-third of the U.S. population[1] and the prevalence of Type 2 Diabetes has also doubled.[2] Based on current obesity trends, for the first time in American history, children are not predicted to live as long as their parents.[3] Increasing rates of these chronic conditions in the US have paralleled higher levels of physical inactivity, auto-dependence, and consumption of foods high in calories and low in nutrients. Walkable urban form, more compact development, transportation choices, and access to recreation spaces all increase physical activity, which can improve health outcomes.[4]

1 Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, Physical Activity Prevalence Data: California 2003, available at http://apps.nccd.cdc.gov/brfss (last accessed 9/3/07).

2 California Center for Health Statistics, Office of Health Information and Research, Death Data Tables, Cause of Death, avaialable at www.dhs.ca.gov/hisp/chr/OHIR/tables/death/causes.htm (last accessed 9/24/07).

3 L. Besser and A. Dannenberg, Walking to Public Transit: Steps to Help Meet Physical Activity Recommendations, November 2005, Vol. 32, Issue 4, American Journal of Preventative Medicine, pages 273-280.

4 Frank, L.; Kavage, S.; Litman, T. (2006). Promoting Public Health Through Smart Growth. Prepared for Smart Growth BC: page 6.

Land use and planning decisions play a role in determining community members' behavioral and lifestyle choices that ultimately impact their health and wellbeing. The quality of the pedestrian or bicycle environment, such as sidewalks, bicycle lanes, signals, and crosswalks, can impact a resident's decision to walk or bike, which in turn influences physical activity levels. Similarly, neighborhood parks and open space provide an avenue for increased physical activity. Access to full-service grocery stores and farmer's markets is also correlated with improved consumption of fruits and vegetables. The physical presence and distribution of health care providers and facilities influence how easily people can access health care.

Furthermore, urban design and maintenance can contribute to or decrease levels of crime and perceptions of pedestrian comfort and safety. Poor mental health can be exacerbated by long commute times, exposure to crime, lack of transportation choice and lack of access to public spaces. Emissions from transportation sources are strongly linked with respiratory diseases, and automobile accidents kill about 40,000 Americans each year. In 2008 alone, over 4,000 pedestrians were killed in auto accidents.[5]

The following discussion of health conditions along the Orange Line addresses causes of death, levels of physical activity, occurrences of asthmas and heart attacks, levels of obesity, neighborhood safety, and the availability of healthcare corridor-wide. The Station Profiles found in Appendix C describe station-specific health topics such as crime and the number of grocery stores and fresh food vendors. Most data presented below is either from the Los Angeles County Department of Public Health (LACDPH) or the California Department of Public Health CDPH. LACDPH data is available by Health District (see Figure B-16), while CDPH data is presented at the more detailed zip code level (see Figure B-17). Twelve of the fourteen Orange Line Stations are within the LACDPH's West Valley Health District, while the remaining two are in the East Valley Health District. Both districts are in the LACDPH's larger San Fernando Service Planning Area ("SPA #2").

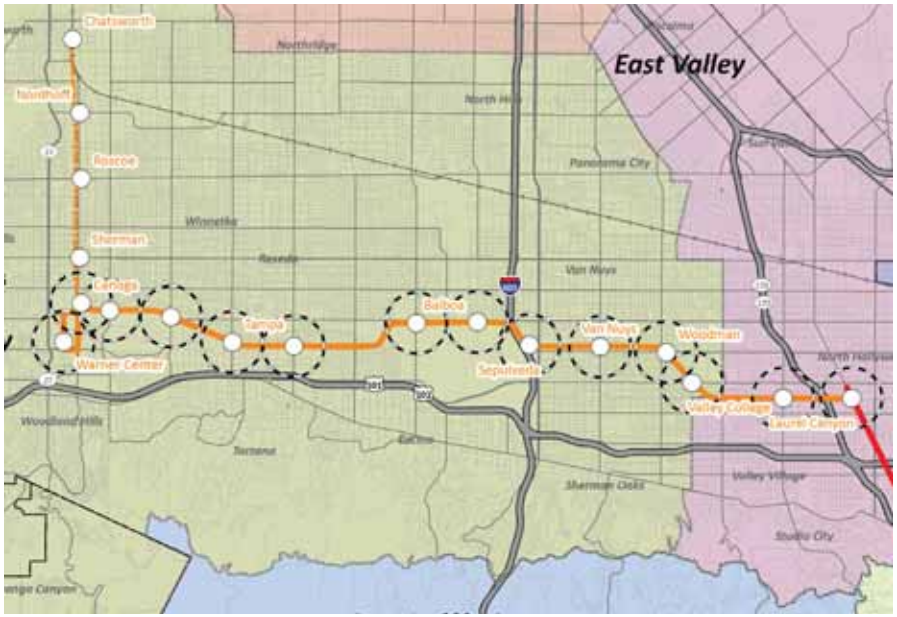


Figure B-16: LACPDH Health Districts

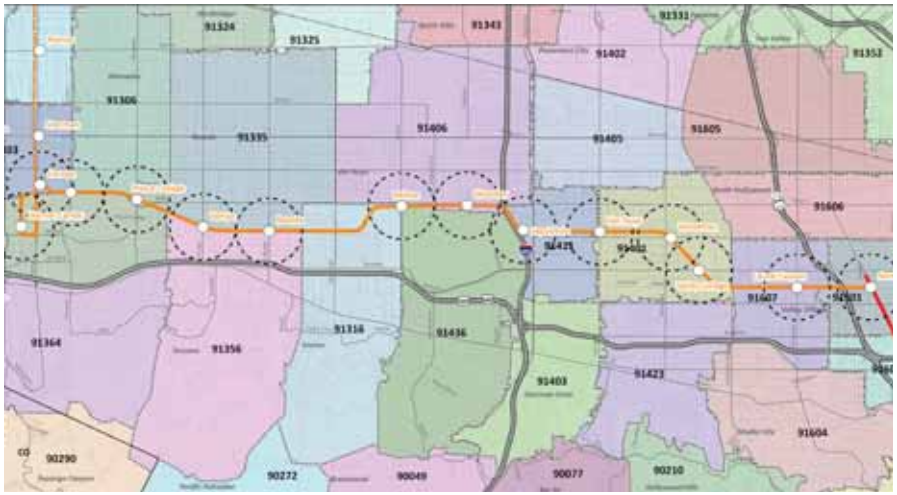


Figure B-17: Orange Line Zip Codes

5 National Highway Traffic Safety Administration, Fatality Analysis Reporting System, National Statistics, 2008. Accessed at http://www-fars.nhtsa.dot.gov/Main/index.aspx.

CAUSES OF DEATH

The leading causes of death in the West Valley and East Valley Health Districts are similar to those state-wide and nationwide – heart disease, cancer, cerebovascular disease (i.e. stroke), and chronic lower respiratory disease. Lack of physical activity, poor diet, and being overweight are primary risk factors for heart disease, cancer, and stroke, reinforcing the importance of access to healthy foods and opportunities for physical activity along the corridor. For the fifth leading cause of death in both health districts – chronic lower respiratory disease – the primary risk factors are smoking, exposure to occupational or ambient air pollution, and asthma. This underlies the importance of less polluting modes of transportation, cleaner industrial and commercial processes, and reduced smoking rates. Air pollution is also a risk factor in certain types of cancer.

The East Valley Health District has slightly higher rates of accidents, diabetes, and homicide, all of which can be associated with lower socio-economic status. This could be related to a significant number of low-income households such as those around North Hollywood and Laurel Canyon stations, but it could also be related to socioeconomic, physical, or other conditions in the much larger East Valley Health District.

Table B-3 LEADING CAUSES OF DEATH

West Valley Health District	East Valley Health District
1. Heart Disease	1. Heart Disease
2. Cancer	2. Cancer
3. Other	3. Other
4. Cerebovascular Disease (i.e. Stroke)	4. Cerebovascular Disease
5. Chronic Lower Respiratory Disease	5. Chronic Lower Respiratory Disease
6. Influenza and Pneumonia	6. Accidents
7. Accidents	7. Influenza and Pneumonia
8. Alzheimer's Disease	8. Diabetes
9. Diabetes	9. Alzheimer's Disease
10. Chronic Liver Disease	10. Chronic Liver Disease
11. Suicide	11. Homicide
12. Hypertension	12. Suicide

Source: 2007 Los Angeles County Health Survey; Office of health Assessment and Epidemiology. "Age-adjusted Mortality Rate Due to All Causes by Underlying Cause in Los Angeles County in West Valley (86) Health District and in SPA 2 from 2000 to 2007."

OBESITY/OVERWEIGHT POPULATION

The percent of the population that is obese or overweight in the West Valley or East Valley Health District is similar to the L.A. County average. This means that nearly 6 in 10 adults are overweight or obese, which is a primary risk factor in three of the five leading causes of death along the Orange Line – heart attack, cancer, and cerebovascular disease – as well as Alzheimer's Disease, diabetes, and hypertension. In the West Valley Health District, an increased share of that total is overweight instead of obese, which is a slight health improvement over the County and the East Valley Health District.

Table B-4 PERCENT OF POPULATION OBESE/OVERWEIGHT

	West Valley Health District	East Valley Health District	Los Angeles County
Obese	16.0%	24.0%	22.2%
Overweight	41.1%	33.3%	35.9%
Obese or Overweight	57.1%	57.3%	58.1%

Source: 2007 Los Angeles County Health Survey; Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health.

ASTHMA AND HEART ATTACK HOSPITALIZATIONS

High levels of asthma hospitalization can sometimes indicate poor air quality, which is a primary risk factor for developing asthma. Similarly, levels of hospitalization for heart attack can indicate levels of overall cardiovascular health, which is strongly influenced by levels of physical activity and healthiness of diet. Since this data is available at the zip code level, it provides a more detailed snap-shot into Orange Line health conditions than most County- or Health District-level data.

Asthma Hospitalizations

The Los Angeles County age-adjusted rate of 11.6 for asthma hospitalizations exceeds the state average. Of the zip codes along the Orange Line, six out of eleven are below the County average, while five are higher than the County Average. All five zip codes higher than the county average – 91303, 91306, 91335, 91406, and 91411 – are in a contiguous swath, roughly along and to the north of the Orange Line west of Van Nuys. Zip codes west of Van Nuys that are mostly south of the Orange Line – as well as those at the eastern end of the Orange Line – tend to

have lower asthma rates. This could be indicative of worse air quality in the west and north of the study area. These zip codes also tend to have lower incomes than those south of the Orange Line, which are generally more affluent.

Heart Attack Hospitalizations

Heart attack hospitalization rates follow a similar pattern as asthma hospitalizations, although they are more mixed geographically, and they more consistently exceed state and county rates. Only three zip codes – the ones containing North Hollywood, Laurel Canyon, and Valley College, and Warner Center Stations – are below the County average. The zip codes with the highest rates of heart attack hospitalization are centered around Sepulveda, Van Nuys, and Woodman stations. These stations may be particularly important targets for improving access to healthy food and opportunities for physical activity. At the same time, these strategies are also important corridor-wide given the generally low rates of cardiovascular health in multiple locations along the corridor.

Table B-5 HOSPITALIZATIONS: ASTHMA OR HEART ATTACK

Asthma Hospitalizations (Age-adjusted per 10,000)	Zip Code (with Stations it Contains or Borders)	Heart Attack Hospitalizations (Age-adjusted per 10,000)
14.0	91303 (Canoga, De Soto, Sherman)	42.3
6.7	91367 (Warner Center, De Soto, Pierce Col.)	27.6
12.0	91306 (Canoga, Pierce College)	47.0
17.2	91335 (Tampa, Reseda)	40.3
8.8	91356 (Tampa, Reseda)	23.3
8.6	91316 (Balboa)	39.1
14.7	91406 (Balboa, Woodley)	40.9
14.1	91411 (Sepulveda, Van Nuys)	55.4
8.9	91401 (Van Nuys, Woodman, Valley Col.)	61.0
8.6	91607 (Laurel Canyon)	26.1
10.7	91601 (North Hollywood)	33.8
11.6	Los Angeles County	37.3
9.5	California	38.9

Data Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Database.

PHYSICAL ACTIVITY LEVELS

Table B-6 shows levels of physical activity in adults for the Health Districts containing the Orange Line. Activity levels for the West Valley Health District – which includes 12 of the 14 Orange Line Stations – are slightly higher than the County average, while levels in the East Valley Health District are slightly lower. In both the West Valley and East Valley Districts, as in the County, around 1/3 of the population is sedentary. In the San Fernando Service Area as a whole, half of children between the ages of 6 and 17 years old participate in less than an hour of activity a day and/or less than five days a week and 13% do not participate in any physical activity.[6]

Table B-6 PREVALENCE OF PHYSICAL ACTIVITY, ADULTS

	West Valley Health District	East Valley Health District	Los Angeles County
Active (Meets Guidelines)	57.3%	50.8%	53.2%
Some Activity (Does Not Meet Guidelines)	9.4%	12.9%	10.7%
Minimal to No Activity (Sedentary)	33.2%	36.3%	36.2%

Source: 2007 Los Angeles County Health Survey; Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health.

PERCEIVED NEIGHBORHOOD SAFETY

Crime and fear of crime can serve as a significant deterrent to walking, cycling, and taking public transit. On the other hand, communities with streets where people feel safe and have positive interactions with friends and strangers tend to encourage an active, pedestrian-friendly public realm. This means it is easier to get outside for exercise at a nearby park or walk somewhere in the neighborhood, increasing levels of physical activity and fitness. As shown in Table B-7, residents in the West Valley Health District generally report feeling safe in their neighborhood. In the East Valley Health District these feelings of safety are somewhat lower, though still around 80%. This could mean that for much of the population along the Orange Line, factors including accessibility of facilities, transportation safety, available public spaces and destinations, cost, and social norms and habits more highly influence their levels of walking, cycling, and transit use than fear of unsafe neighborhoods. At the same time, promoting feelings of

6 Source: 2007 Los Angeles County Health Survey; Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health.

safety will continue to be an important way to support walkability and transit use for residents up and down the corridor.

Table B-7 PERCEIVED NEIGHBORHOOD SAFETY			
	West Valley Health District	**East Valley Health District**	**Los Angeles County**
Safe	87.3%	79.1%	82.1%
Unsafe	12.7%	20.9%	17.9%

Source: "Perceived Neighborhood Safety in Eligible Adults (18+ Years Old) in Los Angeles County and Selected Health Districts," 2007 Los Angeles County Health Survey; Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health.

Table B-8 shows the violent crime rates of each station area (within 1/2 mile radius of each station). North Hollywood and Van Nuys Stations have significantly higher crime rates than other stations, with close to 30 incidents per 10,000 persons. Pierce College, De Soto, and Woodley Stations are distantly behind, near 15 incidents per 10,000 persons. Sepulveda, Woodmna, Balboa, and Laurel Canyon have the lowest rates of violent crime.

Table B-8 CRIME RATES		
Rank	**Station**	**Rate per 10,000 Residents and Employees**
1	North Hollywood	29.93
2	Van Nuys	26.70
3	Pierce College	18.66
4	De Soto	13.99
5	Woodley	13.83
6	Canoga	9.25
7	Reseda	9.05
8	Valley College	8.60
9	Warner Center	7.94
10	Tampa	7.88
11	Laurel Canyon	6.09
12	Balboa	5.33
13	Woodman	4.51
14	Sepulveda	4.22

Source: CrimeMapping.com

HOSPITALS AND HEALTH CARE FACILITIES

The presence of hospitals and other medical facilities can be an indication of the availability of medical services. The following hospitals are located near the Orange Line (within approximately a 1.5 mile radius):

- Kaiser Permanente, 5601 De Soto Ave (northwest of the intersection of 101 and De Soto)
- Encino Tarzana Regional Medical Center, 18321 Clark Ave (southeast of the intersection of 101 and Resdeda Blvd.)
- Sherman Oaks, 4929 Van Nuys Blvd. (northwest of the intersection of Van Nuys Blvd. and the 101)
- Valley Trauma Center, 14500 Sherman Circle (southwest of the intersection of Sherman Way and Van Nuys Blvd)
- Valley Presbyterian Hospital, 15107 Vanowen Street (northeast of the intersection of Vanowen and Sepulveda Blvd.)
- Hollywood Community Hospital Van Nuys, 14433 Emelita Street (southeast of the intersection of Oxnard Street and Van Nuys Blvd.

There are also a number of other facilities near various stations along the Orange Line, including community clinics, home health agencies, hospice care, skilled nursing facilities, and surgical clinics.

[v] National Highway Traffic Safety Administration, Fatality Analysis Reporting System, National Statistics. 2008. Accessed at http://www-fars.nhtsa.dot.gov/Main/index.aspx.

APPENDIX C

STATION AREA PROFILES

STATION AREA PROFILES

1 INTRODUCTION

This appendix provides a brief overview of each station area along the existing Orange Line Bus Rapid Transit (BRT) corridor. Corridor-wide conditions and a comparison of each station for a variety of topics are found in the previous appendix. The purpose of this appendix is to provide a description of the existing conditions for each station area for a wide variety of topics that impact the overall transit ridership of the corridor. These topics include land use, zoning, urban form, development potential, jobs, housing units, transportation conditions and health conditions. A summary of the overall opportunities to increase transit use through physical improvements is found in the last section each station area profile.

2 METHODOLOGY AND TERMS

Each station area profile has 14 topic-specific sections. The data and information for each station area profile came from a variety of sources including the American Community Survey, LA Metro, the City of Los Angeles, and the Los Angeles County Assessor's Office. Additional information was obtained from field surveys conducted by the consultant team. The following is a list of each of the 14 topic-specific sections and the type of information included in each.

- **Place Type.** This represents the TOD "Place Types" developed by the Center for Transit Oriented Development (CTOD) in their report titled *Creating Successful Transit Oriented Districts in Los Angeles: A Citywide Toolkit for Achieving Regional Goals*. These are discussed in more detail in the following section.
- **Existing Land Use.** This section includes a high-level description of the overall land use conditions in each station area. The information for this section was obtained from the Los Angeles County Assessor and field surveys of the area.
- **Zoning.** This information was obtained from the City of Los Angeles and downloaded directly from the website. It includes an overview of the zoning and whether the zoning generally matches existing land uses.
- **Jobs.** The jobs section describes the number and type of jobs in each station area. The information is from the U.S. Census Bureau, Longitudinal Employer Household Dynamics, 2008, and was processed for the TOD Database published by the Center for Transit-Oriented Development for the U.S. Department of Transportation.
- **Housing.** This section describes the housing situation in each station area, particularly the percentage of renters, subsidized units, and rent controlled units. The data is from the American Community Survey, 2005-2009 rolling data, and was processed for the TOD Database published by the Center for Transit-Oriented Development for the U.S. Department of Transportation, and from ongoing data collected by the City of Los Angeles Housing Department.
- **Development Potential.** The development potential is a generalized assessment of the potential for new development and joint development in each station area based on project team's experience. The map associated with this section identifies parcels that are greater than 0.5 acres in size, a proxy minimum sufficient parcel size for redevelopment to be feasible.

- **Urban Form.** The urban form section is a discussion of the character of the built environment in the station area. It includes information on the block size, building footprints, street frontages of buildings, and streetscape quality.
    - Building Footprints – For major corridors, the footprint of each building is shown. The intent is to show the overall pattern of building and type of building along the corridor. This map is an expression of the intensity of each station area. Single family areas were not included in this assessment.
    - Frontages – Frontages are mapped for the major streets in each station area. While frontages vary along each block, this report identified the overall conditions for each block or portion of block in order to provide a high-level snapshot of the general frontage conditions. Three types of frontages are identified.
        - Shopfront – A condition where stores are located adjacent to the sidewalk, thus creating a pleasant and attractive pedestrian environment. This situation is generally associated with more walkable areas and there is a more vibrant street scene. It is also associated with more urban areas and high-quality transit oriented districts.
        - Setback/Landscaping – A condition where buildings are separated from the sidewalk with landscaping such as trees, grass or shrubs. This situation is generally more suburban in character but is still somewhat attractive for pedestrians although not as interesting as the shopfront.
        - Fence/Wall/Parking – A condition where a fence, wall or parking is adjacent to the sidewalk. This is the most unattractive and least pedestrian-friendly of the frontage conditions and is least supportive of high-quality transit oriented districts.

Fence Frontage

Landscape Setback

Shopfront

- **Streetscape Quality** – The quality of the streetscape are mapped for major roads for the area within ¼ mile of the Orange Line station. Three general streetscape quality conditions are identified based on the subjective opinion of the consultant team.
    - Low – These are areas where there are limited or no street trees, narrow sidewalks located at or near the edge of the street, dirty and broken sidewalks and few pedestrian crosswalks. These areas are the most hostile and unsafe for pedestrians.
    - Medium – Areas identified as "medium" have conditions that have some but not all of the characteristics of the "high" streetscape areas. For example, these areas may have attractive street trees but have few crossings and broken, dirty and narrow sidewalks.
    - High – These are areas that generally have attractive, consistent street trees, wide sidewalks, and a pedestrian realm that is buffered from cars by on-street parking or planting strips. Areas categorized as "high" are generally the safest for pedestrians.

Low Streetscape Quality

Medium Streetscape Quality

High Streetscape Quality

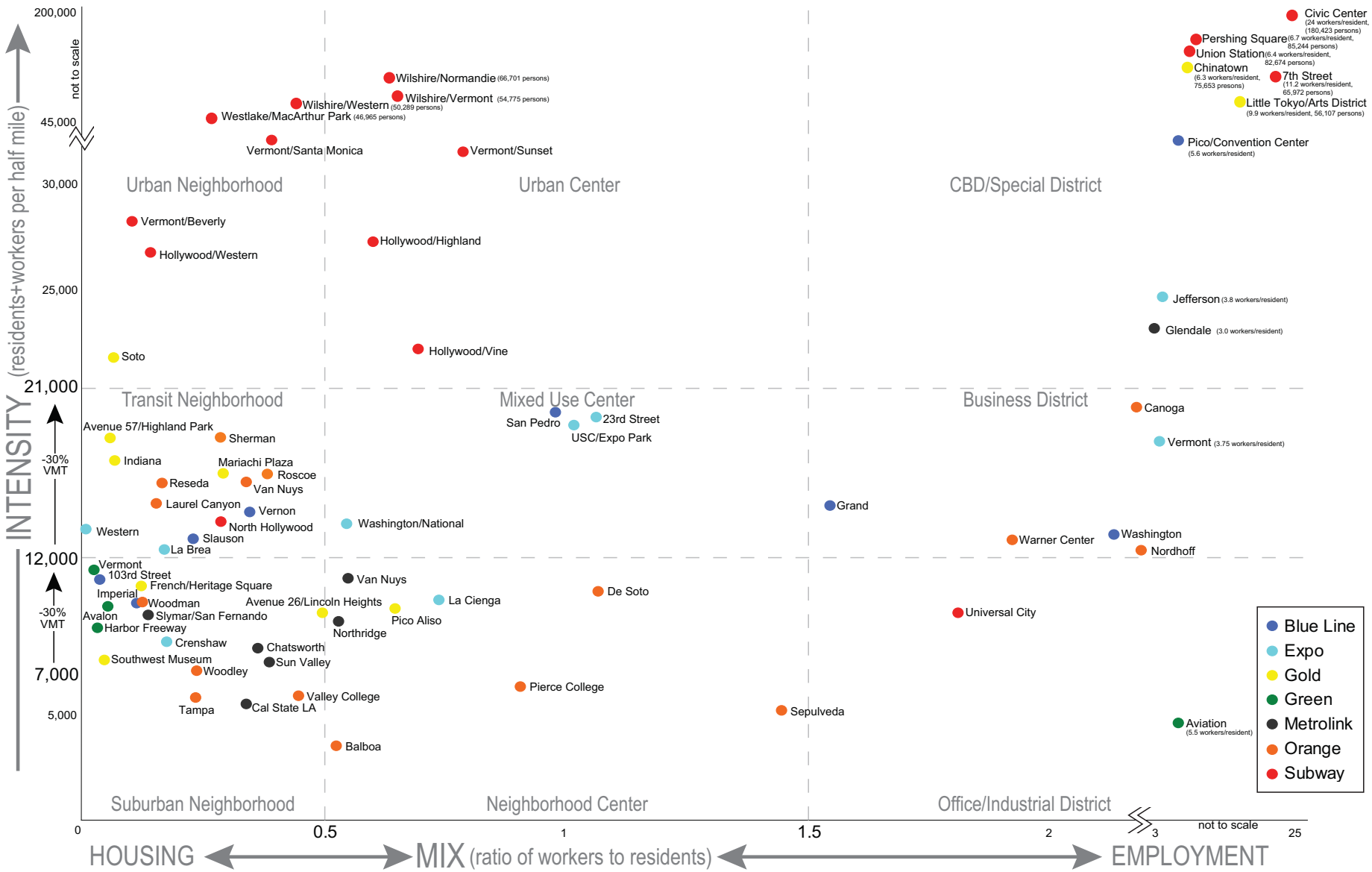
- **Transit.** This section primarily describes existing and planned connecting transit services, as well as pedestrian paths between Orange Line stations and nearby transit stops (including distances required to cross arterial streets).
- **Pedestrian.** This section describes pedestrian conditions in the station area in terms of sidewalk widths, distances between crosswalks along arterial streets, the subjective quality of the pedestrian environment along arterial streets (in terms of protection from traffic, shade-offering tree canopies, and adjacent land uses), and the general directness of pedestrian pathways within the station area (as expressed using density of intersections).
- **Bicycle**. This section describes bicycle facilities at and around stations, including off-street paths (primarily the Orange Line Bikeway) and on-street lanes as well as parking.
- **Traffic.** This section describes arterial roadways in the station area, in terms of capacity as well as congestion.
- **Parking.** This section describes station parking lots in terms of both capacity and usage. It also identifies locations where nearby on-street parking is metered.
- **Health Environment.** The Health Environment description identifies the existing healthy food options and the amount of violent crime in the transit district. Information for the Health Environment was obtained from the California Nutrition Network (from the California Department of Public Health) website and information for the violent crimes was obtained from "crimemapping.com" run by The Omega Group with data from the City of Los Angeles Police Department. A broad discussion of corridor-wide health conditions is found in Appendix B.
- **Issues and Opportunities.** This section provides a high-level assessment of the potential changes to a station area in order to increase transit ridership.

3 PLACE TYPE DESCRIPTION

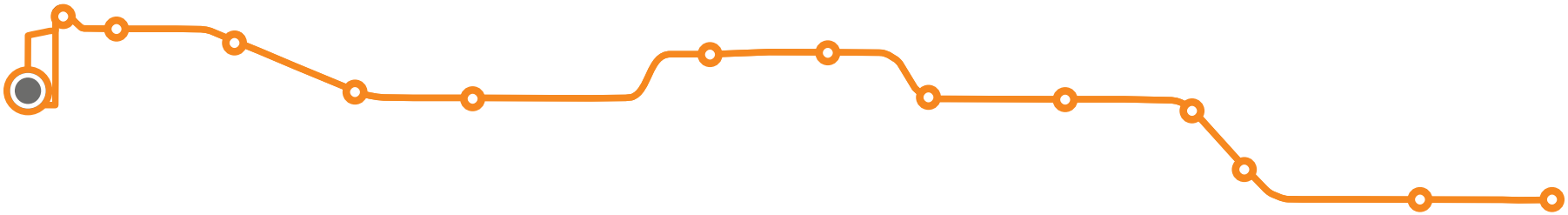
Each station area is identified as a specific "place type." The place types used in this report were created by the Center for Transit Oriented Development in the 2008 report for LA Metro titled, *Creating Successful Transit-Oriented Districts in Los Angeles: A Citywide Toolkit for Achieving Regional Goals*. The place types compare station areas in the City of Los Angeles based on existing data and conditions for intensity (total people living and working) and the mix of residents and employees. These place types can be a helpful tool in identifying station areas with similar intensities and similar ratios between residents and workers. Stations with similar existing conditions may use similar strategies to create successful transit-oriented districts. The following are descriptions of the place types identified in the 2008 report:

- **Urban Neighborhoods** are mostly residential and are some of the most intense station areas in Los Angeles with more than 21,000 people living or working in the half mile.
- **Transit Neighborhoods** are also primarily residential but with a lower intensity overall. These station areas have between 12,000 and 21,000 people living and working in them.
- **Suburban Neighborhoods** are also mostly residential and have the lowest intensity, less than 12,000 people in the half mile around the station.
- **Urban Centers** are high intensity with a mix of residential and employment uses and may include large scale retail centers or medical complexes.
- **Mixed Use Centers** are lower intensity than Urban Centers (between 12,000 and 21,000 people in the station area) and have a mix of residents and workers.
- **Neighborhood Centers** also have a mix of residents and workers and are low intensity places (less than 12,000 people in the half mile.)
- **Central Business/Special Districts** are high intensity, mostly employment station areas.
- **Business Districts** are also mostly employment, but with lower intensity than CBDs (between 12,000 and 21,000 people in the station area.)
- **Office/Industrial Districts** are the lowest intensity station areas and are mostly employment uses in the station area.

While 12 place types were identified in the City of Los Angeles, there are only four place types along the Orange Line corridor. These are: Transit Neighborhood; Suburban Neighborhood; Neighborhood Center; and, Business District.



Typology Matrix (*Source: Reconnecting America*)

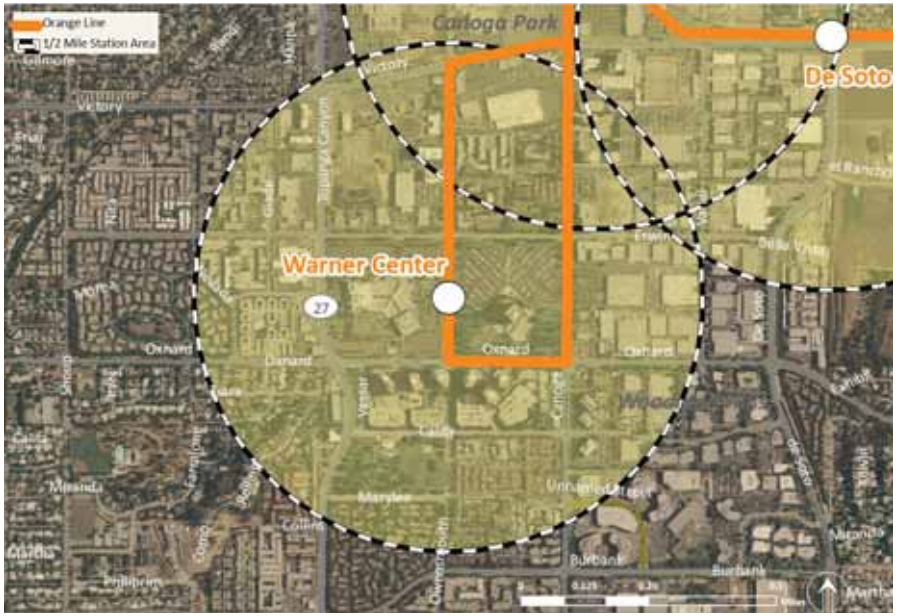


WARNER CENTER STATION

The Warner Center Station is located on Owensmouth Avenue between Erwin and Oxnard Street in Woodland Hills. The station is the western terminus of the current 14-station Orange Line, which presently runs in street traffic from the Canoga station to this station. The station area is a major employment and retail destination, but it is designed in an auto-oriented format with large surface parking lots and buildings located at a great distance from the street. Except for a portion on the western edge, the entire station area within 1/2 mile is covered by the Warner Center Specific Plan.

Place Type

Business District: Employment area with moderate intensity.

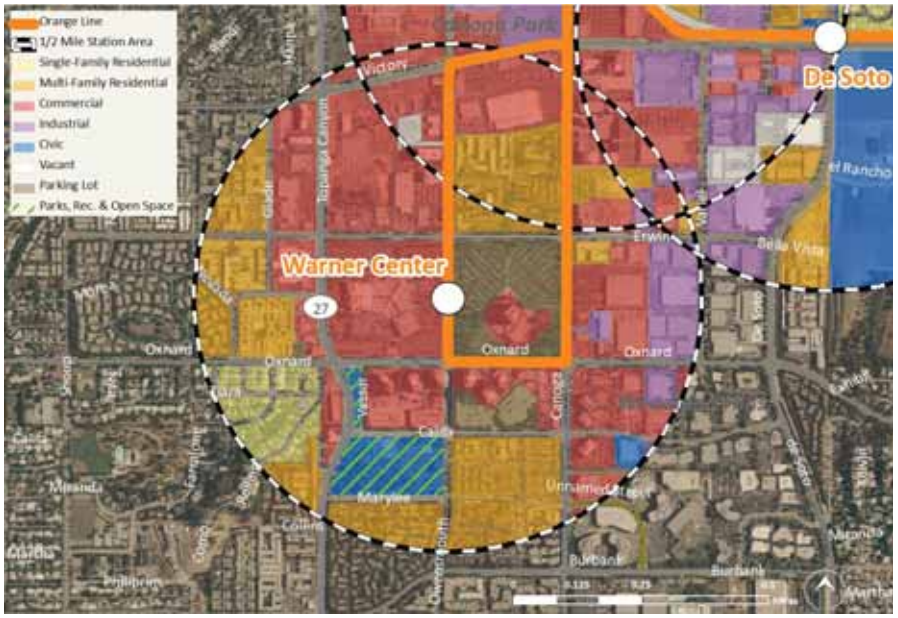


Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Corridor Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The Warner Center is a major office and retail designation that includes the Westfield Promenade at Woodland Hills Shopping Center and many other restaurants and retail establishments, high rise office buildings and multi-family residential development.
- The overall intensity of development is relatively high compared to other station areas, but in general its auto-oriented design is not pedestrian friendly. There is a significant amount of surface parking space that the Warner Center Specific Plan restudy, which is to be reviewed by City Council in Spring of 2012, envisions to be redeveloped.
- Of the residential uses, most are multi-family but a there is a small single family area located in the southwest corner of the station area.
- There are limited neighborhood serving uses in the area as the majority of retail uses are regional retail such as department stores.



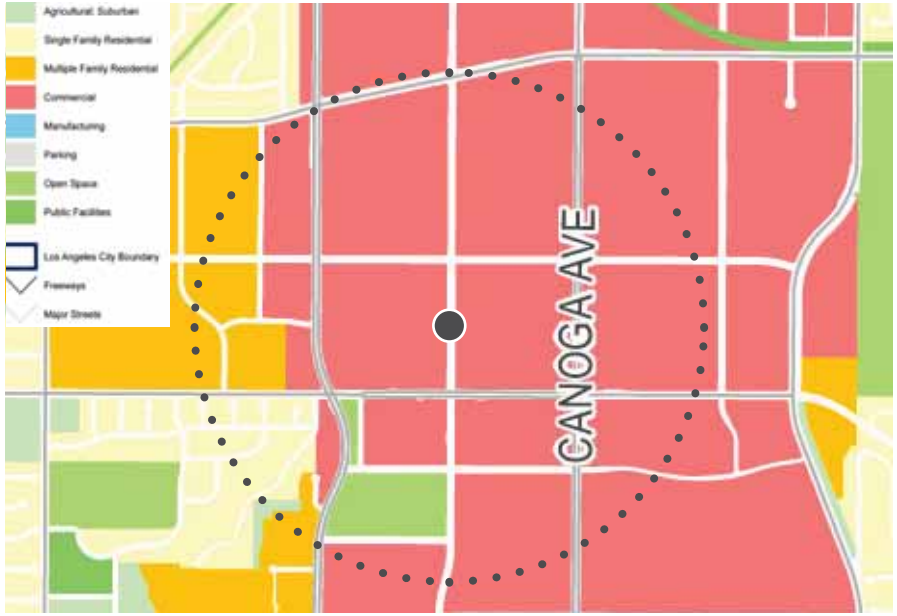
Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

Use	Acres	Precentage
Residential	132.62	31.11%
Single-Family Residential	16.93	3.97%
Multi-Family	115.70	27.14%
Commercial	215.08	50.45%
Industrial	22.85	5.36%
Civic	18.88	4.43%
Vacant (Public and Private)	2.27	0.53%
Parking Lot	34.61	8.12%
Total	**426.32**	**100.00%**

Zoning

- The majority of the area located east of Topanga Canyon is zoned for commercial, but the uses in this area are a mix of multi-family residential, industrial and public. Areas east of Topanga Canyon are included in the Warner Center Specific Plan restudy.
- The Specific Plan restudy calls for future development this area to be predominantly commercial.



Zoning (*Source: City of Los Angeles*)

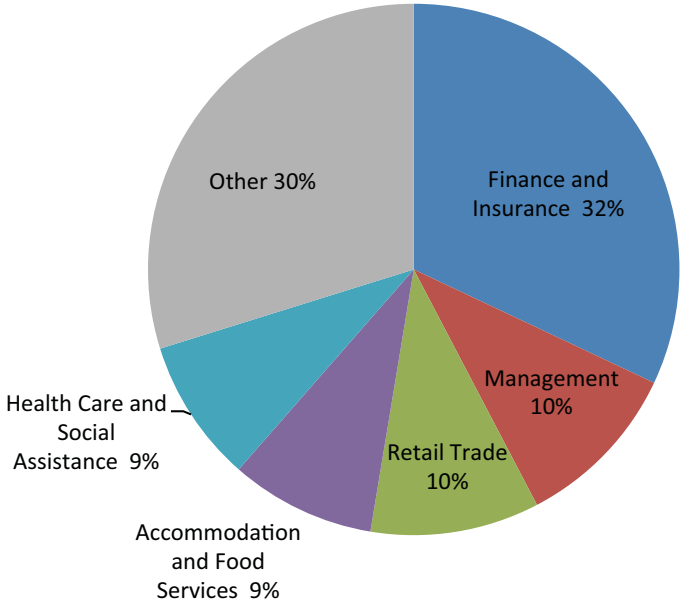
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Housing

- 72% of households are renters, and almost half of those are overpaying for rent (46%).
- 57% of households are non-family households, a higher share than the average Orange Line Station.
- 89% of the housing units are subject to the Rent Stabilization Ordinance, indicating that most of the housing is in buildings with two or more units buildings built before 1978. Some units may be in condominium complexes and currently owner occupied, but subject to rent control if rented.
- There is no subsidized affordable housing in the Warner Center station area.

Jobs

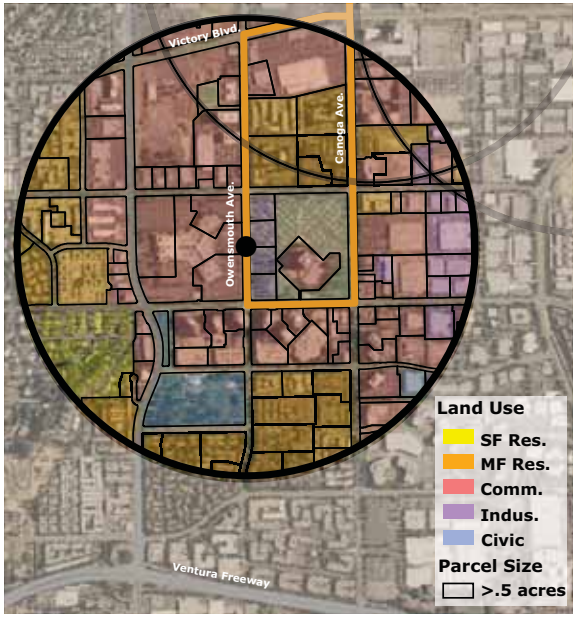
- Warner Center is the largest job cluster on the Orange Line corridor, with 18,862 jobs. The Warner Center and Canoga station areas both capture significantly more jobs than any of the other stations.
- With nearby office towers and business parks, Warner Center's jobs are primarily office in nature, with one-third of jobs in the Finance and Insurance sector, and Management as the second largest sector with 10% of jobs.
- Worker incomes are higher than average in the Warner Center station area.



Job Distribution (*Source: Reconnecting America*)

Development Potential

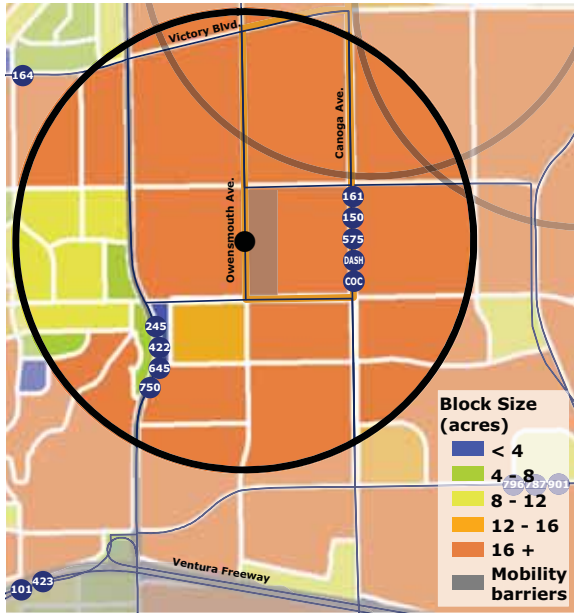
- Given the large parcel size and the age of the building stock, the area south of east of Topanga Canyon has a high potential for redevelopment and intensification of uses. This area is covered by the Warner Center Specific Plan.
- Westfield owns three blocks between Topanga Canyon Boulevard and Canoga Avenue. Westfield had planned a lifestyle center expansion on the block south of its mall, but the planned development has recently stalled. A resurgence in market strength will likely trigger several of the nearby remaining parcels to redevelop.
- There are no parcels immediately adjacent to the Warner Center Station that are owned by public entities so the possibility of joint development is low.
- The Warner Center Specific Plan calls for a significantly higher increment of residential growth than forecasted by SCAG. The Plan would allow for up to 22,000 new residential units to be added in the full specific plan area which includes, among other areas, the Pierce College, Canoga, and Warner Center station areas.



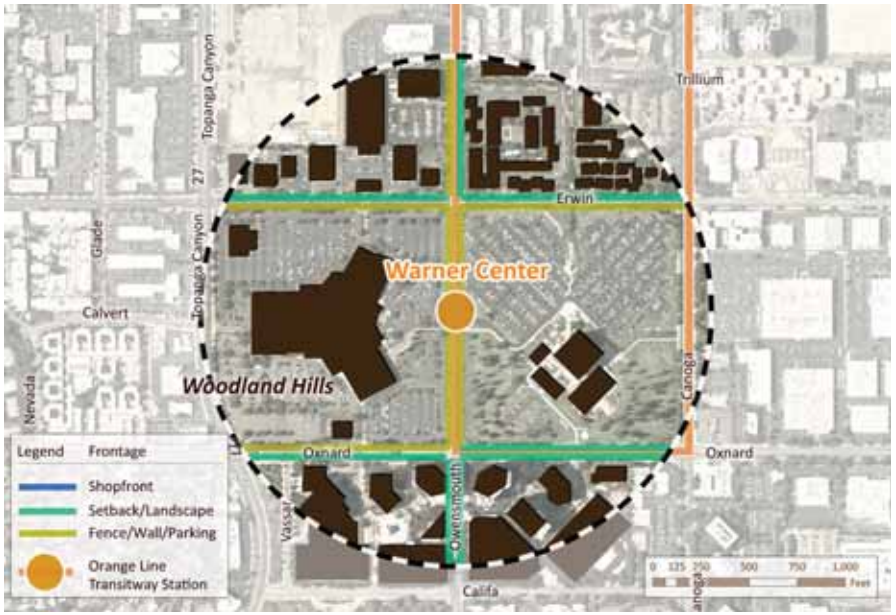
Development Opportunity (*Source: Reconnecting America*)

Urban Form

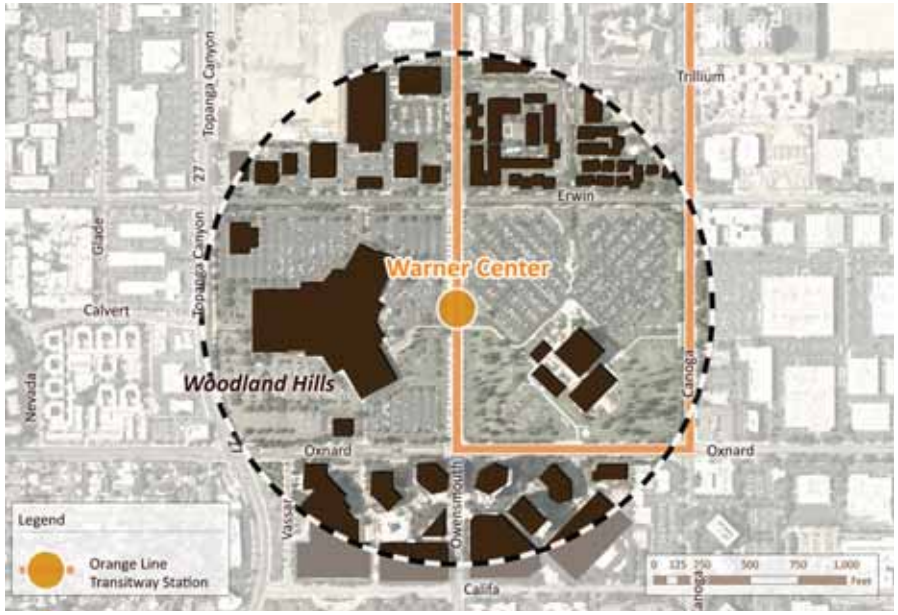
- The area is generally auto-oriented in nature, consisting of numerous big-box retail and business establishments that are surrounded by parking.
- The large paved parking areas to either side of the station can potentially be redeveloped into uses serving the residential, retail, office, while encouraging greater Orange Line transit use.
- Although trees are present, the perimeter sidewalks for the parking lots and shopping blocks do not provide a pleasant environment, as one is placed between traffic and parked cars. In addition to long blocks that discourage walking, most parking is fenced off and uninviting from the street, with pedestrian access and circulation difficult once visitors have parked.
- The streetscape tends to improve along Owensmouth Ave, north of Erwin Street. Mature trees, green setbacks, and on-street parking help create a safer and a more enjoyable environment.
- Blocks south of Oxnard are of greater intensity, in both density and massing. Sidewalks typically include mature, full-grown trees and parking is typically structured, thus reducing large open parking lots.
- Frontages vary between deep setbacks for shopping mall areas surrounded by parking and fencing and shallower, landscaped setbacks for offices and residential areas. Areas between Erwin Street and Oxnard Street generally include non-pedestrian-oriented frontages made up of parking, wall, or fencing.



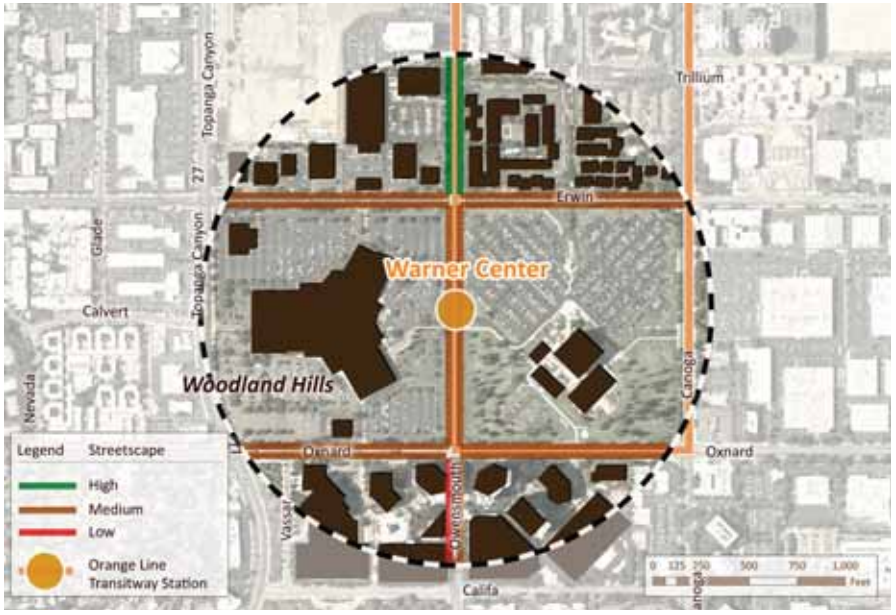
Block Pattern (*Source: Reconnecting America*)



Frontages



Building Footprints



Streetscape Quality

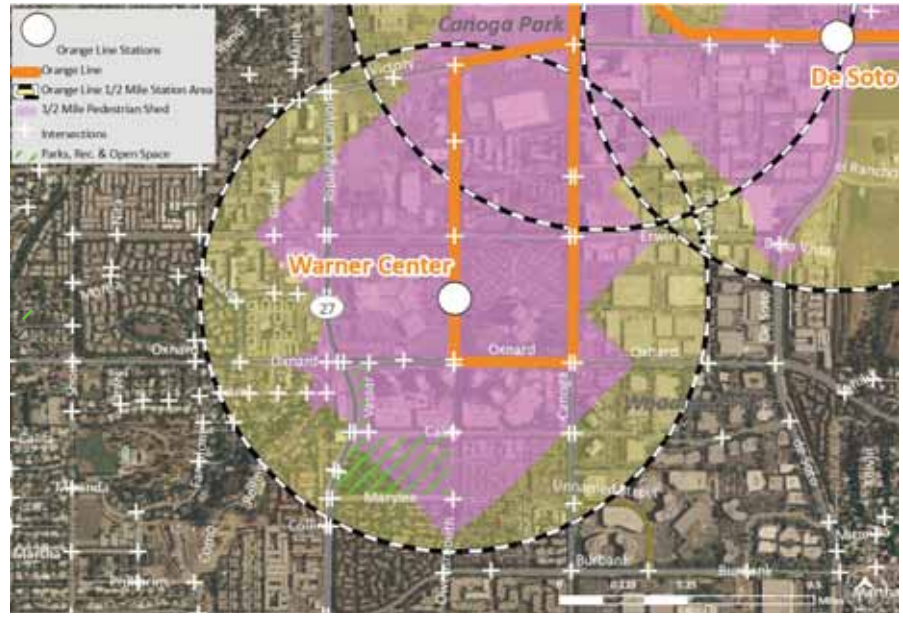
Transit

- Approximate Orange Line travel time from this station to North Hollywood is 43 minutes.
- Warner Center is a major transit hub. Connecting transit options include Metro Rapid Line 750, which runs south from Warner Center, then east on Ventura Boulevard to the Universal City Metro Rail Red Line station every 5-6 minutes during peak periods and every 12-30 minutes mid-day on weekdays. The station is also served by Metro Local Lines 150, 161, 164, 245 and 645 (Line 150 operates evenings and weekends, and Lines 164 and 245 operate weekends), by LADOT Commuter Express Line 422 between Thousand Oaks and Downtown Los Angeles, and by Antelope Valley Transit, Santa Clarita Transit, and Ventura Intercity Service Transit Authority (VISTA) commuter lines.
- Uniquely among Orange Line stops, the Warner Center "station" consists of a pair of curbside bus stops (one serves as a terminus and layover location; a stop a few hundred feet ahead serves as the start of the line). Along with bus stops used by connecting services, the stops are located along a relatively quiet and pedestrian-friendly street, Owensmouth Avenue. One stop is located across Oxnard Street, which is five lanes and more than 80 feet wide.

Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalks in the area vary in width from approximately 4 to 15 feet, and distances between signalized crosswalks vary from approximately 400 feet to more than one-half mile.
- The quality of the pedestrian environment in this area is mixed: limited curbside parking provides a "buffer" from traffic and there is some shade-offering tree canopy.
- Warner Center is a major mixed-use development with many "superblocks." Intersection density within the half-mile radius is low, 43 per square mile.
- The station area has a Walk Score of 83. Walk score criteria and comparisons between stations are found on page 2-5.



1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- There are Class II on-street lanes on a two-mile segment of Oxnard Street to the south of the station, between Topanga Canyon Boulevard and Winnetka Avenue.
- A roughly one-and-a-half mile segment of Owensmouth Avenue north of the station is identified by the Bicycle Plan as part of the Backbone Network. Topanga Canyon is also a Backbone corridor, and identified as a Priority 2 corridor in the Bicycle Plan Five-Year Implementation Strategy.
- Bicycle racks are provided at this station; however, there are no lockers.

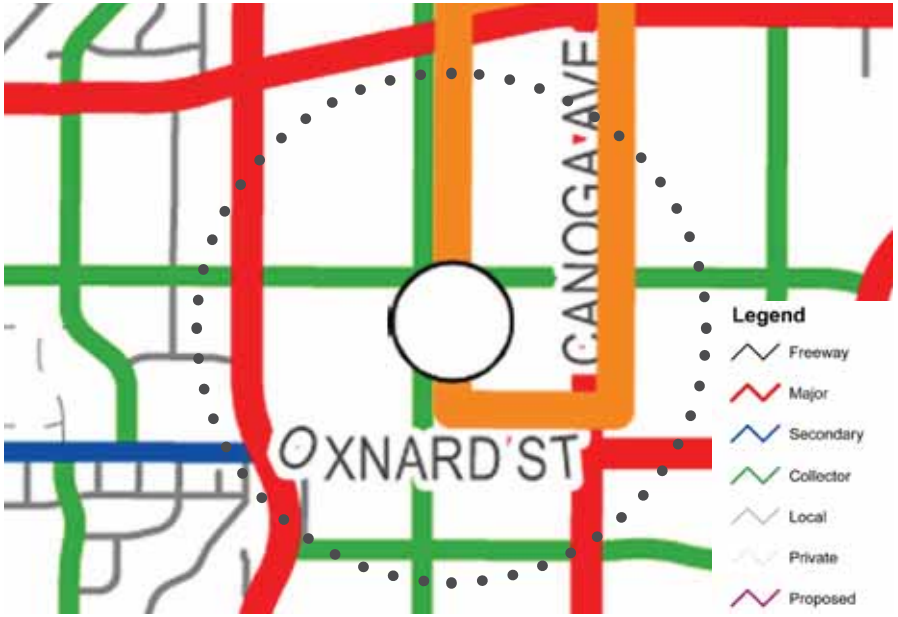
Bike Network (*Source: LA Metro*)

Traffic

- Oxnard Street, an arterial featuring four through lanes plus turn lanes, is a few hundred feet south of the stops.
- Oxnard is relatively uncongested. Year 2009 peak-hour unidirectional volume was approximately 700 vehicles (eastbound, PM), indicating a volume-to-capacity ratio of between 0.3 and 0.4.
- With the Chatsworth extension of the Orange Line, service to this station may change as more buses head north along the busway rather than continuing to the Warner Center stop.

Parking

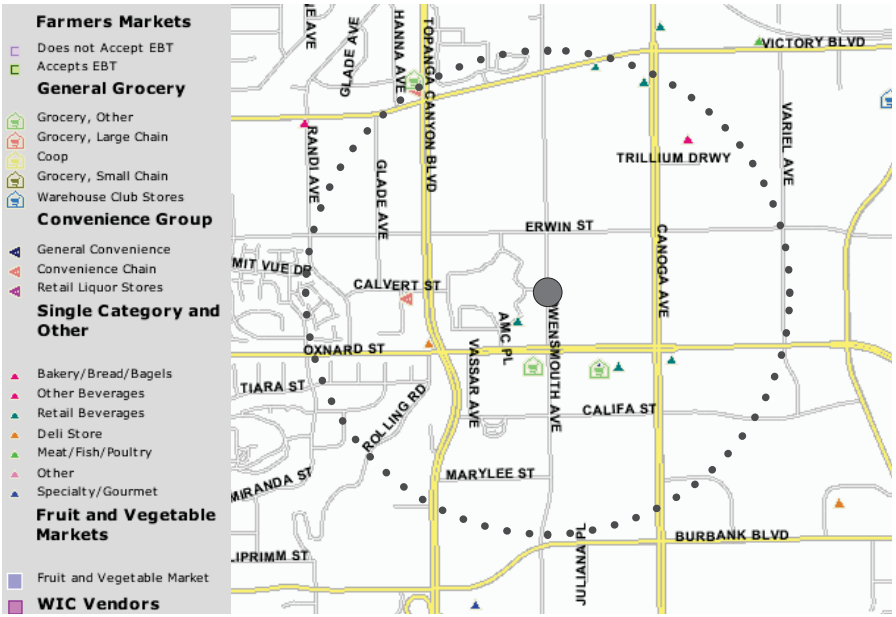
- There is no station parking lot.
- There is little curbside parking available in the area (however, there are significant amounts of off-street parking).



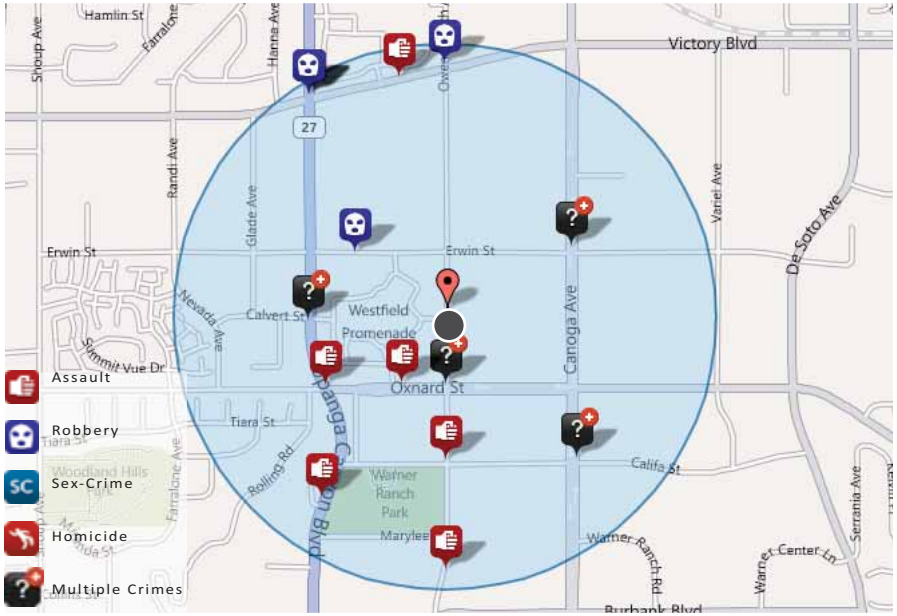
Street Network (*Source: City of Los Angeles*)

Health Environment

- The area has relatively few healthy food retail options. There are 2 grocery stores located on Oxnard Street and one CalFresh Certified Vendor in the station area. The planned Westfield development originally included plans for a high end grocery store; however this project has stalled.
- Over the past 6 months, there have been nineteen violent crimes in the half-mile radius around the Warner Center station. The crimes were 10 robberies, 8 assaults and 1 sex crime. Given the large number of workers and residents in the area, the crime rates are lower than other station areas along the corridor.



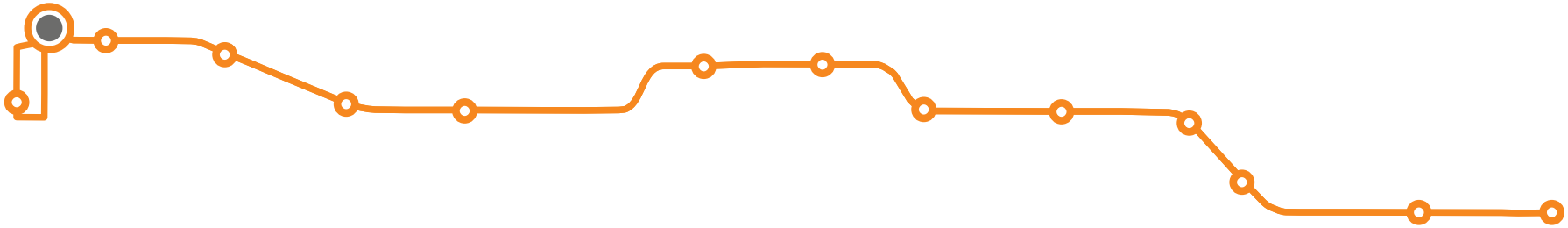
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The area has a high potential for creating new transit-oriented districts as the majority of the Warner Center station area could be redeveloped in a transit-supportive design with transit-supportive uses. The majority of the station area is covered by the Warner Center Specific Plan, which will be the guiding policy document for this area.
- There are significant opportunities to increase the pedestrian character of the area by adding pedestrian connections through the superblocks, and improving the streetscape environment to be safer and more attractive for pedestrians.
- Secure bike parking is needed at the station as this is the only station area without bike lockers.



CANOGA STATION

The Canoga Station is located mid-block of Canoga Avenue between Vanowen Street and Victory Boulevard in Canoga. The station is less than a mile east of the Route 27, Topanga Canyon Boulevard, and approximately a mile and a half north of the Canoga Avenue on-ramp to the Ventura Freeway (US-101). The entire station area is part of the Warner Center Specific Plan area and the station area (a half-mile buffer around the station) overlaps with both the de Soto station area and the Warner Center station area. Canoga station is at the western end of the existing Orange Line and the extension of the line to Chatsworth is currently under construction from this point on, heading north.

Place Type

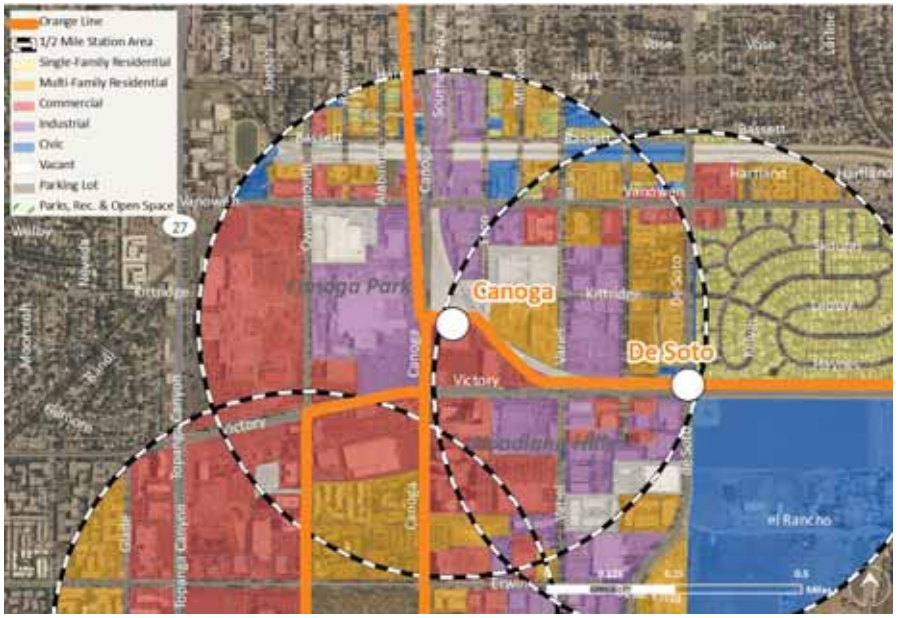
Business District: Employment area with moderate intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Corridor Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The Canoga station area is a major office and retail designation that includes the Topanga Plaza Shopping Center and many other restaurants and retail establishments. It also includes numerous high-rise office buildings.
- There are multi-family uses spread throughout the area and interspersed with the commercial and industrial uses.
- There are limited neighborhood serving uses in the area as most of the retail is regional retail such as the stores found in the Topanga Plaza Shopping Center.



Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES		
Use	Acres	Percentage
Residential	93.86	22.28%
Single-Family Residential	10.61	2.52%
Multi-Family	83.24	19.74%
Commercial	155.31	36.87%
Industrial	111.41	26.45%
Civic	13.89	3.30%
Vacant (Public and Private)	45.48	10.80%
Parking Lot	1.32	0.31
Total	**421.25**	**100.00%**

Zoning

- The entire area south of the Vanowen Street is zoned Commercial, but the existing uses also include a significant amount of industrial to multifamily residential uses.
- The area north of Vanowen contains a mix of lower intensity uses including single family, open space, public facilities and some manufacturing uses.

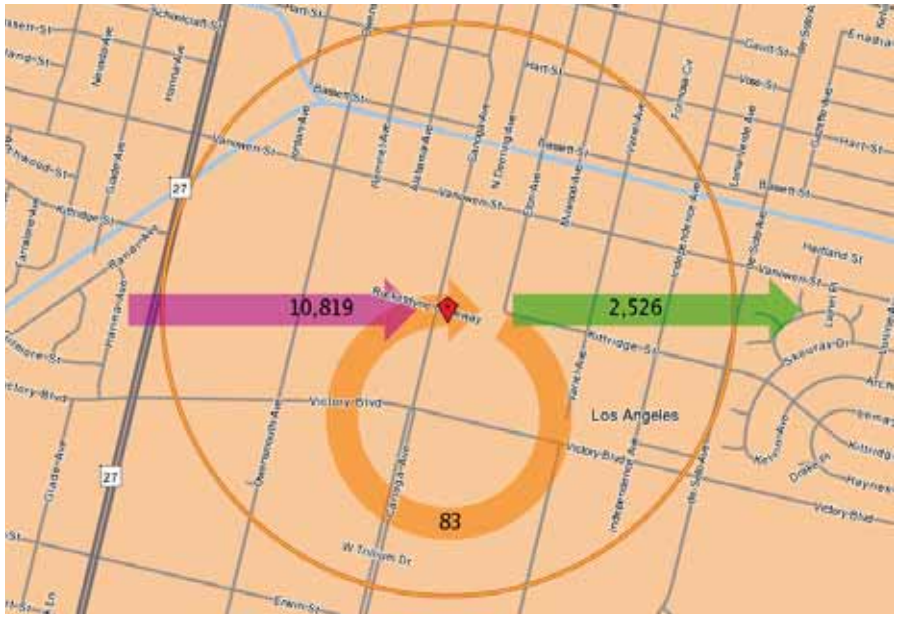
Zoning (*Source: City of Los Angeles*)

Housing

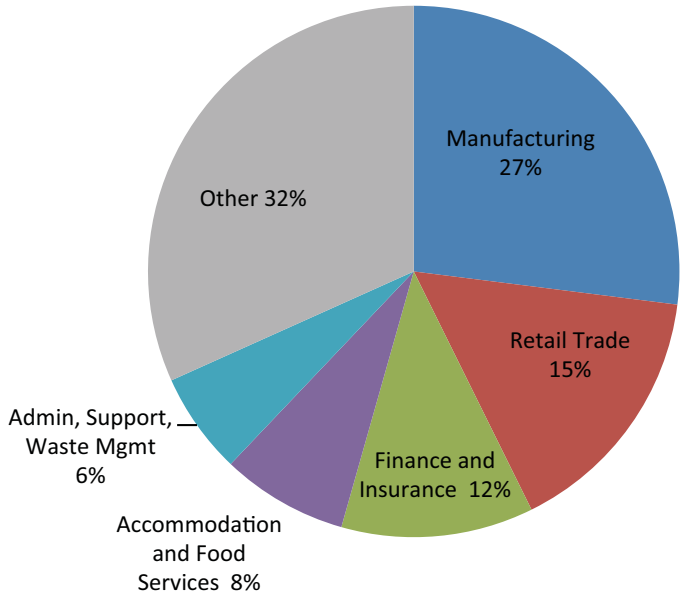
- 85% of households are renters, and half of those are overpaying for rent (52%).
- 50% of households are non-family households, a higher share than average along the Orange Line.
- 68% of housing units are subject to the Rent Stabilization Ordinance (Rent Stabilization Ordinance). A large number of rental units in the station area are recently built and therefore not subject to the Rent Stabilization Ordinance.
- Despite significant recent multifamily residential development activity, there is no subsidized affordable housing in the station area.

Jobs

- After the Warner Center station area, the Canoga station area maintains the second largest job cluster with 11,595 jobs.
- Jobs around Canoga Station are highly diverse with jobs in both industrial and office-based sectors. Per the Warner Center Specific Plan restudy, many of the "manufacturing" jobs in the station area are in fact software development, internet, and other high tech, office-based jobs.
- Worker incomes are higher than average in the Canoga station area.



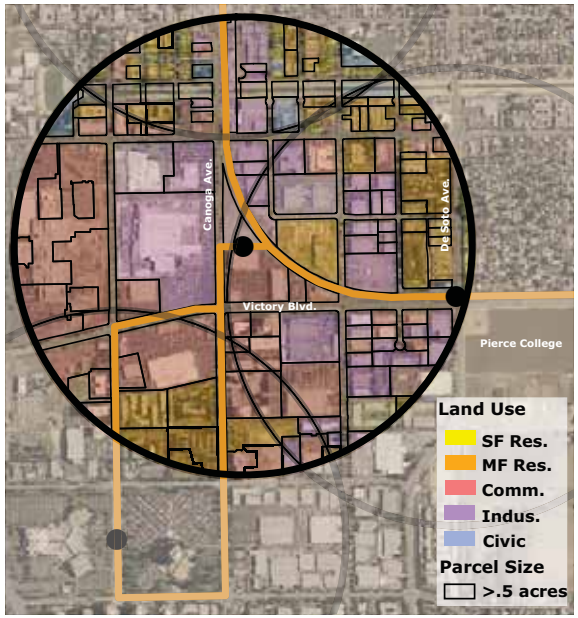
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)



Job Distribution (*Source: Reconnecting America*)

Development Potential

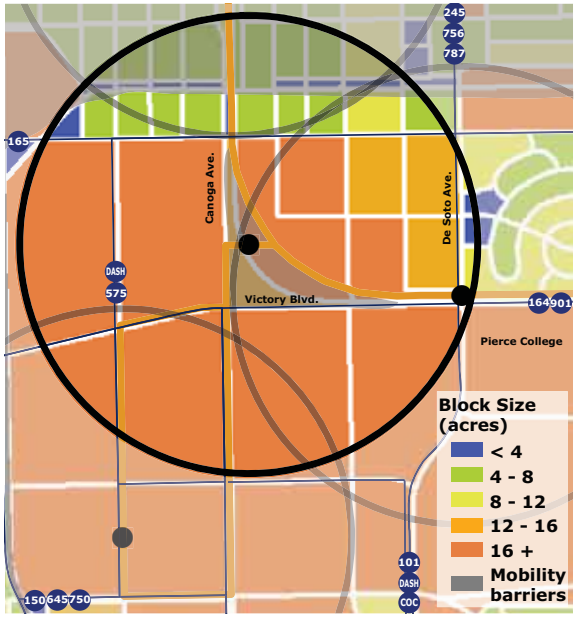
- Given the large parcel size and the age of the building stock, the area south of Vanowen has a high potential for redevelopment and intensification of uses. This area is covered by the Warner Center Specific Plan.
- The block just west of the Orange Line station, also known as the Pratt & Whitney / Rocketdyne site, is a significant redevelopment site. Pratt & Whitney owns this site and is closing its operations, and is supportive of redevelopment of this site with a mix of high intensity uses. A portion of the site has already been sold to Best Buy and is in retail use.
- Redevelopment of the superblock to include internal pedestrian connections would greatly enhance overall connectivity in the station area and allow for easier direct pedestrian access to the Shopping Center.
- There is a large triangle-shaped Metro park-and-ride lot just north of the station that presents an opportunity for joint development at the station.
- The Warner Center Specific Plan calls for a significantly higher increment of residential growth than forecasted by SCAG. The Plan would allow for up to 22,000 new residential units to be added in the full specific plan area which includes, among other areas, the Pierce College, Canoga, and Warner Center station areas.



Development Opportunity (*Source: Reconnecting America*)

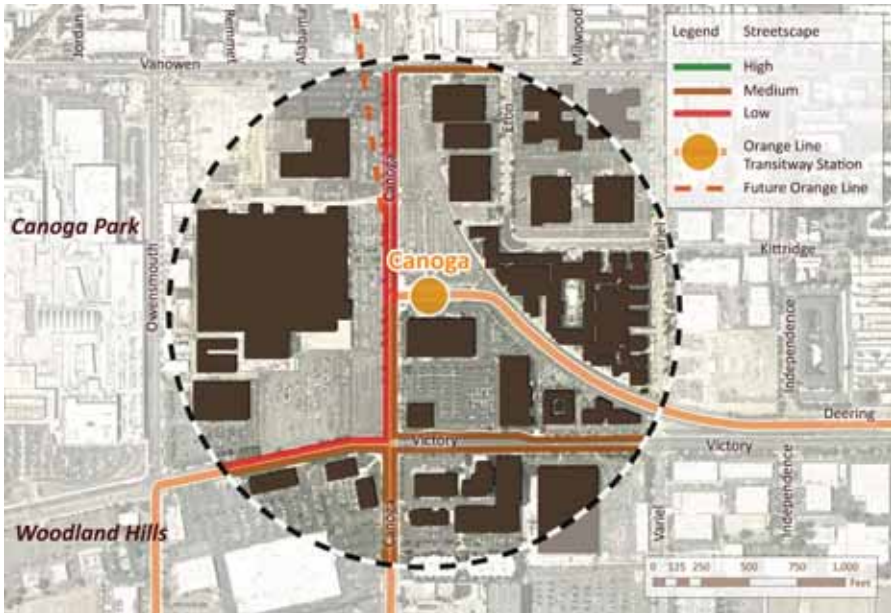
Urban form

- The area is primarily auto-oriented in nature, consisting of numerous big-box retail and business establishments which are surrounded by parking.
- The large residential development adjacent to the Orange Line stop is walled off and does not provide direct access to the station or nearby businesses. This presents an important connection and access issue.
- Generally, block sizes are very large, which create an unpleasant walking experience and pose a potential barrier to transit access.
- Buildings are typically set back and often surrounded by parking lots. This currently creates an unpleasant pedestrian environment but could also potentially create opportunities for future redevelopment along the street fronts.
- The average streetscape quality in the area is poor, providing narrow sidewalks with little to no separation from high-speed traffic. Street trees and planter separations are scarce and large portions of the area's sidewalks are next to unattractive fencing or walls along parking lots.
- The frontage along Canoga Boulevard consists primarily of fenced parking lots, with a small number of areas that include landscaped setbacks, which vary greatly. Typically, no buildings in the area front the street directly. The frontage along Victory Boulevard is similar to that of Canoga Boulevard, consisting of parking lots with some landscaped setbacks that vary between 15 to 50 feet.

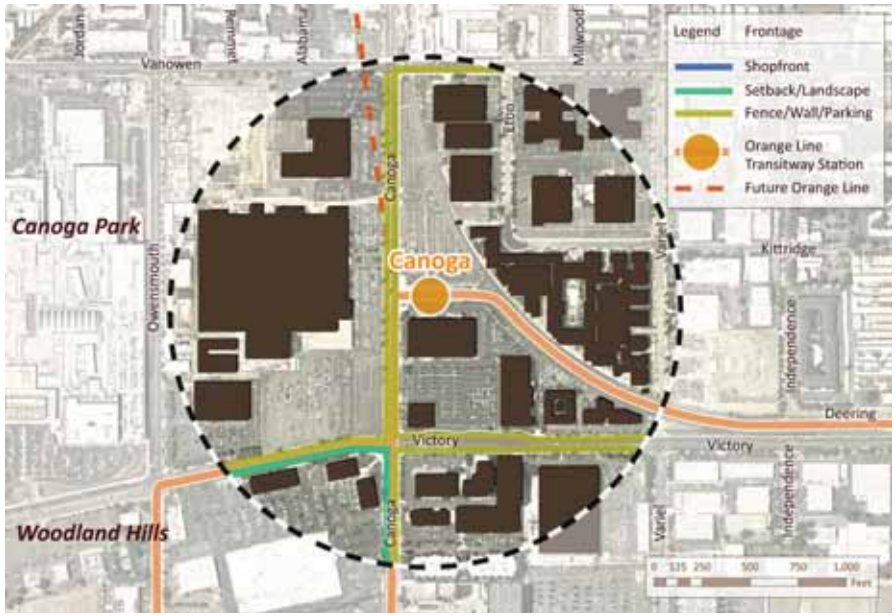


Block Pattern (*Source: Reconnecting America*)

Building Footprints



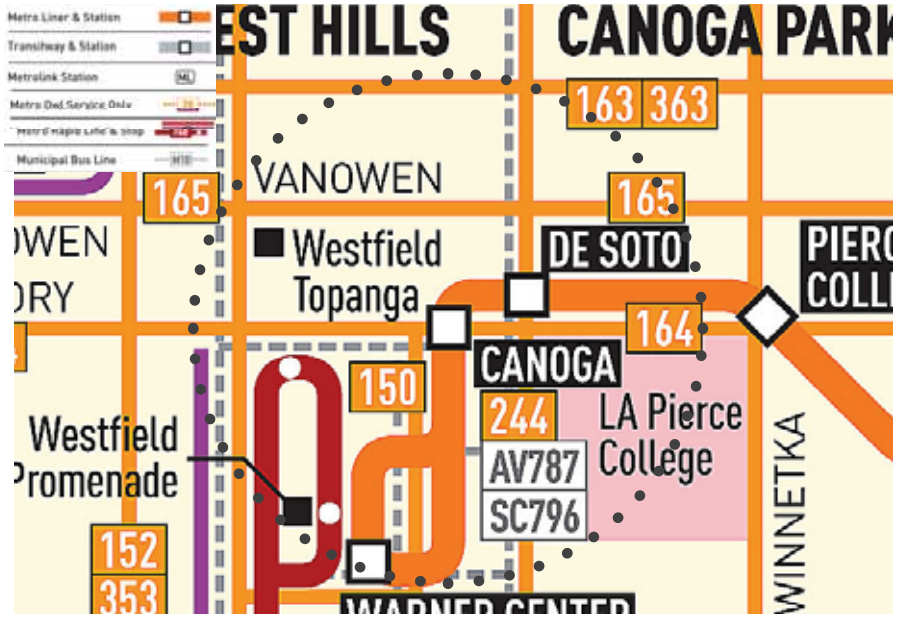
Streetscape Quality



Frontages

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 40 minutes, and to Warner Center, 3 minutes.
- Connecting transit options primarily consist of three Metro Local routes: the 164 on Victory Boulevard, the 150 to Canoga Park and Universal City, and the 161 to Thousand Oaks. The 164 operates on 15- to 20-minute peak headways and 30-minutes mid-day, the 150 and 161 less often. Antelope Valley Transit and Santa Clarita Transit commuter lines also serve this station.
- The nearest eastbound and westbound bus stops are located approximately 1,000 feet to the south, at Victory Boulevard. Both are located on the west side of Canoga Avenue; there is a crosswalk at the station (aligned with its north side, so riders transferring from other routes to the Orange Line must walk slightly out of direction) that requires a crossing of five lanes and approximately 70 feet; there are longer crosswalks at Victory. Access to the eastbound (and southbound, for buses using both Victory and Canoga) stop requires a crossing of Victory, which is eight lanes and approximately 90 feet wide at this point. The eastbound stop provides seating and shelter, while the westbound stop provides only seating.
- The Orange Line is currently being extended north from Canoga Station.



Transit Network (*Source: LA Metro*)

- All new development within Warner Center since adoption of the original Specific Plan has paid a congestion management fee. These funds, which were used to fund the Specific Plan restudy, are available within the Warner Center district for transportation improvements.

Pedestrian

- Sidewalks along Canoga and Victory vary from 4 to 14 feet in width, and distances between signalized crosswalks vary from approximately 400 to 1,300 feet. While the latter distance is enough to take pedestrians significantly out of direction, crosswalks in this area are generally closer together than around other Orange Line stations.
- The quality of the pedestrian environment in this area is largely a function of the adjacent commercial and industrial land uses: arterial streets are lined by parking lots, and there is no curbside parking to provide a buffer from traffic. There is limited shade-offering canopy.
- Because the area is primarily industrial, intersection density within the half-mile radius is extremely low, 37 per square mile.
- A fence around the large apartment complex to the northeast of the station blocks access to the station.
- The station area has a Walk Score of 77. Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point; however, it dead ends at Canoga Avenue, on which there are no lanes, and the path is fenced, limiting access from the neighborhood. There are no existing facilities for cyclists on area streets.
- As part of the Orange Line extension north of Canoga, the Orange Line bikeway is being extended in parallel.
- Bicycle racks and lockers are provided at this station; however, they are somewhat hidden from view.

Bike Network (*Source: LA Metro*)

Traffic

- Victory Boulevard, an east-west arterial featuring six through lanes plus turn lanes, intersects with Canoga Avenue, a north-south arterial featuring six through lanes plus turn lanes to the south and five through lanes plus turn lanes to the north, approximately 1,000 feet to the south of the station.
- Both streets are relatively uncongested. Year 2010 peak-hour unidirectional volume on Canoga was approximately 1,800 vehicles (northbound, PM), indicating a volume-to-capacity ratio of approximately 0.6, while year 2007 peak-hour unidirectional volume on Victory was approximately 1,600 vehicles (eastbound, AM), indicating a volume-to-capacity ratio of between 0.5 and 0.6.
- All new development within Warner Center since adoption of the original Specific Plan in has paid a congestion management fee. These funds, which were used to fund the Specific Plan restudy, are available within the Warner Center district for transportation improvements.

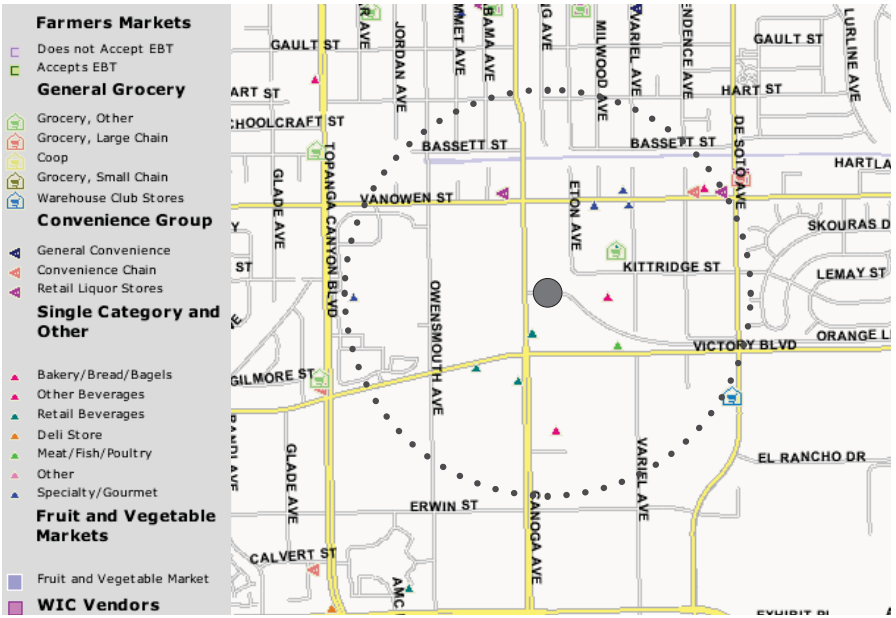
Street Network (*Source: City of Los Angeles*)

Parking

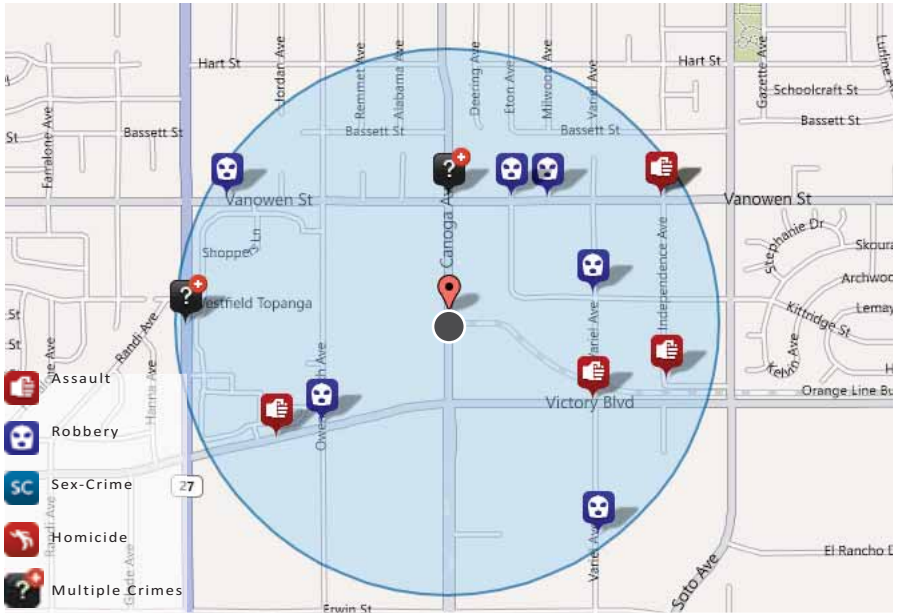
- A total of 612 spaces are provided at the station for use by patrons. There is no fee for parking. Observed occupancy on a recent weekday was low at 31 percent.
- There is little curbside parking available in the area.

Health Environment

- The area has limited food choices except for restaurants. There is one grocery store located along Variel Avenue (it is also within the de Soto station area). There are 2 CalFresh Certified Vendors in station area but neither is located near the Orange Line station.
- The station area has more crime incidents than other stations, but the crime rates are lower given the intensity of jobs and residential development in the area. Overall, within the half-mile radius surround the station there were 8 robberies, 5 assaults and 2 sex crimes over the 6-month period from April to September 2011.



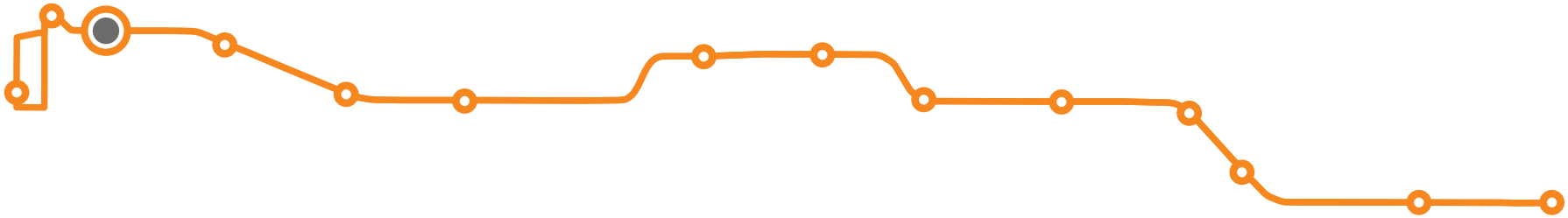
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The area has a high potential for creating new transit-oriented districts as majority of the Canoga station area could be redeveloped in a transit supportive design with transit supportive uses. The majority of the station area is covered by the Warner Center Specific Plan, which will be the guiding policy document for this area.
- There are significant opportunities to increase the pedestrian character of the area by adding pedestrian connections through the superblocks, and improving and streetscape environment to safer and more attractive for pedestrians.



DE SOTO STATION

The De Soto Station is located northwest of the intersection of Victory Boulevard and De Soto Avenue in Winnetka, immediately adjacent to a portion of Pierce College that is primarily in agricultural use. The station is a mile east of Route 27, Topanga Canyon Boulevard, and approximately a mile and a half north of the De Soto Avenue on-ramp to the Ventura Freeway (US-101). The station area is just east of the Topanga Plaza, southwest of Sherman Plaza Shopping Center, and north of Woodland Hills Kaiser Hospital. The station area overlaps significantly with the Canoga Station and to a lesser degree with the Warner Center station area. Most of the western half of the station area is covered by the draft Warner Center Specific Plan.

Place Type

Neighborhood Center: Mixed uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The station area has some of the greatest diversity of uses along the Orange Line corridor with a mix of residential, public, industrial and commercial uses.
- The area southeast of station area is owned by Pierce College but is currently in agricultural use and reserved for this use in perpetuity. This creates a barrier to transit ridership originating from the college. The location of the station also makes transit ridership difficult since riders must walk around the agricultural fields to access the academic buildings.
- The area immediately northeast of the station contains mostly single family homes built in a conventional suburban pattern of development with curvilinear streets.
- The area west of De Soto Avenue is a disorganized mix of multi-family, commercial and industrial uses. That is, the uses are not located in any defined way and it appears that this area has transitioned over time from industrial uses to a commercial and multi-family residential area. Some of this development and transition is more recent and was the subject of study in the Warner Center Specific Plan process. While some of the nearby uses appear to be industrial in nature, the Warner Center Specific Plan found that most of the businesses occupying industrial and flex buildings are more office-oriented in nature and not a major source of manufacturing jobs for the city.
- The area contains no parks or open spaces.

Existing Land Uses (*Source: LA County and Reconnecting America)*

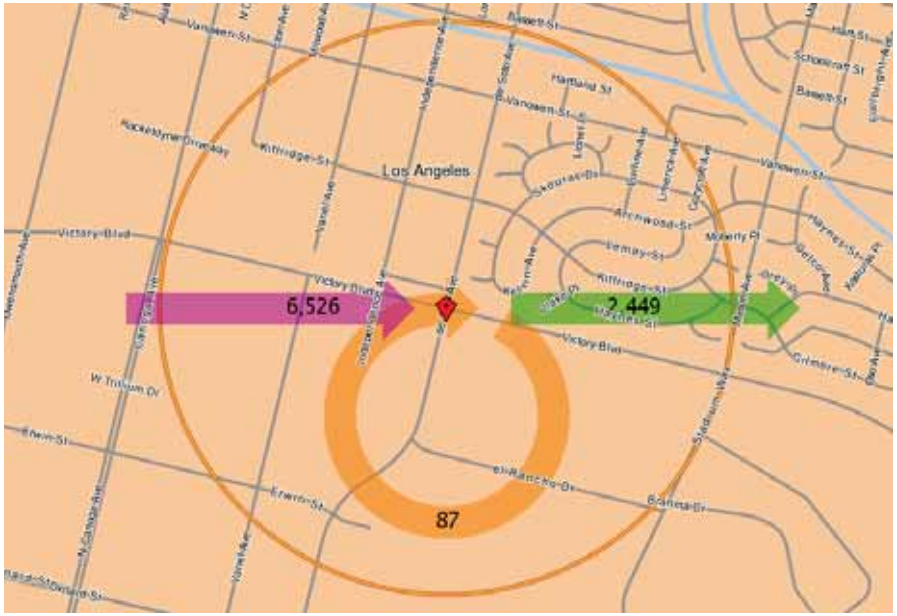
EXISTING STATION AREA LAND USES

Use	Acres	Percentage
Residential	125.46	31.40%
Single-Family Residential	74.42	18.62%
Multi-Family	51.05	12.77%
Commercial	58.36	14.61%
Industrial	66.57	16.66%
Civic	122.42	30.63%
Vacant (Public and Private)	26.78	6.70%
Parking Lot	0.00	0.00%
Total	**399.60**	**100.00%**

Zoning

- For portions of the area west of de Soto, the zoning districts do not match the existing use. This area is zoned for commercial but contains multi-family residential, industrial and a diversity of commercial uses (including restaurants, office buildings and retail stores).
- The Warner Center Specific Plan will include zoning for the area west of de Soto Avenue to reflect the vision of the plan. This area is designated to become the most residential district in the Specific Plan update, with some mixed-in office and retail uses. The plan also calls for conversion of private fire lanes to become public streets that will enhance station area walkability; however there is currently no financing plan in place to purchase these fire lanes as public rights-of-way.

Zoning (*Source: City of Los Angeles*)



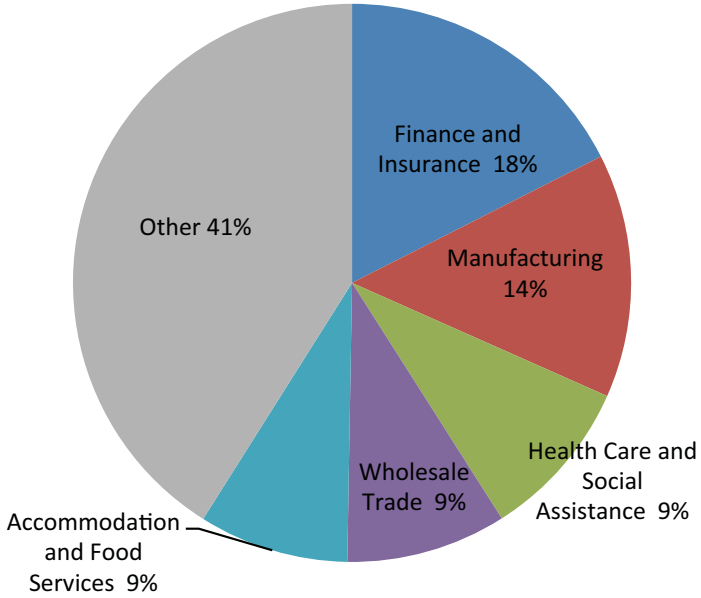
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Housing

- 9% of households are renters, and more than half of those are overpaying for rent (57%).
- 38% of households are non-family households, a lower share than average. Given the high share of renters, this suggests that there are many family renter households.
- 96% of the housing units are subject to the Rent Stabilization Ordinance. Some units may be in condominium complexes and currently owner occupied, but subject to rent control if rented.
- There is no subsidized affordable housing in the station area.

Jobs

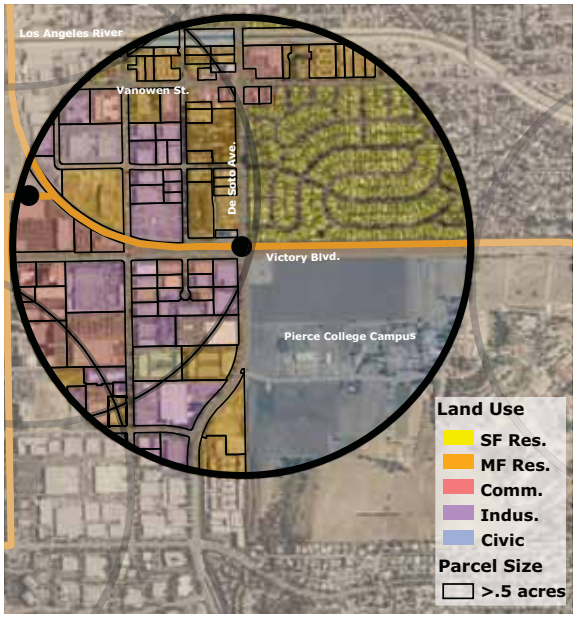
- With connections to both Pierce College and the Warner Center Specific Plan Restudy Area, DeSoto functions as a moderate employment destination, with 5,331 jobs.
- Worker incomes are higher than average.
- This station area enjoys significant economic diversity, with small concentrations of jobs in Finance and Insurance and Manufacturing, but a wide distribution of jobs across many other sectors.



Job Distribution (*Source: Reconnecting America*)

Development Potential

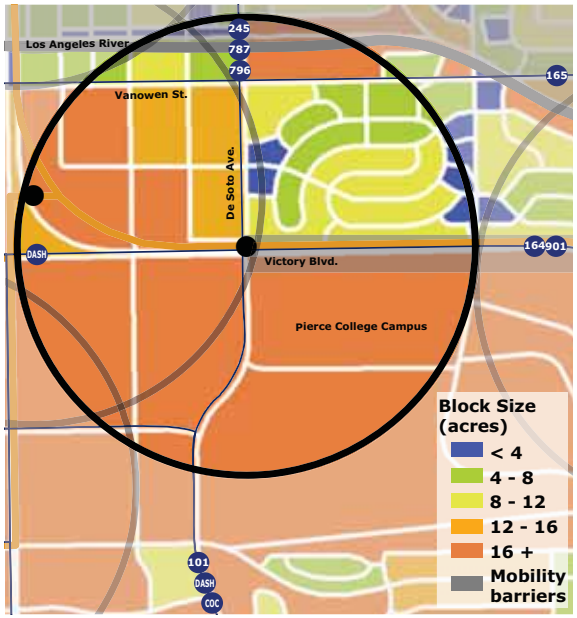
- The area west of De Soto Avenue has a high development potential. This is covered by the Warner Center Specific Plan currently under development by the City of Los Angeles.
- The remainder of the area in the station area has very low development potential because of the single family homes and the agricultural uses that are protected on the Pierce College Campus.
- The Warner Center Specific Plan calls for a significantly higher increment of residential growth than forecasted by SCAG. The Plan would allow for up to 22,000 new residential units to be added in the full specific plan area which includes, among other areas, the Pierce College, Canoga, and Warner Center station areas.



Development Opportunity (*Source: Reconnecting America*)

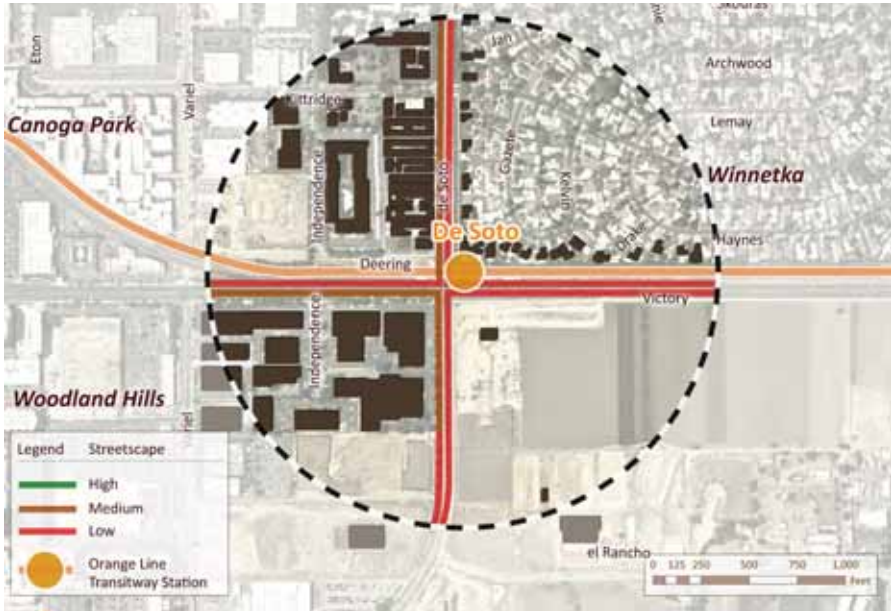
Urban Form

- The area has a mix of commercial, residential (single and multi-family), and some industrial/agriculture uses. Generally, uses are separated, providing no easy access between residential and commercial.
- Single-family neighborhood on the northeast corner of De Soto Ave and Victory Boulevard is walled off, and does not contribute to a pleasant pedestrian or passerby environment, and greatly discourages access to the commercial across the intersection.
- The area contains large undeveloped parcels of land to the southeast, which can potentially provide further growth and redevelopment opportunities.
- Generally, block sizes are rather large and are not beneficial to the pedestrian experience or access.
- Streetscape quality in the area is of medium and low quality, varying between areas of narrow sidewalks with no visual or physical barrier from traffic and lack of trees, to areas with some tree coverage and on-street parking.
- Frontages are typically set back, and range from 10 to 15 feet setbacks for multi-family to deep setbacks with parking lots in front of commercial. Single-family neighborhoods, industrial, and agricultural areas are typically set back and separate themselves from street activity through the use of walls or fences. Such treatment, in addition to commercial setbacks, can hinder access between the mentioned areas as well as transit.

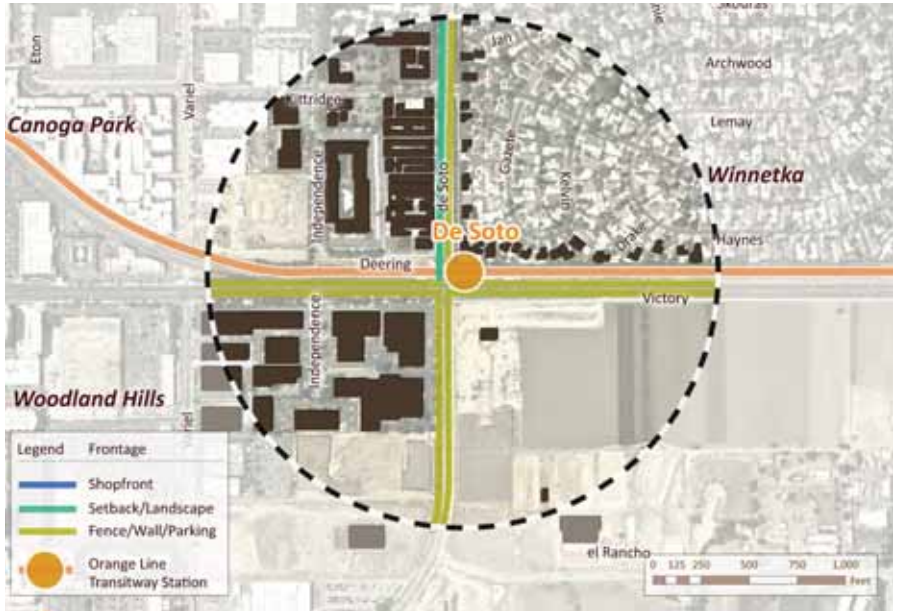


Block Pattern (*Source: Reconnecting America*)

Building Footprints



Streetscape Quality



Frontages

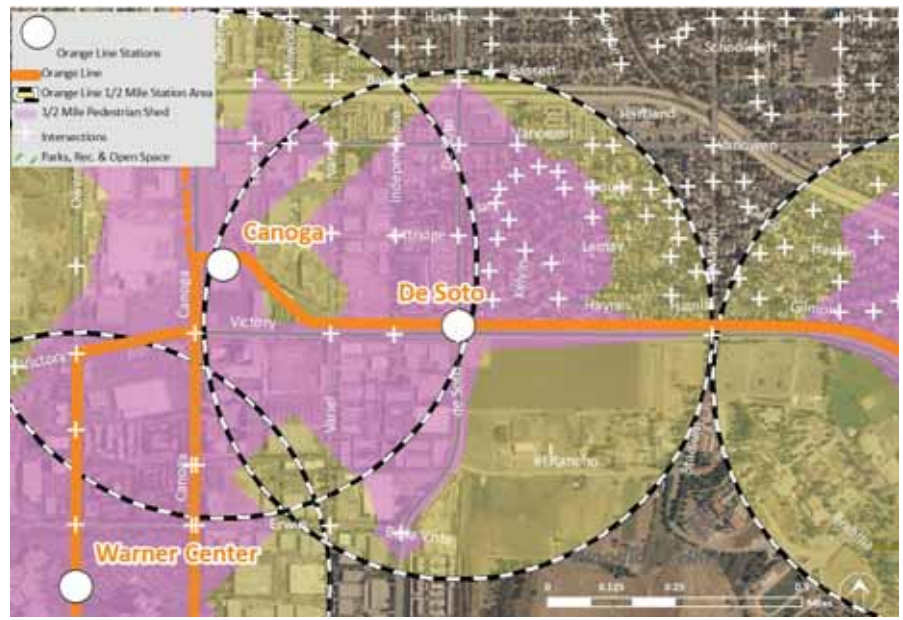
Transit

- Approximate Orange Line travel time from De Soto Station to North Hollywood Station is 39 minutes, and 4 minutes to Warner Center.
- Connecting transit options are limited, primarily consisting of a pair of Metro Local routes, the 164 on Victory Boulevard and the 244 on De Soto Avenue. The 164 operates on 15- to 20-minute peak headways, 30 minutes mid-day, and evenings and weekends, while the 244 operates less often (but does operate on Saturdays). Antelope Valley Transit and Santa Clarita Transit commuter lines also serve this station.
- The nearest east-, north- and southbound bus stops are located across Victory Boulevard, which is eight lanes and approximately 80 feet wide at De Soto Avenue. The southbound stop provides seating and shelter, the eastbound stop provides seating, and the northbound stop provides neither. It is unclear from visual surveys where the closest westbound stop is located.

Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalks along De Soto and Victory are relatively narrow, between 4 and 10 feet wide, and distances between signalized crosswalks are long, varying from approximately 850 to more than 2,500 feet.
- The quality of the pedestrian environment along De Soto to the north, within a residential area, is generally good, with curbside parking providing a buffer from traffic and some shade-offering tree canopy. Elsewhere, however, arterials front onto the Transitway, industrial uses or agricultural portions of the Pierce College campus, and there is little amenity for pedestrians.
- The southeastern quadrant of the station area consists of the northwestern corner of the Pierce College campus, where there are no streets (this area of the campus is agricultural in nature). The west is primarily industrial, with few streets, while the pattern in the northeast is suburban and somewhat disconnected. Overall intersection density within the half-mile radius is very low at 47 per square mile.
- Pedestrians headed to or from the northwest must cross an unpaved area behind the westbound platform.
- Actuation devices at the crosswalk adjacent to the station are not responsive.
- The station area has a Walk Score of 71. Walk score criteria and comparisons between stations are found on page 2-5.



1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point (a short segment by the eastbound platform is immediately adjacent to traffic). De Soto is a designated bicycle route to the north, for approximately one mile to Sherman Way, but there are no lanes on the street.
- De Soto north of Ventura Boulevard is identified by the City of Los Angeles Bicycle Plan as part of the Backbone Network.
- Bicycle racks and lockers are provided at this station.

Bike Network (*Source: LA Metro*)

Traffic

- The north-south De Soto Avenue and east-west Victory Boulevard, both of which are arterials featuring four through-lanes plus turn lanes, intersect just south of the station.
- Both De Soto and Victory appear to be relatively uncongested. While recent peak-hour traffic counts for De Soto at Victory were unavailable, year 2003 all-day counts of approximately 21,000 in the eastbound direction suggest a peak-hour unidirectional volume of approximately 2,100 vehicles, indicating a volume-to-capacity ratio of approximately 0.7 (this is consistent with an apparent V/C ratio of between 0.6 and 0.7 slightly less than a mile north, at Sherman). While recent peak-hour traffic counts for Victory at De Soto were unavailable, year 2006 all-day counts of approximately 19,000 in the westbound direction suggest a peak-hour unidirectional volume of approximately 1,900 vehicles, indicating a volume-to-capacity ratio of between 0.6 and 0.7 (this is consistent with an apparent V/C ratio of approximately 0.6 one mile east, at Winnetka).

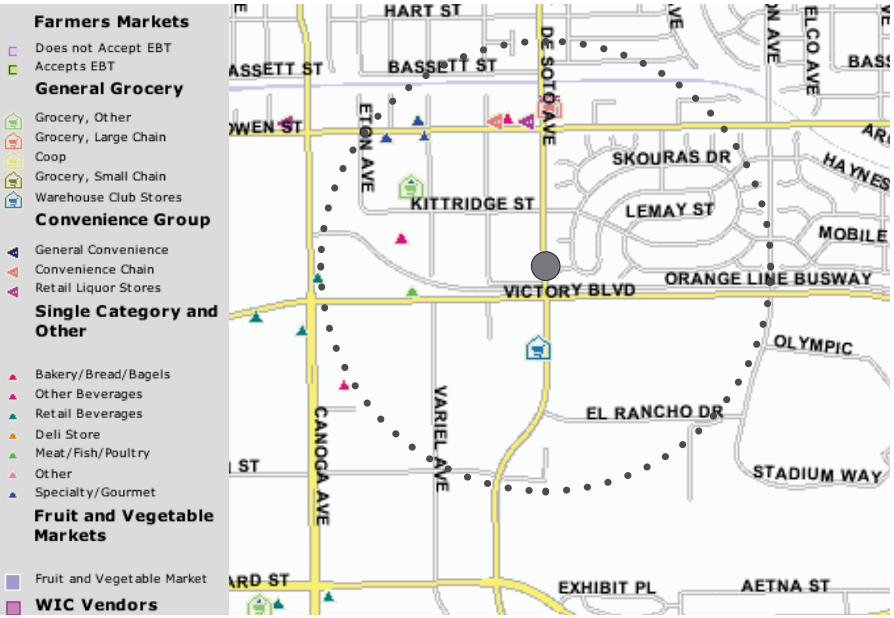
Parking

- There is no station parking lot.
- Curbside parking in the area is unmetered.

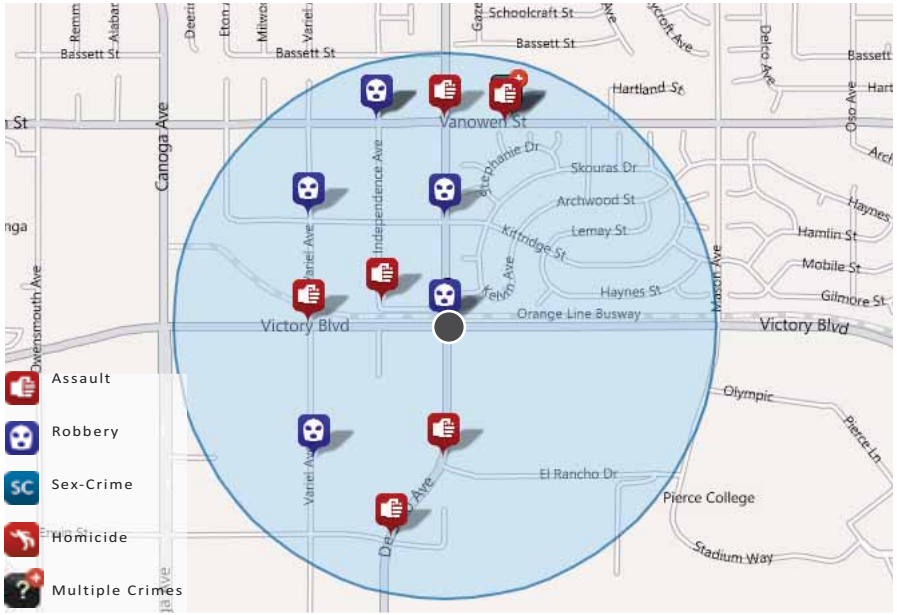
Street Network (*Source: City of Los Angeles*)

Health Environment

- The area immediately adjacent to De Soto station has only one healthy food option – a produce market south of the station – and there are few food choices in general compared to the diversity and intensity of uses in the station area. Grocery stores in the area tend to be concentrated along major arterials several miles to the north and west.
- Two grocery stores are located northwest of the Orange Line station on Variel Avenue, and a large chain grocery store is located near the intersection of Vanowen Street and de Soto Avenue.
- There are four CalFresh Certified Vendors located near the intersection of Vanowen Street and De Soto Avenue but no other vendors in the station area.
- The station area has higher violent crime rates than most other stations. Over a six-month period there were 10 assaults and 5 robberies within the half-mile radius surrounding the station. The violent crimes were clustered along De Soto Avenue and Vanowen Street.
- The Warner Center Specific Plan study found that there is pent-up demand for a grocery store in this area, and that the addition of new development over the last decade has enhanced demand. However, the now stalled Westfield project called for construction of a high end grocery store that would be closer to the Warner Center station area. If this were built, demand for a grocery store in this area would be met.



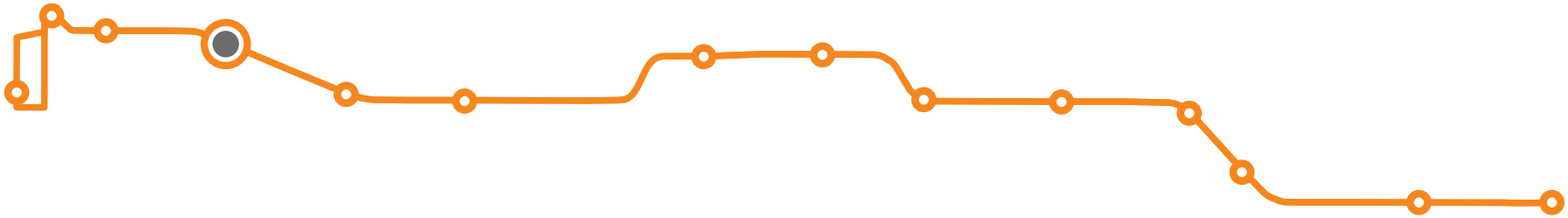
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- Significant development opportunities exist west of the station area in the Warner Center Specific Plan area and it the area north of Victory which is outside of the specific plan area. The area within the Warner Center Specific Plan boundary should be directed by the outcomes of that study. Development in other areas should be explored as part of the Orange Line CIP study.
- There are significant opportunities to better connect the existing and future transit ridership in the Warner Center Specific Plan area with the Orange Line station. This can be achieved through additional pedestrian connections and a beautification of the street environment.



PIERCE COLLEGE STATION

The Pierce College Station is located northeast of the intersection of Victory Boulevard and Winnekta Avenue in Winnetka. The station is a approximately a mile north of the Winnekta Avenue on-ramp to the Ventura Freeway (US-101) and a little more than two miles east of the Route 27, Topanga Canyon Boulevard. The station is located just northeast of Pierce College.

Place Type

Neighborhood Center: Mixed uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The station area is generally low density as the two primary land uses in the area are Pierce College and single-family residential neighborhoods, both of which are relatively low density uses. Approximately 50 percent of the land uses are single family residential, a use that is not a major transit trip generator.
- While suburban in nature, Pierce College is a major trip destination and trip generator for the Orange Line. At the same time, the station location is a significant walking distance from the main part of the campus, which could be a deterrent to prospective riders. The campus land immediately adjacent to the station is ball fields and an athletic center. The academic buildings are located between ¼ and ½ mile from the station.
- Adjacent to the station is a large park-and-ride lot operated by LA Metro. This presents an opportunity for development in the future.
- The only commercial uses in the station area are located about ½ a mile north of the station at the intersection of Vanowen and Winnetka Avenue. This area has several restaurants and retail stores.
- Ability First Work Center is located along Winnetka Avenue north of station. This is a potential destination for Orange Line patrons. The West Valley Occupational Center is also near the station and there is potential to improve pedestrian connectivity to bus stations.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

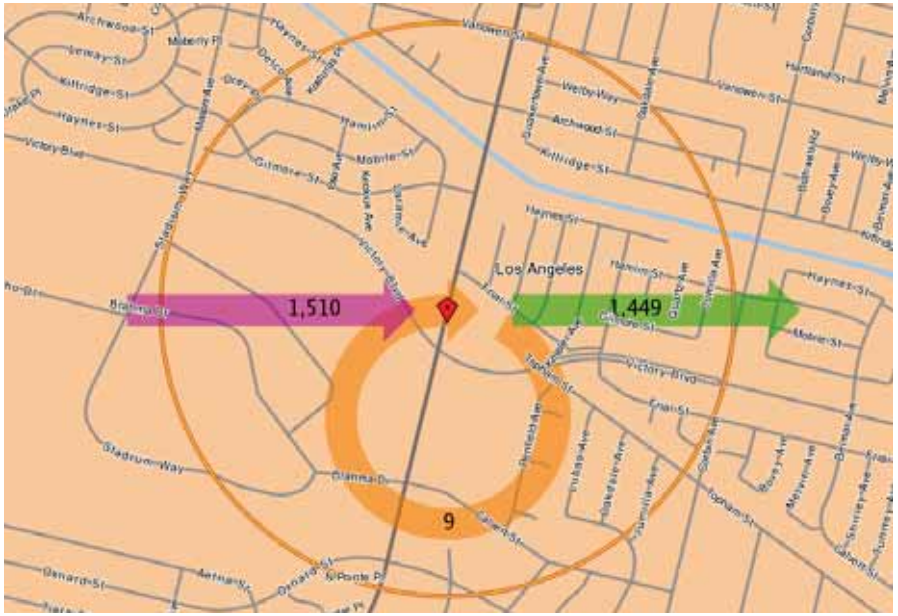
Use	Acres	Percentage
Residential	203.92	50.14%
Single-Family Residential	201.32	49.50%
Multi-Family	2.60	0.64%
Commercial	11.17	2.75%
Industrial	0.00	0.00%
Civic	170.00	41.82%
Vacant (Public and Private)	21.51	5.29%
Parking Lot	0.00	0.00%
Total	**406.71**	**100.00%**

- The Los Angeles River runs east-west through the station area approximately ¼ of a mile north of the station. At present this physically divides the neighborhoods north of the river from the Orange Line station.

Zoning

- As with the existing land uses, the zoning districts in the area are mostly Single Family Residential and Public Facilities. A portion of the area is also Agricultural; Suburban.

Zoning (*Source: City of Los Angeles*)



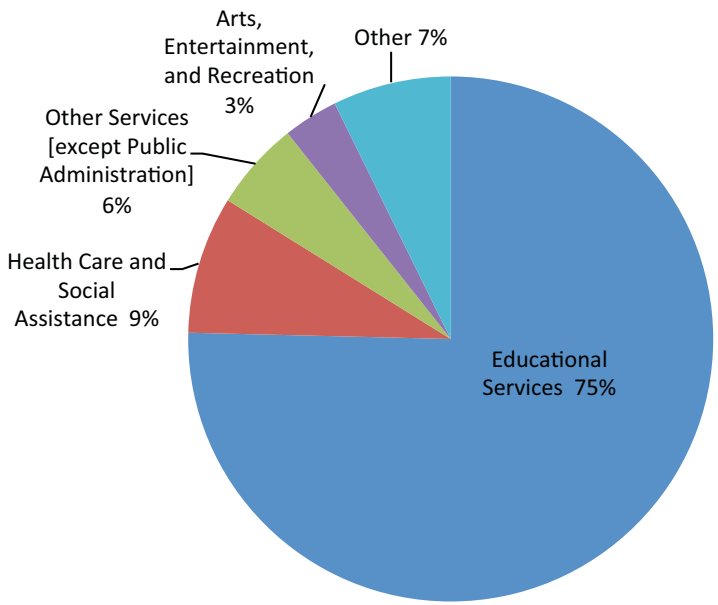
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Housing

- 38% of households are renters, and almost half of those are overpaying for rent (47%).
- 27% of households are non-family households, a lower share than average along the Orange Line.
- None of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Jobs

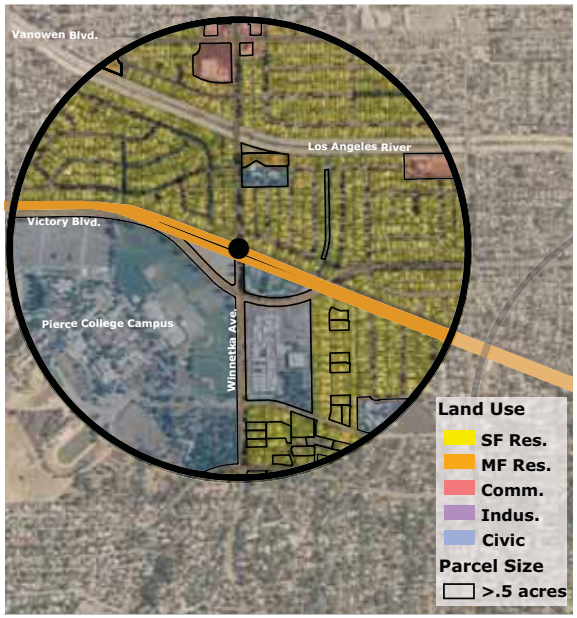
- Though its overall job intensity is low, Pierce College itself makes this station area a significant destination on the corridor for students as well as faculty and staff.
- Pierce College is one of the few station areas with an older than average workforce – this means that a significantly higher than average share of workers are older than 55.
- Three quarters of jobs in the station area fall within the Educational Services sector.



Job Distribution (*Source: Reconnecting America*)

Development Potential

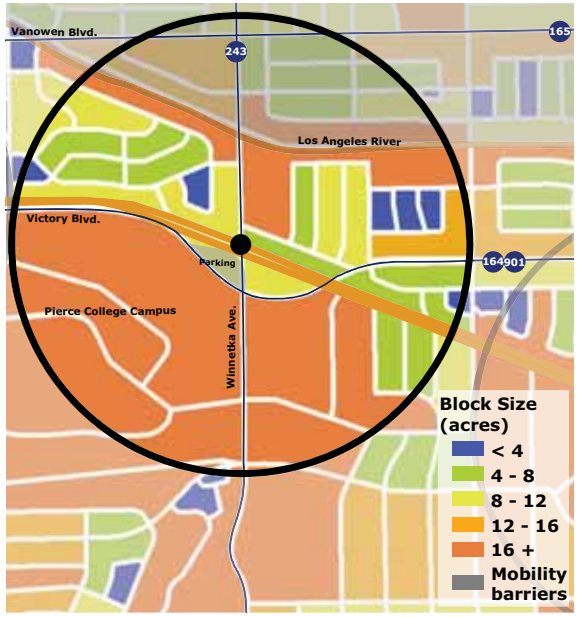
- The development potential in the majority of the station area is low, considering that most of the area is currently single family residential.
- There is a large potential for joint development at the existing park and ride lot however such a development would replace the parking lot and may be out of character with the existing low scale character of the station area.
- The major development potential is intensification at Pierce College close to the Orange Line station. The barrier to this redevelopment is that the sports fields are located immediately adjacent to the Orange Line station and would require relocating these to another portion of the college campus.



Development Opportunity (*Source: Reconnecting America*)

Urban Form

- The area is primarily residential, consisting of neighborhoods north of the Orange Line but also educational institutions in the south.
- Pierce College addresses the station with playing fields and green space, but unfortunately does not provide direct pedestrian or bicycle access from the station area as the fields and the northeast side of the college is fenced off.
- Immediately south of the station are two large lots, which can serve as potential sites for future redevelopment that can serve the neighborhoods, the transit system, and the educational institutions.
- Block sizes vary throughout the area but are rather typical in the neighborhoods. Education institutions' blocks are fairly irregular, large, and surrounded by parking as is the case East of Winnetka Ave. This discourages pedestrian activity with the primary focus on automobiles.
- Streetscape quality is typically medium, with few trees and average width sidewalks, but decreases around blocks that are surrounded by parking due to lack of trees, narrow sidewalks, fences and walls, and large exposed areas of pavement. The east side of Pierce College is more pedestrian-friendly by providing a planting strip with trees along Winnetka Ave.
- Setbacks are typical in the area for all uses. Residential areas typically have a 20 to 30 feet setback, and are far greater for the educational institutions. Fencing is rather prevalent by both parking and open space areas. In certain cases, this can discourage pedestrian activity and provide an unpleasant experience as one travels between the fence and the road.



Block Pattern (*Source: Reconnecting America*)

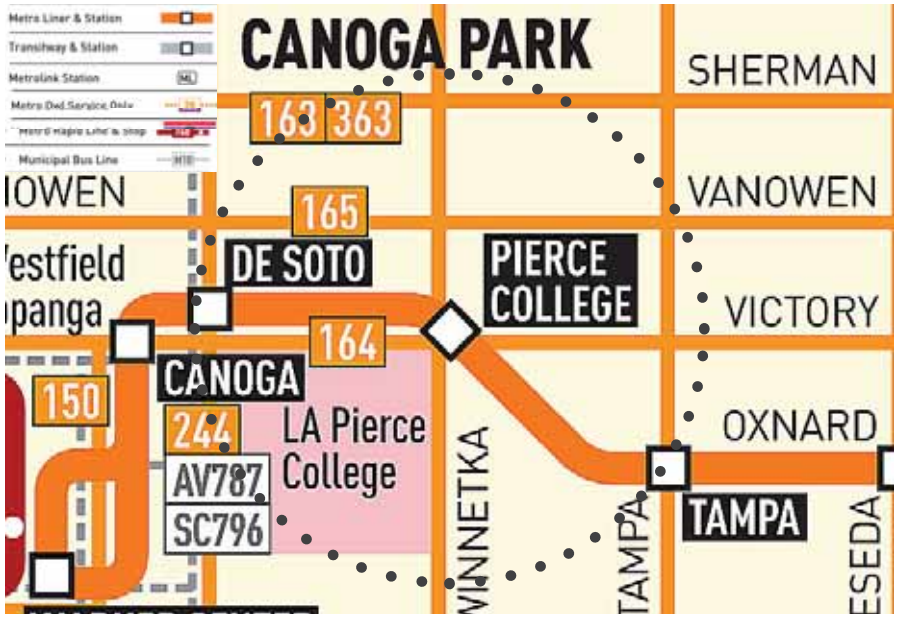
Frontages

Building Footprints

Streetscape Quality

Transit

- Approximate Orange Line travel time from Pierce College Station to North Hollywood is 36 minutes, and to Warner Center, 7 minutes.
- Connecting transit options are limited to a pair of Metro Local routes, the 164 on Victory Boulevard and the 243 on Winnetka Avenue. The 164 operates on 15- to 20-minute peak headways, 30 minutes mid-day, and evenings and weekends, while the 243 operates less often (but does operate on Saturdays).
- The nearest north- and southbound stops are located on the same sides of Winnetka Avenue as the east- and westbound platforms, respectively. Passengers crossing Winnetka to transfer must cross five lanes of traffic, and the skewed crosswalk is approximately 80 feet long. East- and westbound stops are located approximately 500 feet to the south, along Victory Boulevard, and the eastbound stop requires a crossing of Victory, which is seven lanes and nearly 100 feet wide at Winnetka. The westbound stop provides seating and shelter, the eastbound stop only seating, and the north- and southbound stops provide neither.



Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalks along Winnetka and Victory vary in width from 4 to 12 feet, and distances between signalized crosswalks vary from approximately 400 to more than 2,800 feet.
- In the residential areas to the east and north, the quality of the pedestrian environment along the arterials is generally good, with curbside parking providing a "buffer" from traffic, and some shade-offering tree canopy. To the south and west, the arterials border open spaces along the edge of the Pierce College campus.
- The southwestern quadrant of the station area consists of the northeastern corner of the Pierce College campus, where there are few streets (there are off-street pedestrian paths). In other quadrants, the street pattern is a mix of gridded and curvilinear or suburban in nature. Overall intersection density within the half-mile radius is relatively low, 73 per square mile.
- The station area has a Walk Score of 49, Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Parking

- A total of 373 spaces are provided at the station for use by patrons. There is no fee for parking. Observed occupancy on a recent weekday was low to moderate at 67 percent.
- Curbside parking in the area is unmetered.

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. There are currently no existing facilities for cyclists on area streets.
- Winnetka for one mile to the north, to Sherman Way, is a Priority 2 segment in the Bicycle Plan Five-Year Implementation Strategy. Winnetka is identified by the Bicycle Plan as part of the Backbone Network, and the segment north of Sherman is identified by the Implementation Strategy as a "Year 0 (existing or funded)" project.
- Bicycle racks and lockers are provided at this station.
- Storm drains in the parking lot feature wide slats, in which bicycle tires can get caught.

Bike Network (*Source: LA Metro*)

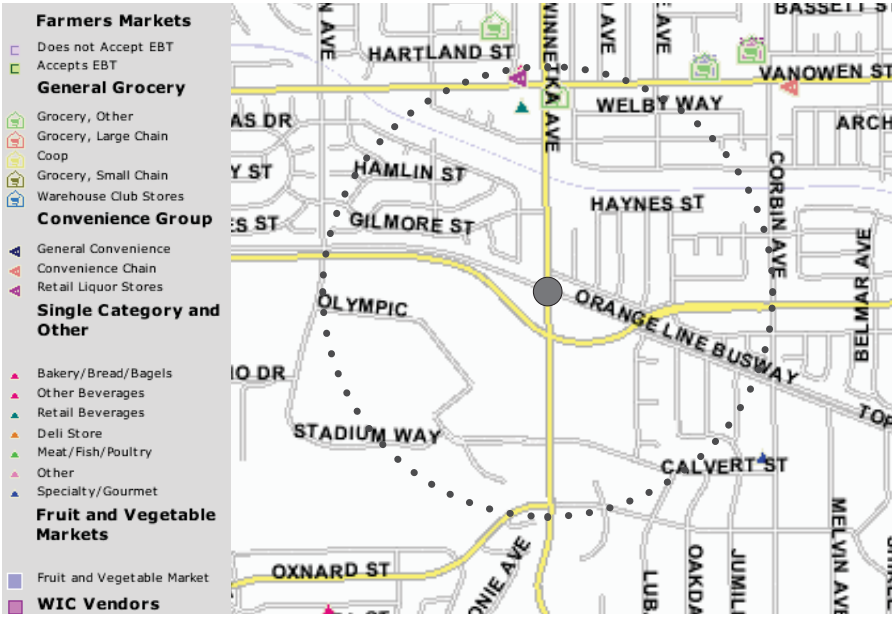
Traffic

- Victory Boulevard, an east-west arterial featuring six through lanes plus turn lanes, intersects with Winnetka Avenue, a north-south arterial featuring four through lanes plus turn lanes, approximately 500 feet to the south of the station.
- Both streets are relatively uncongested. While recent peak-hour traffic counts for Victory at Winnetka were unavailable, year 2002 all-day counts of approximately 18,000 in the eastbound direction suggest a peak-hour unidirectional volume of approximately 1,800 vehicles, indicating a volume-to-capacity ratio of approximately 0.6 (this is consistent with an apparent V/C ratio of between 0.6 and 0.7 one mile west, at De Soto). Year 2007 peak-hour unidirectional volume on Winnetka was approximately 1,500 vehicles (northbound, PM), indicating a volume-to-capacity ratio of between 0.7 and 0.8.

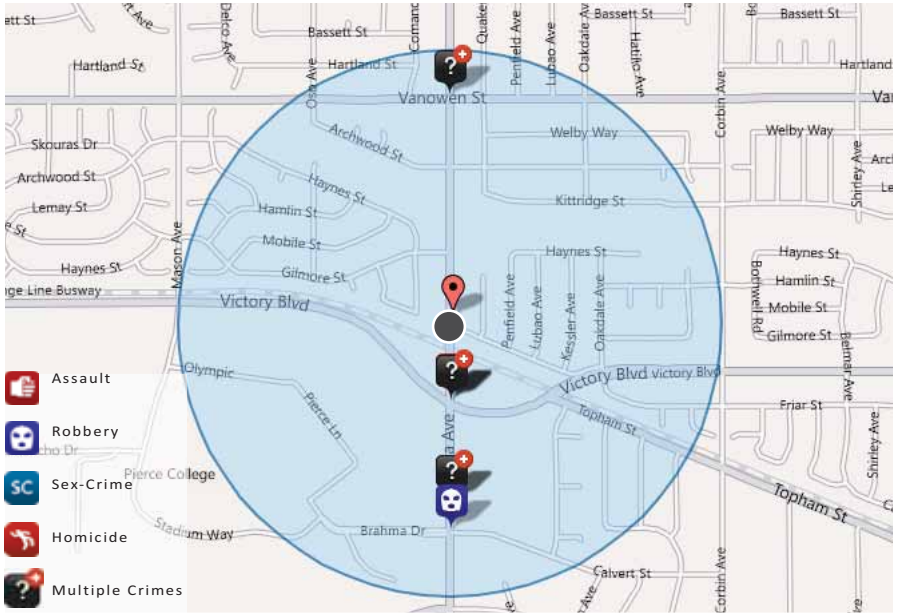
Street Network (*Source: City of Los Angeles*)

Health Environment

- There are very few food options of any kind – healthy or unhealthy – within a ½ mile of the Orange Line station. At the intersection of Vanowen Street and Winnetka Avenue, there are several restaurants and 2 locations that are CalFresh Certified Vendors.
- Crime is higher in this station area compared to similar areas along the Orange Line corridor. In the period between April and September 2011 there were 8 assaults and 2 robberies within the half-mile surrounding the station. The majority of these were located near the Orange Line station.



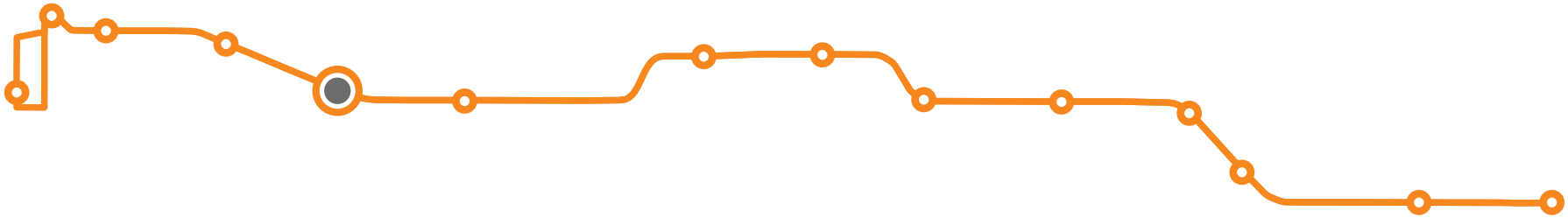
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- There is almost no development potential at this station given the existing uses and development pattern, so the focus at this station should be on improving access to surrounding uses that already exist.
- The station location is not convenient for Pierce College students. Moving the station to the intersection of Mason Avenue would improve access to the College for students.
- Pedestrian connections to Pierce College need to be improved. At present, the connection is indirect and a barrier to students who take the Orange Line to the College.



TAMPA STATION

The Tampa Station is located northeast of the intersection of Topham Street and Tampa Avenue in Reseda. The station is approximately half a mile north of the Tampa Avenue on-ramp to the Ventura Freeway (US-101), approximately three miles east of Route 27, and five miles west of the San Diego Freeway (I-405). The station rests west of the Sepulveda Basin Recreational Area, southwest of the Van Nuys Airport, and south of California State University Northridge.

Place Type

Suburban Neighborhood: Low use mix and intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The Tampa station is one of the lowest density stations along the Orange Line corridor with the least opportunity for redevelopment to increase transit use.
- The land uses are mostly single family residential. Approximately half of the residential land is in traditional single family suburban homes with lot sizes of approximately 5,000 to 8,000 square feet. The other half of the residential parcels is large lot single family on parcels greater than ½ an acre.
- Woodcrest Private School located at Topham and Tampa is nearby.
- There are very limited commercial uses within the ½ mile radius of the station. A small 3-story office building is located just southwest of the station and a liquor store is located just southeast of the station. A retail center located approximately ½ mile north of station at intersection of Tampa Avenue and Victory Boulevard. This area includes a Vons Supermarket, a Walgreens pharmacy, a CVS pharmacy, several fast food restaurants, and retail stores. There is also a multi-story medical office building adjacent to the retail center.
- In terms of public uses, there is an elementary school located northeast of station area.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES		
Use	**Acres**	**Percentage**
Residential	352.16	89.83%
Single-Family Residential	339.60	86.62%
Multi-Family	12.56	3.20%
Commercial	16.28	4.15%
Industrial	0.00	0.00%
Civic	14.72	3.76%
Vacant (Public and Private)	8.87	2.26%
Parking Lot	0.00	0.00%
Total	**392.03**	**100.00%**

Zoning

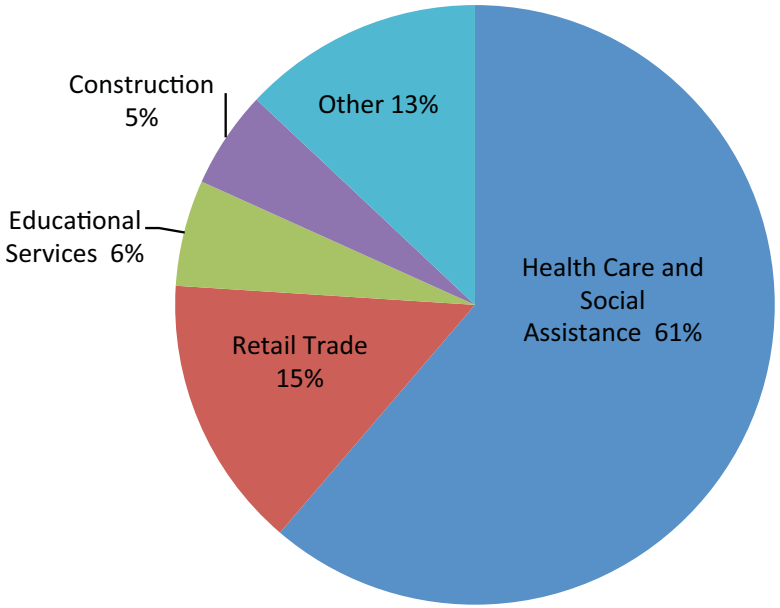
- The zoning districts generally reflects the existing land uses. The majority of the area is zoned for Single Family Residential or Agriculture, Suburban.

Zoning (*Source: City of Los Angeles*)

Jobs

- As a primarily residential neighborhood Tampa does not have a significant job concentration.
- Tampa is the only station area to have a significantly younger workforce than average. Additionally, Tampa workers earn significantly lower than average wages.
- While jobs in the station area are primarily retail and educational in nature, the high share of health related jobs reflects the station's proximity to the Encino-Tarzana Regional Medical Center and Ventura Boulevard (both of which are outside of the half-mile).

Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)



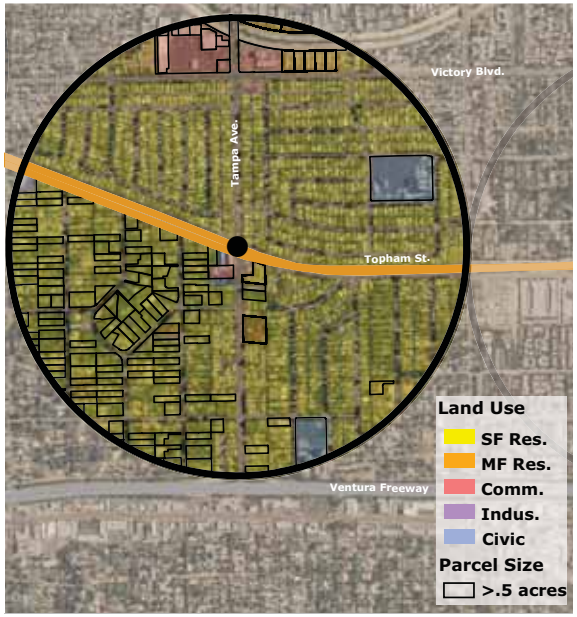
Job Distribution (*Source: Reconnecting America*)

Housing

- 30% of households are renters, and more than half of those are overpaying for rent (58%).
- 27% of households are non-family households, a lower share than average along the Orange Line.
- 17% of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Development Potential

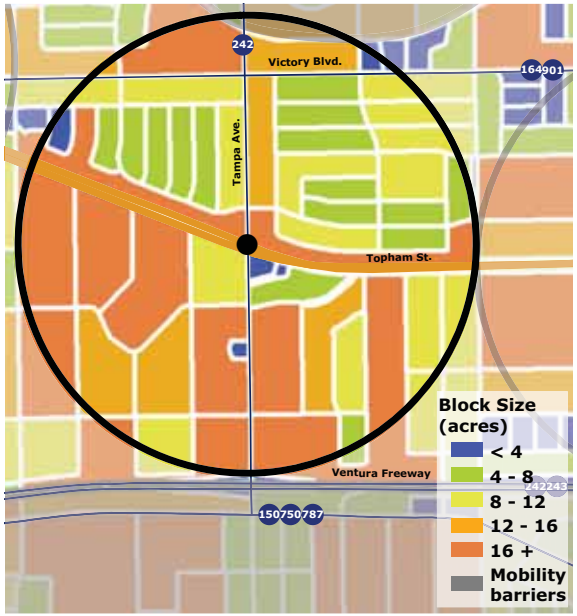
- The area has some of the lowest potential for new development except for a few commercial parcels immediately south of the Orange Line station along Tampa Avenue.



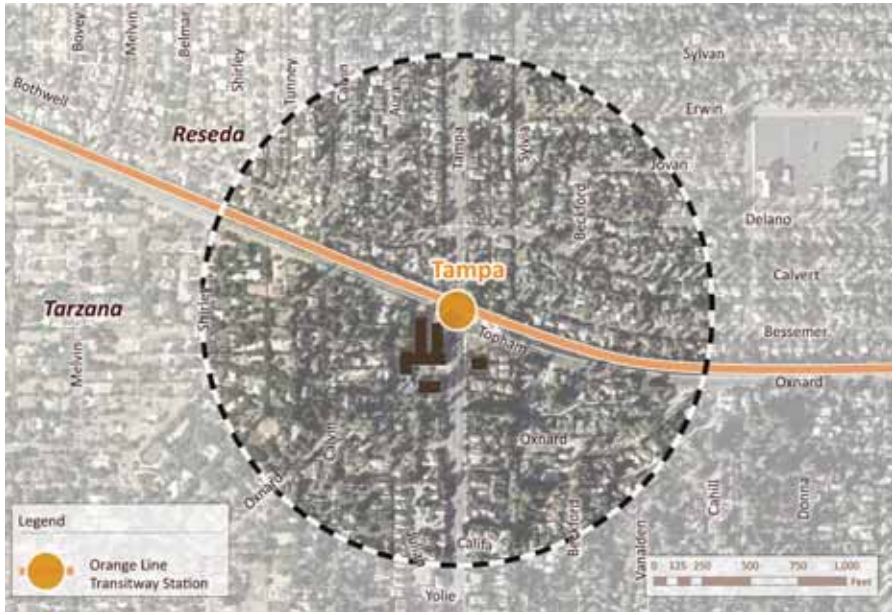
Development Opportunity (*Source: Reconnecting America*)

Urban Form

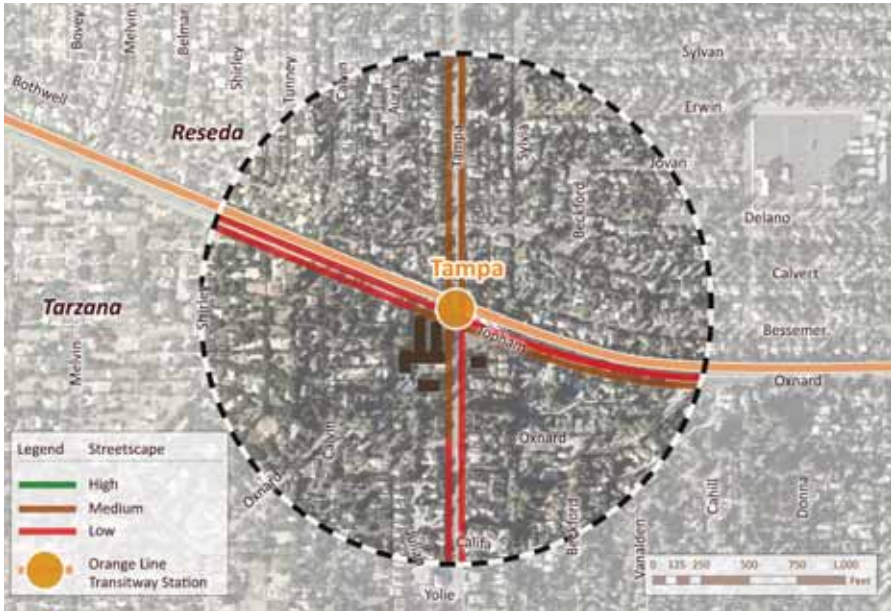
- The area is primarily residential, consisting of multiple neighborhoods with very minor retail.
- The primary retail site, located south of the station, provides some activity along Tampa Avenue, but is rather small. An empty lot on the east side of Tampa Ave can potentially provide some development, which could serve the residential and transit area.
- Streetscape is generally of medium quality due to having few trees and narrow sidewalks. Barriers from traffic such as planters are present in some locations and help provide a safer pedestrian atmosphere. Many of the secondary residential streets do not provide sidewalks for pedestrian access.
- Frontages are mostly similar along the residential areas, which include a landscaped setback ranging from 10 to 30 feet. There are areas of low quality frontage along Tampa Ave due to the use of walls or chain-link fencing by the sidewalks fronting the street. Such conditions can also be found on Topham Street.



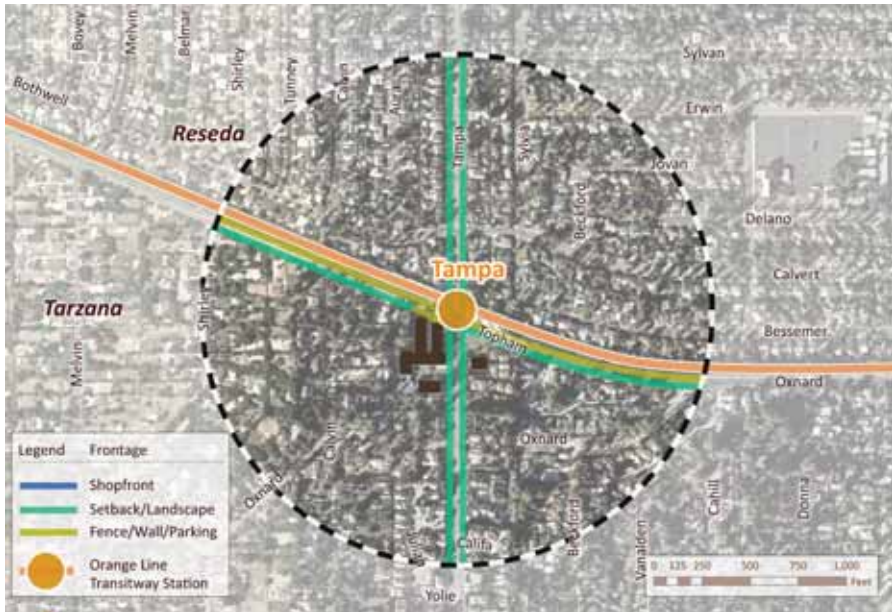
Block Pattern (*Source: Reconnecting America*)



Building Footprints



Streetscape Quality



Frontages

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 32 minutes, and to Warner Center, 11 minutes.
- Connecting transit options are limited to a Metro Local route 242 on Tampa Avenue, which operates roughly hourly during the day Monday through Saturday.
- The nearest southbound bus stop is located adjacent to the westbound platform, while the nearest northbound stop is located across Topham Street (a secondary street) from the eastbound platform. Passengers crossing Tampa Avenue to transfer must cross seven lanes of traffic, and the skewed crosswalk is nearly 100 feet long. Neither stop provides seating or shelter.

Transit Network (*Source: LA Metro*)

Pedestrian

- Where they exist, sidewalks along Tampa and Topham vary in width from 7 to 15 feet; however, the sidewalk on Topham, on its south side adjacent to development (the Orange Line Bikeway is on the opposite side), ends a short distance west of Tampa. Distances between signalized crosswalks vary from approximately 440 feet to more than one-half mile.
- The area is nearly entirely residential and the quality of the pedestrian environment along the arterials is generally good: along Tampa, curbside parking provides a "buffer" from traffic, and there is some shade-offering tree canopy.
- Block sizes to the south of the station are very large, and intersection density within the half-mile radius is low to moderate, at 89 per square mile.
- The Station Area has a Walk Score of 58. Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point (a short segment by the eastbound platform is immediately adjacent to traffic). There are no existing facilities for cyclists on area streets.
- Bicycle racks and lockers are provided at this station.

Bike Network (*Source: LA Metro*)

Traffic

- Tampa Avenue, an arterial featuring four lanes plus turn lanes, crosses through the station.
- Tampa is moderately congested. Year 2008 peak-hour unidirectional volume was approximately 1,600 vehicles (northbound, PM), indicating a volume-to-capacity ratio of approximately 0.8.

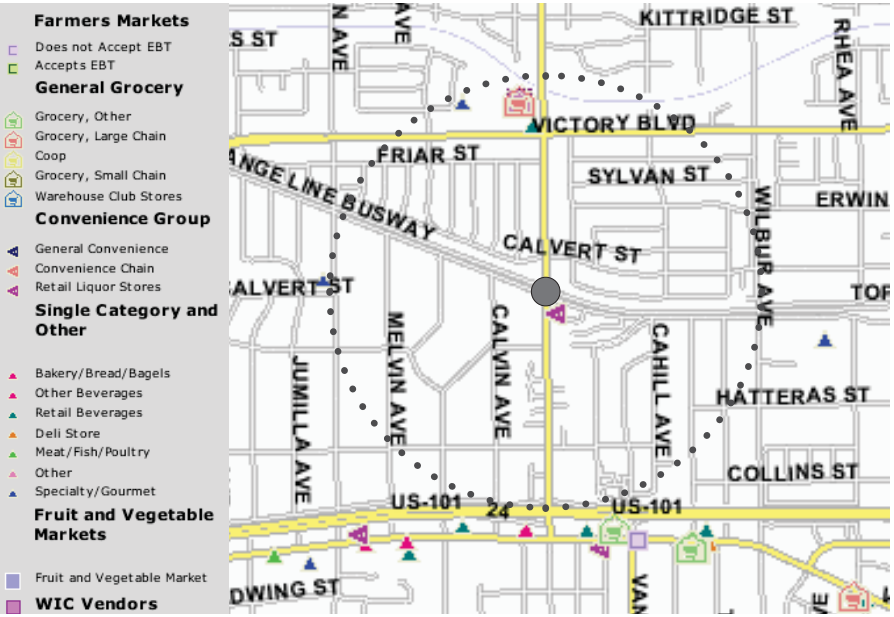
Parking

- There is no station parking lot.
- Curbside parking in the area is unmetered.

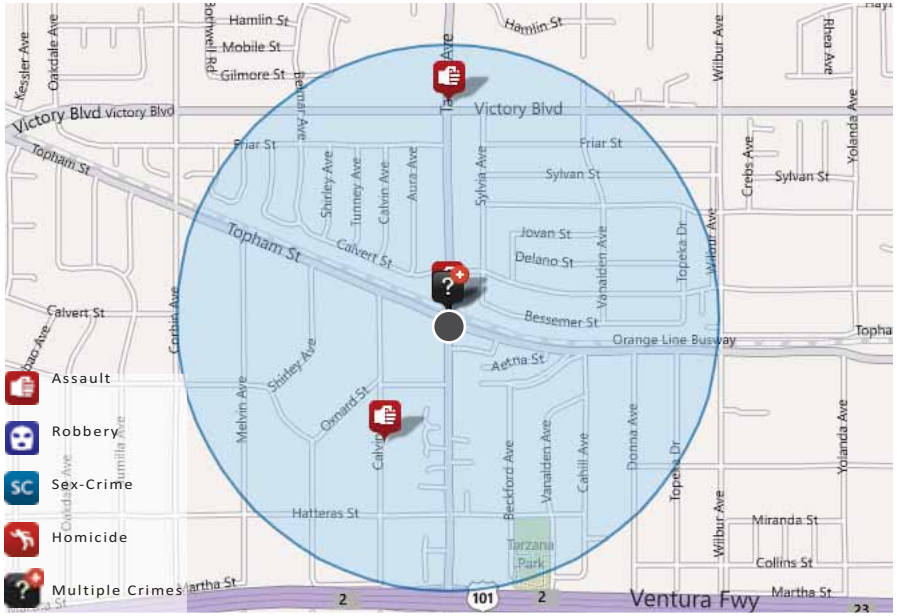
Street Network (*Source: City of Los Angeles*)

Health Environment

- The area immediately around the Orange Line station has a poor food environment with only a single liquor store and no other food stores.
- There are healthy food options approximately ½ mile north of the station in the retail center at the intersection of Tampa Avenue and Victory Boulevard. This area has 5 CalFresh Certified Vendors.
- Over the past 6 months there have been 3 assaults within the half-mile radius around the station.



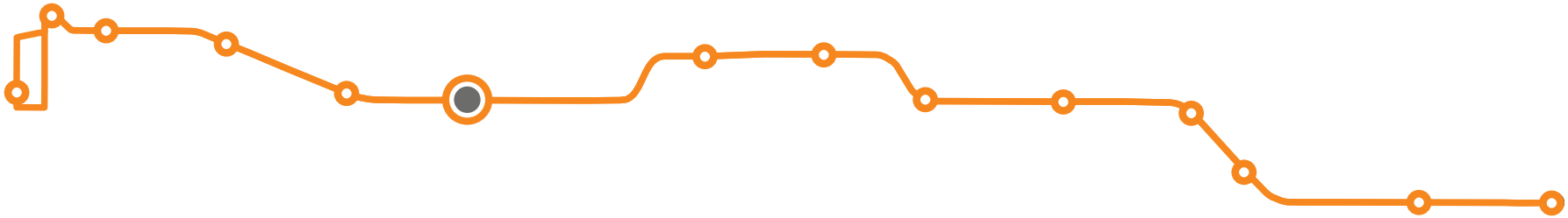
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The focus of improvements should be on increasing access to the station rather than on redevelopment. Given that the frontage is suburban in character, with landscaping between the buildings and the street, the initial improvements should be to improve the poor quality streetscape to create a more attractive pedestrian environment for travelers to the Orange Line station.
- Connecting transit facilities need significant amenity improvements as numerous of the transit stops have just a bus stop sign.



RESEDA STATION

The Reseda Station is located immediately north of the intersection of Reseda Boulevard and Oxnard Street in Reseda. The station is approximately 1/2 mile north of the Reseda Boulevard on-ramp to the Ventura Freeway (US-101), four miles east of Route 27, Topanga Canyon Boulevard, and less than four miles west of the Victory Boulevard on-ramp of the San Diego Freeway (I-405). The station area is located northwest of the Sepulveda Basin Recreational Area, south of California State University Northridge, and southwest of the Van Nuys airport.

Place Type

Transit Neighborhood: Low mix of uses with moderate intensity

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The station is one of the most intense station areas along the Orange Line.
- There are a significant number of multi-family uses, particularly south of the station area. Single family uses are mostly located in the quadrant northeast of the station.
- The area includes some large-lot single family homes that contain agricultural uses. These uses are a remnant of the agricultural past of the region.
- There are a small number of neighborhood-serving uses immediately adjacent to the station including coffee shops, dry cleaners, small markets, restaurants, and liquor stores.
- There are a variety of industrial and "heavy" commercial uses along Oxnard Street immediately south of the Orange Line.
- The Sherman Oaks Elementary schools is the largest of several public facilities located in the station area. Other uses include a power sub-station and the Orange Line park and ride lots.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES		
Use	**Acres**	**Percentage**
Residential	284.08	112.70%
Single-Family Residential	126.86	50.33%
Multi-Family	157.22	62.37%
Commercial	10.08	4.00%
Industrial	25.46	10.10%
Civic	58.50	23.21%
Vacant (Public and Private)	7.48	2.97%
Parking Lot	0.87	0.35%
Total	**386.48**	**153.32**

Zoning

- The zoning map is generally consistent with the existing land use map and it shows that a large number of parcels are zoned for multi-family housing. The majority of these parcels are constructed with multi-family uses.
- There is relatively little land zoned for commercial uses, especially compared to other station areas. However, for transit ridership, these are located in an appropriate location immediately adjacent to the Orange Line station.
- There are parcels zoned for "Agricultural; Suburban" to the northwest of the station. These parcels could be rezoned to more intense uses over time in order to increase transit ridership.
- Manufacturing zoning is located along Oxnard Street south of the Orange Line. The majority of parcels with this zoning have either manufacturing or commercial uses.

Zoning (*Source: City of Los Angeles*)

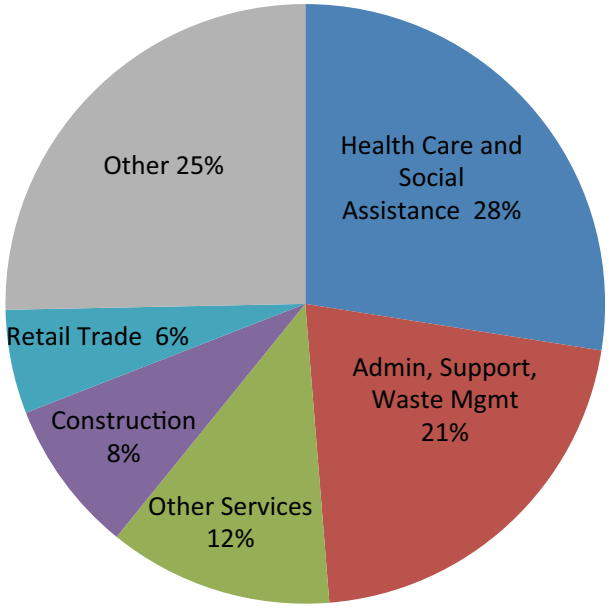
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Housing

- 60% of households are renters, and half of those are overpaying for rent (54%).
- 43% of households are non-family households, around average along the Orange Line.
- 78% of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Jobs

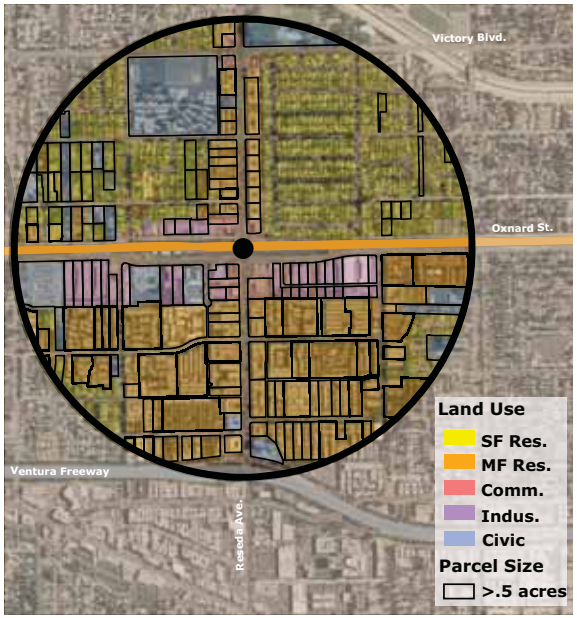
- With 2,303 jobs, Reseda has more jobs than many stations (5) but is not a significant job cluster on the Orange Line corridor.
- Worker wages are lower than the county-wide average.
- The Encino-Tarzana Regional Medical Center falls just outside of the half-mile radius and is included in this analysis. Therefore, one-quarter of the jobs in the station area analysis are in the Health Care and Social Assistance sector.
- Other jobs near the Reseda station include Admin, Support and Waste Management; Other Services, and Construction.



Job Distribution (*Source: Reconnecting America*)

Development Potential

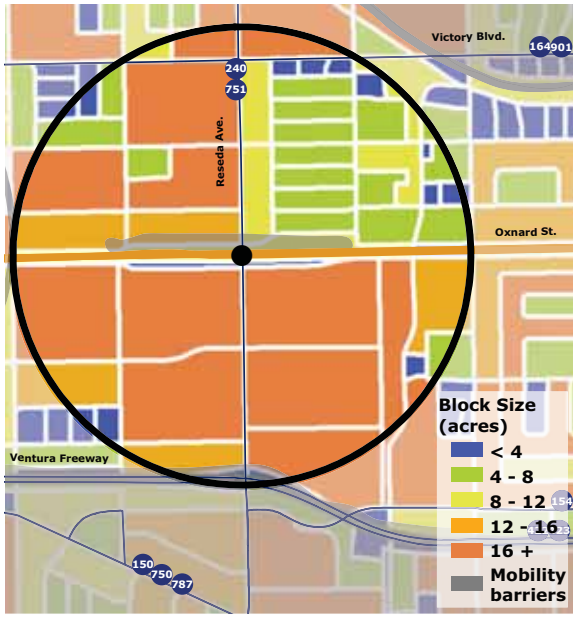
- The station area has low development potential since the area is already highly developed with a diverse mix of uses.
- The primary opportunities for redevelopment include the industrial and commercial uses located along Oxnard and, to a lesser degree, the "Agricultural; Suburban" zoned uses to the northwest of the station. There are barriers to development of each type of parcel given the City's policy on industrial lands and agricultural heritage of the area.
- The commercial uses could be redeveloped with mixed use development and a wider diversity of retail uses.



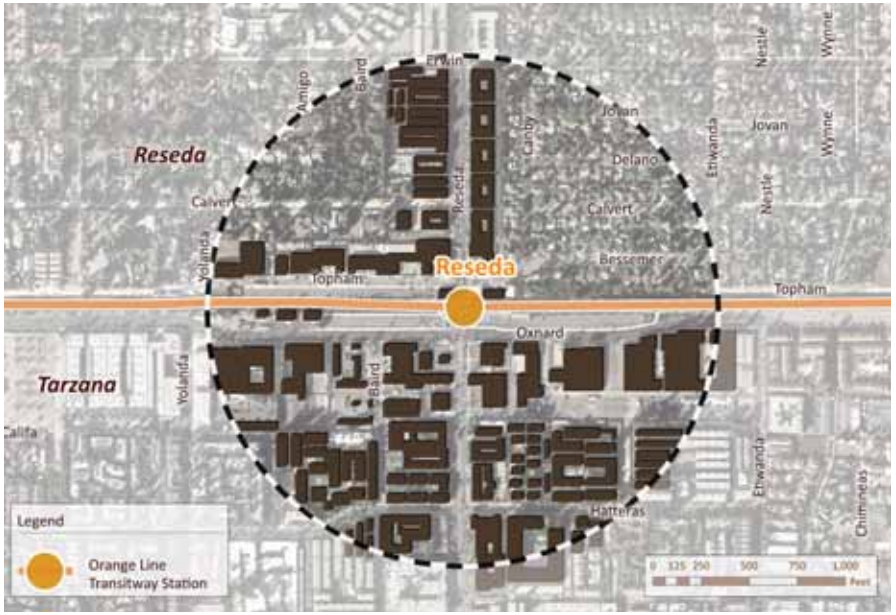
Development Opportunity (*Source: Reconnecting America*)

Urban Form

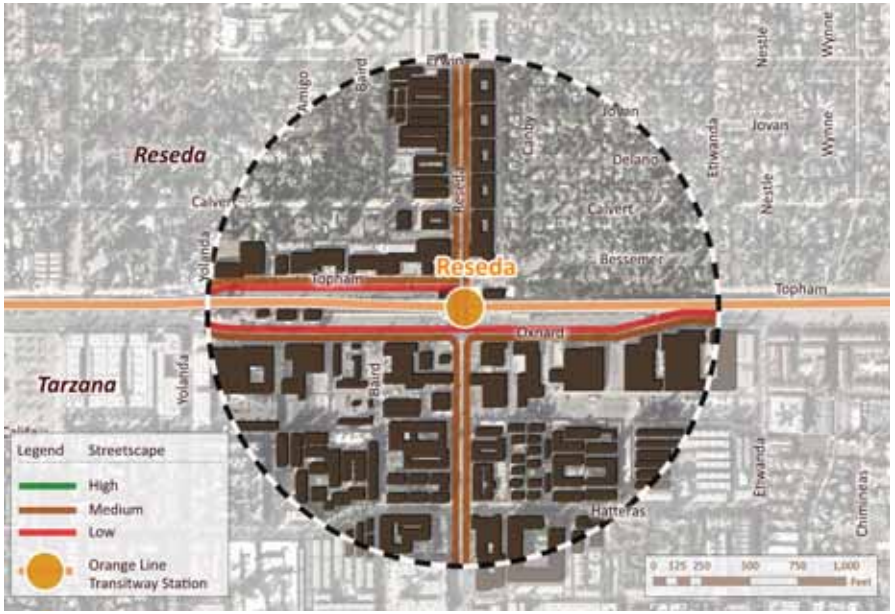
- The Building Footprint Map highlights the high building intensity of the area. The most intense area is south of the Orange Line.
- Many of the buildings south of the Orange Line and along Reseda Boulevard cover large portions of the parcel. This presents a barrier to redevelopment.
- The block sizes south and northwest of the station have very large blocks, thus creating a barrier to walking to transit.
- The frontage along Reseda Boulevard and Oxnard Street consists mostly of buildings separated from the sidewalk with a landscaped buffer of 10-20 feet. This is typical of many multi-family residential corridors in the San Fernando Valley. However some of the frontage adjacent to the Orange Line parking lots consists of unattractive chain-link fencing.
- The streetscape in the area is of medium quality with some street trees and narrow sidewalks. In some areas, on-street parking separates the pedestrians from the fast moving traffic. More pedestrian friendly landscaping is located along Topham Street north of the Orange Line.



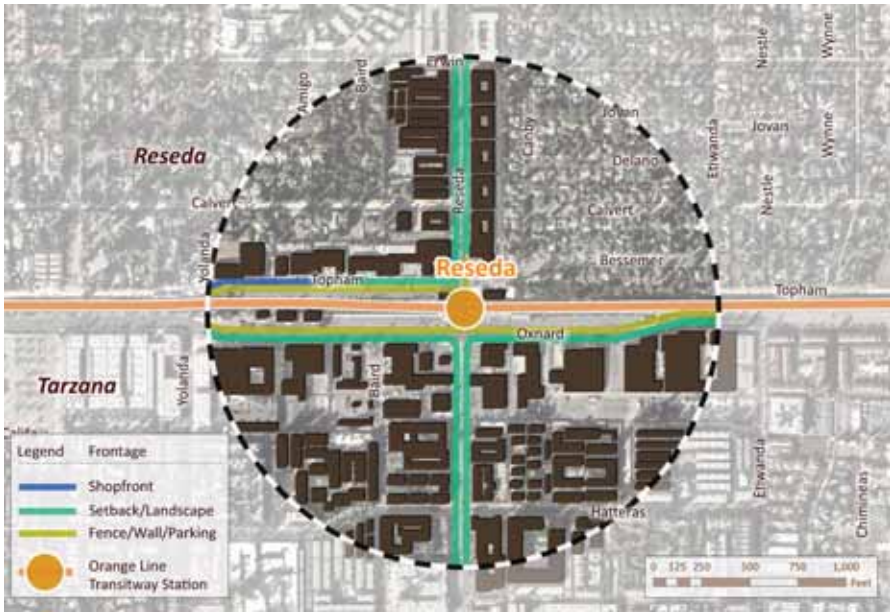
Block Pattern (*Source: Reconnecting America*)



Building Footprints



Streetscape Quality



Frontages

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 28 minutes, and to Warner Center, 15 minutes.
- Connecting transit options are limited, but include Metro Rapid Line 741, which runs north-south on Reseda Boulevard between Northridge and Tarzana every 16-19 minutes during peak periods and approximately every 25 minutes mid-day on weekdays. Metro Local Line 240, which runs every 15 to 30 minutes weekdays, in evenings and on weekends, also operates in this corridor.
- The nearest north- and southbound bus stops are on the same sides of the street as the east- and westbound platforms, respectively. The northbound stop is immediately adjacent, the southbound stop across the transitway. Passengers crossing Reseda Boulevard to transfer must cross five lanes of traffic, and more than 80 feet; there is a striped median, but no median refuge. Both stops provide seating but no shelter.
- Reseda is one of the San Fernando Valley North-South Rapidway corridors, meaning that existing Rapid service will be improved.

Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalks along Reseda and Oxnard are reasonably wide, 10 to 13 feet, while distances between signalized crosswalks vary from approximately 800 to 1,500 feet (excepting a short distance between crosswalks immediately adjacent to the station).
- The quality of the pedestrian environment along the primarily residential Reseda is relatively good: curbside parking provides a "buffer" from traffic and there is some shade-offering tree canopy. Uses along Oxnard, however, are mostly industrial in this area, there is little curbside parking and there are few trees.
- The street pattern in this area is relatively discontinuous, and intersection density within the half-mile radius is low to moderate, at 83 per square mile.
- The station area has a Walk Score of 80. Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. There are also Class II on-street lanes on Reseda, extending approximately one mile north of Vanowen Street and south into Topanga State Park.
- Reseda is identified by the City of Las Angeles Bicycle Plan as part of the Backbone Network and by the Implementation Strategy as a “Year 0 (existing or funded)” project.
- Bicycle racks and lockers are provided at this station.
- Between Balboa and Reseda, the Orange Line Bikeway is discontinuous. Two alternate routes are available; however, only limited signage is available to direct cyclists.

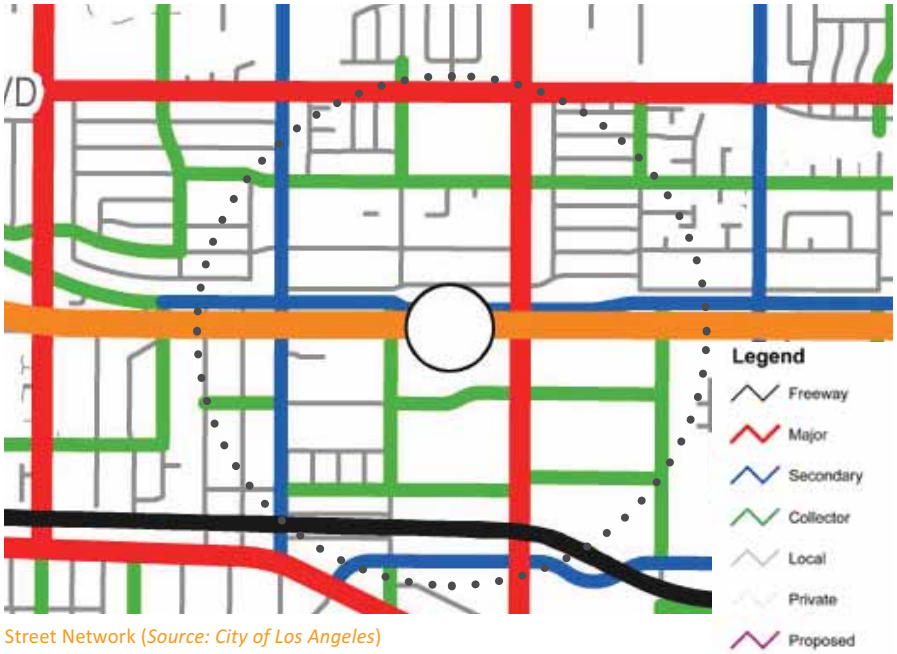
Bike Network (*Source: LA Metro*)

Traffic

- A pair of arterials featuring four through lanes plus turn lanes, the north-south Reseda Boulevard and east-west Oxnard Street, intersect just south of the station.
- Reseda is relatively uncongested, and Oxnard even more so. Year 2010 peak-hour unidirectional volume on Reseda was approximately 1,400 vehicles (northbound, PM), indicating a volume-to-capacity ratio of approximately 0.7, while year 2010 peak-hour unidirectional volume on Oxnard was approximately 700 vehicles (eastbound, AM), indicating a volume-to-capacity ratio of between 0.3 and 0.4.

Parking

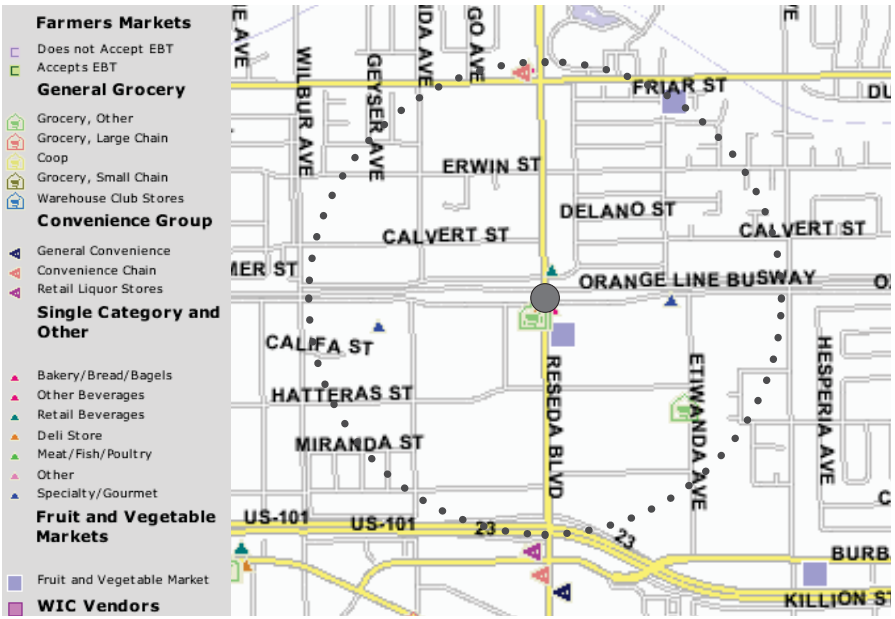
- A total of 527 spaces are provided at the station for use by patrons. There is no fee for parking. Observed occupancy on a recent weekday was low at 43 percent.
- Curbside parking in the area is unmetered.



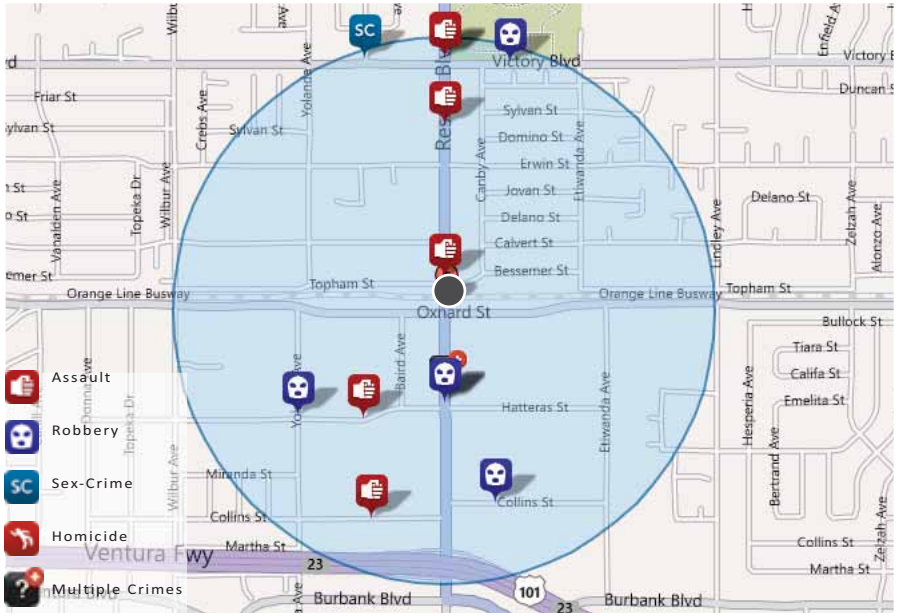
Street Network (*Source: City of Los Angeles*)

Health Environment

- Given the large residential population in the area, the Reseda station is under-served by healthy food choices. The station area contains a few small grocery stores south of the station. There are also 5 CalFresh Certified Vendors in the station area.
- There have been an average number of violent crimes in the station, compared to other Orange Line stations. Over the past 6 months there have been 5 assaults, 4 robberies and a sex crime within the half-mile radius around the station.



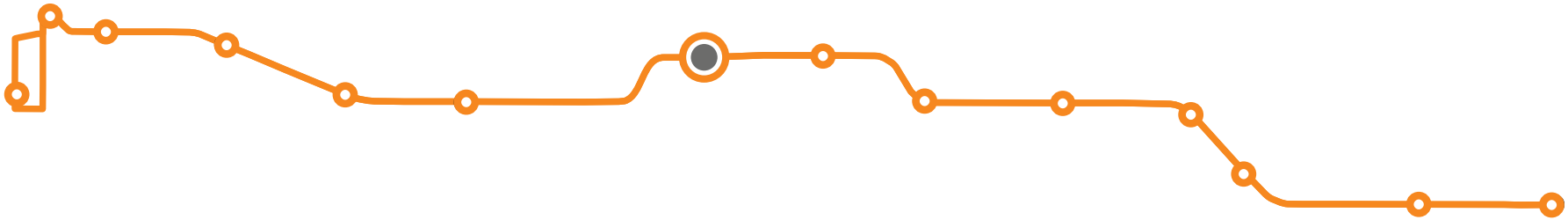
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The primary opportunities to create an enhanced transit district are the industrial parcels along Oxnard just south of the Orange Line. This area is the subject of the Tarzana Crossing Plan, a recent visioning and land use process that identifies potential development of these areas. The Tarzana Crossing Plan should be followed as the vision for this area.
- A high number of the units in the station area are rent protected. If private market development starts to occur, a housing preservation strategy should be considered.
- Oxnard Street could be modified to reduce the number of lanes and improve the pedestrian environment.
- Streetscape and pedestrian crossing improvements are needed throughout the station area to increase access and safety for transit riders.



BALBOA STATION

The Balboa station is located at Victory and Balboa Boulevard, a main arterial intersection in Van Nuys. It is located at the southeast corner of the intersection adjacent to Balboa Lake Park, a major destination along the Orange Line corridor. The station is approximately one mile from the Balboa entrance and exit to the Ventura Freeway, US-101. Across from the station is a small commercial plaza to the north, Birmingham High School to the northwest, and a series of office buildings to the west. The station is centrally located along the Orange Line and is between the Woodley and Reseda stations.

Place Type

Neighborhood Center: Mixed Uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The majority of land within ½ mile of the Balboa station is vacant and /or in public use. Of the land within ½ mile of the Balboa station, nearly a quarter is made up of Lake Balboa Park, a quarter is a public high school, and a quarter is vacant public (government-owned) land. The remainder is residential and commercial development with the majority being single family homes. The small amount of urban development reduces both the level of transit use and the potential for redevelopment.
- For the urbanized area, the majority is single family homes located northeast of the station. Immediately around the station is a large office park and along Victory Boulevard east of the station are some multi-family buildings.
- There is a strip commercial development located directly northeast of the BRT station. There are a variety of neighborhood-serving uses in the development including a small market, several restaurants, a cell phone store, a nail salon and a dry cleaner.
- Major destinations are Lake Balboa Park and Birmingham High School. Lake Balboa Park is one of the few park destinations within walking distance of an Orange Line station.

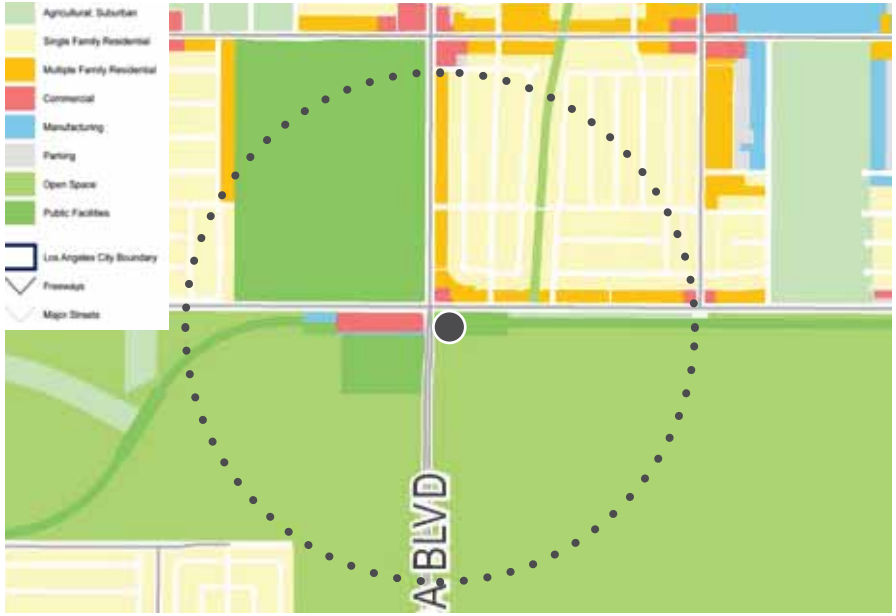
Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

Use	Acres	Percentage
Residential	88.32	19.66%
Single-Family Residential	80.71	17.96%
Multi-Family	7.61	1.69
Commercial	3.25	0.72%
Industrial	0.00	0.00%
Civic	216.41	48.16%
Vacant (Public and Private)	141.35	31.46%
Parking Lot	0.00	0.00%
Total	**449.33**	**100.00%**

Zoning

- Approximately ¾ of the station area is zoned as open space and public facilities.
- Northeast of the station, and interior to Victory and Balboa Boulevards, the land is zoned for single family residential.
- The corridors are generally zoned for multi-family development.
- Overall, the majority of parcels in the station area are conforming uses and developed at or near their potential.

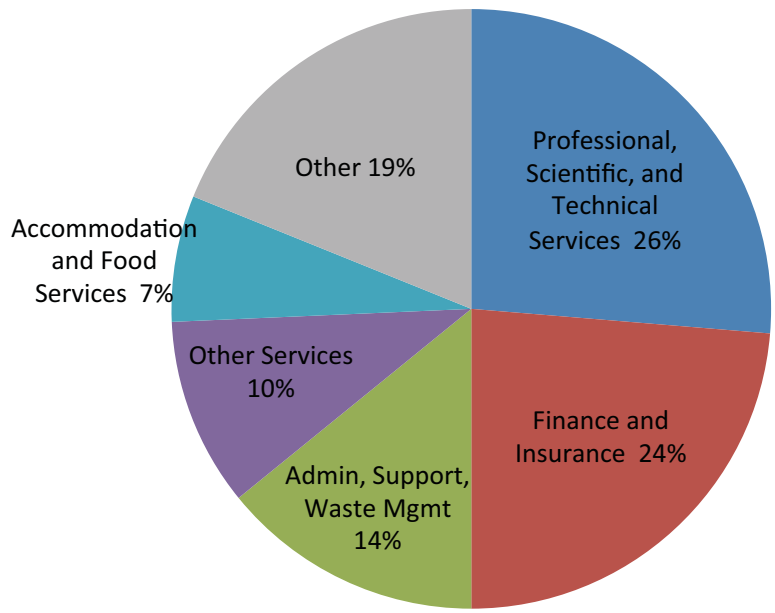


Zoning (*Source: City of Los Angeles*)

Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Jobs

- While the Balboa station area only has 612 total jobs, which is lower than many stations along the Orange Line, worker incomes are higher than the county-wide average.
- Most of the jobs in the station area are in office-based sectors: Professional Scientific and Technical Services, Finance and Insurance, and Admin Support make up nearly two-thirds of all jobs.



Job Distribution (*Source: Reconnecting America*)

Housing

- Due to the school and parks, Balboa has very few households living in the station area, especially compared to other station areas along the Orange Line.
- 51% of households are renters, and less than half of those are overpaying for rent (39%).
- 39% of households are non-family households, a lower share than the average Orange Line Station.
- Of the existing units, about 9 percent are protected by the rent stabilization ordinance. Considering that the housing stock is primarily single family, this means that many of the single family households are renters.
- Relative to other stations, the station area has a low population intensity at 7.0 people per acre.
- There is no subsidized affordable housing in the station area.

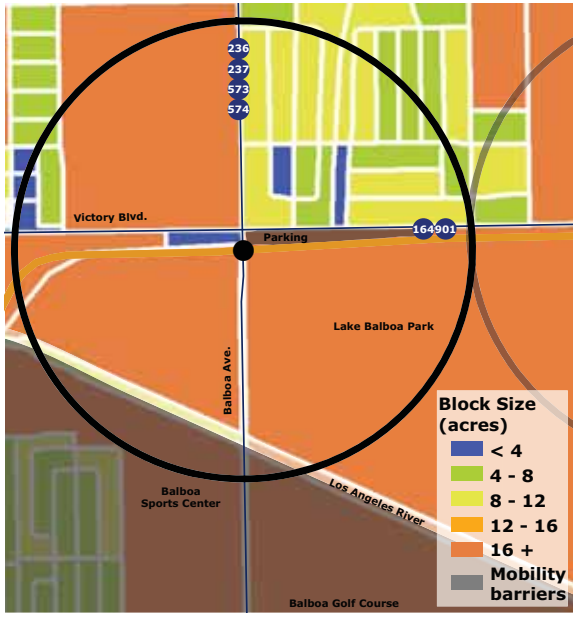
Development Potential

- Excluding the park and other public land, the area has a very low potential for new development as the majority of parcels are either less than ½ an acre, public uses that are unlikely to change or existing uses with a relatively high intensity.
- The large vacant parcel located to the southwest of the station present a potential long-term opportunity for a transit-oriented district. This land is owned by the US Government and if it were to become surplus it would present an opportunity for a major transit district.
- Any potential development south of Victory Boulevard may be subject to special flood control provisions and may need approval from the Army Corps of Engineers.

Development Opportunity (*Source: Reconnecting America*)

Urban Form

- The area is generally suburban and auto-oriented in nature as the majority of the building frontages on the major roads are set back from the street with some use of landscaping.
- Portions of the area have building frontages that are unattractive for pedestrians through the use of fences, walks, and parking lots fronting the street with little to no visual or physical barriers to traffic.
- As is seen in the Building Footprint Map, nearly half of the area is undeveloped parkland with no buildings.
- The quality of the streetscape on major roads is average for pedestrians with some street trees and sidewalks and is of average quality and width. There are some locations with a more attractive streetscape with mature street trees and an environment that promotes pedestrian activity.
- Due to the presence of Lake Balboa Park and Birmingham High School, the block sizes are very large and not walkable.
- The presence of the Los Angeles River creates a barrier for residential areas south of the Orange Line station.
- The residential area northeast of the station has relatively smaller blocks and provides better access to the Orange Line station.



Block Pattern (*Source: Reconnecting America*)

Frontages

Building Footprints

Streetscape Quality

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 24 minutes, and to Warner Center, 19 minutes.
- Connecting transit options are limited, primarily consisting of a pair of Metro Local routes, the 164 on Victory Boulevard and the 237 on Balboa Boulevard. The 164 operates on 15- to 20-minute peak headways, 30 minutes mid-day, and evenings and weekends, while the 237 operates less often. Two LADOT Commuter Express routes also serve this station: the 573 between Encino/ Mission Hills and Westwood, and the 574 between Encino/Grenada Hills and LAX/El Segundo.
- The nearest northbound bus stop is adjacent to the station. South- and eastbound stops require a crossing of Balboa, which is eight lanes and more than 80 feet wide at Victory. The closest westbound bus stop requires an additional crossing of Victory, which is equally as wide. All stops provide seating; the east- and southbound stops provide shelters.

Pedestrian

- Sidewalks along Balboa and Victory vary from approximately 4 to 13 feet in width, and distances between signalized crosswalks range from a low of approximately 900 feet (which is itself a relatively long distance) to as much as a half-mile. The Orange Line Bike Path effectively serves as a sidewalk along the south side of Victory.
- The quality of the pedestrian environment along arterials in this area is mixed. While there is generally no curbside parking to provide a "buffer" from traffic there is some shade-offering tree canopy, and much of the area is either residential or within the Sepulveda Basin Recreation Area.
- Intersection density within the half-mile radius is limited by the Recreation Area to the south. Within the developed area to the north of the station, density is 68 per square mile, a figure indicative of relatively low pedestrian network connectivity. However, even this is somewhat misleading, as Birmingham High School occupies much of the northwest quadrant of the walkshed. In the northeast, pedestrian connectivity is moderately good.
- The station has a Walk Score of 55. Walk score criteria and comparisons between stations are found on page 2-5.

Transit Network (*Source: LA Metro*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. Connections

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

can be made from the path to off-street paths within the recreation area. There are also Class II on-street lanes on Balboa to the north, extending one-and-a-half miles to Saticoy Street.

- Bicycle racks and lockers are provided at this station; however, they are in the parking lot, some distance from platforms.
- Between Balboa and Reseda, the Orange Line Bikeway is discontinuous. Two alternate routes are available; however, only limited signage is available to direct cyclists.

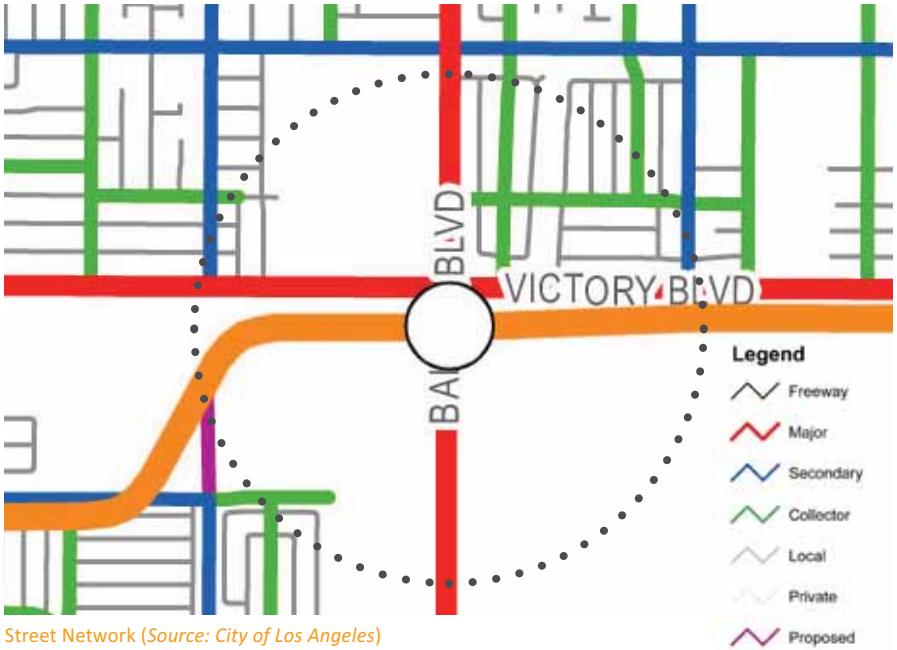
Traffic

Bike Network (*Source: LA Metro*)

- Victory Boulevard, an east-west arterial featuring six through lanes plus turn lanes, intersects with Balboa Boulevard, a north-south arterial of equivalent width, just north of the station.
- Both streets are relatively uncongested. Year 2009 peak-hour unidirectional volume on Victory was approximately 2,200 vehicles (eastbound, PM), indicating a volume-to-capacity ratio of between 0.7 and 0.8, while year 2009 peak-hour unidirectional volume on Balboa was approximately 1,700 vehicles (southbound, AM), indicating a volume-to-capacity ratio of between 0.5 and 0.6.

Parking

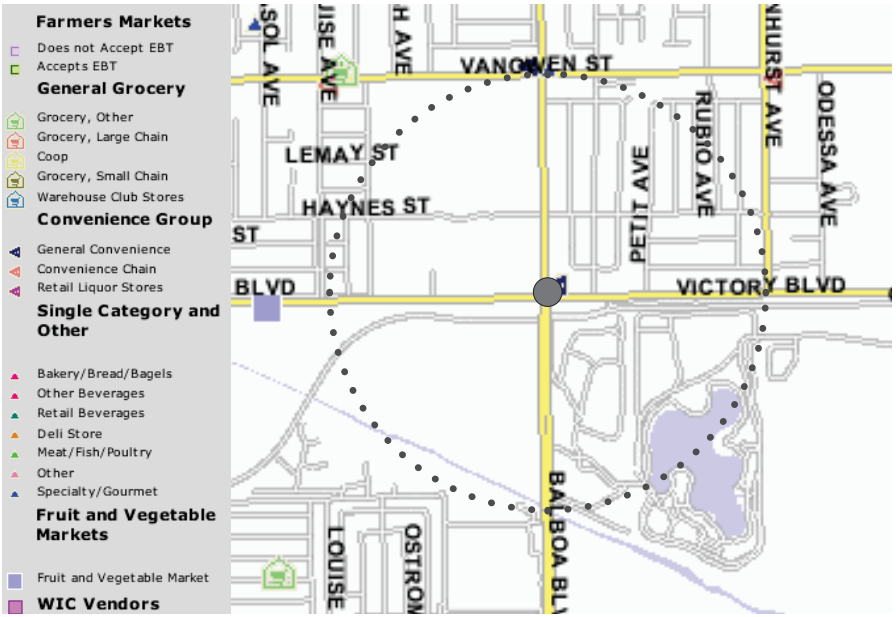
- A total of 272 spaces are provided at the station for use by patrons. There is no fee for parking. Observed occupancy on a recent weekday was moderate at 79 percent.
- Curbside parking in the area is unmetered.



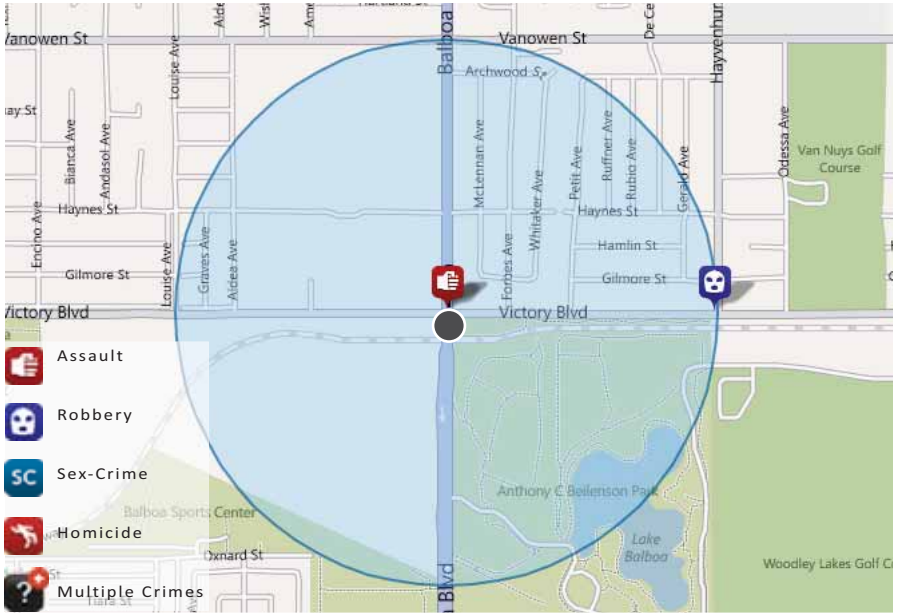
Street Network (*Source: City of Los Angeles*)

Health Environment

- The station area is relatively safe and over the past 6 months there have been only 2 violent crimes in the half-mile radius around the station – one assault and one robbery.
- Healthy food choices are limited in the station area. There is a small market in the strip commercial development at the intersection of Balboa and Victory Boulevards. This is a CalFresh Certified Vendor.



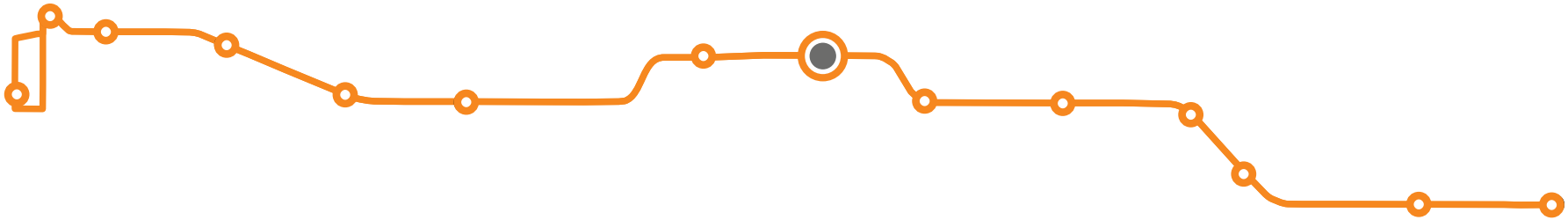
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- Overall the station area has very low new development potential since the majority of land is in public and residential use. However, if the federal government-owned land southwest of the station become surplus, there is a tremendous opportunity to create a transit oriented district.
- Pedestrian and streetscape improvements are needed in the area, particularly along Victory Boulevard immediately adjacent to the station.
- Improvements to the bike network are needed in the area.
- Balboa Street could be narrowed to improve the pedestrian environment and add on-street parking.
- An opportunity for increased transit use is to capitalize on proximity to the high school and improve high school and transit interface.
- The Balboa station is the only station on the Orange Line system that provides direct transit access via bus to LAX.



WOODLEY STATION

The Woodley Station is located directly south of the intersection of Victory Boulevard and Woodley Avenue in Van Nuys. The station is half a mile west of the Victory Boulevard on-ramp to the San Diego Freeway (I-405) and approximately two miles northeast of the Balboa on-ramp to the Ventura Freeway (US-101). The station area is located directly north of the Sepulveda Basin Recreational Area and south of the Van Nuys airport.

Place Type

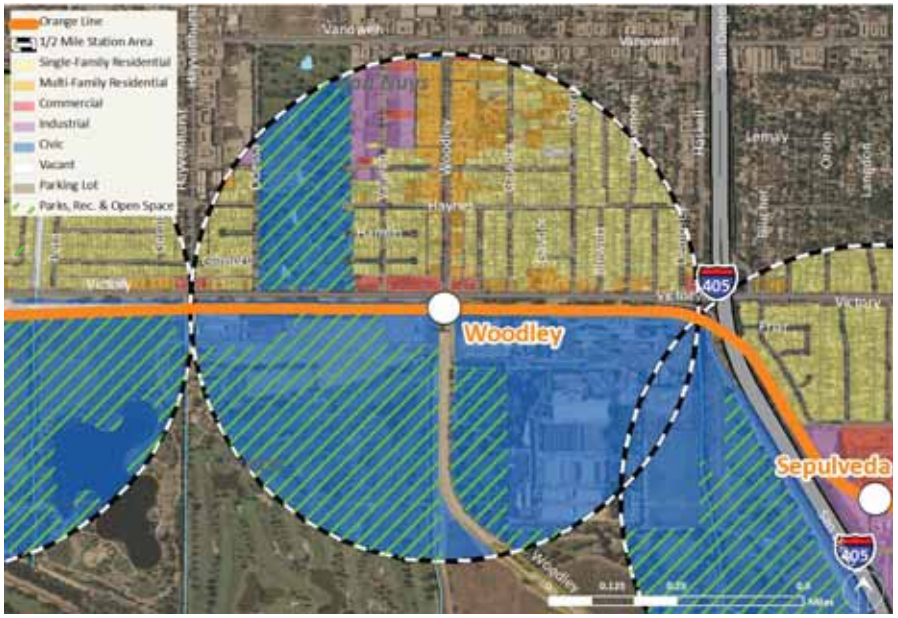
Suburban Neighborhood: Residential uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The entire area south of the Orange Line in the station area is publicly owned. Uses include the DC Tillman Water Reclamation Plant, a National Guard facility, Woodley Avenue Golf Course, and Woodley Avenue Park. The Van Nuys Golf Course is located just northwest of station. This is a barrier to transit use at the station.
- The Van Nuys airport is located just to the north of the station area and there are numerous industrial uses located in the station area, just south of the runway.
- There is a mix of single family and multi-family uses with multi-family uses located north of station along Woodley Avenue.
- There is a small amount of strip retail development adjacent to Orange Line station. It provides a variety of neighborhood serving uses but does not present any significant opportunities for redevelopment.
- Portions of the station area are located within the airport safety zones.



Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES		
Use	Acres	Percentage
Residential	125.43	29.46%
Single-Family Residential	91.95	21.60%
Multi-Family	33.48	7.86%
Commercial	6.41	1.51%
Industrial	12.44	2.92%
Civic	280.61	65.31%
Vacant (Public and Private)	0.86	0.20%
Parking Lot	0.00	0.00%
Total	**425.74**	**100.00%**

Zoning

- Over half of the land within the station area is zoned as Open Space or Public Facilities.
- The majority of the remaining land is zoned for Single Family or Multiple Family Residential.
- A small amount of land is zoned as Manufacturing.

Zoning (*Source: City of Los Angeles*)

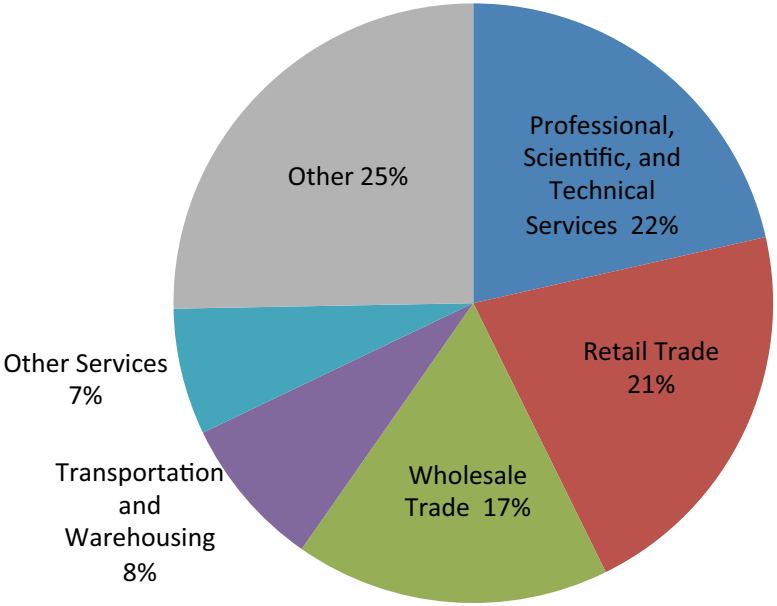
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Housing

- 70% of households are renters, and 60% of those are overpaying for rent.
- 28% of households are non-family households, a lower share than the average Orange Line Station.
- 48% of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Jobs

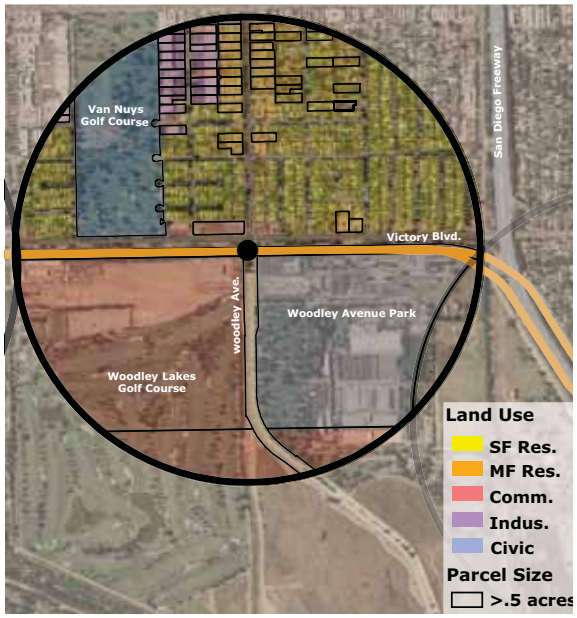
- The Woodley Station Area has the fewest jobs of all of the Orange Line station areas (494).
- These jobs are highly diverse, falling in office, retail, and industrial based sectors.



Job Distribution (*Source: Reconnecting America*)

Development Potential

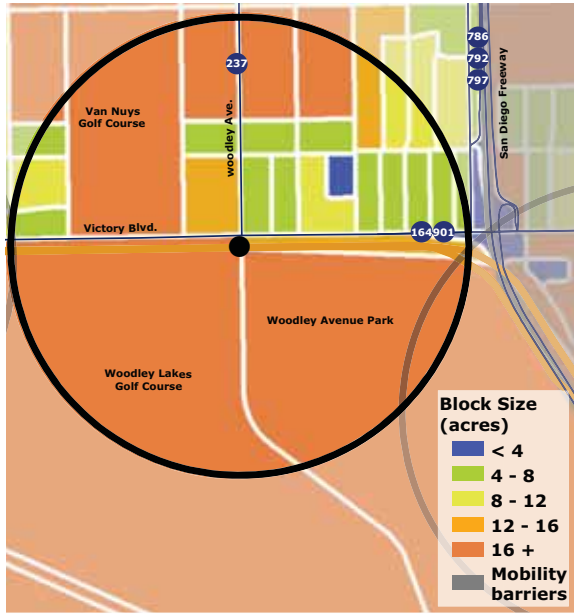
- Overall, the Woodley station area has very low development potential due to the significant amount of public land and the existing pattern of single and multi-family development. However, if the National Guard land becomes surpluses land, there is a high potential to create a transit oriented district immediately adjacent to the Orange Line station.
- There is an opportunity for small scale redevelopment immediately adjacent Orange Line station on the existing commercial parcels but the opportunities are limited and the new development would likely not be sufficient to result in an increase in transit use at the Woodley Orange Line station.
- A potential barrier to new development is the proximity to Van Nuys airport and the safety zones. This can place limits on uses, height and development intensity.
- The area south of Victory Boulevard may be subject to special flood control provisions and may need approval from Army Corps of Engineers



Development Opportunity (*Source: Reconnecting America*)

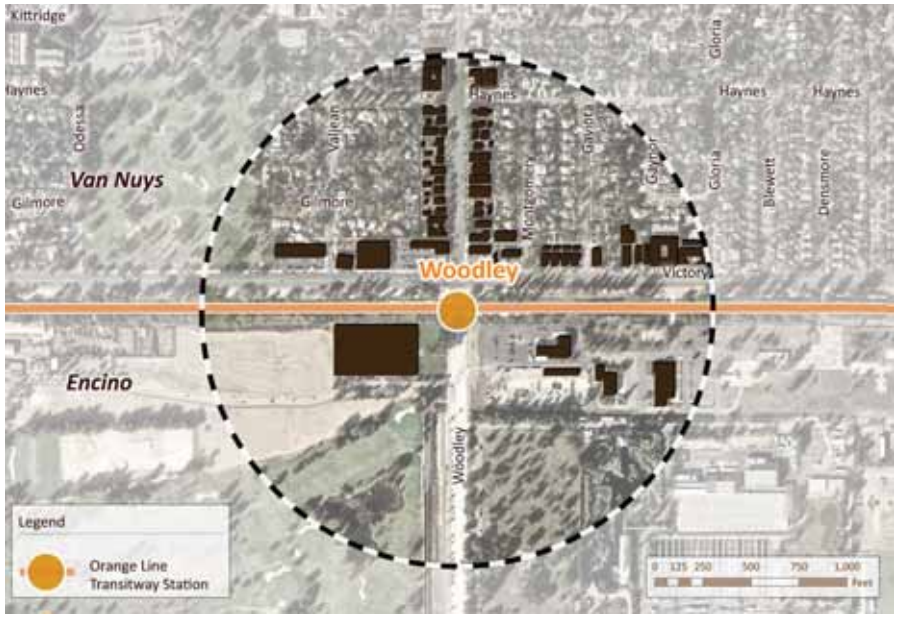
Urban Form

- The area includes large open spaces, consisting of playing fields, golf courses, and gardens/parks. The area north of the station is primarily residential, consisting of single and multi-family housing. Some commercial is also present along Victory Boulevard.
- Within the park and open spaces south of the station are large under-utilized lots that are primarily parking with a building in the center. The prime location of these areas to the station can help encourage future redevelopment that will help serve the transit and potentially provide a better transition from the residential areas to the parks or future development to the south.
- Retail buildings along Woodley Ave and Victory Boulevard typically do not face the street but are fronted with parking. The frontages are not pedestrian friendly but can be improved to better serve the businesses and the people using them.
- Streetscape conditions are of average quality, but often lack certain elements such as trees and wider sidewalks and planters. Such elements greatly improve the pedestrian and even automobile traffic experience, both of which would benefit the businesses and potentially the transit station use.
- Area south of the station typically lacks sidewalks along Woodley Ave., and does not provide an option for pedestrian traffic.
- Frontages vary between landscaped setbacks and parking lots that are often fenced off. The majority of the area consists of setbacks for residential and some businesses, while a number of retail buildings along Woodley Ave and Victory Boulevard face the street with parking or fencing and walls.

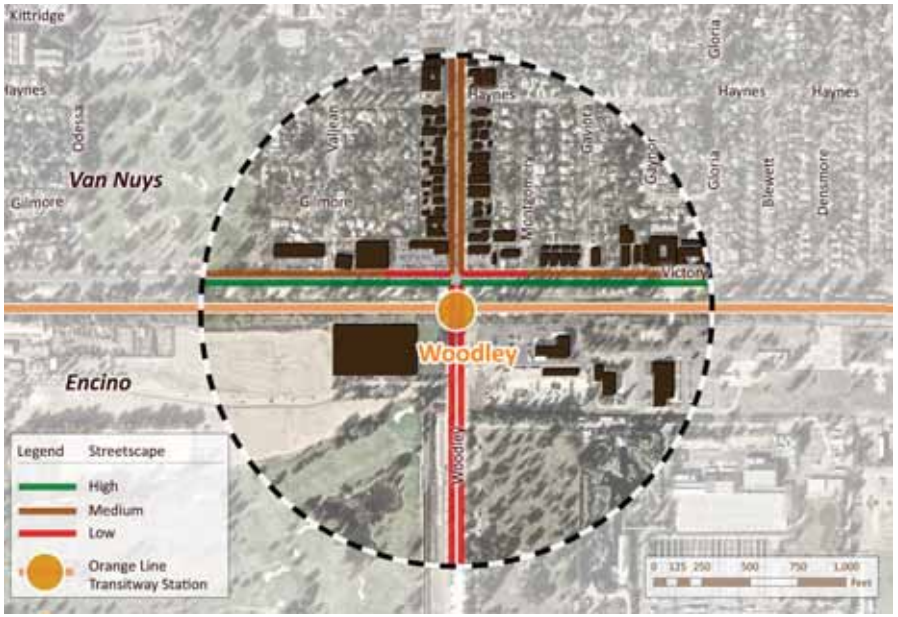


Block Pattern (*Source: Reconnecting America*)

Frontages



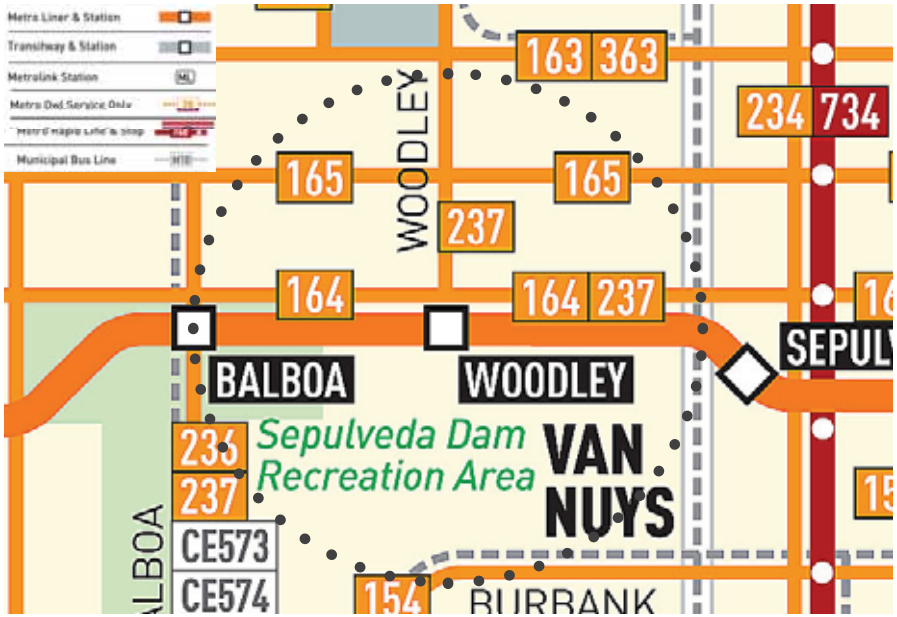
Building Footprints



Streetscape Quality

Transit

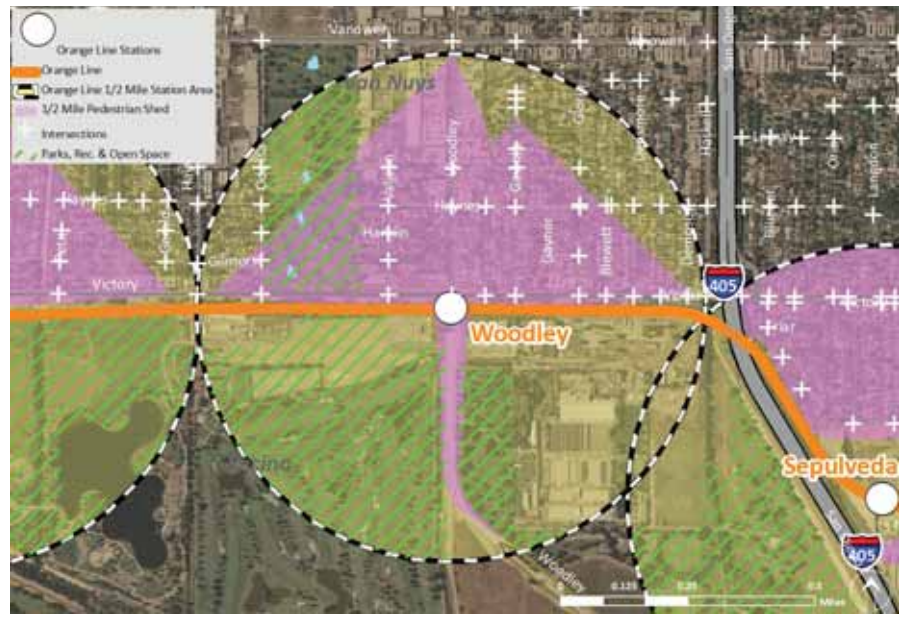
- Approximate Orange Line travel time from this station to North Hollywood is 22 minutes, and to Warner Center, 21 minutes.
- Connecting transit options are limited to a pair of Metro Local routes, the 164 on Victory Boulevard and the 237 on Victory to the east and Woodley Avenue to the north. The 164 operates on 15- to 20-minute peak headways 30-minutes mid-day, and evenings and weekends, while the 237 operates less often.
- The nearest eastbound bus stop is located adjacent to the station's eastbound platform. West- and northbound stops, however, are across the seven-lane Victory Boulevard, which is more than 90 feet wide, and users of the westbound platform must also cross Woodley, which is six lanes wide at Victory. All stops provide seating but no shelter.



Transit Network (*Source: LA Metro*)

Pedestrian

- Within the Sepulveda Basin Recreation Area, to the south of the station and immediately to its north, sidewalks are of modest size or are missing entirely (the Orange Line Bike Path effectively serves as a sidewalk along the south side of Victory). Along Victory and Woodley within the neighborhood to the north, sidewalks are approximately 4 to 12 feet wide and distances between signalized crosswalks range from a low of approximately 750 feet (which is itself a relatively long distance) to as much as a half-mile.
- The quality of the pedestrian environment in this area, which is primarily residential, is reasonably good: on the north side of Victory and on Woodley north of Victory, within the neighborhood, curbside parking provides a "buffer" from traffic and there is some shade-offering tree canopy.
- Intersection density within the half-mile radius is limited by the Recreation Area to the south. To the north of the station, density is 94 per square mile, indicating moderate pedestrian network connectivity.
- The station area has a Walk Score of 72. Walk score criteria and comparisons between stations are found on page 2-5.



1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point; as there is no sidewalk parallel to the path, it may be used by pedestrians. Connections can be made from the path to off-street paths within the recreation area. There are also Class II on-street lanes on Woodley to the north, extending one mile to Sherman Way.
- Bicycle racks and lockers are provided at this station.

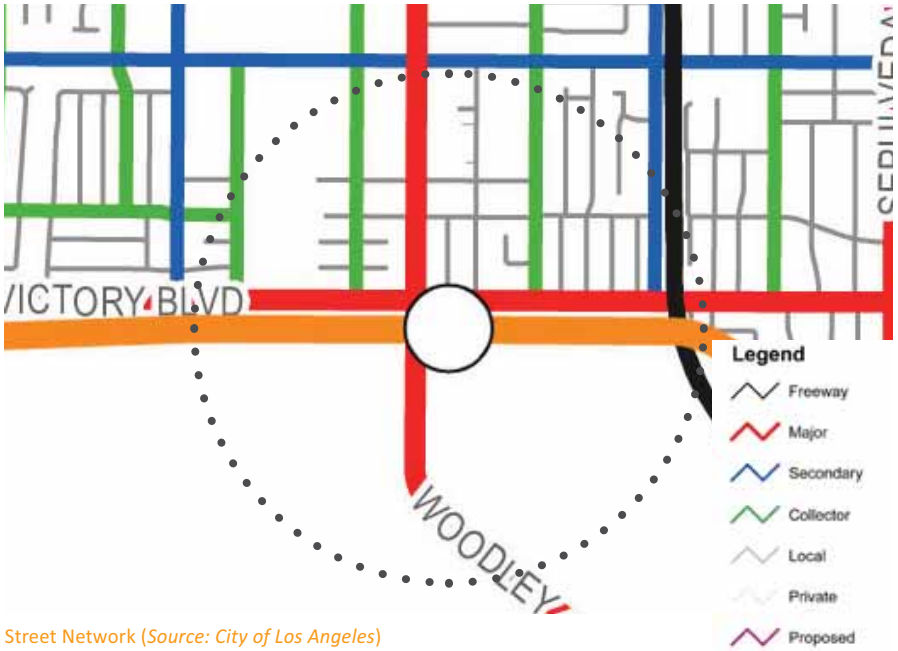
Bike Network (*Source: LA Metro*)

Parking

- There is no station parking lot.
- Curbside parking in the area is unmetered.

Traffic

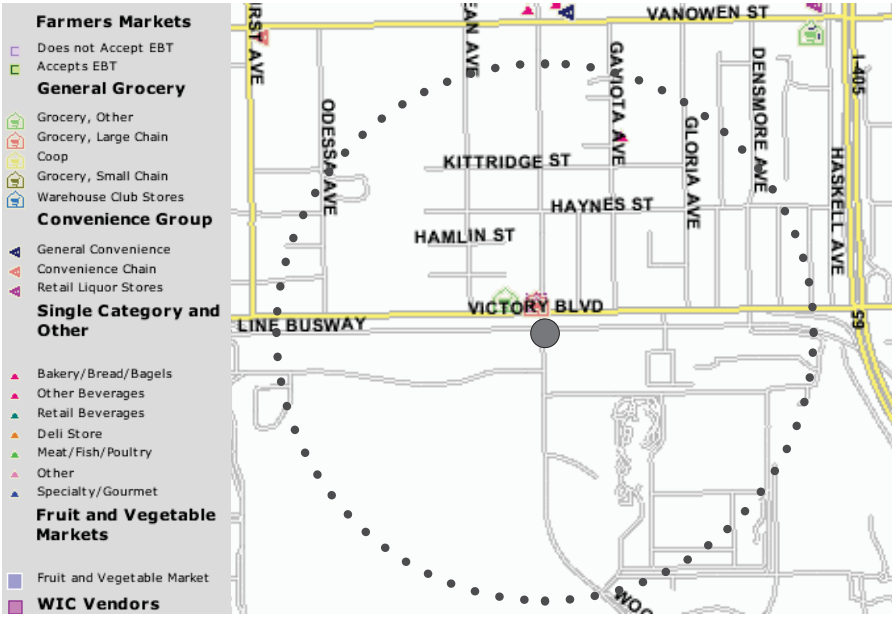
- Victory Boulevard, an east-west arterial featuring six through lanes plus turn lanes, intersects with Woodley Avenue, a north-south arterial generally featuring four through lanes (but widening to six lanes including turn lanes at Victory), just north of the station.
- Victory is moderately congested, while Woodley is relatively uncongested. While recent peak-hour traffic counts for Victory at Woodley were unavailable, year 2005 all-day counts of approximately 25,000 in the eastbound direction suggest a peak-hour unidirectional volume of approximately 2,500 vehicles, indicating a volume-to-capacity ratio of between 0.8 and 0.9 (this is consistent with apparent V/C ratios of approximately 0.9 one mile east, at Sepulveda, and between 0.7 and 0.8 one mile west, at Balboa). Year 2009 peak-hour unidirectional volume on Woodley was approximately 1,200 vehicles (northbound, PM), indicating a volume-to-capacity ratio of approximately 0.6.



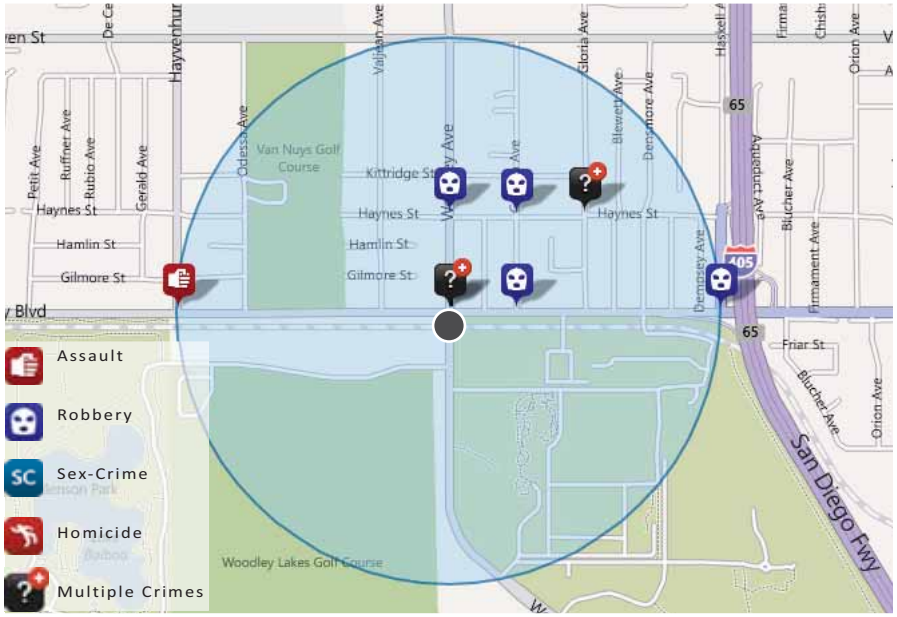
Street Network (*Source: City of Los Angeles*)

Health Environment

- There are two grocery stores located immediately northwest of the station on Victory Boulevard that provides healthy food options for area residents.
- The rate of violent crimes is average for the Orange Line stations with just under 14 violent crimes per 10,000 residents and employees.



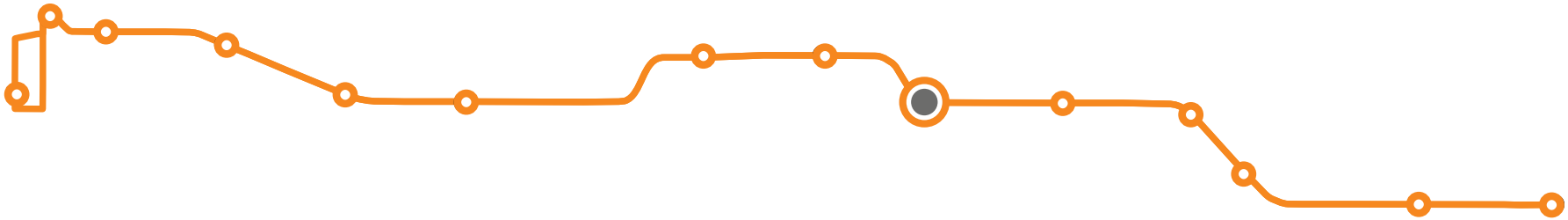
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The station area has a very low potential for new development. The exception to this is the National Guard site which, if it were ever put in surplus by the federal government, could have a large development potential.
- Improvements could be made to the pedestrian environment and streetscape improvements, particularly along Victory immediately adjacent to the station.
- Bicycle upgrades are needed to separate the bike path from sidewalk in the vicinity of the station area.



SEPULVEDA STATION

The Sepulveda Station is located northwest of the intersection of Sepulveda Boulevard and Oxnard Street in Sherman Oaks. The station is half a mile southeast of the Victory Boulevard on-ramp to the San Diego Freeway (I-405) and immediately east of the freeway. The station area is bisected by the 405 freeway and approximately 1/3 of the station area is west of the freeway and inaccessible to the station. One feature of the station is its location approximately 800 feet west of the Orange Line's intersection with Sepulveda Boulevard. This, combined with the proximity to the 405 freeway limits the amount of active land uses within the ½ mile station area.

Place Type

Neighborhood Center: Mixed uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The land uses immediately around the station area consist of large lot commercial, office and industrial land uses. The area is a commercial destination with Costco, Staples, Target and other retail uses along Sepulveda Boulevard. There are several multi-story office buildings immediately south of the station along Sepulveda Boulevard. The format of the commercial uses is predominantly auto-oriented.
- The station has one of the largest park and ride lots on the Orange Line system.
- Industrial uses are located mostly south of the station area and consist of a range of manufacturing and distribution uses. Two large industrial parcels are immediately adjacent to the transit station. One is a furniture warehouse and retail store that recently closed and the other is an active tank farm located south of the station.
- Single family homes are located north of the station area generally north of Erwin Street.
- The land west of the 405 freeway is inaccessible to the station area and is all publicly owned. The public uses are the Sepulveda Basin Wildlife Preserve and part of the DC Tillman Water Reclamation Plant.
- Delano Park is located just east of the station.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES		
Use	Acres	Percentage
Residential	90.75	22.30%
Single-Family Residential	83.67	20.56%
Multi-Family	7.08	1.74%
Commercial	74.11	18.21%
Industrial	50.98	12.53%
Civic	184.29	45.29%
Vacant (Public and Private)	1.29	0.32%
Parking Lot	5.48	1.35%
Total	**406.92**	**100.00%**

Zoning

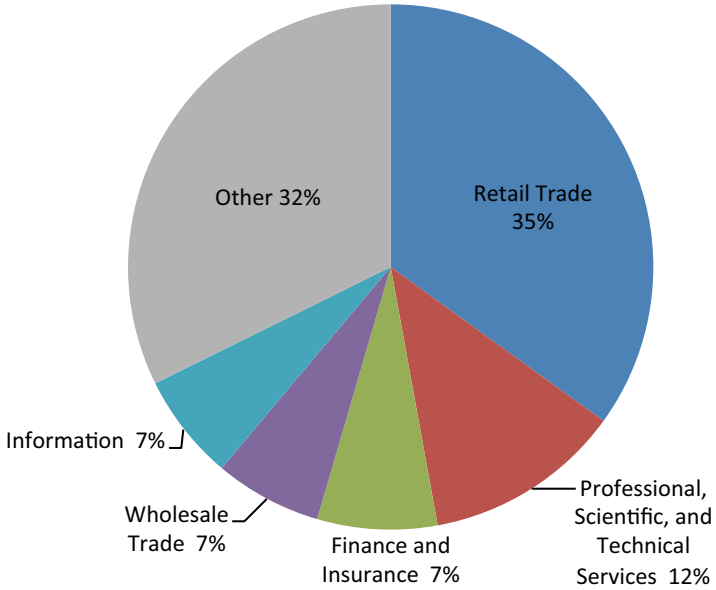
- The station area has a significant amount of land zoned as Manufacturing. These uses are generally east of the station on either side of the Orange Line right-of-way between Califa Street to the south and Erwin Street to the north. The zoning of this land is not supportive of transit districts.
- Commercial parcels are generally north of Erwin Street along Sepulveda Boulevard.

Zoning (*Source: City of Los Angeles*)

Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Jobs

- Sepulveda has a moderate number of jobs (3,804), approximately equivalent to the number of jobs in the Van Nuys and North Hollywood station areas.
- Many of these jobs are clustered along the major arterials in the station area. Its proximity to the Interstate 405 freeway plays a major role in supporting some of the commercial space, including nearby Costco and other major retailers.
- About one-third of jobs in the Sepulveda station area are retail. Other major employers are office-based businesses in the Professional, Scientific, and Technical Services, Finance and Insurance, and Information sectors.
- While Sepulveda has some highly prominent industrial uses, industrial jobs do not make up a significant concentration of the jobs in the station area.



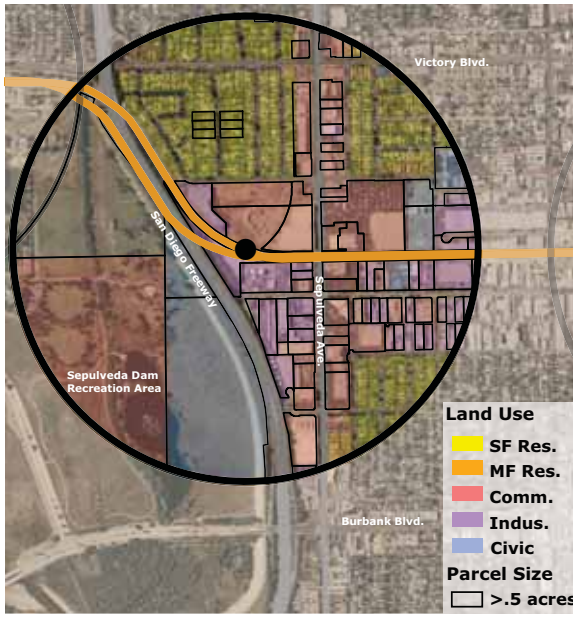
Job Distribution (*Source: Reconnecting America*)

Housing

- Sepulveda Station is one of the station areas with the fewest households along the Orange Line.
- 57% of households are renters, and more than half of those are overpaying for rent (57%).
- 34% of households are non-family households, around average for the Orange Line corridor.
- 26% of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Development Potential

- The Sepulveda Station Area has high development potential, especially on the park and ride lot, the commercial development along Sepulveda, and the low-intensity commercial and industrial uses east of the station. Another potential opportunity site is the former furniture manufacturing northeast of the Sepulveda and Orange Line station.

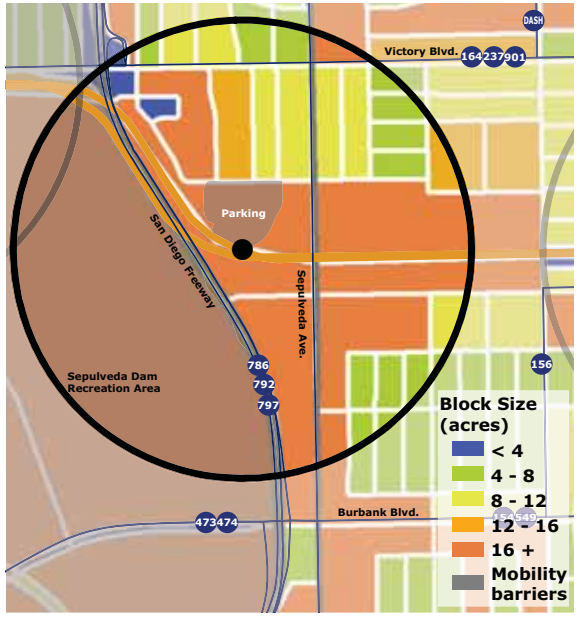


Development Opportunity (*Source: Reconnecting America*)

- Barriers to redevelopment include the existing tank farm, the freeway, and industrial land that may be infeasible to convert given the City's policy about preserving industrial land.
- There is high joint development potential on the large under-utilized parking lot adjacent to the Orange Line station.
- The site's proximity to the freeway and the tank farm may make it more suitable for commercial and office uses than residential.

Urban Form

- The area is generally industrial and commercial with residential to the north. The transitions between the use types and urban form can be abrupt and awkward, thus potentially decreasing pedestrian activity, access, and growth.
- A very noticeable site within the area is the large parking lot adjacent to the Orange Line station. The large area of pavement is not conducive to a healthy urban environment at the moment, but can potentially be a great site for future redevelopment that can serve the neighborhoods, work places, commercial areas, and better connect them with the transit system.
- Streetscape quality in the area is low to medium, due to lack of street trees, narrow sidewalks along the street, and in some cases, lack of sidewalks. However, streetscape conditions drastically improve towards the neighborhoods, especially to the northwest area of the site along Erwin St/ Blucher Ave.
- Frontage conditions vary, but the majority of the site includes setbacks and parking in front of buildings, often times with walls or fences facing the street. Such conditions typically do not encourage activity along the street. Empty lots and parking lots have great potential for redevelopment that can provide many ways of serving the local businesses, the transit system, and adjacent neighborhoods.



Block Pattern (*Source: Reconnecting America*)

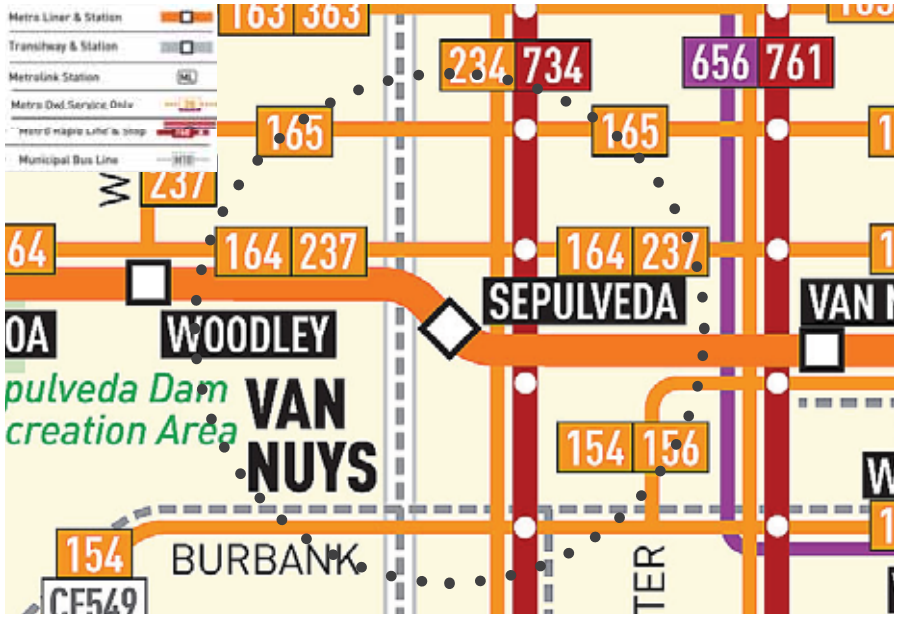
Frontages

Building Footprints

Streetscape Quality

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 17 minutes, and to Warner Center, 26 minutes.
- Connecting transit options are limited, but include Metro Rapid Line 734, which runs north-south on Sepulveda Boulevard toward Sylmar and Sherman Oaks every 15-20 minutes during peak periods and approximately every 40 minutes mid-day on weekdays. Metro Local Line 234 also operates in this corridor, providing evening and weekend service.
- Sepulveda Station is located approximately 800 feet west of Sepulveda Boulevard. There is a narrow (approximately 7-foot) sidewalk between the platforms and the street; however, passengers sometimes walk in the Bikeway.
- The nearest southbound bus stop is located on the same side of Sepulveda Boulevard as the station. However, the closest northbound stop is on the other side of the street, which is seven lanes (including a left-turn lane) and approximately 100 feet wide. Stops provide seating but no shelter.
- Sepulveda is one of the San Fernando Valley North-South Rapidway corridors, meaning that existing Rapid service will be improved.
- Westbound at Sepulveda, Orange Line operators' views of northbound traffic are obscured by a building adjacent to the right-of-way and extending to the sidewalk.



Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalk widths along Sepulveda are modest, at 8 to 11 feet, while distances between signalized crosswalks vary from a relatively close 420 feet to nearly 1,250 feet.
- The quality of the pedestrian environment along Sepulveda is relatively poor: while curbside parking provides a "buffer" from traffic, there is a lack of shade-offering tree canopy, and a large number of parking lots front onto the sidewalk.
- "Big box" large retail uses with very large parking lots and industrial facilities near the station further contribute to a substandard pedestrian environment.
- A number of major barriers within the station area serve as obstacles to pedestrian access, including the station parking lot to the north (which is fenced) and the 405 Freeway to the west (beyond which is the Sepulveda Basin Recreation Area). Intersection density within the half-mile radius is just 52 per square mile; however, density within the street network itself is roughly twice that, indicating a moderate level of pedestrian network connectivity.
- The station area has a Walk Score of 72.Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. There are no existing facilities for cyclists on area streets.
- Sepulveda is identified by the City of Los Angeles Bicycle Plan as part of the Backbone Network.
- Bicycle racks and lockers are provided at this station.

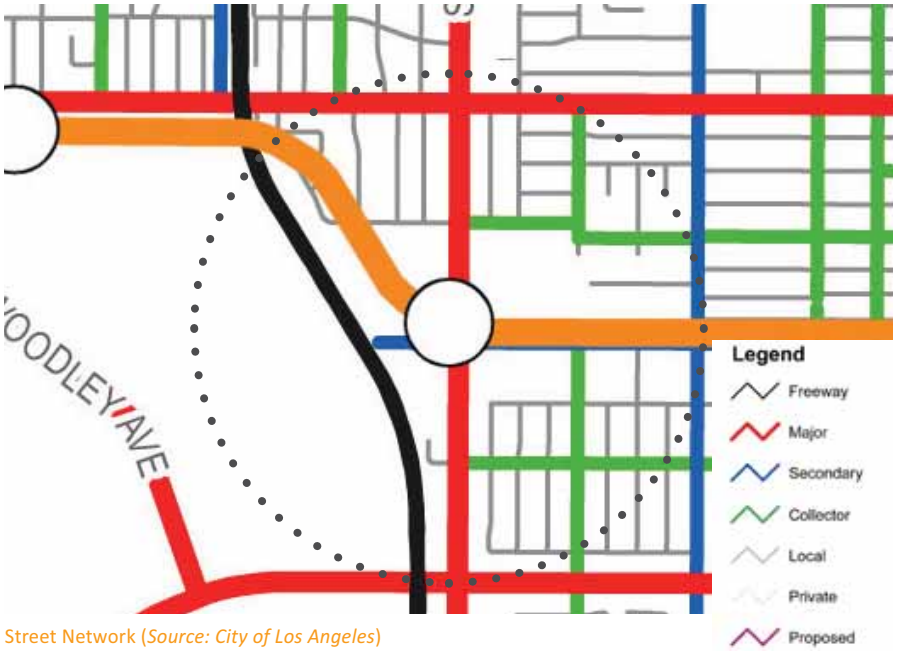
Bike Network (*Source: LA Metro*)

Traffic

- Sepulveda Boulevard, an arterial featuring six through lanes plus turn lanes, runs north-south approximately 800 feet to the east of the station platforms. A four-lane (plus turn lanes) arterial, Oxnard Street, starts at Sepulveda another 300 feet to the south and runs east, while the six-lane, east-west Victory Boulevard is roughly 2,200 feet to the north.
- Sepulveda is relatively uncongested. Year 2007 peak-hour unidirectional volume at Victory was approximately 2,300 vehicles (northbound, PM), indicating a volume-to-capacity ratio of between 0.7 and 0.8.

Parking

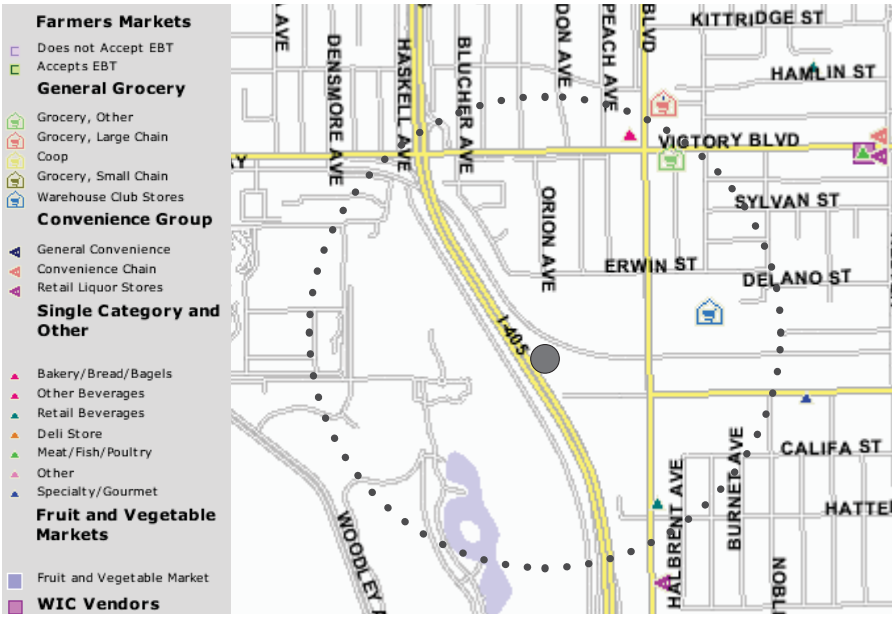
- A total of 1,205 spaces are provided at the station for use by patrons. There is no fee for parking. Observed occupancy on a recent weekday was extremely low, just 12 percent. At 10 a.m. on a weekday, just 142 spaces were filled.
- On-street parking along Sepulveda is not metered.



Street Network (*Source: City of Los Angeles*)

Health Environment

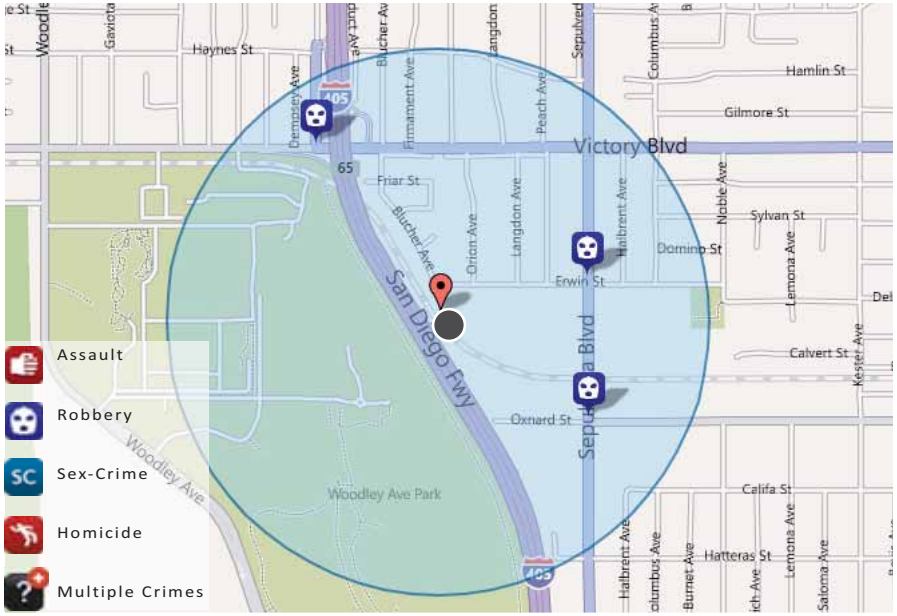
- There are a variety of healthy food options within the station area including multiple small grocery stores. There is also a Target and a Costco, which provide some options for healthy food.
- The half-mile radius surrounding Sepulveda station has some of the lowest violent crime rates of any station area along the Orange Line corridor.



Food Environment (*Source: California Nutrition Network*)

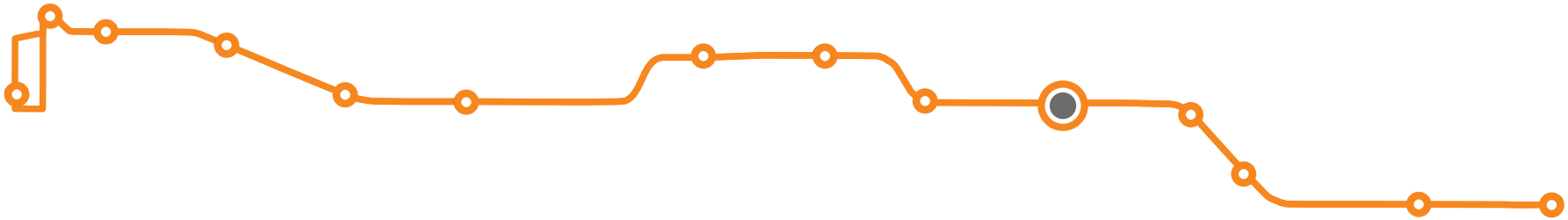
Issues and Opportunities

- There are significant opportunities for new development and for joint development at Sepulveda Station. Major opportunities include the park and ride lot, the large furniture warehouse and store adjacent to the station, the big-box retail center (Costco), and nearby car dealerships.
- The transit station is approximately 800 feet from the Sepulveda Boulevard. This creates a barrier to bus transfers and pedestrians accessing the station. A recommendation is to move the station platforms closer to Sepulveda or on the east side of Sepulveda. In addition to improving bus connections, moving the station will bring more jobs and residents within walking distance of the station.



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

- There are barriers to accessing the Sepulveda Station. The most significant is the 405 freeway but other barriers include the tank farm adjacent to the station and the large park and ride lot, which is fenced and impassable, thus increasing pedestrian walking distance from the neighborhoods to the north.
- Sepulveda Boulevard is very pedestrian unfriendly and needs pedestrian and streetscape improvements including crosswalks, street trees, and pedestrian amenities. This station area could also benefit from street and sidewalk maintenance and cleaning as the streets appear to be less well maintained and dirtier than other stations.
- There are potential respiratory health issues from the station area's proximity to the 405 freeway. Residential development close to the freeway may not be appropriate.
- Given the development potential, a specific plan should be considered for the Sepulveda Station Area.



VAN NUYS STATION

The Van Nuys Station is located one block north of the intersection of Van Nuys Boulevard and Oxnard Street, two main arterials in Sherman Oaks. The station is roughly two miles east of the Victory Boulevard on-ramp to the San Diego Freeway (I-405), a mile and a half north of the Van Nuys Boulevard on-ramp to the Ventura Freeway (US-101), and approximately three miles west of the Hollywood Freeway, Route 170. The station area is located directly north of the Hollywood Community Hospital, east of the Sepulveda Basin Recreational Area and south of the Van Nuys Government Center.

Place Type

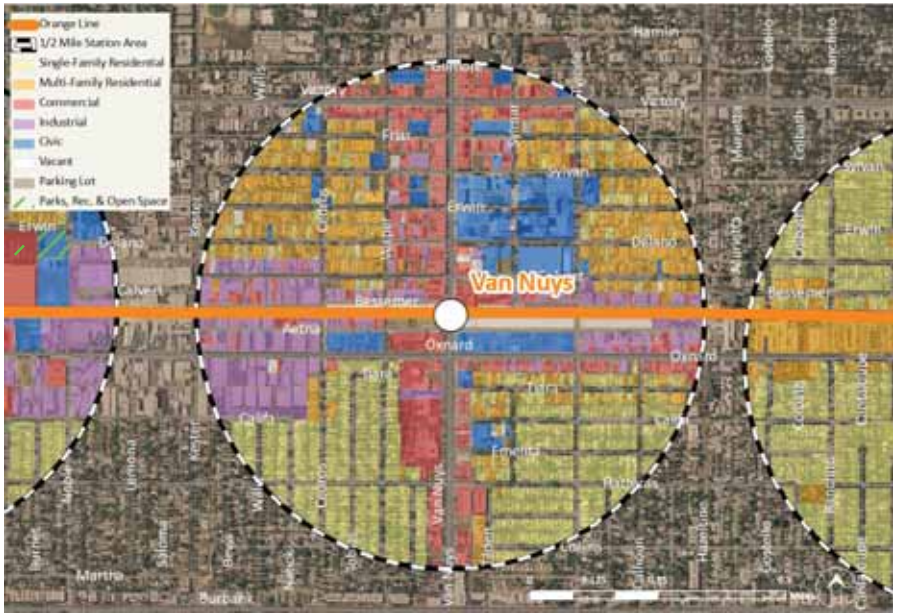
Transit Neighborhood: Residential mixes with moderate intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The Van Nuys station area contains a diverse mix of residential, commercial, public and industrial uses. The area is one of the more intense station areas along the Orange Line corridor.
- One significant feature of the Van Nuys station area is the City of Los Angeles Civic Center, located 2 short blocks north of the station. The civic center includes offices, a library and courts. This is a major destination along the Orange Line and it provides a wide range of public services within a short bus ride for many residents.
- Commercial uses, which include retail, restaurants and series, are located along Van Nuys Boulevard on either side of the station. North of the station, the uses are mostly store fronts in small retail spaces, while south of the station the parcels are larger with more surface parking. There are also several car dealerships including a Ford dealer immediately adjacent to the Orange Line station.
- Along Oxnard Street east and west of the station are a large number of industrial buildings that contain small production, distribution and repair uses and industrial uses.
- Residential uses also comprise a large percentage of the total land area. Of the residential land area, about half is single family and half is multi-family. The single family uses are generally located south of the Orange Line and multi-family uses are located north of the Orange Line. Unlike other areas along the corridor, the multi-family uses appear to be located on small lots that may have once been single family homes. Thus there are smaller multi-family buildings than other locations.
- There are numerous parking lots located along the Orange Line on either side of the station. These lots are long and narrow and appear to be on land that once was part of the railroad right-of-way.
- A long stretch of Van Nuys Boulevard south of civic center is designated as a special auto dealership zone by the City of Los Angeles.
- A portion of Van Nuys Boulevard is subject to an urban design overlay zone by the City of Los Angeles.



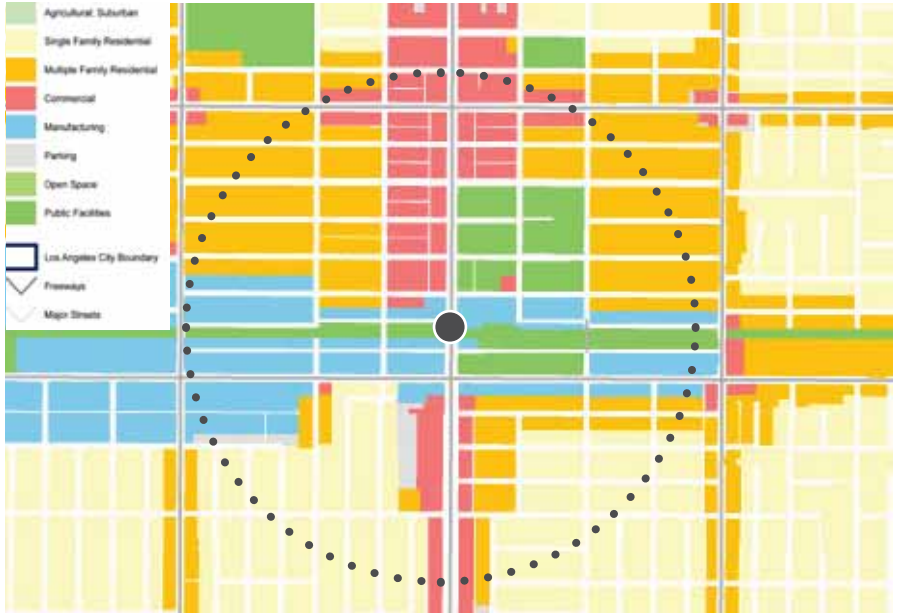
Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

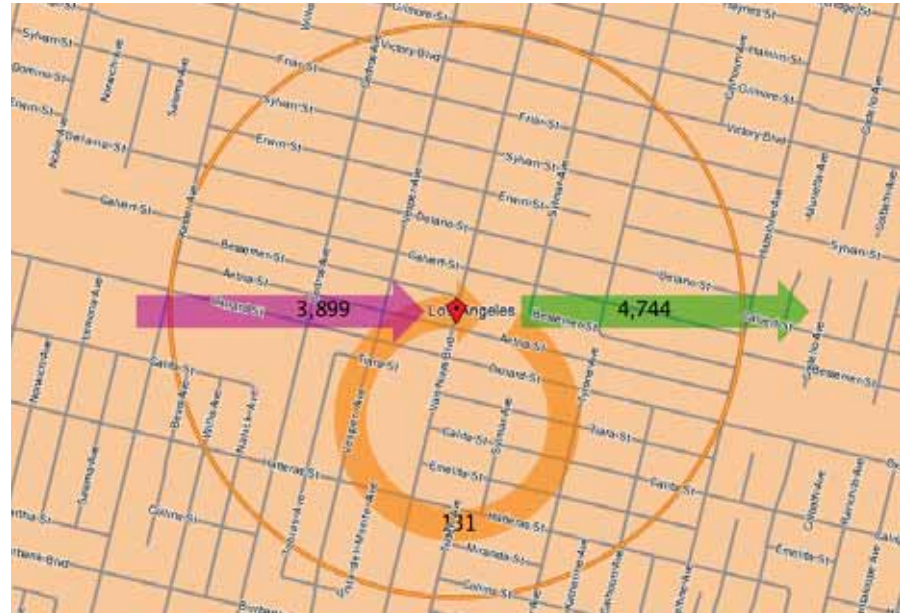
Use	Acres	Percentage
Residential	180.73	50.11%
Single-Family Residential	104.52	28.98%
Multi-Family	76.21	21.13%
Commercial	66.98	18.57%
Industrial	48.93	13.57%
Civic	43.42	12.04%
Vacant (Public and Private)	11.46	3.18%
Parking Lot	9.16	2.54%
Total	**360.68**	**100.00%**

Zoning

- The zoning is generally consistent with the existing land uses in the station area.
- There are numerous opportunities to modify the zoning to include more transit supportive uses. In particular the Manufacturing zoned parcels present an opportunity to modify the uses to increase transit ridership.



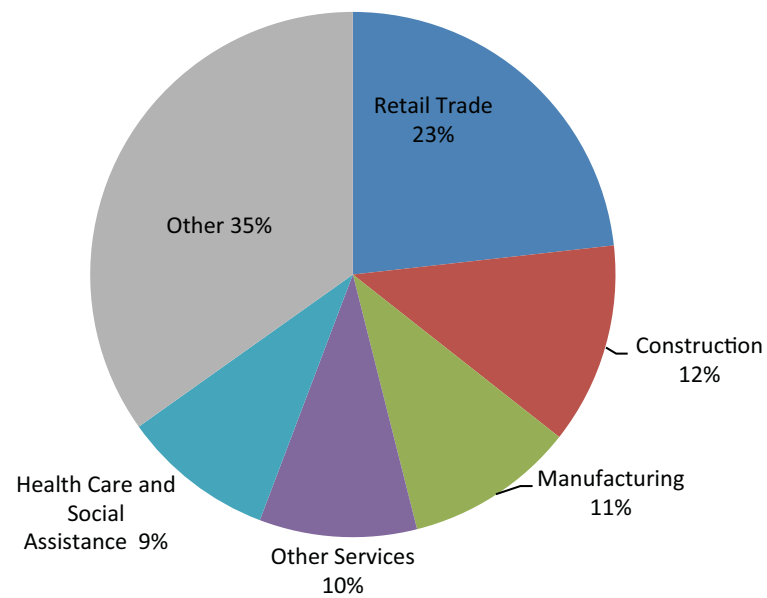
Zoning (*Source: City of Los Angeles*)



Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Jobs

- The Van Nuys station area is a medium sized job destination compared to other station areas along the Orange Line corridor, with 3,827 jobs.
- These jobs are diverse across a wide range of sectors including retail trade, construction, manufacturing, and services. Additionally, the Van Nuys Civic Center is a major jobs destination that is not included in the above jobs estimate or pie chart, as the data source does not track government jobs.



Job Distribution (*Source: Reconnecting America*)

Housing

- 82% of households are renters, and more than half of those are overpaying for rent (57%).
- 35% of households are non-family households, around average along the Orange Line.
- 56% of the housing units are subject to the Rent Stabilization Ordinance, indicating a significant group of rental properties not subject to the Rent Stabilization Ordinance.
- There are 11 subsidized affordable units in the station area in three different properties. Other than North Hollywood, this is the only station area with subsidized affordable housing along the Orange Line.

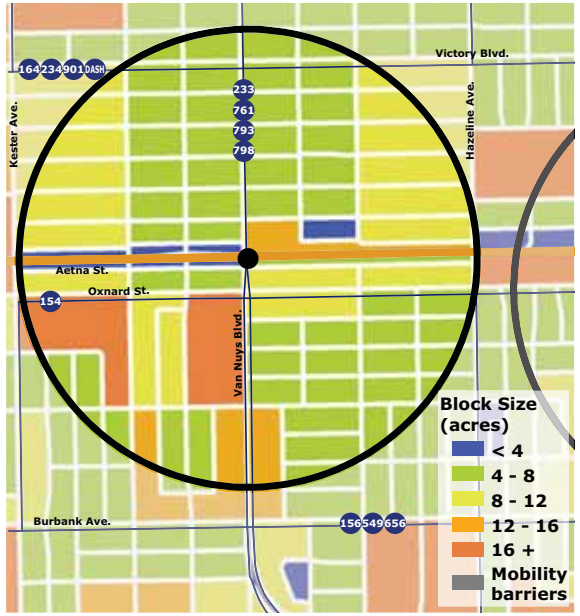
Development Potential

- This station area has a very high potential for new development on both large and small parcels, especially under-performing commercial parcels within 1/2 mile of the station. Significant opportunities for new development include the auto dealers north and south of the station and the manufacturing uses. There are also many commercial parcels that could be redeveloped with higher intensity uses.
- Joint Development is a possibility on parking lots both east and west of the station.

Development Opportunity (*Source: Reconnecting America*)

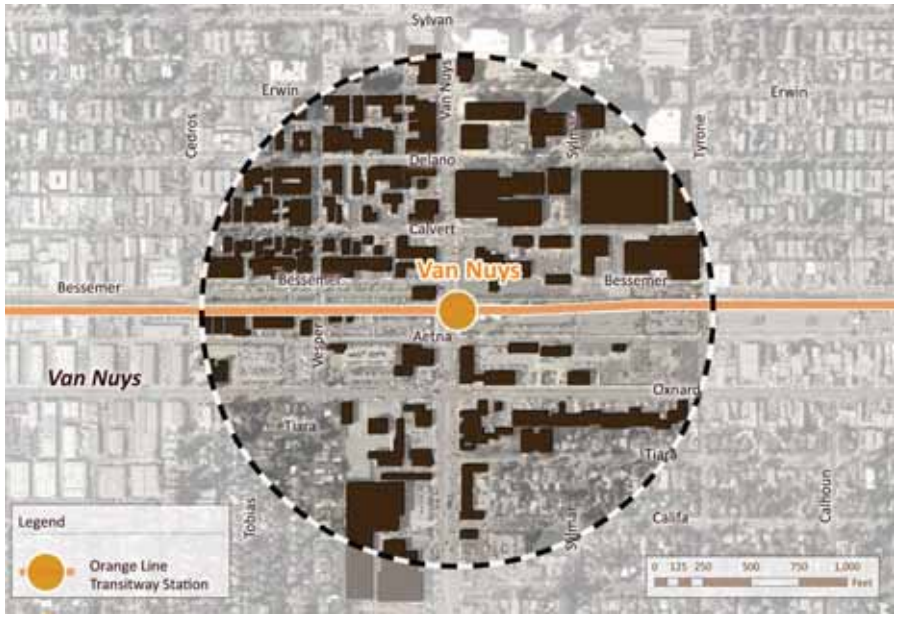
Urban Form

- The area is primarily commercial and includes a number of establishments ranging from small restaurants to multi-story businesses. Parking lots facing the main streets are a primary issue that affects street and urban quality in the area.
- North of the station, there is significant variation of building scale and massing between east and west sides of Van Nuys Boulevard. Such variations do not always respond well to each other, and often lack appropriate transitions between massing and uses.
- Streetscape conditions are typically of medium quality with some street trees and sidewalks of average quality and width. Sidewalk conditions vary greatly block by block and do not provide quality streetscape continuity.
- Shopfronts are present along many portions of Van Nuys Boulevard and some of Delano Street (north of the station). They greatly add to the quality of the streetscape, and provide a much more pedestrian-friendly environment.
- South of the Orange Line station, frontages are typically composed of parking lots and walls or fencing. The larger parking lot sites may be potentially redeveloped in the future to provide a greater continuity of appropriate frontage types along Van Nuys Boulevard and the connections to other retail and neighborhoods in the vicinity.

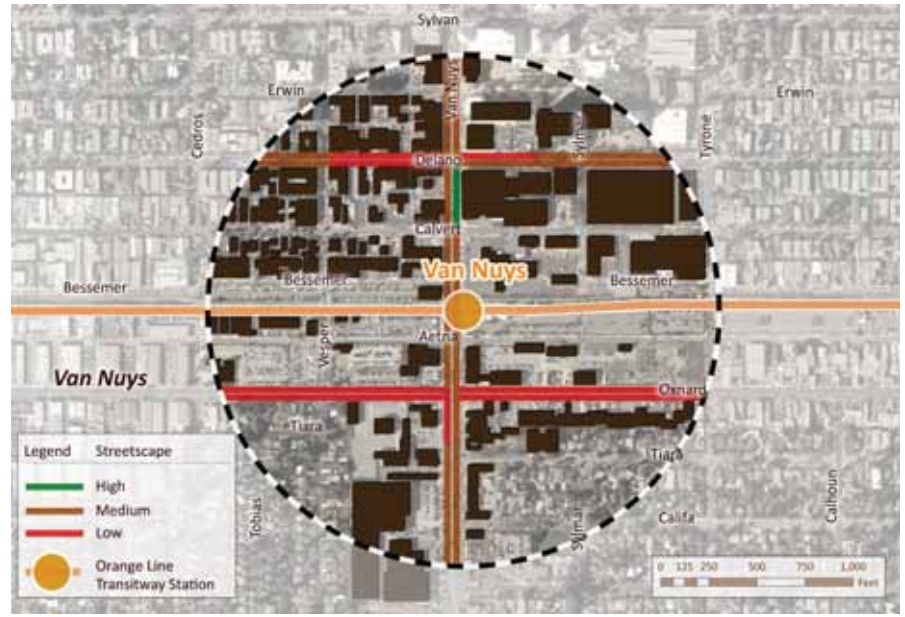


Block Pattern (*Source: Reconnecting America*)

Frontages



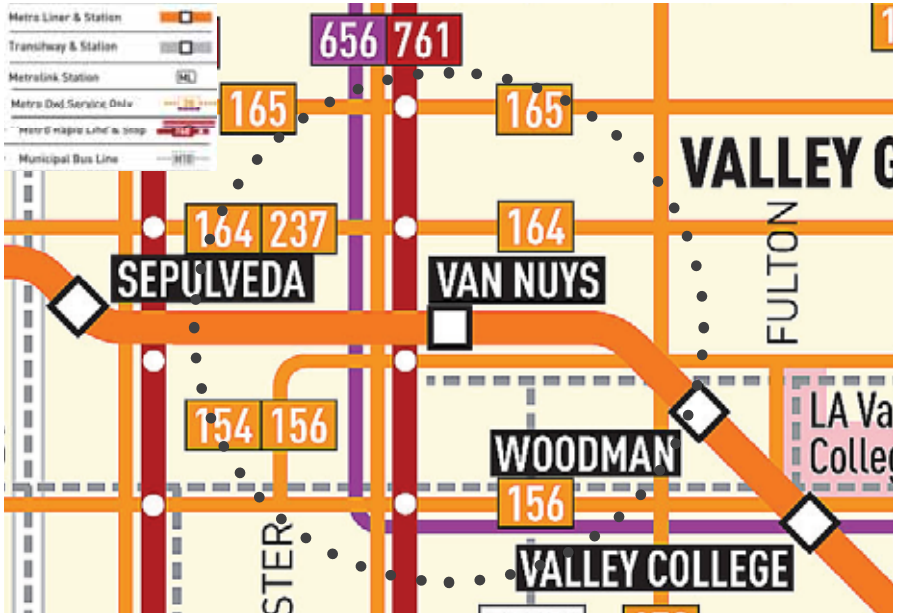
Building Footprints



Streetscape Quality

Transit

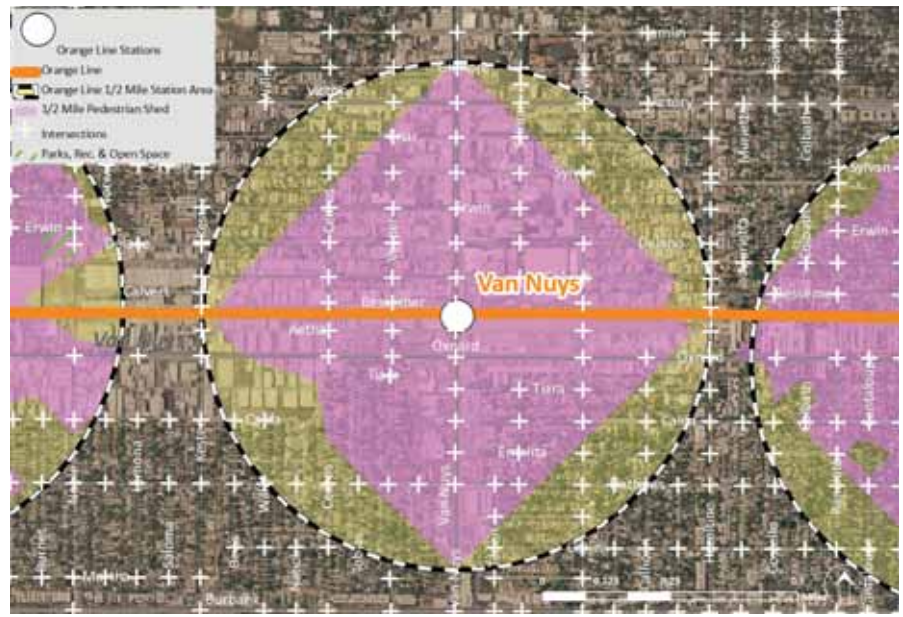
- Approximate Orange Line travel time from this station to North Hollywood is 15 minutes, and to Warner Center, 28 minutes.
- Van Nuys is the Orange Line's secondary load point (after North Hollywood), meaning that buses are often quite full at this point.
- Connecting transit options are better than at all other Orange Line stations, except North Hollywood and Warner Center. Metro Rapid Line 761 runs north-south on Van Nuys Boulevard between Pacoima and Westwood every 9-10 minutes during peak periods, every 20 minutes mid-day on weekdays, and evenings and weekends, providing the only all-day, seven-day-a-week connection between the Orange Line and West Los Angeles. Metro Local Line 233 provides 12-minute peak service along Van Nuys and runs evenings and weekends, while Metro Local Lines 154, 156 and 237 also serve the station. Shuttle service is provided by two DASH routes, Panorama City/Van Nuys and Van Nuys/Studio City.
- The nearest northbound bus stops are adjacent to the station. However, southbound stops are on the other side of Van Nuys Boulevard, which is seven lanes (including a left-turn lane) and approximately 100 feet wide. Stops provide seating but no shelter.
- Van Nuys Boulevard is one of the San Fernando Valley North-South Rapidway corridors, meaning that existing Rapid Bus service will be improved. Light Rail, BRT and other alternatives are being studied.



Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalk widths along Van Nuys Boulevard north of the station, in the Van Nuys Civic Center area, are relatively good, and pedestrian pathways are relatively direct: sidewalks are 10 to 15 feet wide, and signalized crosswalks are spaced relatively closely together, approximately every 300 feet (the six-lane Victory Boulevard, approximately 2,200 feet to the north of the station, acts as a pedestrian barrier).
- However, conditions along arterials to the south are not as good. Sidewalks on Oxnard Street are just 7 to 10 feet wide, crosswalks are up to one-half mile apart, and along Van Nuys, crosswalks are up to nearly 1,300 feet apart.
- The quality of the pedestrian environment along the arterials is mixed: while curbside parking provides a "buffer" from traffic along both Van Nuys and Oxnard, there is a lack of shade-offering tree canopy, and many parking lots front onto the sidewalk.
- The secondary street network in the area is gridded and generally well-connected. However, due to long blocks (up to almost one-quarter mile), intersection density within the half-mile radius is very low at just 64 per square mile.
- The station parking lot to the east of the station is fenced, limiting pedestrian access to the station.
- The Orange Line itself acts as a pedestrian barrier, with relatively few available crossings of the BRT right-of-way.
- The station area has a Walk Score of 72. Walk score criteria and comparisons between stations are found on page 2-5.



1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Parking

- A total of 776 spaces are provided at the station for use by patrons. There is no fee for parking. Observed occupancy on a recent weekday was very low at just 28 percent.
- On-street parking along Van Nuys Boulevard is metered; along Oxnard Street, it is not.

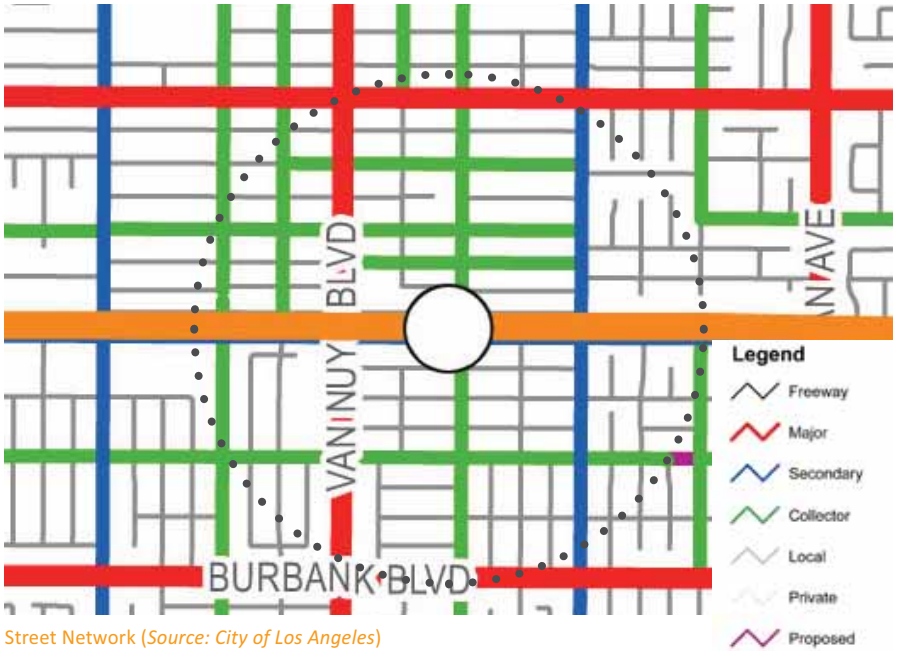
Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. There are no existing facilities for cyclists on area streets.
- However, Class II on-street lanes are planned on Van Nuys Boulevard to the south of the station, as far as Chandler Boulevard. This is a Priority 2 project in the Bicycle Plan Five-Year Implementation Strategy. Van Nuys north of the station is also identified by the Bicycle Plan as part of the Backbone Network.
- Bicycle racks and lockers are provided at this station.
- This station is identified by the Bicycle Plan as a future Multi Mobility Hub. Multi Mobility Hubs would provide electric vehicle (EV) charging stations, carshare vehicles, and amenities for cyclists including repair shops.

Bike Network (*Source: LA Metro*)

Traffic

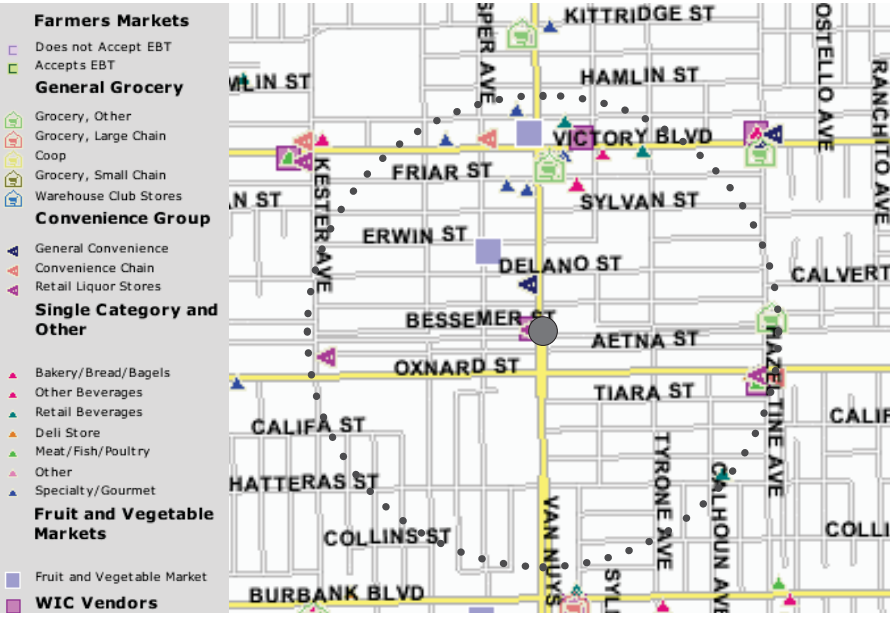
- Van Nuys Boulevard, an arterial featuring six through lanes plus turn lanes, runs north-south immediately to the west of the station platforms. A four-lane (plus turn lanes) arterial, Oxnard Street, runs east-west approximately 300 feet to the south. A third arterial, Victory Boulevard, is just within the half-mile radius station area (approximately 2,200 feet north).
- Both Van Nuys and Oxnard are relatively uncongested. Year 2007 peak-hour unidirectional volume on Van Nuys was approximately 1,600 vehicles (southbound, AM), indicating a volume-to-capacity ratio of between 0.5 and 0.6, while year 2007 peak-hour unidirectional volume on Oxnard was approximately 1,100 vehicles (westbound, AM), also indicating a volume-to-capacity ratio of between 0.5 and 0.6.



Street Network (*Source: City of Los Angeles*)

Health Environment

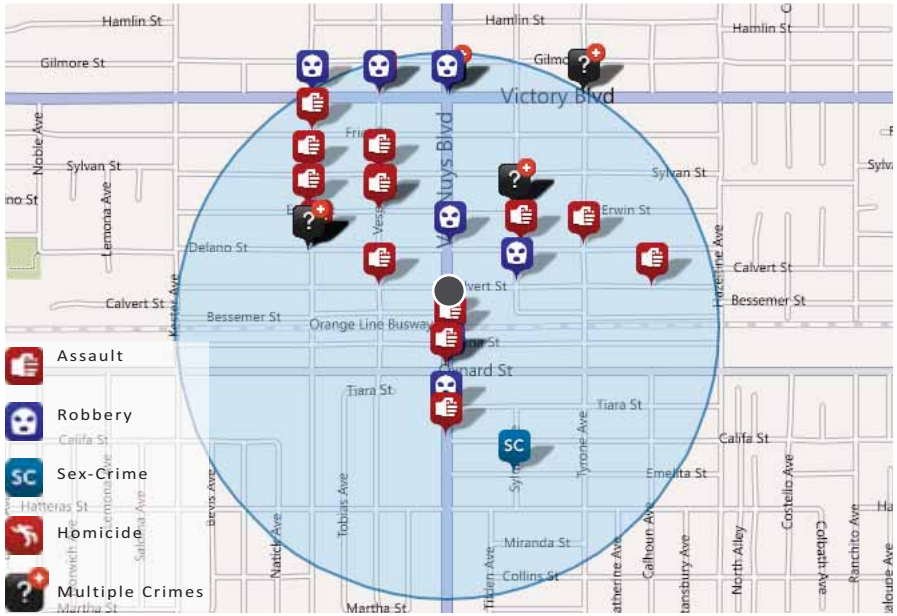
- The Van Nuys station area contains several grocery stores healthy food options. However, given the large residential and employment population, the area appears to be under-served by healthy food options.
- The half-mile radius around Van Nuys station has higher violent crime rates that most of the other station areas along the Orange Line, with 26.70 violent crimes per 10,000 employees and residents. The only station with a higher violent crime rate is North Hollywood at 29.93 violent crimes per 10,000 people. Of the violent crimes committed over the six-month period between April and September 2011, there were 32 assaults, 12 robberies and 1 sex crime.



Food Environment (*Source: California Nutrition Network*)

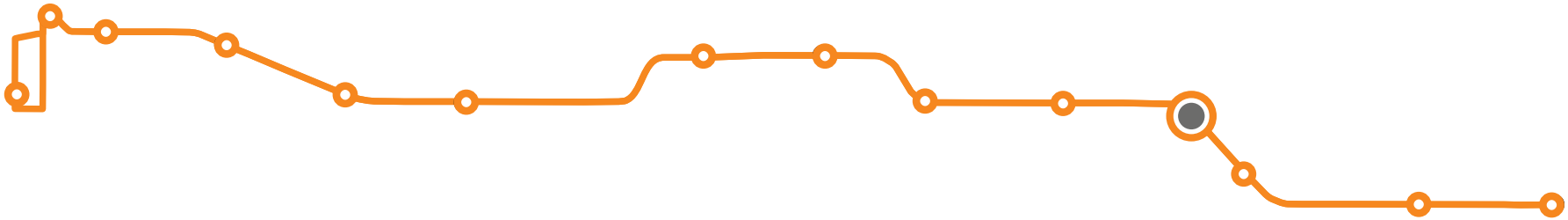
Issues and Opportunities

- The area is very active with a diverse mix of uses but also has a very high development potential given the size of the parcels, the parcels zone for manufacturing, and the number of under-utilized parcels. Opportunities include car dealers, under-utilized, and intensification of civic center plazas. Given he development potential across the station area, a station area specific plan could be developed.



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

- There are opportunities for joint development on parking lot considering the size of the parcel and the fact that parking is relatively under-utilized.
- The station area has a major destination with the Civic Center and the use of transit to this destination could be increased through marketing, transit incentives and parking policies.
- Existing pedestrian environment in civic center area (north of the station on Van Nuys) is already fairly high quality but could be improved to enhance the pedestrian experience.
- Major roadways other than Van Nuys north of the station need significant streetscape improvements in order to increase the quality of the pedestrian environment and the experience for transit riders accessing the station.
- The Van Nuys station has the potential to become a major transit crossroads assuming the north-south rapid bus line project is constructed. To enhance but the transit connection and the streetscape, the median transit alternative for the North-south Rapidways project on Van Nuys should be implemented. This would involve taking the two center lanes and converting them into transit lanes, creating a center median and adding bulbouts.



WOODMAN STATION

The Woodman Station is located one block east of the intersection of Woodman Avenue and Oxnard Street in Sherman Oaks. The station is just over ½ mile from the Valley College Station and is ½ mile from the western boundary of Valley College. Unlike many of the other stations, the Woodman station is not located on a street with high traffic volumes.

Place Type

Suburban Neighborhood: Residential uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The station area is almost entirely residential. Of the residential development, the majority are single family homes and there is multi-family located along Woodman Avenue and along Oxnard Street west of the Orange Line station.
- The station area has very limited commercial uses, most of which are located at the intersection of Woodman Avenue and Oxnard Street. The retail at this intersection includes a liquor store, several gas stations, a florist and a dry cleaner. There are several strip commercial uses located at the intersection Woodman Avenue and Victory Boulevard.
- Erwin Street Elementary School is located about ¼ mile northeast of the station. There are no parks or open spaces in this station area.
- As a result of the residential character, this station area is primarily an origin station since there are not real destinations within the station area.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

Use	Acres	Percentage
Residential	338.38	90.37%
Single-Family Residential	274.09	73.02%
Multi-Family	64.29	17.17%
Commercial	10.97	2.93%
Industrial	0.20	0.05%
Civic	18.71	5.00%
Vacant (Public and Private)	5.66	1.51%
Parking Lot	0.52	0.14%
Total	374.44	100.00%

Zoning

- The zoning map generally reflects the existing land use pattern. Of the zoning districts, the most transit-supportive are the multi-family housing and the limited commercial uses immediately adjacent to the station.

Zoning (*Source: City of Los Angeles*)

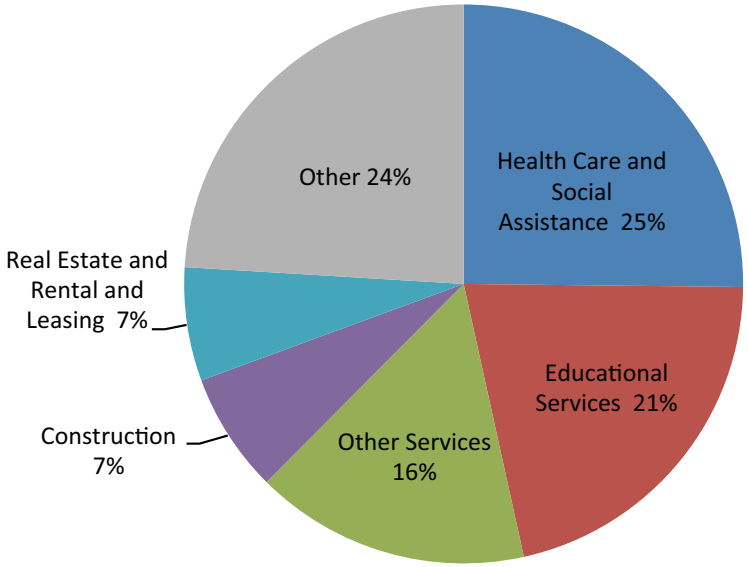
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Housing

- 65% of households are renters, and half of those are overpaying for rent (50%).
- 36% of households are non-family households, around average along the Orange Line.
- 49% of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Jobs

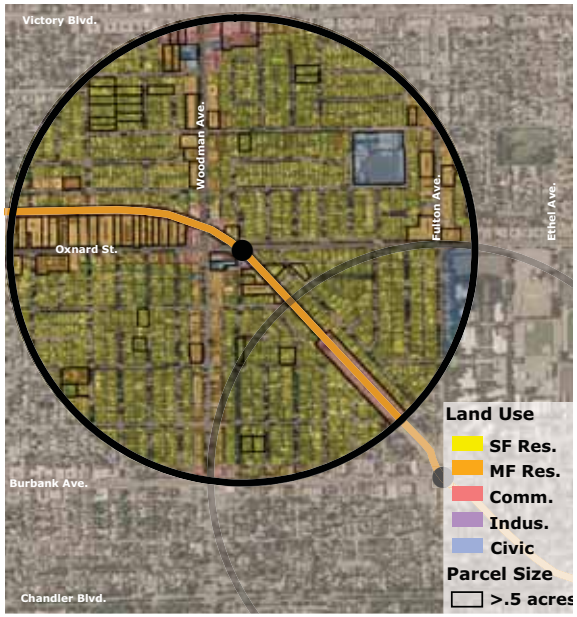
- Woodman is a relatively minor jobs destination on the Orange Line, with 1,156 jobs.
- These jobs are primarily in health care, education, and other services.
- Worker incomes are lower than the county-wide average.



Street Network (*Source: City of Los Angeles*)

Development Potential

- The station area has a very low development potential since the majority of uses are existing single family and multi-family housing that is built at or near the maximum development intensity. There are a few commercial parcels that could be redeveloped but the parcels are generally small and no significant development would occur that would have a measurable increase on transit use.



Development Opportunity (*Source: Reconnecting America*)

Urban Form

- The area is primarily residential, with a great concentration of multi-family housing along Woodman Ave. Retail buildings are interspersed and can be found in greater concentration at Woodman Ave and Oxnard St, which is also the location of the Orange Line station.
- There is some variation in building massing and scale, but typically buildings are not taller than 3-4 stories. Most block sizes are walkable, with the exception of residential blocks to the northeast, and the ones adjacent to the Orange Line Busway West of Woodman Ave. Those blocks do not provide access across the Busway.
- Streetscape quality varies and ranges from high to low, with the lowest typically found east of Woodman Ave along Oxnard St. Conditions often lack trees, are composed of narrow sidewalks, pedestrian crossings are limited. This hinders access and does not promote pedestrian activity.
- A few blocks west of Woodman include higher quality streetscape with full grown mature trees, wider sidewalks, on-street parking, and buildings facing the street. However, there is still a lack of pedestrian crossings and connections to the blocks to the north.
- Frontage quality and types vary, but setbacks of 5-20 feet are typical for the residential areas, while most retail sites front the street with parking lots. The intersection and station area has the most parking frontage, and given the importance of the intersection, it has the potential for redevelopment and improvement of both quality of streetscape and frontages, which will both better serve the neighborhoods, retail, and the transit system, and help weave their connections.

Block Pattern (*Source: Reconnecting America*)

Frontages

Building Footprints

Streetscape Quality

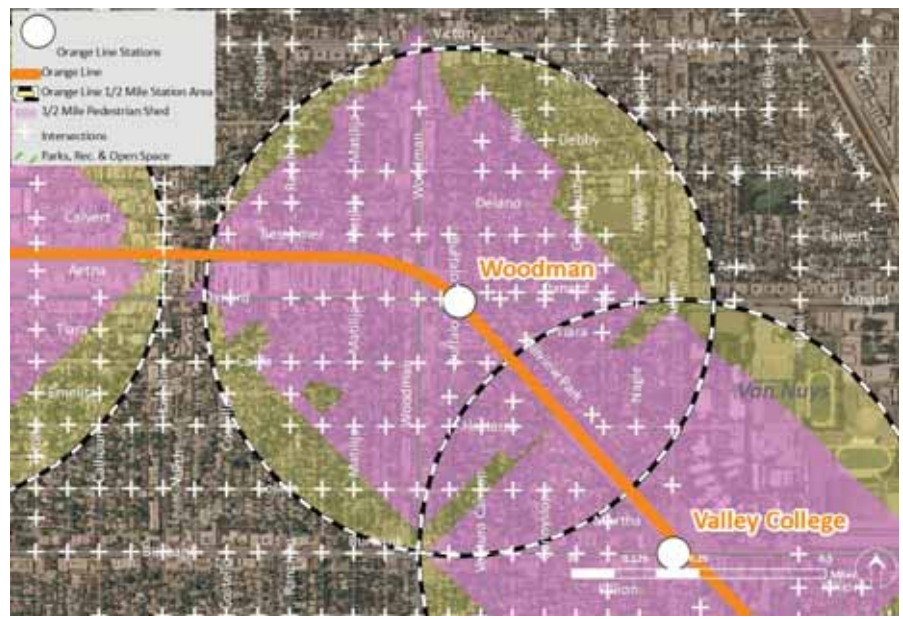
Transit

- Approximate Orange Line travel time from this station to North Hollywood is 10 minutes, and to Warner Center, 33 minutes. As the station is between the line's maximum load point at North Hollywood and secondary load point at Van Nuys, buses are often quite full at this point.
- Connecting transit options are limited, primarily consisting of a pair of Metro Local routes, the 154 on Oxnard Street and the 158 on Woodman Avenue, that generally operate on half-hour or longer headways. The 158 operates during the early evening and on weekends. Shuttle service is provided by a DASH route, Van Nuys/Studio City.
- The station is located approximately 400 feet east of theintersection of Oxnard and Woodman. Additionally, to access nearby bus stops users may have to cross up to 11 lanes of traffic at the intersection. East- and southbound stops provide seating, but not west- or northbound stops, and there are no shelters.

Transit Network (*Source: LA Metro*)

Pedestrian

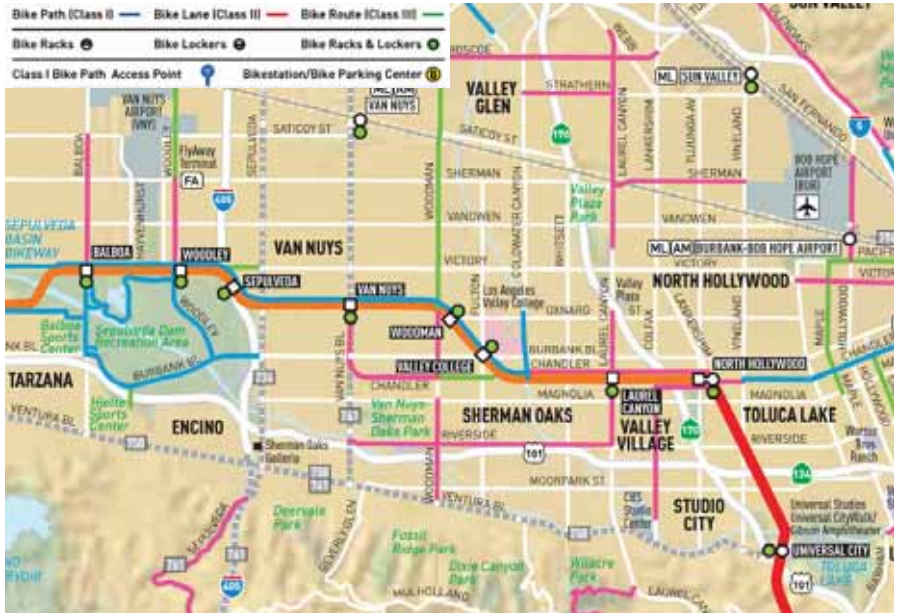
- Because the Orange Line Transitway crosses Oxnard at an angle, the crosswalks at the station is skewed, resulting in a crossing distance of more than 100 feet, much greater than the width of the street.
- Sidewalks along Oxnard and Woodmanvary in width from 4 to 16 feet. Distances between signalized crossings offering direct paths for pedestrians also vary widely, from as little as 200 to more than 2,500 feet.
- Otherwise, the quality of the pedestrian environment along the arterials is reasonably good: curbside parking generally provides a "buffer" from traffic (except on the south side of Oxford east of the station; on the north side, pedestrians are separated from the arterial roadway by a broad landscaped buffer and parallel neighborhood street), there is some shade-offering tree canopy, and because the area is primarily residential, there are relatively few parking lots fronting onto sidewalks.
- The secondary street network in the area is somewhat disconnected, in part because the Orange Line bisects the section to the southeast at an angle, interrupting both streets and pedestrian paths. However, due to relatively small blocks intersection density within the half-mile radius is 115 per square mile, indicating a moderate level of pedestrian network connectivity.
- The station area Walk Score is 52. Walk score criteria and comparisons between stations are found on page 2-5.



1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. Woodman is also a designated bike route, with existing Class II on-street lanes to the south and lanes planned to the north (a Priority 2 project in the Bicycle Plan Five-Year Implementation Strategy).
- Users of the bikeway must cross two arterials (Oxnard and Woodman) within a few hundred feet, and there are no sensors or actuated devices that might shorten wait times.
- Bicycle racks and lockers are provided at this station.



Bike Network (*Source: LA Metro*)

Traffic

- Two arterials featuring four through lanes plus turn lanes, the east-west Oxnard Street and north-south Woodman Avenue, intersect 400 feet west of the station.
- Both streets are relatively uncongested. Year 2008 peak-hour unidirectional volume on Woodman was approximately 1,500 vehicles (southbound, AM), indicating a volume-to-capacity ratio of between 0.7 and 0.8, while year 2008 peak-hour unidirectional volume on Oxnard was approximately 1,300 vehicles (eastbound, PM), indicating a volume-to-capacity ratio of between 0.6 and 0.7.

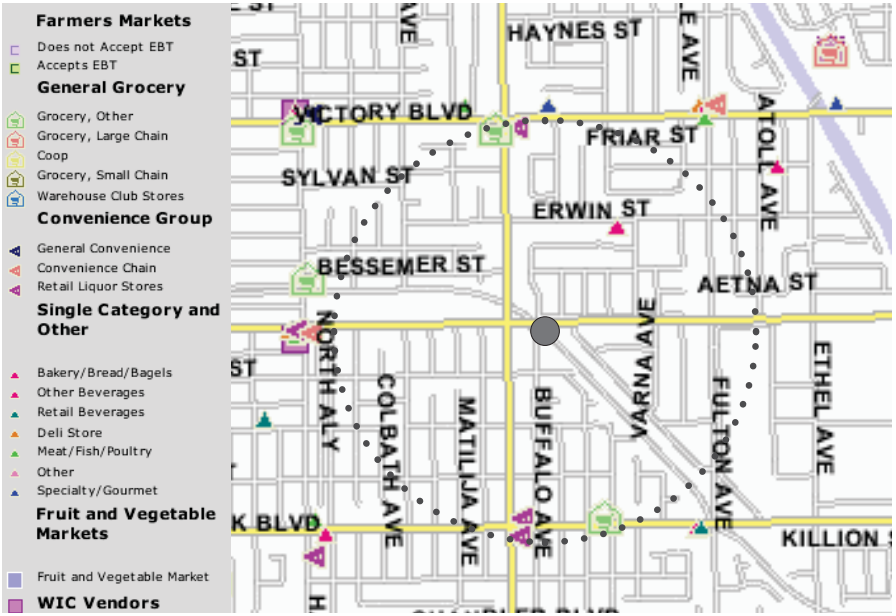
Parking

- There is no station parking lot.
- Curbside parking in the area is unmetered.

Street Network (*Source: City of Los Angeles*)

Health Environment

- There are relatively few food options of any kind within the station area. There is a convenience/liquor store just south of the station area several other convenience stores located ½ mile north of the station at the intersection of Woodman Avenue and Victory Boulevard.
- The half-mile radius surrounding Woodman Station is one of the safest stations along the Orange Line. There have been only 4.51 violent crimes per 10,000 residents and employees. Of the violent crimes, there were 2 assaults and 1 robbery.

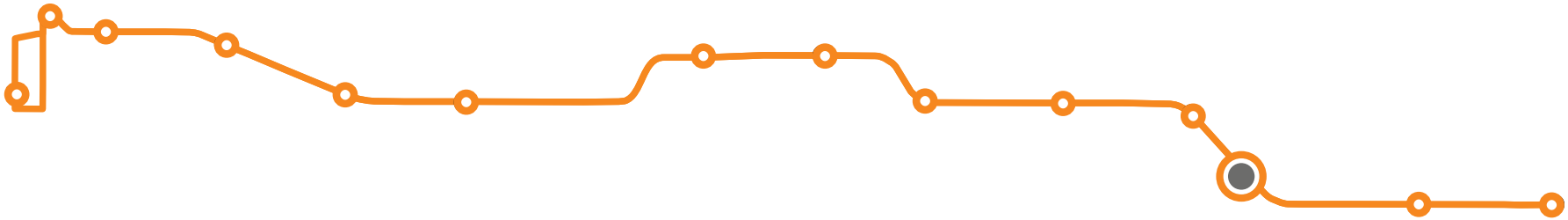


Food Environment (*Source: California Nutrition Network*)

Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The potential to increase development in the area is limited due to the lack of developable sites (ie, small parcel size, and high FARs.)
- The bicycle and pedestrian crossings along Woodman need to be improved due to the skewed busway crossing.
- There are large distances between crosswalks in the station that create a barrier for pedestrians to access the station.
- Streetscape improvements should be a priority at this station especially on Oxnard east of station and Woodman north of station.



VALLEY COLLEGE STATION

The Valley College Station is located at both the northeast and southwest corner of Fulton Avenue and Burbank Boulevard in Sherman Oaks. The station area is located immediately southwest of Los Angeles Valley College.

Place Type

Suburban Neighborhood: Residential uses with low intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

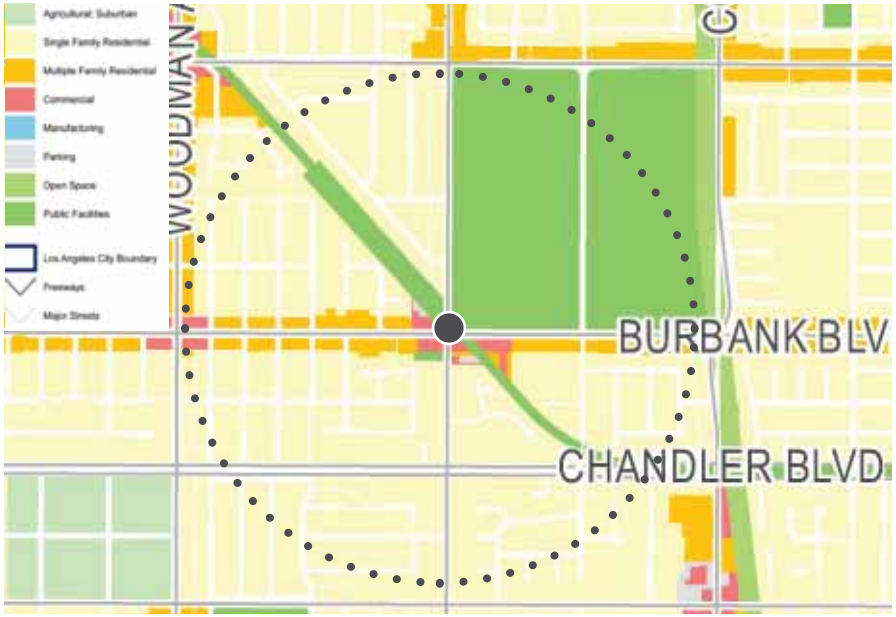
- The most significant feature in the station area is Valley College, which is a large campus located immediately northeast of the station. This is a major destination along the Orange Line Corridor. To the west of Valley College is Grant High School. These two facilities take up about ¼ of the total land area in the station area.
- The remainder of the land uses in the station area are single family residential with very limited multi-family residential located along Burbank Boulevard.
- Relative to other stations, there is a very little amount of commercial development immediately adjacent to station area. The retail uses here include a few restaurants, a flower shop, a liquor store, a small market and several auto-related uses.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES		
Use	**Acrea**	**Percentage**
Residential	248.46	64.96%
Single-Family Residential	234.54	61.32%
Multi-Family	13.92	3.64%
Commercial	7.20	1.88%
Industrial	0.00	0.00%
Civic	121.49	31.76%
Vacant (Public and Private)	4.06	1.06%
Parking Lot	1.27	0.33%
Total	**382.47**	**100.00%**

Zoning

- The zoning districts in the area are reflective of the existing land uses in the area. At present, the zoning is not conductive to creating transit oriented districts give the large percentage of single family and public uses.



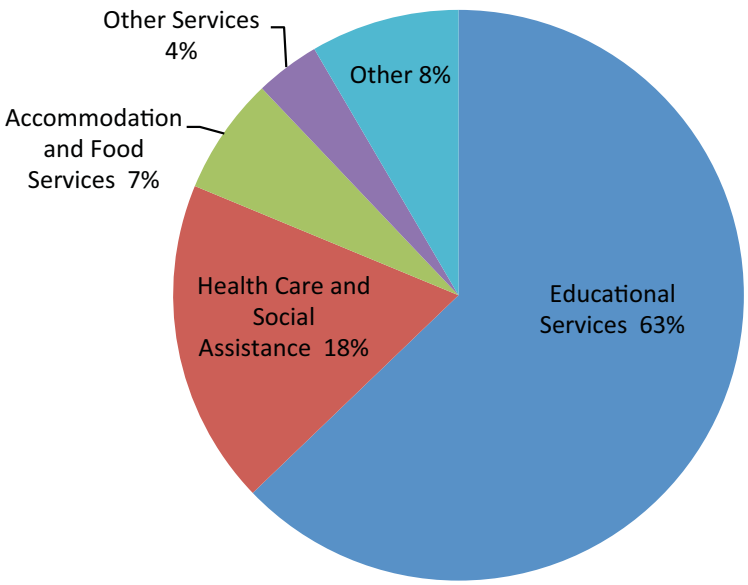
Zoning (*Source: City of Los Angeles*)

Housing

- 45% of households are renters, and half of those are overpaying for rent (50%).
- 40% of households are non-family households, around average along the Orange Line.
- 12% of the housing units are subject to the Rent Stabilization Ordinance, but given than 45% of households are renters, there are a fair number of rental units not subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area.

Jobs

- The Valley College station area is not a significant jobs destination on the Orange Line, with 2,138 jobs. However it is potentially a major destination for students who are not counted in the jobs estimate.
- Valley College itself is the main employer in this station area, with nearly two-thirds of jobs in the educational services sector.
- A higher than average share of workers are older than 55.

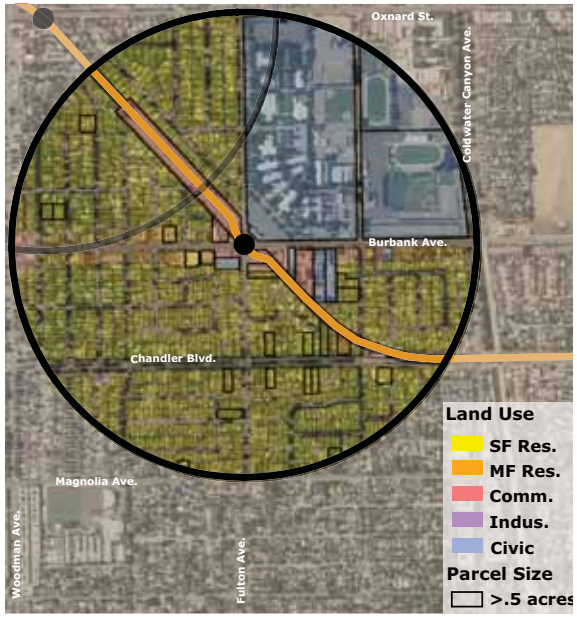


Job Distribution (*Source: Reconnecting America*)

Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Development Potential

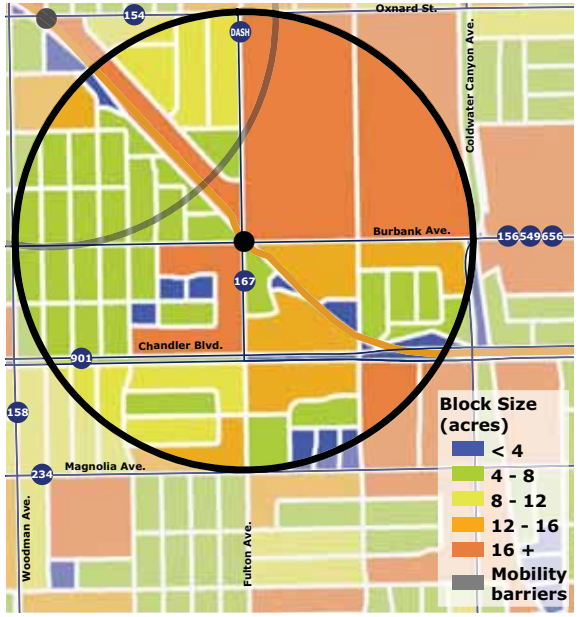
- The area has a very low development potential with the exception of a few parcels along Burbank Boulevard and intensification at Valley College.
- At present, Valley College has a new building under construction at the intersection of Burbank Boulevard and the Orange Line. This was the major development site within the station area.



Development Opportunity (*Source: Reconnecting America*)

Urban Form

- The area is primarily auto-oriented, consisting of neighborhoods with a number of cul-de-sac conditions and large parking lots fronting main streets such as the one on the Northeast corner of Burbank Boulevard and Fulton Ave.
- Neighborhood cul-de-sac conditions greatly sever potential connections and access, both pedestrian and automobile alike.
- A major site within this area is the Los Angeles Valley College and the Ulysses S. Grant High School northeast of the station. Great assets to the community, both are conveniently located near the Orange Line station, thus promoting the use of transit and nearby businesses. The buildings however are typically contained within the campus, and do not contribute to street activity along Fulton or Burbank.
- The quality of the streetscape on major roads is average for pedestrians with some street trees and sidewalks and is of average quality and width. There are some locations with a more attractive streetscape with mature street trees and an environment that promotes pedestrian activity.
- Frontages are typically setback and/or landscaped, with the exception of a large portion of frontage surrounding Valley College consisting of parking lots. Such sites may be potentially redeveloped in the future to provide a more responsive urban form and character that can better serve the neighborhoods, the college, local businesses, and the transit system.



Block Pattern (*Source: Reconnecting America*)

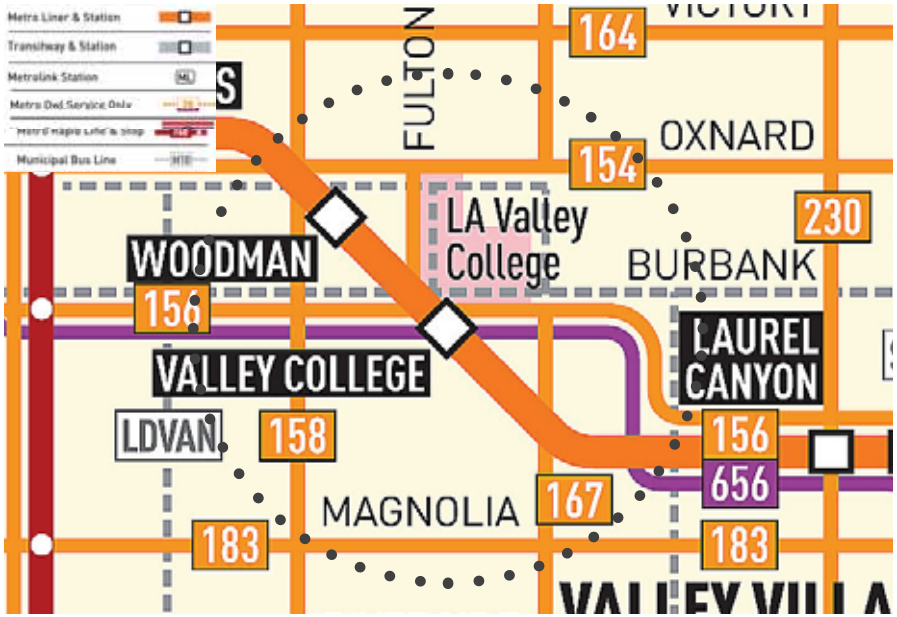
Frontages

Building Footprints

Streetscape Quality

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 7 minutes, and to Warner Center, 36 minutes. As the station is between the line's maximum load point at North Hollywood and secondary load point at Van Nuys, buses are often quite full at this point.
- Connecting transit options are limited, primarily consisting of a pair of Metro Local routes, the 156 on Burbank Boulevard and the 167 on Burbank (to the west) and Fulton Avenue (to the north; the line generally operates on Coldwater Canyon Avenue, but deviates to Valley College and this station). These lines generally operate on half-hour or longer headways. , but do operate in the evening and on weekends, with Route 656 providing overnight service . LADOT Commuter Express Line 549 between Encino and Pasadena also serves this station, and shuttle service is provided by a DASH route, Van Nuys/Studio City.
- East-and westbound bus stops are located on Burbank east of Fulton. The eastbound (and southbound, for Line 167) stop is immediately across the Transitway from the eastbound platform; however, to access it from the westbound platform requires crossing two streets and ten lanes of traffic. Access to the westbound (and northbound) bus stop requires crossing one of the streets. The westbound stop provides seating and shelter, the other only seating.



Transit Network (*Source: LA Metro*)

Pedestrian

- Because the Orange Line Transitway crosses the intersection of Burbank Boulevard and Fulton Avenue at an angle, crosswalks are slightly skewed, resulting in crossing distances– 70 to the 80 feet – that are somewhat longer than the widths of the streets.
- Sidewalks along Burbank and Fulton are relatively narrow, 7 to 10 feet, and distances between signalized crossings offering direct paths for pedestrians are long, between approximately 1,200 and 2,500 feet.
- The quality of the pedestrian environment along the arterials is likewise somewhat poor: while curbside parking generally provides a "buffer" from traffic, there is no parking along Fulton north of the station. There is also a lack of shade-offering tree canopy.
- While the Valley College campus is immediately adjacent to the station, just northeast of Burbank and Fulton, the corner nearest the station is occupied by a large (several hundred spaces) parking lot, further degrading the quality of the pedestrian environment.
- The secondary street network in the area is relatively disconnected, in part because the Orange Line bisects the area at an angle, interrupting both streets and pedestrian paths.
- Intersection density within the half-mile radius is 92 per square mile. While this is a modest number, to some extent it is a poor indicator of actual pedestrian network connectivity, as internal streets and pedestrian-only paths on the Valley College campus are not included (and the campus occupies the entire northeastern quadrant of the half-mile-radius station area).
- The station area has a Walk Score of 49. Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Parking

- There is no station parking lot.
- Curbside parking in the area is unmetered; however, one-hour time limits are in effect.

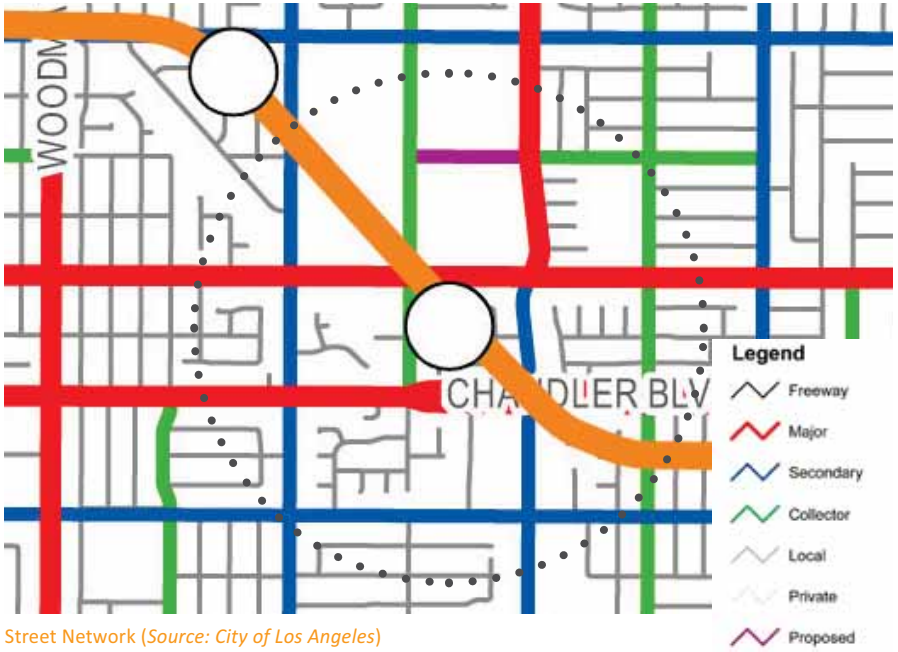
Bicycle

- The Orange Line Bikeway is a Class I off-street path at this point. However, like the Transitway it bisects the intersection of Burbank and Fulton at an angle, requiring cyclists to cross ten lanes of traffic and briefly ride on the sidewalk. The path through this area is also somewhat confusing, and lacks directional signage.
- There are no existing facilities for cyclists on area streets.
- Bicycle racks and lockers are provided at this station.

Bike Network (*Source: LA Metro*)

Traffic

- Two arterials featuring four through lanes plus turn lanes, the east-west Burbank Boulevard and north-south Fulton Avenue, intersect at the station.
- Burbank is relatively uncongested, and Fulton even less so. Year 2009 peak-hour unidirectional volume on Burbank was approximately 1,300 vehicles (westbound, PM), indicating a volume-to-capacity ratio of between 0.6 and 0.7, while year 2009 peak-hour unidirectional volume on Fulton was approximately 700 vehicles (northbound, AM), indicating a volume-to-capacity ratio of between 0.3 and 0.4.

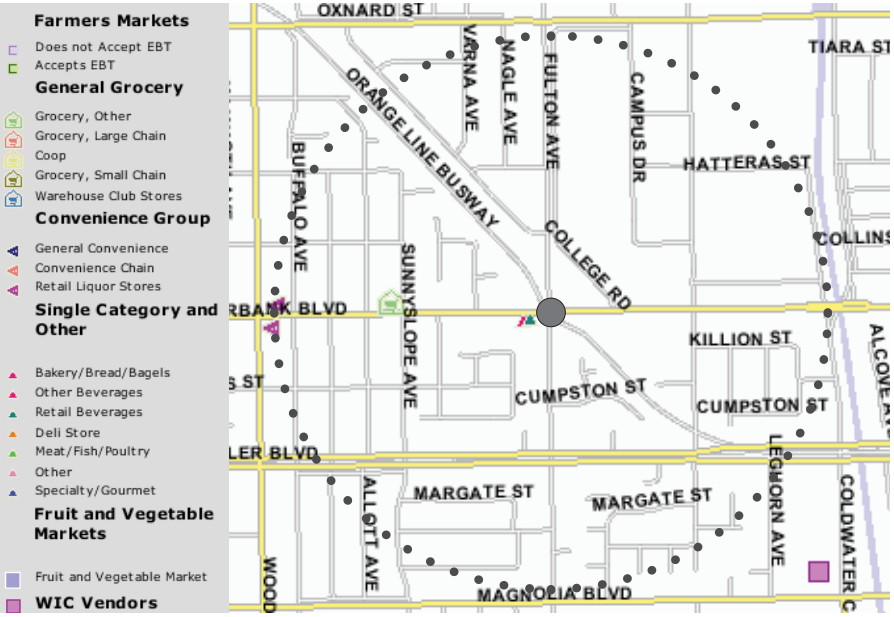


Street Network (*Source: City of Los Angeles*)

Health Environment

- The area appears to be under-served for all food options and in particular healthy food options. A single market is located in the station area, just west of the Orange Line station and there are a few restaurants across from Valley College.
- There were seven violent crimes in the half-mile radiustation area over the past six months. Of these 5 were robberies and 2 were assaults. The crime rate for the station during this period was 8.6 violent crimes per 10,000 residents and employees.

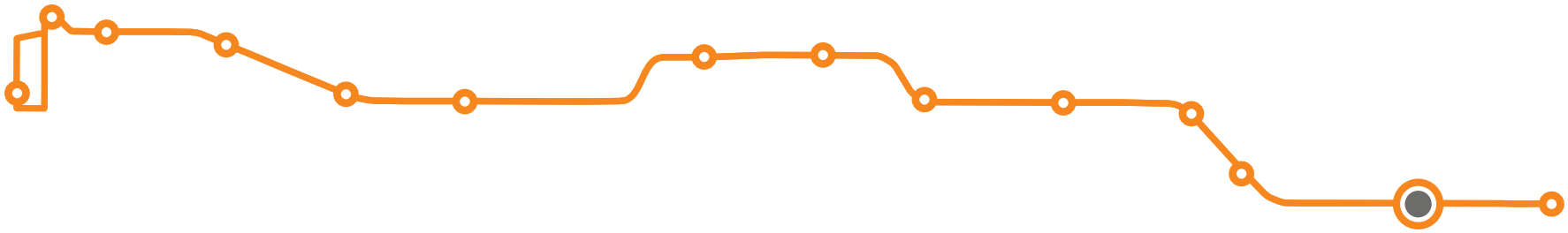
Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)



Food Environment (*Source: California Nutrition Network*)

Issues and Opportunities

- Outside of Valley College, there are no significant opportunities for creating a more intense transit district within the station area as the majority of land is public or residential. At Valley College, there is parking lot near the transit station that is an opportunity for increased development.
- The pedestrian connection between the Orange Line and Valley College is indirect and a disincentive for students.
- The primary way to increase ridership is to work with Valley College to get students to take transit to school. This could be achieved with a number of transit incentives (such as free or reduced transit passes), increased parking fees and more direct pedestrian connections between the Orange Line station and the Valley College academic buildings.
- Improvements to bicycle and pedestrian network at the Orange Line station and across major streets are needed in order to take bikes off of the sidewalk and improve pedestrian safety. Improvements include creating a dedicated bicycle way, straightening crosswalks to reduce crossing distance, widening sidewalks and improving the streetscape particularly in front of Valley College, on Fulton south of station, and Burbank east of station. Shade trees (not palm trees) should be used to improve pedestrian comfort.
- Fulton Street could be modified by adding curbside parking. This would create a more pedestrian-friendly street and increase parking.



LAUREL CANYON STATION

The Laurel Canyon Station is located on the east and west leg at the intersection of Laurel Canyon Boulevard and Chandler Boulevard in North Hollywood. The station is a mile north of the Laurel Canyon Boulevard on-ramp to the Ventura Freeway (US-101) and less than a mile southwest of the Burbank Boulevard on-ramp to the Hollywood Freeway, Route 170.

Place Type

Transit Neighborhood: Residential uses with moderate intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The station area is predominantly residential with a mix of single and multi-family uses.
- There are commercial uses along Laurel Canyon Boulevard and Burbank Boulevard. These corridors provide a variety of neighborhood-serving uses including restaurants, nail salons, boutiques, and other services.
- Public uses in the station area include the North Hollywood High School, Adat An El Day School, and Burbank Elementary School.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

Use	Acres	Percentage
Residential	298.57	81.11%
Single-Family Residential	155.58	42.26%
Multi-Family	142.99	38.84%
Commercial	23.33	6.34%
Industrial	0.14	0.04%
Civic	38.72	10.52%
Vacant (Public and Private)	4.97	1.35%
Parking Lot	2.39	0.65%
Total	**368.12**	**100.00%**

Zoning

- Zoning is generally reflective of the existing land uses however the there are numerous multi-family residential projects located in the Commerical zoning along Laurel Canyon Boulevard.

Zoning (*Source: City of Los Angeles*)

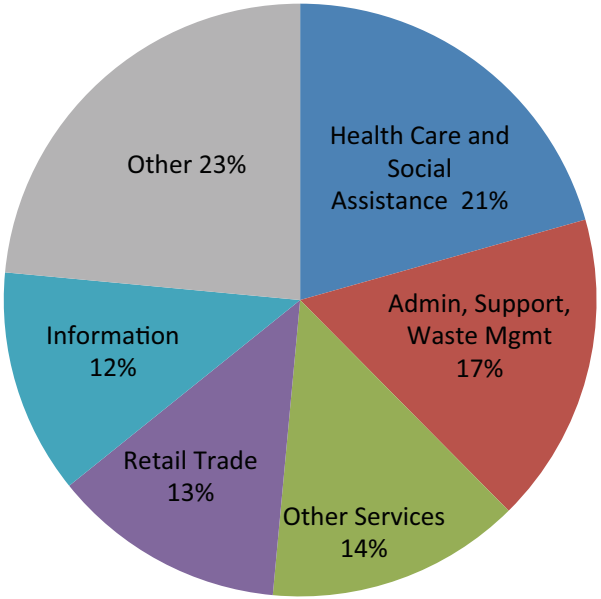
Housing

- 80% of households are renters, and half of those are overpaying for rent (53%).
- 62% of households are non-family households, a higher share than the average Orange Line Station.
- 67% of the housing units are subject to the Rent Stabilization Ordinance.
- There is no subsidized affordable housing in the station area

Jobs

- While Laurel Canyon does not have a significant job concentration, with 1,663 jobs, the jobs that do exist are diverse across many industries
- Nonetheless, Laurel Canyon workers earn lower wages on average than workers throughout the City of Los Angeles.

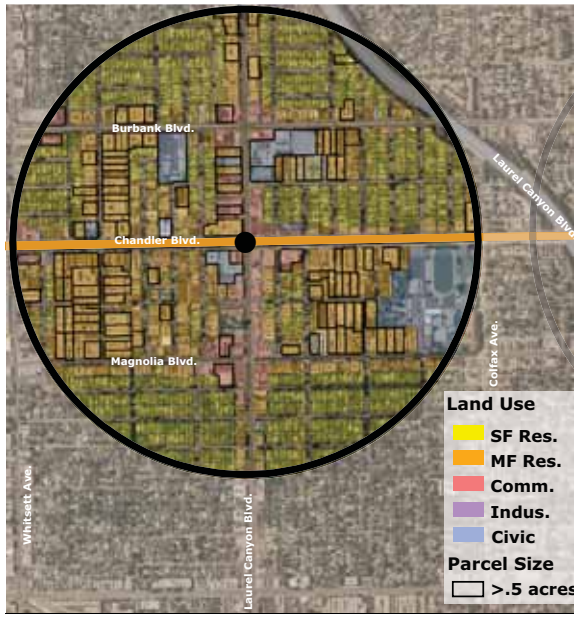
Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)



Job Distribution (*Source: Reconnecting America*)

Development Potential

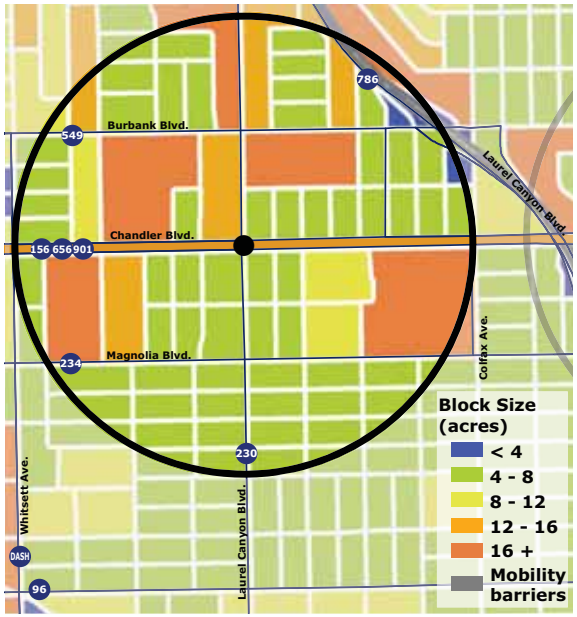
- Limited opportunities for new development since many of the buildings have a high FAR.
- Some opportunities exist on commercial parcels with surface parking lots and older buildings
- Potential for joint development northeast of the Orange Line station.
- Many parcels are too shallow for significant redevelopment



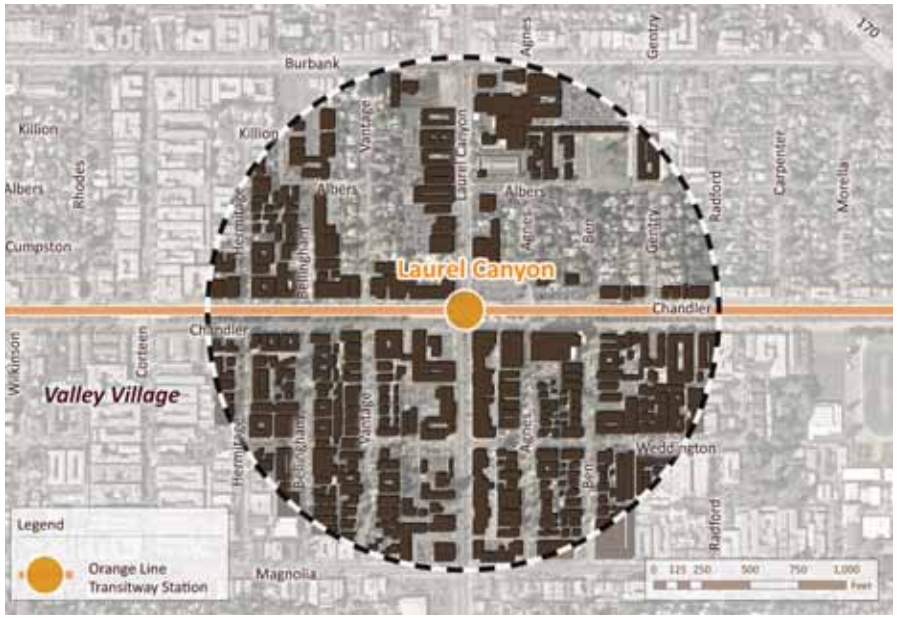
Development Opportunity (*Source: Reconnecting America*)

Urban Form

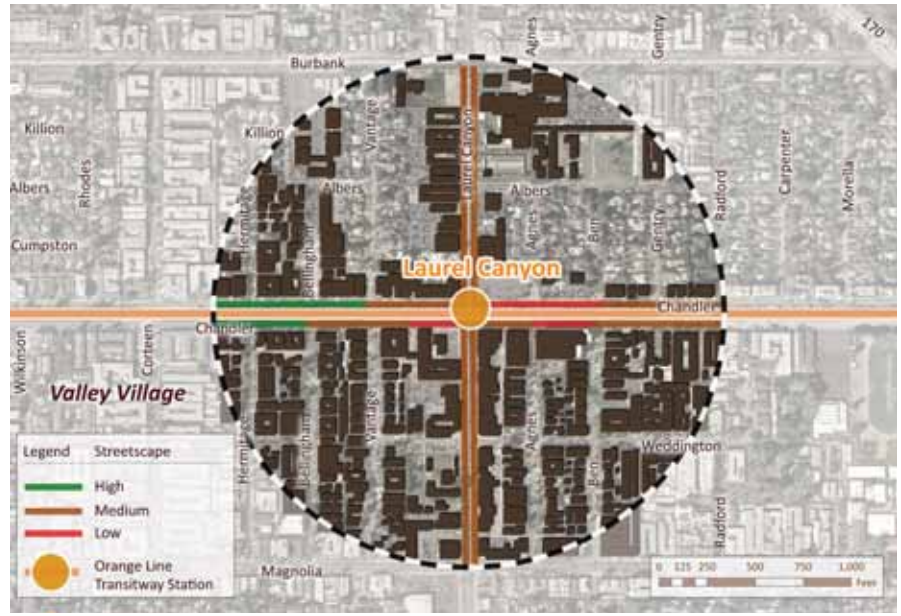
- This area is fairly dense, and provides a range of building types varying from single family to multi-story residential, commercial, and business. In certain areas, building form and massing varies greatly and changes quickly, which can create a negative impact on pedestrian and resident comfort perception.
- Generally, blocks are large but are walkable, with a few exceptions for large blocks such as the one on Northwest side of Laurel Canyon Boulevard and Chandler Boulevard.
- Streetscape is generally of medium quality, but increases in quality by residential areas. Commercial sites are typically lacking trees, and often include walls or fences around parking lots that face the street. This can hinder the pedestrian experience and accessibility to commercial and transit sites.
- The area includes a variety of frontage types, varying from set back residential to shopfront along portions of Laurel Canyon. Those with shopfront frontages typically provide parking in the rear or on –street, which creates greater potential for business from cars and pedestrians passing by.
- The area also includes some auto-oriented frontages that are composed of walled parking lots along the street, which creates a bleak pedestrian experience and access.



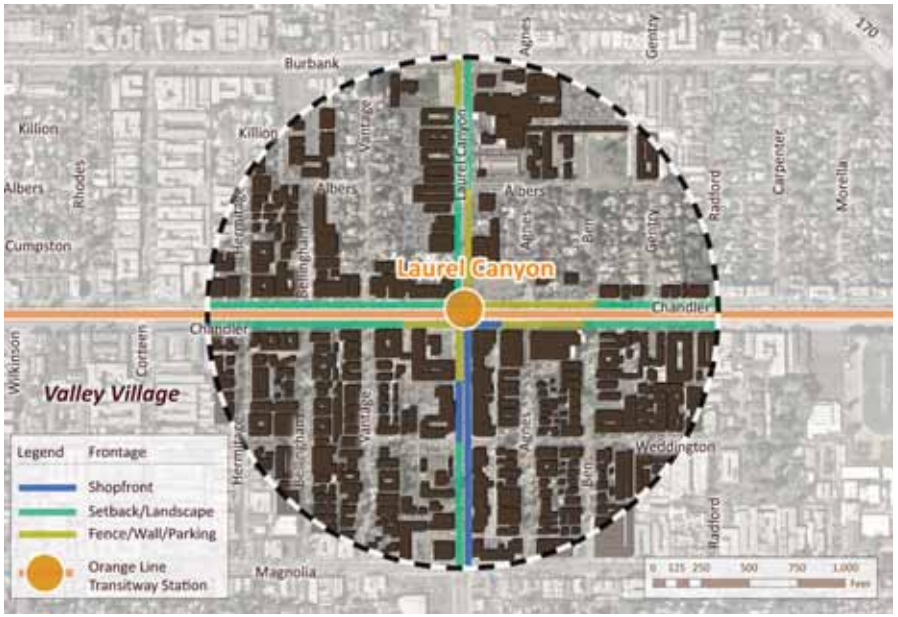
Block Pattern (*Source: Reconnecting America*)



Building Footprints



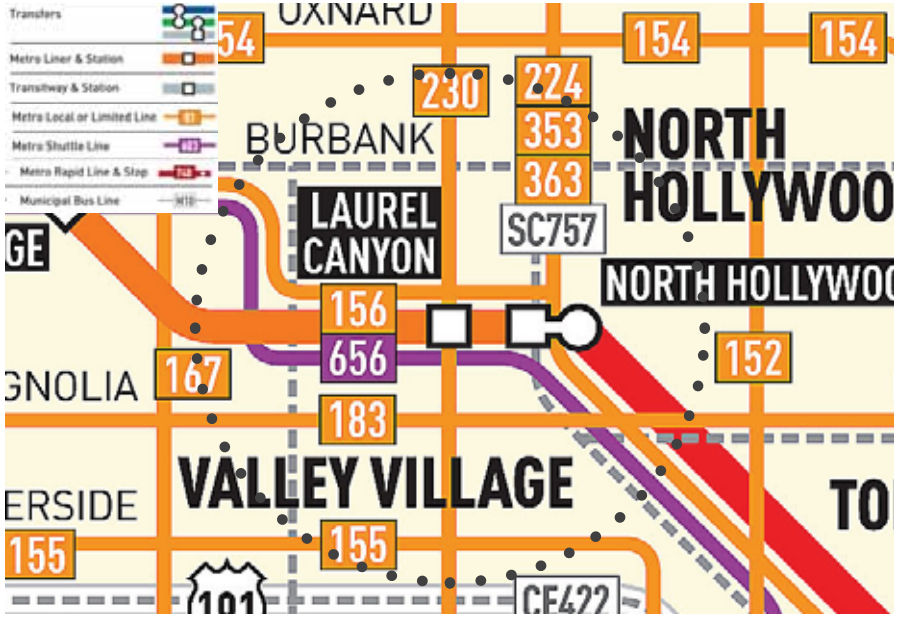
Streetscape Quality



Frontages

Transit

- Approximate Orange Line travel time from this station to North Hollywood is 3 minutes, and to Warner Center, 40 minutes. As the station is just one stop away from the line's maximum load point at North Hollywood, buses are often quite full at this point.
- Connecting transit options are limited, primarily consisting of a pair of Metro Local routes, the 156 on Chandler Boulevard and the 230 on Laurel Canyon Boulevard, that generally operate on half-hour or longer headways. Both routes do, however, operate in the evening and on weekends, and Route 156 is supplemented overnight by Owl Route 656.
- As the station is in the median of Chandler, all access to nearby bus stops is across between two and eight lanes of traffic. All four stops feature shelters and seating.



Transit Network (*Source: LA Metro*)

Pedestrian Environment

- Sidewalks along Laurel Canyon and Chandler are reasonably wide, approximately 11 to 14 feet. However, distances between signalized crossings offering direct paths for pedestrians vary widely, from as little as 240 feet to nearly 2,300 feet in one segment along Chandler.
- The quality of the pedestrian environment along the arterials is likewise mixed: while curbside parking provides a "buffer" from traffic along both Laurel Canyon and Chandler, there is a lack of shade-offering tree canopy, and many parking lots front onto the sidewalk (including a large lot on the northeast corner of Laurel Canyon and Chandler, immediately adjacent to the station).
- The secondary street network in the area is an incomplete grid. However, blocks are generally relatively small, and intersection density within the half-mile radius of 120 per square mile indicates a moderate level of pedestrian network connectivity (it should be noted that this count is "inflated" somewhat by T-shaped intersections on both sides of the Orange Line Transitway, which itself acts as a pedestrian barrier, with very few crossings).
- The station area has a Walk Score of 68. Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway consists of Class II on-street lanes at this point, along Chandler. There are also bicycle lanes on Laurel Canyon.
- Bicycle racks and lockers are provided at this station.

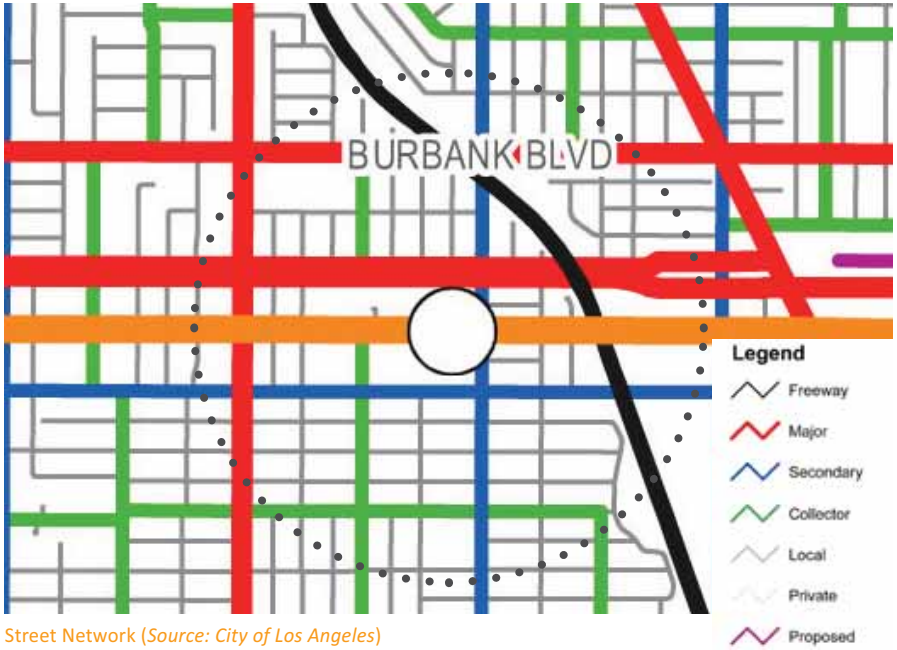
Bike Network (*Source: LA Metro*)

Parking

- There is no station parking lot.
- Curbside parking in the area is unmetered, but according to staff, availability is limited.

Traffic

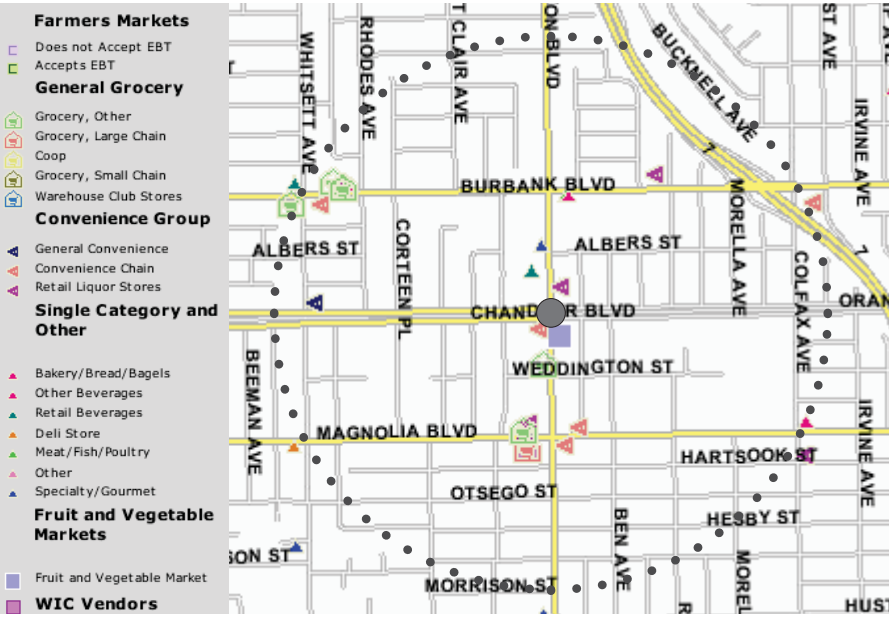
- Two arterials featuring four through lanes plus turn lanes, the north-south Laurel Canyon Boulevard and east-west Chandler Boulevard, intersect at the station (which is in the median of Chandler).
- Laurel Canyon is relatively uncongested, and Chandler even less so. Year 2007 peak-hour unidirectional volume on Laurel Canyon was approximately 1,400 vehicles (southbound, AM), indicating a volume-to-capacity ratio of approximately 0.7, while year 2008 peak-hour unidirectional volume on Chandler was approximately 800 vehicles (eastbound, AM), indicating a volume-to-capacity ratio of approximately 0.4.
- Speed limits along this segment of Chandler Boulevard were recently proposed to be raised from 35 to 45 miles per hour. While this proposal has not been implemented, it indicates that 85th-percentile speeds on Chandler are approximately 45 miles per hour.



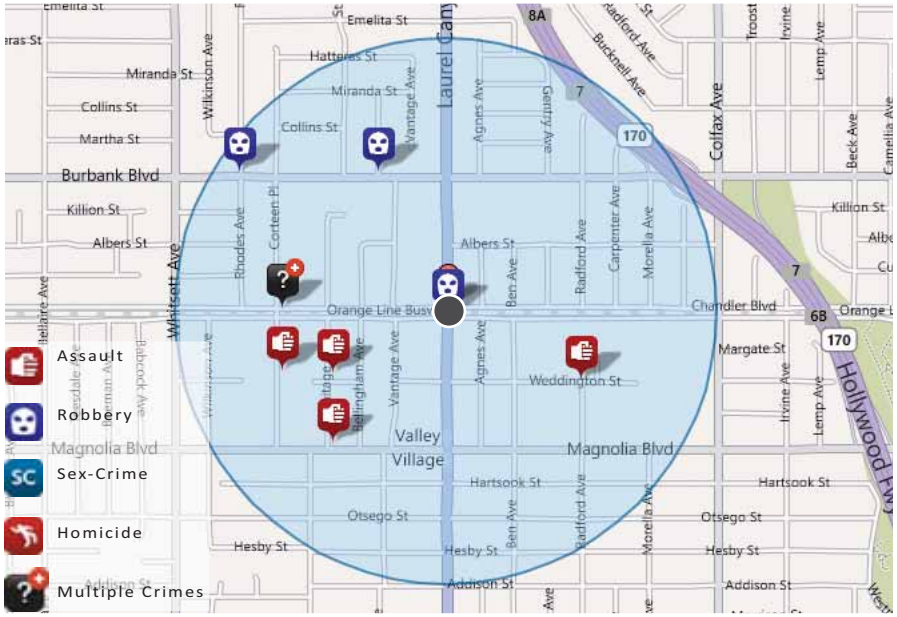
Street Network (*Source: City of Los Angeles*)

Health Environment

- According to the California Nutrition Network, there are 2 grocery stores located within the station area, just south of the station. There are also 2 additional grocery stores located just outside of the station area on Burbank Boulevard. Within the station area there are four CalFresh Certified Vendors. Given the large population in the area, there may be a deficiency in the access to healthy food and grocery stores.
- Over the past 6 months there were 9 violent crimes in the half-mile radius around station. Of these 5 were assaults and 4 were robberies.



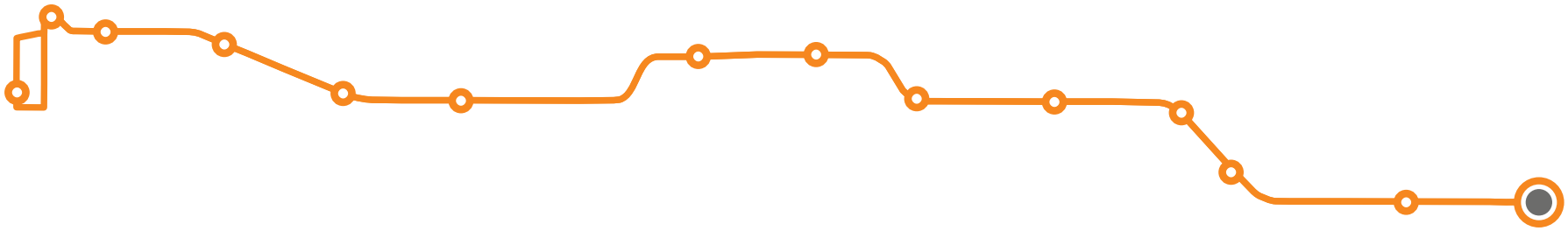
Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- There is limited opportunity for new development as the station area as the area is already built out and there are few large under-utilized parcels that present development opportunities.
- While there is limited opportunity for new development, there are some very minor commercial development opportunities at key intersections – these commercial opportunities could be enhanced to provide key retail amenities for existing residents within walking distance.
- While transit improvements could leverage the high densities at Laurel Canyon, the station area is not well positioned in terms of the overall valley transit network. Other station areas would be higher priorities for investments in improved transit service.
- Improving the transfer from the Orange Line to the Red Line at North Hollywood could help improve Orange Line transit use, given the proximity of Laurel Canyon. (For example, the walk to make the transfer between the Orange and Red lines is likely as long as the bus ride from Laurel Canyon).
- Overall, Laurel Canyon is a slightly more affluent renter population than some of the other Orange Line station areas. Education about the transit network could potentially have a significant impact on transit use.



NORTH HOLLYWOOD STATION

The North Hollywood Station is located on the east leg of the intersection of Tujunga Avenue and Chandler Boulevard in North Hollywood. The station is east of the north Hollywood Arts District. This station is a transfer point between the Red Line and the Orange Line and is the eastern terminus of the Orange Line system. The station area is also a location of intense redevelopment over the past decade.

Place Type

Transit Neighborhood: Residential uses with moderate intensity.

Station Area Context (*Source: LA County GIS Portal, US Census, and Reconnecting America*)

(*Source: LA County GIS Portal, US Census, and Reconnecting America*)

Existing Land Use

- The North Hollywood station is one of the most urban and active of all Orange Line station areas and there is wide diversity of uses including office towers, multi-family towers, single family residential, retail, and entertainment.
- There are a number of uses that make North Hollywood a major destination including the Hollywood Arts District (with theaters, galleries and music venues) and numerous office buildings with a diversity of entertainment related uses.
- The station has the most buildings with a vertical mix of uses (ground floor retail with residential or office above) of all of the of the Orange Line stations. The area has also experienced to most recent development of any of the Orange Line stations.
- Commercial uses concentrated along Lankershim, Chandler, Magnolia and Burbank Boulevards. Other streets contain more residential development and community facilities. There are some existing industrial uses located along Vineland, just under ½ mile east of the station.
- Community facilities in the station area include North Hollywood Park, Lankershim Elementary and East Valley High School.

Existing Land Uses (*Source: LA County and Reconnecting America)*

EXISTING STATION AREA LAND USES

Use	Acres	Percentage
Residential	155.77	48.51%
Single-Family Residential	43.34	13.50%
Multi-Family	112.42	35.01%
Commercial	65.50	20.40%
Industrial	27.40	8.53%
Civic	31.35	9.76%
Vacant (Public and Private)	22.48	7.00%
Parking Lot	18.63	5.80%
Total	**321.13**	**100.00%**

Zoning

- The zoning districts in the station area are mostly commercial and multi-family residential. Public facilities and open spaces are southwest of the station (in the location of North Hollywood Park).
- Some Manufacturing zoning is located immediately northeast of the station and a significant amount of this district is located just outside of the ½ mile station area boundary.
- The station area is part of the Local Area Neighborhood Initiative (LANI) zone.

Housing

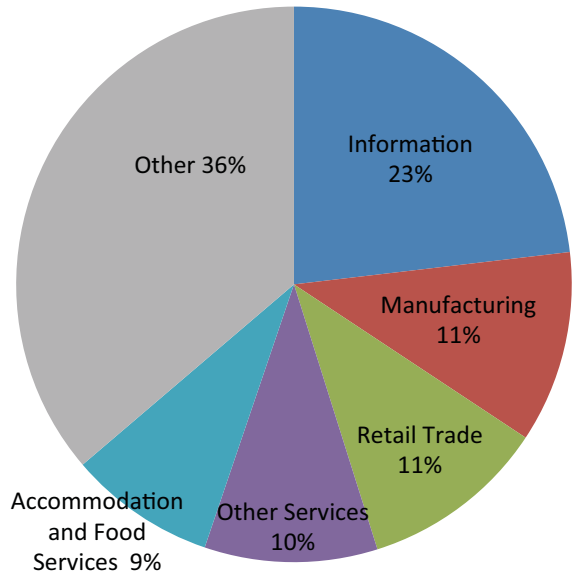
- Higher number of affordable housing units
- 98 percent of affordable housing along the Orange Line is in North Hollywood.
- 89% of households are renters, and half of those are overpaying for rent (52%).
- 60% of households are non-family households, a higher share than the average Orange Line Station.
- 50% of the housing units are subject to the Rent Stabilization Ordinance. But because station area households are predominantly renters, there are many rental units not subject to the Rent Stabilization Ordinance.
- This station area has 502 subsidized units, or 98% of the subsidized affordable units along the Orange Line corridor. These units are on 25 unique properties.

Zoning (*Source: City of Los Angeles*)

Inflow and Outflow of Workers (*Source: Longitudinal Employer-Household Dynamics*)

Jobs

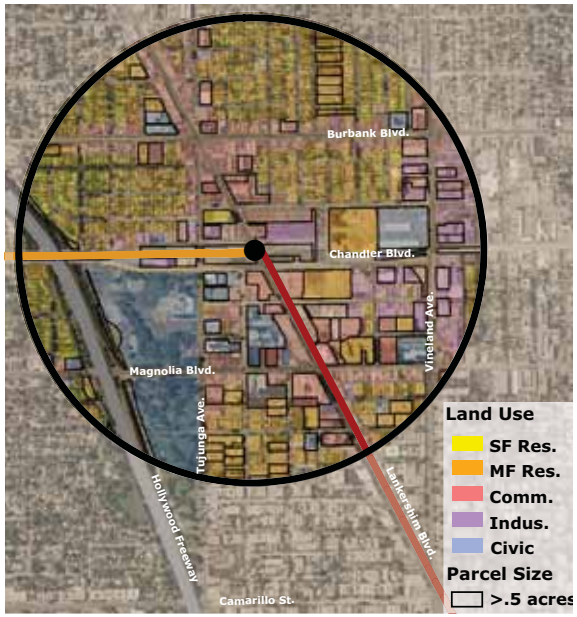
- The next largest job concentration after the three Warner Center district stations, North Hollywood is a job destination for 4,023 workers
- About one third of these jobs are in the entertainment industry (reflected in the Information and Manufacturing sectors). Retail and services are the next largest sectors.



Job Distribution (*Source: Reconnecting America*)

Development Potential

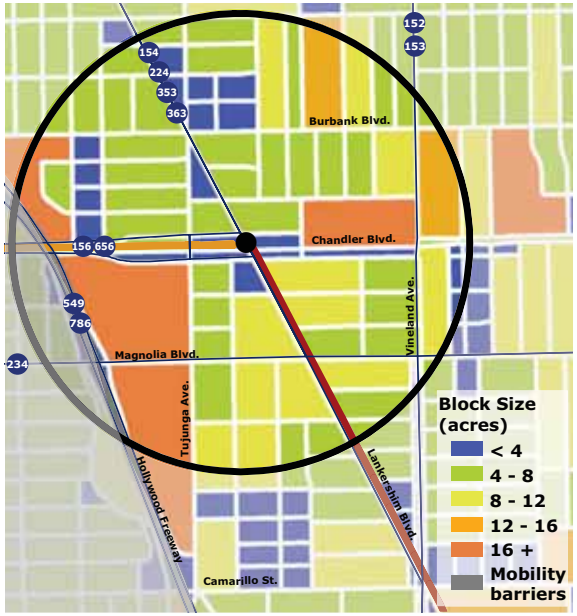
- The station area has some of highest development potential of any of the Orange Line station as is evidenced by the significant amount of development that has occurred over the past decade.
- Given the potential for development, the station area has been extensively studied over the year and there are numerous policy documents that address the development potential of the area.
- The station has a high joint development potential because of large parking lot adjacent to Red Line station.
- The station area is also located in a Redevelopment Area.



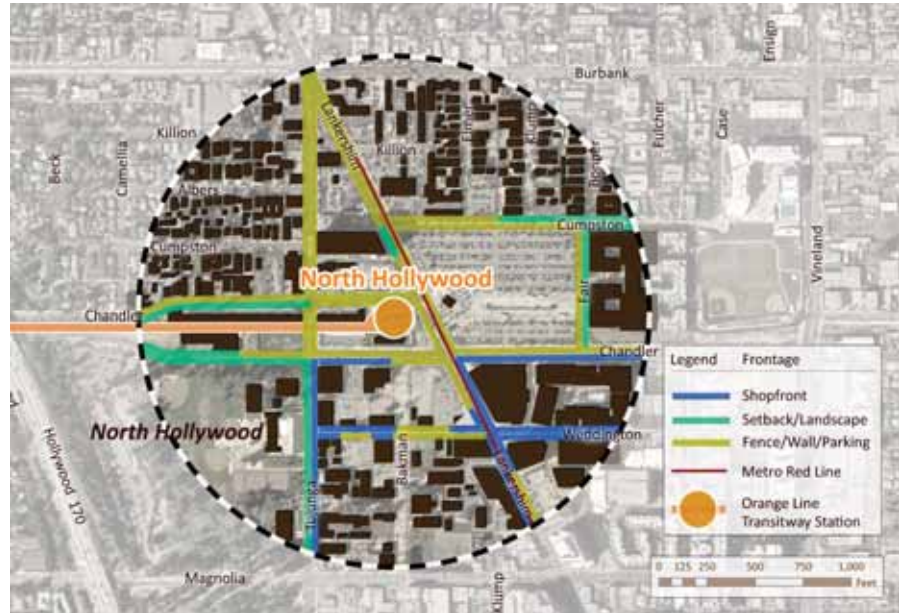
Development Opportunity (*Source: Reconnecting America*)

Urban Form

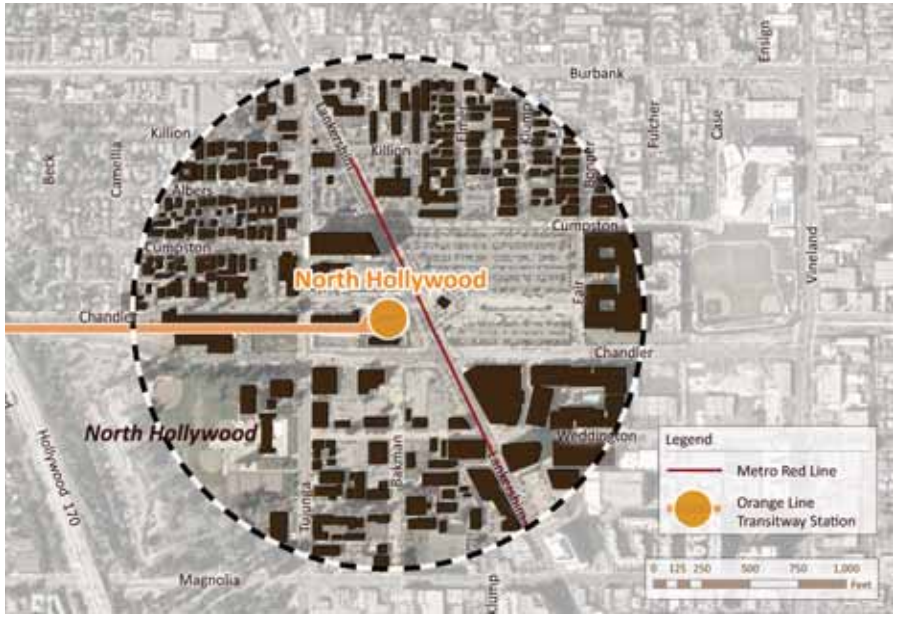
- The area consists of a variety of densities, ranging from multi-story residential and business complexes to single-family residential. Although building intensities vary, they do not always transition effectively, resulting in great massing differences in small areas.
- The large parking lot for the North Hollywood Station sits on a fairly large block, and although provides parking for transit at the moment, it also serves as a potential site for future redevelopment that can provide both parking and a variety of uses that can serve the transit stops, surrounding businesses, and provide residential spaces.
- Due to the angle of Lankershim Boulevard, the block sizes and shapes vary, ranging from smaller walkable blocks, to larger blocks without visual or physical breaks, such as the parking lot. This can hinder pedestrian activity and access.
- Streetscape quality varies, ranging from tree-lined streets, or sections thereof, along Lankershim Boulevard and Magnolia Boulevard, to very bleak sections along the western section of Chandler Boulevard which provides no street trees and has very narrow sidewalks adjacent to empty lots.
- Frontages vary greatly in the area as well. They range from shopfronts along Lankershim Boulevard and Weddington Boulevard, to green setbacks along sections of Chandler, and fenced parking lots along Chandler, Cumpston, and other areas. Certain number of businesses along Tujunga provide services on the side of the building, which often affects the frontage in a negative way by resulting in a blank wall.



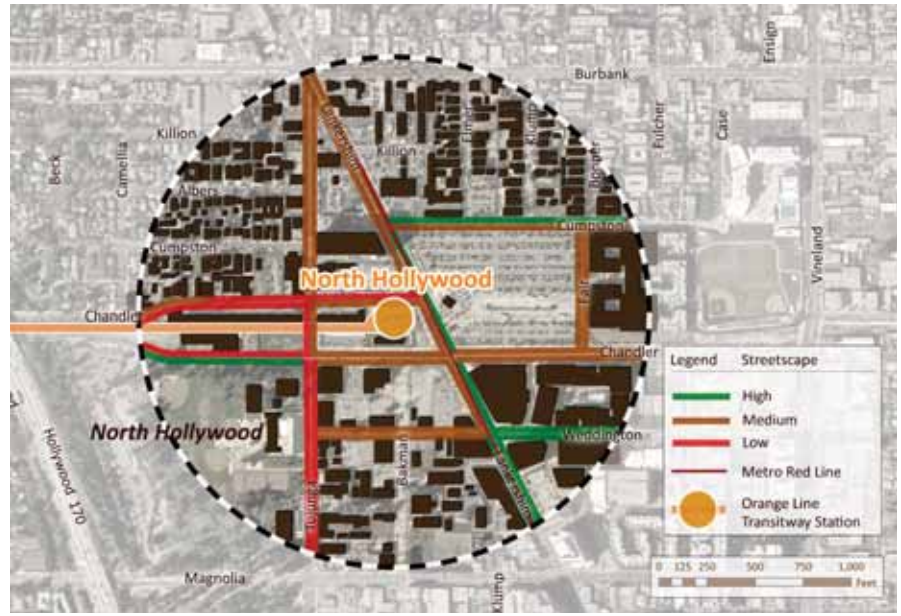
Block Pattern (*Source: Reconnecting America*)



Frontages



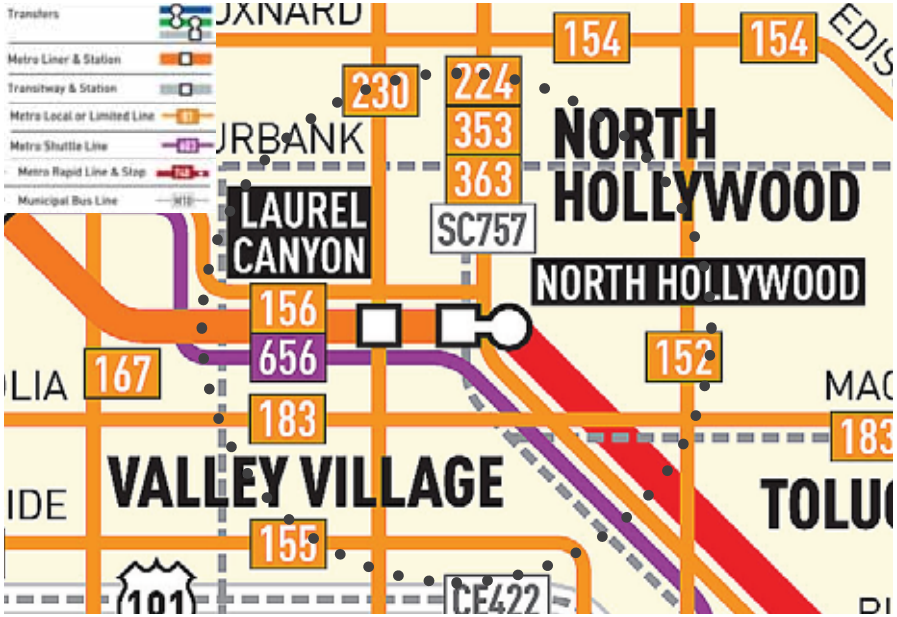
Building Footprints



Streetscape Quality

Transit

- Approximate Orange Line travel time from this station to Warner Center is 43 minutes.
- North Hollywood is a major transit hub. Connecting transit options include the Metro Rail Red Line, which runs southeast from North Hollywood to Hollywood and Downtown Los Angeles every 10-12 minutes. The station is also served by Metro Local Lines 152. 154. 156, 183 and 224 (serving various corridors), Limited Lines 353 and 363, Metro Owl Line 656, LADOT Commuter Express Line 549 between Encino and Pasadena, Burbank Bus Lines NoHo-Empire and NoHo-Media District, and a Santa Clarita Transit commuter line. Frequencies and spans of service vary widely; the Red Line operates relatively frequently until after midnight seven days a week, while all local lines but 154 provide evening and weekend service and Line 656 provides overnight service to several Orange Line stations.
- The Orange Line station is located on the west side of Lankershim Boulevard, which is five lanes and approximately 85 feet wide. The Metro Rail entrance and most connecting bus stops are located on the east side of Lankershim, and most Orange Line passengers boarding or alighting at North Hollywood cross the street using a pedestrian-only crosswalk with signal timing favoring traffic – meaning that some time may elapse before they can legally and safely cross. There is also a connecting bus stop on Lankershim south of Chandler, which is six lanes and approximately 90 feet wide.
- The bus transfer center to the east of the Metro Rail station entrance features 14 bus bays but just one shelter for waiting passengers.



Transit Network (*Source: LA Metro*)

Pedestrian

- Sidewalks on area arterial streets (including Lankershim, Chandler, and Tujunga Avenue) vary in width from approximately 7 to 16 feet – moderate dimensions – and distances between signalized crosswalks vary from approximately 300 feet to more than one-half mile. Long distances between crosswalks can require pedestrians to travel significantly out of direction to legally and safely cross major streets. As a rule, distances between signalized crosswalks along arterials should be no greater than 600 feet.
- The quality of the pedestrian environment in this area is mixed: curbside parking provides a "buffer" from traffic on some, but not all, streets and there is little shade-offering tree canopy.
- The street network in the station area is primarily a modified grid. While some blocks are quite long (up to one-quarter mile), pedestrian network connectivity, is relatively good, with 108 intersections per square mile within half-mile radius of the station. While this figure is below the widely-used standard for a well-connected network of 140 intersections per square mile, it would be higher if not for North Hollywood Park and the Hollywood Freeway, which both serve to lower the count and act as a barrier to pedestrian travel.
- Countywide Planning obtained funding to build a pedestrian tunnel between the Orange Line and Red Line Stations
- The station area has a Walk Score of 89. Walk score criteria and comparisons between stations are found on page 2-5.

1/2 mile Walkshed (*Source: LA County, Design Community and Environment, and Reconnecting America*)

Bicycle

- The Orange Line Bikeway consists of Class II on-street lanes at this point, along Chandler (the westbound lane begins one block west of Lankershim). There are also bicycle lanes on Chandler to the east.
- Lankershim is identified by the Los Angeles Bicycle Plan as part of the City's "Backbone Network," which ultimately will consist primarily of on-street lanes. Lankershim to the south of the station is identified as a Priority 2 segment in the Bicycle Plan Five-Year Implementation Strategy.
- Bicycle racks are provided at this station; however, they are in a location that is not clearly visible. Bicycle lockers are located adjacent to the Red Line entrance across Lankershim, but there is no signage on the Orange Line platform directing cyclists to them.
- This station is identified by the Bicycle Plan as a future Multi Mobility Hub. Multi Mobility Hubs would provide electric vehicle (EV) charging stations, carshare vehicles, and amenities for cyclists including repair shops.

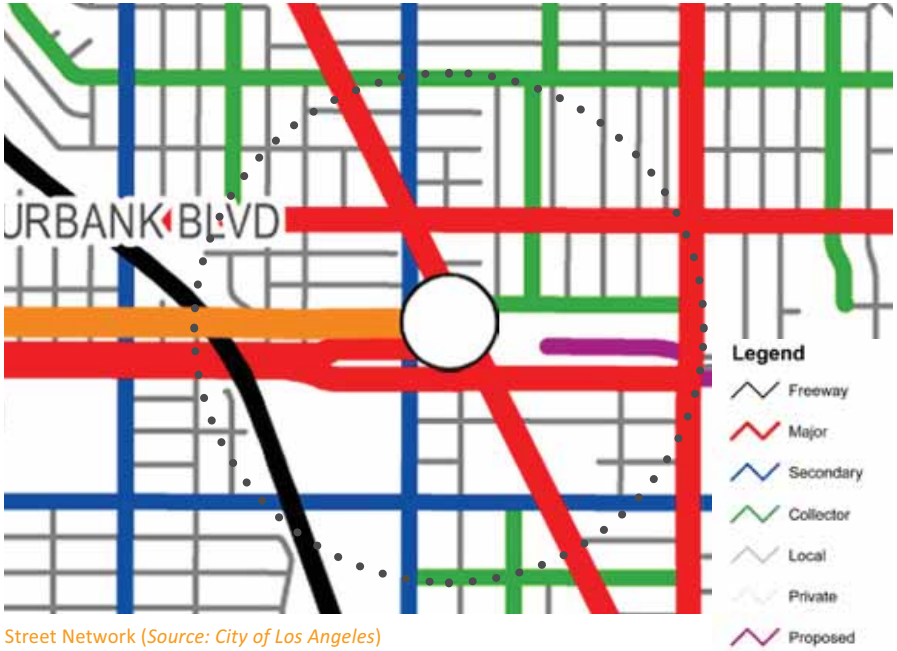
Bike Network (*Source: LA Metro*)

Traffic

- The primary arterial in the area is Lankershim Boulevard, which features four through travel lanes as well as turn lanes.
- Lankershim is relatively uncongested. According to traffic counts conducted by the City in 2009, unidirectional volume on Lankershim in the peak direction and hour (northbound, during the busiest hour of the PM peak period) is approximately 900 vehicles. Based on a standard capacity of 1,000 vehicles per lane where turn lanes exist, this indicate a volume-to-capacity ratio of between 0.4 and 0.5 (in other words, less than half of the roadway's capacity is used at the busiest times).

Parking

- There is a large and heavily-used station parking lot at North Hollywood. Altogether, the lot includes 952 spaces, 305 of which require a fee. A recent survey of availability in the lot on a weekday, when commuter lots are at their fullest, found 95 percent of spaces to be occupied.
- Curbside parking spaces in the area are unmetered.



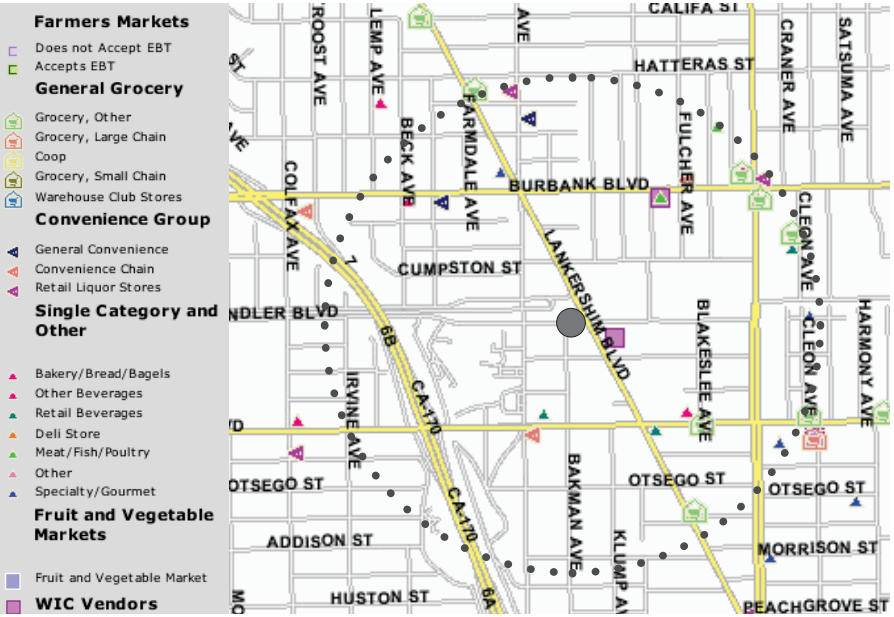
Street Network (*Source: City of Los Angeles*)

Taxi

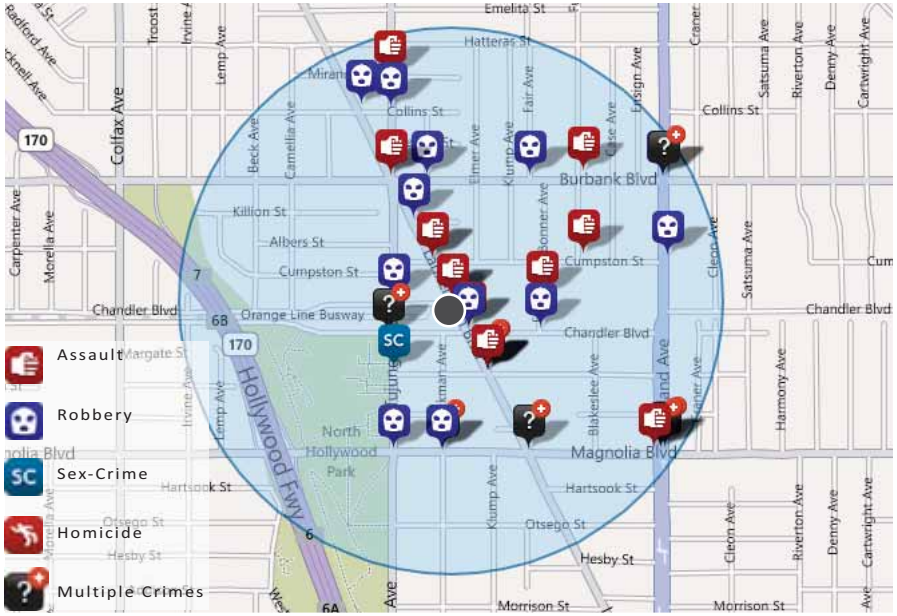
- There is a large taxi stand on the east side of Lankershim, to the north of the crosswalk between the Orange and Red Line platforms.

Health Environment

- There are a relatively large number of CalFresh Certified Vendors located within and immediately around the station area.
- While there are no grocery stores located within the station area, there are four located immediately outside of the ½ mile radius from the station.
- The half-mile radius around the North Hollywood Station has the highest total number of crimes and the highest crime rates of any station along the Orange Line corridor. Over the six months from April to September of 2011, there were 22 assaults, 20 robberies, and 1 sex crime. Fortunately there were no homicides in this station area.



Food Environment (*Source: California Nutrition Network*)



Violent Crimes (April 2011- September 2011) (*Source: CrimeMapping.com*)

Issues and Opportunities

- The area has significant opportunity for new development in the station area. The development will primarily be focused on the major corridors.
- While the park and ride lot is full most of the time, the size and location of the Metro parking lot present an opportunity for joint development. However, an equivalent amount should be considered.
- Improved connections, especially pedestrian connections, between Orange Line and Red Line are needed as there is a high "transfer penalty" between the lines. Multiple options exist for improving connections including bringing the Orange Line underground to connect to Red Line.
- Streetscape and pedestrian improvements are needed along major arterials including wider sidewalks, bulbouts, more frequent crosswalks, and street trees.
- Despite all the development activity in the area, there, is no single unified plan guiding the vision of the area. A coordinated specific plan for the station area that expands on all existing activities and unifies them into a single vision could be created.

4 INDICATOR METRICS

This section contains a variety of metrics by station area. The metrics are summarized from the information in this report and are organized according to the sustainability principles adopted by the Los Angeles Metro board in September of 2011. Please note that metrics were only available for five of the nine sustainability principles: Access; Prosperity; Green Modes; Healthy Neighborhoods; and, Community Revitalization. In addition, a category called "Socioeconomic Information" was included and this section summarized the socioeconomics of the station area.

Metrics	Warner Center	Canoga	De Soto	Pierce College	Tampa	Reseda	Balboa	Woodley	Sepulveda	Van Nuys	Woodman	Valley College	Laurel Canyon	North Hollywood
Access. Link places to live and work with the county's educational, cultural, visitor, natural, and health care destinations to satisfy Angelenos' need for independent mobility regardless of age, income or physical ability														
Diversity of walkable uses (Walkscore)	83	77	71	49	58	80	55	72	72	72	52	49	68	89
Ratio of Residential to Commercial/Industrial land	0.56	0.35	1.00	18.26	21.63	7.99	27.18	6.65	0.73	1.56	30.85	34.51	12.72	1.68
Acres of Civic Uses	18.88	13.89	122.42	15.46	14.72	58.5	216.41	280.61	184.29	43.43	18.71	121.49	38.72	31.35
Prosperity. Link people to jobs, businesses to their customer base and suppliers, and goods to markets.														
Jobs/acre within ½ mile	37.22	23.10	10.62	2.02	2.29	4.59	1.22	0.98	7.58	7.62	2.30	4.26	3.31	8.01
Jobs-Housing Balance (Jobs/Resident)	3.55	2.03	0.99	0.23	0.22	0.17	0.19	0.08	1.15	0.29	0.12	0.36	0.13	0.39
Green Modes. Provide a clean regional transportation network that reduces greenhouse gas emissions, threats to public health and dependence on foreign oil.														
Mode to work (% non auto)	8%	14%	14%	8%	4%	12%	3%	9%	10%	23%	8%	6%	8%	15%
Car ownership rates (% 0 or 1)	44%	40%	43%	44%	45%	48%	53%	47%	47%	49%	45%	46%	45%	39%
Ridership (Daily Boardings - Weekday)	1,135	880	724	1,331	519	2,115	1,105	688	1,413	3,037	785	1,097	1,143	6,943
Ridership (Daily Boardings - Weekend)	663	467	345	331	257	1,011	440	371	755	1,918	476	282	610	3,898
Intersection Density (intersections per sq. mi.)	43	37	47	73	89	83	68	94	52	64	115	92	120	108
Healthy Neighborhoods. Improve public health through traffic safety, personal safety, reduced exposure to pollutants, and walkable design.														
MI (Heart Attack) Hospitalization Rates*	27.6	42.3-47	27.6-42.3	47	23.3-40.3	23.3-40.3	39.1-40.9	40.9	55.4	55.4-61.0	61	61	26.1	33.8
Asthma Hospitalizatio Rate *	6.7	12.0-14.0	6.7-14.0	12	8.8-17.2	8.8-17.2	8.6-14.7	14.7	14.1	8.9-14.1	8.9	8.9	8.6	10.7
Violent Crime Rates (violent crimes per 10,000 jobs and residents)	7.94	9.25	13.99	18.66	7.88	9.05	5.33	13.83	4.22	26.7	4.51	8.6	6.09	29.93
Grocery Stores within 1/2 mile	2	2	3	1	1	2	0	2	3	3	3	1	6	6
Grocery Stores per 10,000 Residents	3.78	3.51	5.57	2.30	1.93	1.52	0.00	3.33	9.06	2.30	3.02	1.67	4.58	5.80
Community Revitalization. Design and build transportation facilities that welcome appropriate development intensity and support social and economic activity.														
LA CTOD Typology	BD	BD	NC	NC	SN	TN	NC	SN	NC	TN	SN	SN	TN	TN
Population + Jobs within 1/2 mile	23,940	17,295	10,719	5,359	6,342	15,464	3,751	6,508	7,115	16,853	11,086	8,140	14,775	14,365
Total person/acre within 1/2 mile	47.69	34.45	21.35	10.67	12.63	30.81	7.47	12.97	14.17	33.57	22.08	16.21	29.43	28.62
Residents/acre within a 1/2 mile	10.47	11.35	10.73	8.66	10.35	26.22	6.25	11.98	6.60	25.95	19.78	11.96	26.12	20.60
Number of affordable housing units	0	0	0	0	0	0	0	0	0	11	0	0	0	502
Units Covered by RSO	3,078	1,939	1,961	2	293	4,354	109	957	314	2,393	1,928	291	4,393	2,542
Dwelling unit density (1/2 mile)	6.86	5.67	4.05	3.27	3.35	11.12	2.34	3.94	2.39	8.50	7.84	4.67	13.11	10.12
Socioeconomic Information														
Population	5,258	5,700	5,388	4,347	5,194	13,161	3,139	6,014	3,311	13,026	9,930	6,002	13,112	10,342
Number of Jobs	18,682	11,595	5,331	1,012	1,148	2,303	612	494	3,804	3,827	1,156	2,138	1,663	4,023
Percent of population 14 and under	12%	18%	23%	17%	22%	15%	18%	26%	21%	21%	23%	16%	13%	15%
Percent of population 65 and older	13%	9%	5%	12%	12%	13%	13%	6%	6%	5%	9%	14%	13%	7%
Percent of population with a college degree	46%	31%	31%	30%	40%	33%	26%	16%	25%	16%	28%	39%	42%	31%
Percent of NonWhite Population	44%	67%	68%	45%	37%	46%	55%	85%	62%	82%	51%	33%	38%	62%
Tenure – rent versus ownership	72%	85%	79%	38%	30%	60%	51%	70%	57%	82%	65%	45%	80%	89%
% Low Income HH	44%	50%	51%	34%	31%	46%	36%	60%	45%	61%	49%	39%	46%	51%
Median income	$59,810	$47,788	$45,527	$67,082	$83,738	$53,593	$59,549	$38,898	$53,816	$42,424	$51,002	$73,154	$52,737	$46,566

* Data for asthma and MI hospitalizations were provided by zip code. Where a station area was in one zip code that rate was included. If a station area fell in 2 or more zip codes, a range is provided.

LA CTOD Typology Key

BD = Business District
NC = Neighborhood Center
SN = Suburban Neighborhood
TN = Transit Neighborhood

APPENDIX D

RESULTS FROM PUBLIC WORKSHOPS

APPENDIX D: RESULTS FROM PUBLIC WORKSHOPS

In November 2011, the Raimi + Associates consultant team (Nelson\Nygaard and the Center for Transit-Oriented Development) worked with the Los Angeles County Metropolitan Transportation Authority (Metro) to conduct two community meetings in order to gather ideas about the future of the Orange Line Corridor. Through a series of workshop exercises, community members offered valuable insight into the progress of the project, making specific recommendations about corridor-wide and station area improvements. Below is a summary of the notes from the two meetings.

CORRIDOR-WIDE COMMENTS

TRANSIT SERVICE AND FACILITIES

- Consider redesigning/reengineering the bus light signal system, as they are inefficient.
- Change signal timing.
- Make transfers from the Orange Line to other bus routes smoother and more efficient, especially at Sepulveda Station.
- Improve transfers at Sepulveda station, as the station is so far from the street.
- Reroute Metro Line 183 to avoid being discontinued, like Line 902 that lost ridership.
- Use park and ride facilities more efficiently, redesigning for an alternative use.
- Improve station area lighting to create a more inviting and safe environment.
- Make better use of the walking path at Valley College station. It is underutilized, which is unfortunate because it's a nice walking path.
- Amend the bus vehicle code/law to accommodate longer buses.
- Establish airport connections.
- Reduce bus wait time at signals.
- Install lighting at northbound transfer point at Van Nuys.
- Repeal Robins Law and County law.
- Change the vehicle code to allow operation of longer buses.
- Maintain transit stations to ensure cleanliness.
- Incorporate NextBus and other real-time schedules.
- On-time performance is satisfactory, as most of the time the buses run on schedule.
- Signage is working (time and schedule of Metro lines) to all on passenger to plan their trip.
- Discontinue Victory Boulevard buses that run parallel to the Orange Line.

LAND USE AND DEVELOPMENT

- Provide more greenery at all stations.
- Incorporate native plant species when considering station greenery.
- Consider denser development in the Sepulveda station area.

- Valley college station is well utilized.
- Take advantage of trips generated from college institutions. Encourage and help students and faculty convert their automobile trips to transit trips to ensure more ridership.
- Create destination points along the corridor.
- Design destination points near stations.
- Locate banks near transit stops.
- Investigate developing denser transit-oriented development (2-5 stories) in Nordhoff.
- Provide more affordable housing along the corridor.
- Provide uses most appealing to surrounding population by developing mixed-use (2-5 stories) of retail, markets, and neighborhood services.
- Consider mixed-use neighborhood retail in the Tampa station area.

Pedestrian Environment and Access

- Require better lighting of existing facilities. For instance, lighting along the walking and bike path goes out and area becomes scary when dark.
- Add lighting to the 2.5-mile strip of bike path that has no lighting. Provide more seating options at transit stations.
- Provide seating along bike path (primarily in eastern half of the Orange Line).
- Provide restrooms at transit stations.
- People are not willing to walk more than a block for transit.
- Maintain the cleanliness of station area (i.e., lots of trash at Laurel Canyon).
- Install signage to help with crossing street (walking) at Valley College.
- Improve street lighting at Tampa, Woodley, Balboa, Reseda, and North/South Canoga.
- Install three crosswalks at Owensmouth.
- Require more street lighting at crosswalks.

Bicycle Environment and Access

- Provide a clear separation between pedestrian and cyclist space. People are using the bike path as a place to sit, and they're intruding on cyclist activities.
- Create bike planning area as a 3-mile radius surrounding each station and integrate bicycle lanes within planning area.
- Modify bike plan priority to include 3-mile buffer surrounding stations.
- Adjust signals response to push buttons to reduce waits at lights for bikes and pedestrians.
- Redesign/relocate push button and in ground sensor for light signals.
- Require better maintenance of lighting along bike path.
- Install lighting from Sepulveda to White Oak.
- Integrate bicycle planning within 3-mile radius of transit station.

- Priority seems to exist in socioeconomic characteristics.
    - There are more gaps in the network.
    - Bike path signal lights can cause a longer trip - bike lane sensors could improve performance.
- Develop bike boulevards throughout the Valley.
- Create a bikestation at Warner Center.
- Install bike lockers as needed at stations.
- Establish bike stations at transit stations.
- Design better signage around stations.
- Install traffic signal at the crossing of chase and DeSoto.
- Install traffic signal at Vanalden and Victory.
- Implement bicyclist activated crossing signals.

STATION AREA COMMENTS

NORTH HOLLYWOOD STATION

Transit Service and Facilities

- Increase availability of general parking.
- Design the historical train depot as a destination that provides a variety of uses, like food venue, visitor center, historic static train display, restrooms, art park, and MTA store.
- Provide a trolley-like transit option to transport people along Lankershim Blvd.
- Consider a trolley car with a short-route on Lankershim (electric trolley) so people can jump easily on and off.
- Establish a better connection from Orange Line to Red Line.
- Consider a trolley car to bring people to North Hollywood station on Lankershim Blvd.
- Provide restrooms (portable) at North Hollywood and Warner Center, and at other stations in between.

Pedestrian Access and Safety

- Install flashing pedestrian lights on Magnolia at Bake and on Lankershim between Magnolia and Weddington.
- Ensure access at North Hollywood station elevators. Elevator access is obstructed and difficult for persons with wheelchairs. Handicapped ADA and Older Americans Act (federal mandate).

Bicycle Access and Safety

- Establish a program that promotes and enforces bicycling and carpooling (i.e., parking police).
- Provide more secure bike storage option at stations. Bicycles are stolen from the racks and buses because security guards are less vigilant at the Metro property.

Community Character and Neighborhood Destinations

- Establish more greenery at North Hollywood station and consider the Million Trees Program.
- Design the historic train near north Hollywood as a destination with retail, food, and transit store.
- Create a more fluid transfer for Orange Line riders transferring to the Red Line to go Downtown.
- Revisit parking policy at North Hollywood station.

Van Nuys Station

Transit Service and Facilities

- Repeal Robbins bill and consider light rail transit (LRT).
- Accommodate bikes on transit as riders use bicycles for "last mile" commute.

Pedestrian Access and Safety

- Organize better LADOT/ATSAC signal coordination.
- Install lighted signs prohibiting (other than bus warning) turns when buses pass through.

Community Character and Neighborhood Destinations

- Establish more dense development.
- Create more excitement around Orange Line like Expo and Gold LRT lines.
- Redevelop underutilized parking as mixed-use development.

Sepulveda Station

Transit Service and Access

- Establish more efficient transit connections/transfers, because transfers are difficult due to the station distance from the street.

Community Character and Neighborhood Destinations

- Investigate converting the empty furniture store and the underutilized park and ride as a site for a large, higher-density, mixed-use development.
- Use station for parking lot for big events.
- Maintain Sepulveda for parking.
- Consider this station as an ideal location to focus on parking and transfers from freeway.

Tampa Station

Transit Service and Access

- Love the station facilities.
- Add turnstiles at Orange Line stations, so that when the riders board on the bus, they tap their MDP cards on the targets and climb on.

Pedestrian Access and Safety

- Take measures to prevent more collisions.
- No problems approaching the station depot at all.
- Install street lights throughout the east-west railroad right-of-ways line, so that as the night does approach, the bus/cars check the visage of the busway.

Community Character and Neighborhood Destinations

- Consider establishing new development in the area.
- The Orange line is an attractive - no hassle - transportation option in my area.
- The upcoming Chatsworth Metrolink Station that is north of Devonshite Street between Canoga and Owensmouth needs to have its busway pavement expanded to approach the cul-de-sac dead end a few inches more so that it can reach it's terminal depot station even before it opens the north-south corridor that is next to Canoga Street stating in the Summer of 2012 for the next year.
- There are no new development opportunities for mixed-use, higher-intensity, and/or housing development in the station area at this time.
- Maintain the current character and aesthetics of the station.
- Resist additional shopping around Tampa Station.

Reseda Station

Transit Service and Access

- Promote the individual benefits of transit and the community benefits of transit.
- Educate and encourage community members to explore alternative transportation options in the area.

Pedestrian Access and Safety

- Maintain pedestrian and bicycle safety.
- It's getting better, but we need to think "Blue Sky".

Bicycle Access and Safety

- Establish better bicycle infrastructure.

Community Character and Neighborhood Destinations

- Consider new development.
- Increase access on streets to accommodate all modes.
- Redesign street to enhance aesthetic appeal and increase street desirable.

Woodman

Transit Service and Access

- Relocate station closer to Woodman.

Valley College

Pedestrian Access and Safety

- Enhance signage around station especially for bike and pedestrian access.

Warner Center Station

Bicycle Access and Safety

- Integrate bicycle and pedestrian access to stations.
- Install signage for cyclists.

APPENDIX E

RESULTS FROM ONLINE SURVEY

RESULTS FROM ONLINE SURVEY

1 SUMMARY

The Orange Line Station Area Community Survey was created in November 2011. The purpose of the survey was to gather community input to identify a range of desired improvements for the fourteen Orange Line station areas that will increase transit use, advance sustainability principles, and facilitate transit-oriented districts (TOD).

Respondents were asked to comment on a specific Orange Line station of their choice, and then if desired, the respondent could provide additional feedback about other stations. If they provided feedback about another station, the respondent completed the survey a second time. Respondents were also asked to provide general information about their usage of the Orange Line. As of May 2012, a total of 209 respondents started the survey, and ninety-nine respondents completed it.

KEY FINDINGS

How often do you use the Orange Line? (109 responses)

Nearly 50% of respondents ride the Orange Line "several times per month." Fourteen percent indicated they never ride the line.

Why do you ride the Orange Line? (106 responses)

Of those who answered this question, 46% of respondents ride the Orange Line for work, and 45% use it for other uses, such as recreational trips, social events, shopping in Downtown Los Angeles, and attending sporting events. Some respondents also indicated they use the Orange Line for all their trips.

What improvements are needed to the Orange Line station (105 responses)

Of those who answered this question, 43% of respondents indicated they would like better connecting transit service. Twenty-eight percent of respondents had an interest in more bicycle facilities. Forty-eight percent selected "other" and suggested improved station maintenance, better pedestrian connections to make transit transfers, and safer travel throughout the station area.

For the Orange Line station you've selected, how could transit service be improved? (58 responses)

The most frequent response to this question was overcrowding on buses and station platforms. The second most popular response was station maintenance in relation to cleanliness, trash cans overflowing, and graffiti. The third most common responses were accurate arrival times for the next bus and improved transfer connections.

For the area within ½ mile of the station that you have selected, what pedestrian safety and access improvements are needed? (89 responses)

Of those who answered this question, 42% of respondents indicated they would like signs providing information about the area. Thirty-nine percent suggested that they would like more street trees in the station area, and 38% of the respondents wanted new benches and trash cans. Others suggested better prioritized pedestrian signals to make transit connections, improved sidewalks, and police presence.

What are new bicycle facilities and amenities needed in and around the station you've selected? (68 responses)

Lighting was then most popular response. "Bike racks" and "bike lanes and trails" were the second most requested bicycle facility. Other suggestions included wayfinding signs, enhanced security in the form of cameras or police, and equipping buses to carry more than three bikes or allow riders to bring bikes on board.

What new uses are needed in the station area (within 1/2 mile of the Orange Line station)? (81 responses)

Cafes and restaurants were the most requested new uses within the station area, and grocery stores were the second most requested.

What type of improvement is the most important for the station area? (99 responses)

Enhancing transit service and amenities was ranked the most important improvement and enhancing community character and adding new uses was the second more important.

Summary of the Community Character Preference Survey

For housing types, there was strong preference for higher density housing options, such as apartment buildings and 2- to 5-story mixed-use buildings.

For retail, there was a preference for a main street retail style.

Many respondents also indicated a strong desire for a plaza or park space.

What corridor-wide transit improvements are needed to improve the overall performance of the Orange Line? (83 responses)

The two most popular responses were additional service on weeknights and weekends and more frequent line service. The least requested improvement was more frequent stops along the Orange Line (between existing stations).

Orange Line Station Area Community Survey

SurveyMonkey

1. Please select that station that you would like to provide comments on in this survey. (If you would like to comment on multiple stations you can return to the survey and review as many stations as you would like.)

	Response Percent	Response Count
Warner Center	5.7%	12
Canoga	7.2%	15
De Soto	3.8%	8
Pierce College	4.3%	9
Tampa	1.4%	3
Reseda	8.1%	17
Balboa	6.2%	13
Woodley	1.9%	4
Sepulveda	4.8%	10
Van Nuys	6.7%	14
Woodman	8.6%	18
Valley College	9.6%	20
Laurel Canyon	9.6%	20
North Hollywood	**22.0%**	**46**

answered question	**209**
skipped question	**0**

2. How often do you use the Orange Line?

	Response Percent	Response Count
Daily	18.3%	20
Several times per week	23.9%	26
Several times per month	**45.0%**	**49**
Never	13.8%	15
answered question		**109**
skipped question		**100**

3. Why do you ride the Orange Line?

	Response Percent	Response Count
For work	**46.2%**	**49**
To shop	27.4%	29
To school	15.1%	16
Other (please specify)	45.3%	48
	answered question	**106**
	skipped question	**103**

4. What improvements are needed to the Orange Line station?

	Response Percent	Response Count
Better connecting transit service	42.9%	45
More lighting	21.0%	22
More and better seating	26.7%	28
Addition transit system information	27.6%	29
More bicycle facilities (e.g., bike parking)	28.6%	30
What other suggestions do you have for the Orange Line station?	**44.8%**	**47**
	answered question	**105**
	skipped question	**104**

5. For the Orange Line station you've selected, how could transit service be improved?

	Response Count
	58
answered question	**58**
skipped question	**151**

6. For the area within ½ mile of the station that you have selected, what pedestrian safety and access improvements are needed?

	Response Percent	Response Count
More frequent crosswalks	23.6%	21
More street trees	39.3%	35
Additional lighting	36.0%	32
Signs providing information about the area	**42.7%**	**38**
Wider or additional sidewalks	25.8%	23
New benches and trash cans	38.2%	34
In addition to the above, what improvements are needed?	28.1%	25
	answered question	**89**
	skipped question	**120**

7. Please provide any additional issues, comments or suggestions to improve pedestrian access and safety to and around the Orange Line station

	Response Count
	27
answered question	**27**
skipped question	**182**

8. Where are new bicycle facilities and amenities needed in and around the station you've selected?

	Response Percent	Response Count
Bike racks	39.7%	27
Bike lockers	35.3%	24
Bike lanes and trails	39.7%	27
Lighting	**42.6%**	**29**
Other (please specify additional improvements)	23.5%	16
answered question		**68**
skipped question		**141**

9. Please provide any additional issues, comments or suggestions to improve bicycle access and safety to and around the Orange Line station

	Response Count
	21
answered question	**21**
skipped question	**188**

10. What new uses are needed in the station area (within 1/2 mile of the Orange Line station)?

	Response Percent	Response Count
Grocery stores	46.9%	38
Pharmacy/drug store	25.9%	21
Cafes and restaurants	**60.5%**	**49**
Dry cleaners	6.2%	5
Affordable housing	34.6%	28
Entertainment uses	37.0%	30
Office buildings	13.6%	11
Other (please specify)	23.5%	19
	answered question	**81**
	skipped question	**128**

11. Do you like the mix of uses, the scale of development and the quality of development in the Orange Line station area?

	Response Percent	Response Count
Yes	**54.4%**	**49**
No	7.8%	7
Like some areas but not others	38.9%	35
Please explain in detail what you like and do not like about the station area.		15
answered question		**90**
skipped question		**119**

12. Are there opportunities for new development in the station area?

	Response Percent	Response Count
Yes	**66.7%**	**54**
No	34.6%	28
Where could new development be located? (Please be as specific as possible)		23
answered question		**81**
skipped question		**128**

13. What type of improvement is the most important for the station area?

	Response Percent	Response Count
Enhancing transit service and amenities	**34.3%**	**34**
Improving pedestrian safety and access	23.2%	23
improving bicycle safety and access	11.1%	11
Enhancing community character and and adding new uses	31.3%	31
	answered question	**99**
	skipped question	**110**

14. Single-Family Home

	Response Percent	Response Count
1 - Not preferable	**34.9%**	**30**
2	14.0%	12
3 - Somewhat preferable	25.6%	22
4	9.3%	8
5 - Most preferable	16.3%	14
	answered question	**86**
	skipped question	**123**

15. Townhouse or Rowhouse

	Response Percent	Response Count
1 - Not preferable	22.1%	19
2	10.5%	9
3 - Somewhat preferable	**39.5%**	**34**
4	17.4%	15
5 - Most preferable	10.5%	9
	answered question	**86**
	skipped question	**123**

16. Apartment Building

	Response Percent	Response Count
1 - Not preferable	**29.5%**	**26**
2	5.7%	5
3 - Somewhat preferable	22.7%	20
4	23.9%	21
5 - Most preferable	18.2%	16
	answered question	**88**
	skipped question	**121**

17. Mixed-Use (2-5 stories)

	Response Percent	Response Count
1 - Not preferable	16.5%	14
2	3.5%	3
3 - Somewhat preferable	21.2%	18
4	24.7%	21
5 - Most preferable	**34.1%**	**29**
	answered question	**85**
	skipped question	**124**

18. Mixed-Use (6-10 stories)

	Response Percent	Response Count
1 - Not preferable	**39.5%**	**34**
2	10.5%	9
3 - Somewhat preferable	10.5%	9
4	12.8%	11
5 - Most preferable	26.7%	23
	answered question	**86**
	skipped question	**123**

19. Employment (2-5 stories)

	Response Percent	Response Count
1 - Not preferable	17.9%	15
2	9.5%	8
3 - Somewhat preferable	**31.0%**	**26**
4	16.7%	14
5 - Most preferable	25.0%	21
	answered question	**84**
	skipped question	**125**

20. Employment (6+ stories)

	Response Percent	Response Count
1 - Not preferable	**38.8%**	**33**
2	11.8%	10
3 - Somewhat preferable	14.1%	12
4	5.9%	5
5 - Most preferable	29.4%	25
	answered question	**85**
	skipped question	**124**

21. Main Street Retail

	Response Percent	Response Count
1 - Not preferable	13.6%	12
2	5.7%	5
3 - Somewhat preferable	15.9%	14
4	19.3%	17
5 - Most preferable	**45.5%**	**40**
	answered question	**88**
	skipped question	**121**

22. Urban Retail

	Response Percent	Response Count
1 - Not preferable	16.1%	14
2	5.7%	5
3 - Somewhat preferable	21.8%	19
4	17.2%	15
5 - Most preferable	**39.1%**	**34**
	answered question	**87**
	skipped question	**122**

23. Plaza or Park

	Response Percent	Response Count
1 - Not preferable	11.1%	10
2	3.3%	3
3 - Somewhat preferable	16.7%	15
4	14.4%	13
5 - Most preferable	**54.4%**	**49**
	answered question	**90**
	skipped question	**119**

24. What corridor-wide transit improvments are needed to improve the overall performance of the Orange Line?

	Response Percent	Response Count
Additional service on weeknights and weekends	**54.2%**	**45**
More frequent Orange Line service	**54.2%**	**45**
Better transit information	42.2%	35
More and frequent connecting transit routes	43.4%	36
Better transit facilities	30.1%	25
Expansion of the Orange Line to reach more destinations	53.0%	44
More frequent stops along the Orange Line (between existing stations)	10.8%	9
	Other (please specify)	25
	answered question	**83**
	skipped question	**126**

25. Please provide any additional comments or ideas about how Orange Line service or the Orange Line corridor could be improved.

	Response Count
	26
answered question	26
skipped question	183

Page 2, Q3. Why do you ride the Orange Line?		
1	To run errands	Mar 10, 2012 4:07 PM
2	Visiting family	Mar 8, 2012 12:44 AM
3	Pasadena Gold Line /I would like to see a Train Station in Altadena CA because I live in Altadena and theres no Train Station in Altadena.	Feb 27, 2012 5:09 PM
4	Recreation [recreation]	Feb 27, 2012 2:45 PM
5	To take my preschool age son on outings [recreation]	Feb 24, 2012 10:55 PM
6	work, school, recreation etc... [recreation]	Feb 22, 2012 12:05 AM
7	CSUN	Feb 20, 2012 11:22 PM
8	recreational, site seeing [recreation]	Feb 20, 2012 7:13 PM
9	I use the Orange Line for all aspects of my life, as I do not drive.	Feb 17, 2012 8:17 PM
10	I regularly ride the commuter express 574 which drops off at Orange line Balboa stop. I take the Orange line occasionally to go downtown from Balboa stop.	Feb 16, 2012 6:33 PM
11	Everything!... personal business, shopping, visit family,... shortcut across the valley..	Feb 15, 2012 11:26 AM
12	For weekend recreation [recreation]	Feb 7, 2012 11:22 PM
13	soon i would love to if i get a chance.	Feb 4, 2012 4:38 PM
14	For fun and to head to NoHo and DTLA using the Red Line [recreation]	Feb 3, 2012 3:12 PM
15	Attend meetings, attend sporting events, meet friends [recreation]	Jan 30, 2012 11:53 PM
16	To visit family [recreation]	Jan 29, 2012 7:14 PM
17	random trips when the line goes to a place i need to go	Jan 26, 2012 9:21 PM
18	To go around the greater Los Angeles	Jan 26, 2012 12:07 AM

Page 2, Q3. Why do you ride the Orange Line?		
19	to go places is the greater Los Angeles area	Jan 25, 2012 11:57 PM
20	Run with my dog, and bike down the lane. [recreation]	Jan 25, 2012 10:59 AM
21	To visit Downtown LA and other Downtown Districts.	Jan 22, 2012 12:02 PM
22	To visit Downtown LA and other Downtown Districts.	Jan 22, 2012 11:33 AM
23	To visit Downtown LA and other Downtown District.	Jan 22, 2012 11:08 AM
24	jury duty	Jan 19, 2012 7:35 PM
25	To explore other neighborhoods I'm not familiar with	Jan 19, 2012 5:05 PM
26	Rode once out of curiosity	Jan 19, 2012 1:03 PM
27	To the Red Line to go downtown for dinner and/or theatre.	Jan 18, 2012 4:33 PM
28	to go downtown and avoid the parking hassles	Jan 17, 2012 7:47 PM
29	i dont use it	Jan 17, 2012 7:02 PM
30	Loved ones	Jan 17, 2012 5:32 PM
31	recreation	Jan 17, 2012 4:25 PM
32	Recreation...I ride out to Warner Center on my bike and quite often use the O-line to return to the neighborhood (Sherman Oaks)	Jan 17, 2012 3:06 PM
33	Jury duty or cultural events downtown	Jan 17, 2012 3:03 PM
34	Sports events at Staples Center	Jan 17, 2012 1:33 PM
35	Errands	Jan 17, 2012 1:47 AM
36	dinner and social	Jan 11, 2012 7:24 PM
37	I used the orange line once right after the line opened to see how it operated.	Jan 11, 2012 1:07 PM

Page 2, Q3. Why do you ride the Orange Line?		
38	To and from subway.	Jan 10, 2012 10:42 PM
39	Go Downtown	Jan 10, 2012 11:44 AM
40	Appointments, entertainment, convenience	Jan 10, 2012 11:00 AM
41	This would be negative as to why I don't. The line is very limited as to where it goes. It also reminds me of how Valley residents, who paid as much if not more in taxes for "rapid transit/rail" only got this one bus that services one narrow corridor.	Jan 10, 2012 12:27 AM
42	For events Downtown, or elsewhere, where there is no parking. Gallery walks, MOCA, The Geffen Contemp. Chinatown,Day of the Dead, Halloween celebrations. Olvera street, etc	Jan 9, 2012 10:46 PM
43	Used to visit friends in the west valley, sightseeing downtown, jury duty, dine/watch movies at Universal, etc.	Jan 9, 2012 5:34 PM
44	various reasons including work related seminars downtown near a metro subway...	Jan 9, 2012 5:24 PM
45	Go downtown.	Jan 9, 2012 4:27 PM
46	Night time social activities - clubs, restaurants	Jan 9, 2012 4:10 PM
47	For doctor appointments	Jan 5, 2012 9:44 AM
48	Recreation	Dec 22, 2011 10:47 AM

Page 2, Q4. What improvements are needed to the Orange Line station?		
1	Install bus benches or shelters on the eastern side of Sepulveda Blvd.	Mar 10, 2012 3:32 PM
2	make entrance to both ends of the station.	Feb 28, 2012 8:13 PM
3	Coming from Metro 'I would like to see more bike paths where a person could ride a bike all over California 'I really think that's what needed because i'm thinking about getting a bike.	Feb 27, 2012 5:09 PM
4	Set up railing or portable lanes to enter the busses so people have to orderlt enter the busses.	Feb 27, 2012 4:56 PM
5	Riding out bike to the station is hazardous due to the condition of the bike path.	Feb 24, 2012 10:55 PM
6	none	Feb 24, 2012 6:32 PM
7	More information in map about environment.	Feb 22, 2012 10:30 AM
8	water stations, mile and yardage marking, local transit info, bathrooms, less wait time, fitness stations.	Feb 22, 2012 12:05 AM
9	The section of the station where you transfer to North-bound Rapid/Local buses needs a canopy, a tree cover, or something to block the sun. This station gets VERY hot in the summer and wind-swept in the winter. There is NO "shelter"	Feb 20, 2012 11:22 PM
10	it would be great if the orange line was marked by the mile or yardage, provided water fountains, bathrooms and streching fitness stations for those running, biking or walking along the route	Feb 20, 2012 7:13 PM
11	There needs to be at least a bike lane that has a north/south connection to the North Hollywood Orange Line station.	Feb 20, 2012 1:40 PM
12	Hate having to park and cross street. I always miss the bus because of it.	Feb 15, 2012 1:36 PM
13	more buses, they are always too crowded to get on	Feb 13, 2012 8:39 AM
14	Some type of security personel. There is a lot of marijuana smoking in the parking lot once the high school students arrive in the afternoon. Also I have seen numerous people dealing drugs out of cars in the parking lot.	Feb 12, 2012 8:52 PM
15	Maintenance of trash cans and clearer station.	Feb 4, 2012 2:08 AM
16	Go faster, it takes a while to go from the Canoga Station to the NoHo station.	Feb 3, 2012 3:12 PM
17	Intersection upgrade/decoration highlighting the Orange Line station	Feb 2, 2012 7:19 PM

Page 2, Q4. What improvements are needed to the Orange Line station?		
18	Make better use of adjacent land. Surface parking lots should be converted to something more useful, like housing, shopping...or both!	Jan 29, 2012 10:25 PM
19	Convert to Light Rail.	Jan 28, 2012 1:04 PM
20	the pedestrian tunnel needs to be built to the lobby of the red line station across the street.	Jan 26, 2012 9:21 PM
21	A map of shops and restaurants near the station, because they are great shops and restaurant at the NoHo district	Jan 25, 2012 11:57 PM
22	Trash cans! Trash cans need to be put all down the bike path. There's so much trash accumulating now, I don't understand why there are no trash cans. As a pet owner, it is also necessary to dispose of my bags.	Jan 25, 2012 10:59 AM
23	Have an underground connection underneath Lankershim for faster connection to the Red Line station.	Jan 24, 2012 6:30 PM
24	recycling cans for newspaper, bottles and cans	Jan 24, 2012 1:12 AM
25	clean platforms they have coffee stains at times.	Jan 23, 2012 8:32 PM
26	Better Landscaping at this station. The landscaping at the station was never planted or left to die at this station.	Jan 22, 2012 12:02 PM
27	Fix the electronic timetable screens. They are not functioning or they are out.	Jan 22, 2012 11:08 AM
28	parking	Jan 21, 2012 1:26 PM
29	I would like to see a better connection between the subway and busway portions of the stations. Pedestrians should not have to wait for auto traffic to transfer between subway and busway platforms. A ramp that passes over or under the street would be good.	Jan 19, 2012 5:05 PM
30	The bicycle trail running parallel to Victory between Balboa and White Oak is in dire need of repair -- in spots the concrete is so broken up it is getting to be a serious safety hazard. Add lights to the bike path to facilitate night travel.	Jan 19, 2012 1:04 PM
31	Need more interesting destinations immediately adjacent to stations.	Jan 19, 2012 1:03 PM
32	An underground passage linking the Orange line with the Red Line. It would be safer (I see a lot of people jay walking to get to either lines).	Jan 19, 2012 2:42 AM
33	The bus driver should let one get out and catch the Reseda bus if they see that the light is red because by the time the light turns green and one crosses the street back, the reseda bus takes off.	Jan 18, 2012 6:23 PM

Page 2, Q4. What improvements are needed to the Orange Line station?		
34	More frequent buses when crowded. Too often the number of passengers boarding at NoHo is way too many!! Do you know what "crush" loading is? Too many people for one bus. Often too many for even two buses.	Jan 18, 2012 4:33 PM
35	Open a stop at Coldwater Canyon	Jan 17, 2012 8:14 PM
36	make sure there is security, it seems very open for anyone who wants to cause problems	Jan 17, 2012 7:47 PM
37	Connect in a meaningful way (design crosswalks, public art) to the Metro Red Line	Jan 17, 2012 7:02 PM
38	grade separated crossing for the Orange to Red Line transfers...	Jan 17, 2012 5:32 PM
39	Move the 244 bus stops on Desotto and Victory closer to the orange line stops	Jan 17, 2012 2:57 PM
40	The noise level and make it more beautiful in our community (Sherman Oaks & North Hollywood)	Jan 17, 2012 1:33 PM
41	a system on your cell phone tell you if the bike rack is full or not. Plus install all orange line buses 3 or more bike rack system. Make a bike rack easy put your bike on it without the bicycles pegs blocking or interference with others people brake calbes.	Jan 16, 2012 1:49 PM
42	more trash cans	Jan 11, 2012 7:24 PM
43	Trash containers at beginning and end of all pathways leading to the station. Way too much trash around.	Jan 10, 2012 10:42 PM
44	Housing	Jan 10, 2012 11:44 AM
45	More housing, high density	Jan 10, 2012 10:22 AM
46	Have more frequent trash pick up.	Jan 9, 2012 5:34 PM
47	It would be a help to man, especially to women, to have poratpotties such as the one at Van Nuys Blvd.	Jan 5, 2012 9:44 AM

Page 2, Q5. For the Orange Line station you've selected, how could transit service be improved?		
1	Post the Metro Red Line Departure times along with the Orange Line's.	Mar 10, 2012 4:07 PM
2	Operate Metro Rapid 734 on the weekends.	Mar 10, 2012 3:32 PM
3	The bus needs another bike space (4 bike racks) or allow us to take bikes on board. Guarantee green lights for buses (buses should not have to stop so frequently at intersections.)	Mar 8, 2012 7:18 AM
4	The City where i live is Altadena CA and I am riding the Pasadena Goldline everyday, when i don't have any money i have to walk from Altadena CA into Pasadena CA to ride the Pasadena Goldline so therefore i would like to see a Train Station in Altadena CA. I'm thinking about getting a 10-speed bike, i would like to see more bike paths running all over California this is what i would like to see 'Safe bike paths builded with lights along the bike paths and Security Officer's watching biker along the bike paths just to make sure that everything okay when a person is riding along the bike path and Security Officer's should be on duty at all times 24/7 around the clock day and night that will help create jobs for unemployed people. I'm talking about creating jobs for American Citizens that have a clean back ground check and drug test should have no problems in finding a job. Sincerely RoseZell Sherrard .	Feb 27, 2012 5:09 PM
5	See above, set up some lanes or corridors where people can wait thier turn to get on to the busses. There is too much pushing and shoving by people who simply do not know how top wait thier turns to get into the busses. Do something similar to how you have wait in line like at the Universal Station bus lines. this alone has slowly turned me off to riding the Orange Line and if you ask many riders they tolerate it because those disrectful riders feel they are enttiled to do anything. And check they have paid thier fares before they get on the bus, one line two cops amazing how things will move smoothly.	Feb 27, 2012 4:56 PM
6	Why do the buses at the Warner Center station have to wait at a staging area before moving forward to pick up riders? .... this is quite annoying, especially on hot or rainy days .... it seems to me the buses could move forward and allow riders to enter and wait in the bus until it's scheduled departure time.	Feb 25, 2012 11:46 PM
7	Uprooted concrete on the bike path needs to be repaired.	Feb 24, 2012 10:55 PM
8	more	Feb 24, 2012 6:32 PM
9	You need better bike infrastructure (bike station like in long beach) and connecting serrvices to metro buses and other transit agencies.	Feb 24, 2012 5:35 PM
10	In Canoga station information about how to go to the city of Canoga Park.	Feb 22, 2012 10:30 AM
11	More accurate times to when bus is arriving	Feb 21, 2012 7:16 PM

Page 2, Q5. For the Orange Line station you've selected, how could transit service be improved?		
12	Please institute a Timed Transfer policy for Rapid buses connecting with the orangeline at REseda. It is frustrating to see a empty 741 bus leave the orange line while dozens of people just disembarked from the ORange Line waiting to cross the street and board it... This causes significant over-crowding on the next bus (240/741) that comes. Also frequently makes me late to class. There also needs to be a Transit center ON California State University Northridge Campus.	Feb 20, 2012 11:22 PM
13	trash cans, bathrooms, mile and meter markers, water fountains and fitness stations all along the orange line route. plus local transit info at each station. this would increase the use of the orange line greatly and make it more convienient.	Feb 20, 2012 7:13 PM
14	At peak hours, there is an overflow of passengers waiting to board the Orange Line bus from the Red Line subway. There should be two buses loading at the same time. The first one would skip the next three stations, so its first stop would be Van Nuys Blvd. This would create a headway between the two buses. To keep the drivers scheduled so that two buses can start at North Hollywood at the same time, the bus driver that is scheduled four-five minutes behind its lead, starting from Warner Center ,should quickly be able to catch and pass the bus scheduled just ahead of it. This will help equilize the two schedules at the final destination of North Hollywood. Another scenerio is to have the bus driver that starts from the Chatsworth extension scheduled to complete the route at the same time as the driver starting from the Warner Center. That way two buses can start from North Hollywood at the same time.	Feb 20, 2012 1:40 PM
15	local streets need to be repaved	Feb 14, 2012 10:39 PM
16	traffic signal override/ controllers on bus. Early morning trips to North Hollywood are often delayed by long red traffice signals w/ no cars crossing in front of the bus.	Feb 14, 2012 4:52 PM
17	every 8 minutes during midday hours.	Feb 14, 2012 10:38 AM
18	It would be nice if the Orange Line buses actually followed the timetable. If the Orange Line claims to be part of Metro Rail, it should be on time much more often.	Feb 13, 2012 10:38 PM
19	more buses, they are always too crowded to get on. more buses, they are always too crowded to get on . more buses, they are always too crowded to get on . more more more please . and noho redline station cant even handle the amount of people exiting without backing up and causing delay.	Feb 13, 2012 8:39 AM
20	Just some type of security personel between the hours of 3 and 7.	Feb 12, 2012 8:52 PM
21	more newer buses	Feb 11, 2012 11:13 AM
22	I am not a heavy user but I feel it has been adequately designed. Well lighted, ample parking, bus always available, and easily accessible from where I live.	Feb 7, 2012 11:22 PM

Page 2, Q5. For the Orange Line station you've selected, how could transit service be improved?		
23	I attend UCLA and often come home late due to the time I spend on campus. I take the orange line from the Van Nuys Station to Reseda Station. There are times where I miss the my next bus (line 240) and have to wait a great amount of time. Transit service could be improve if the orange line bus arrived a couple minutes before the 240 line therefore giving me an opportunity to aboard. This happens often and not just to me.	Feb 7, 2012 9:07 PM
24	none.	Feb 4, 2012 4:38 PM
25	Maintenance of trash cans and clearer station.	Feb 4, 2012 2:08 AM
26	1) Walkway from the Orange Line bus discharge to the crosswalk is too narrow. You're not supposed to walk in the busway, but people do. One slow person (or wheelchair, etc.) backs everyone up - and everyone is rushing to get to the crosswalk. 2) Who decides what vendors are allowed on Metro property? You come up from Red Line underground and get hit in the face with the overpowering smell of greasy sausages. It is disguisting. 3) For all escalators (on Red Line system), post signs to "stand right, walk left." This is standard practice, and "common etiquette" (altho not so common). If ONE person stands on left, then so is everyone on the entire escalator. This is excessive weight on the escalator and may be one reason it breaks down so often.	Jan 30, 2012 11:53 PM
27	Make end to end travel times faster.	Jan 29, 2012 10:25 PM
28	Havee three connections, North Hollywood-Warner Center, North Hollywood-Chatsworth, and limited service to Bob Hope Airport Via Hollywood Way.	Jan 28, 2012 1:04 PM
29	When a Red Line train pulls into the North Hollywood station, there is often only ONE orange line bus waiting across the street. All too often, you have to squeeze onto the bus like a sardine. If you use the Laurel Canyon station to travel to the Red Line, it is next to impossible to squeeze onto the bus.	Jan 28, 2012 12:02 PM
30	North Hollywood is the end point for the Orange Line. I think that the station needs to be redone. It is very crowded when you try to board going to Warner Center, perhaps having a bigger boarding area. I also think it would be great if there was a bridge that connect the Orange Line to the Red Line. The light at Lankershim takes forever and drivers don't always stop.	Jan 27, 2012 2:44 PM
31	orange line needs to continue to the west and split- one line to Burbank Airport and another to the Downtown Burbank Metrolink station with a possible loop around downtown Burbank. - This way you could run one set of buses from Warner Center to Burbank Airport and the other set fro Downtown Burbank to Chatsworth, creating the overlapping service from No Ho to Canoga Park. - Also, lines down Van Nuys Blvd and maybe Balboa need to turn east and continue on the busway to North Hollywood.. Transfer are difficult, through buses like through trains are always better - One of these days, whether you want to accept it or not, this line will need to be light rail	Jan 26, 2012 9:21 PM

Page 2, Q5. For the Orange Line station you've selected, how could transit service be improved?		
32	The local bus around the orange line should work more at night time since you have students an people getting out of work late.	Jan 23, 2012 8:32 PM
33	It would be awesome to create some barrier between the person sitting next to another person. Sometimes I feel squished so it would be cool to create a metal barrier between every seat. Also make buses come more often in the noon (like in the morning) it becomes to packed and sometimes I have to skip it for the next bus which I have to wait 15 more minutes again. But then it gets more overpopulated because so many people get off in the red line station and goes to the orange line station.	Jan 23, 2012 7:56 PM
34	Need more improvements to connecting to a 234 or 734 bus. The wait time for waiting for these buses is long.	Jan 22, 2012 11:33 AM
35	cell phone service - because once in a while there is a serious delay and you can't contact anyone to tell them where you are.	Jan 19, 2012 7:35 PM
36	I would like to see a better connection between the subway and busway portions of the stations. Pedestrians should not have to wait for auto traffic to transfer between subway and busway platforms. A ramp that passes over or under the street would be good. Also, I would like to see more use of solar panels on the station canopies. That way, some of the station's energy could be generated on site in a sustainable fashion. I'd also like to see clean, neat, clearly marked recycling bins attached to the station's trash-only bins. That way travelers can recycle just as easily as they can throw trash away. Alternately, if Metro already sorts all of its trash to remove recyclables, some obvious signage should be posted on each trash bin informing users of this sustainability measure.	Jan 19, 2012 5:05 PM
37	Remove the pedestrian push buttons and reprogram walk signals at Victory & Balboa so that pedestrians get a walk signal during each cycle. Add right turn green arrows (with no corresponding red arrow) to synch with left turn arrows.	Jan 19, 2012 1:04 PM
38	good bus i like	Jan 18, 2012 7:45 PM
39	More frequent buses between North Hollywood and Van Nuys.	Jan 18, 2012 4:33 PM
40	see above	Jan 17, 2012 7:47 PM
41	better land use and pedestrian crossings	Jan 17, 2012 5:32 PM
42	Service is good overall. Suggestion - use of station is poorly described in the survey. There should be an 'occasionally' Option between the other options.	Jan 17, 2012 3:03 PM
43	Do not use Chandler Blvd. when the line is not working on the path. Use Burbank Blvd.	Jan 17, 2012 1:33 PM

Page 2, Q5. For the Orange Line station you've selected, how could transit service be improved?		
44	Closer walk to Sepulveda from station.	Jan 17, 2012 1:47 AM
45	I take the red line from downtown every day after work, and transfer from north hollywood onto the orange line, typically around 6:30-9:00pm at night. Every night about one minute before everyone arrives at the bus station, the orange line bus leaves. This typically means everyone has to wait the entire cycle until the next bus arrives. It is getting colder outside, and everyone ends up standing the entire time to ensure they get a seat on the bus. If the bus schedule could be changed to a few minutes after their current schedule, everyone who would be transferring from the red line to the orange line would have a bus waiting for them or leaving soon as opposed to always just missing the bus. Thanks!	Jan 17, 2012 12:14 AM
46	more available bike racks.	Jan 16, 2012 1:49 PM
47	Better accuracy in the timing boards	Jan 15, 2012 9:37 PM
48	Nice station. Needs more trash cans	Jan 11, 2012 7:24 PM
49	More often, safety, grafitti/trash removal	Jan 10, 2012 11:44 AM
50	Provide local information map, like the ones at the Red Line subway stations. The local info map should include map of streets, nearby bus stops - with bus numbers. Also, show on map the location of nearby amenities, even if they are visible from the stop.	Jan 10, 2012 11:00 AM
51	More often in morning and afternoon rush hour, and work with LAVC for evening classes students.	Jan 10, 2012 10:22 AM
52	Give Valley residents the rapid transit connections that they paid for and that are available on the other side of the hill. Instead, City Hall is bent on "expanding" transit for the Westside and leaves the Valley out cold. The Orange Line only serves those who happen to work or live very close to that ONE line.	Jan 10, 2012 12:27 AM
53	Perhaps another bus could be added during peak hours. Sometimes there is barely any standing room on the bus. More frequent trash pick up would be appreciated. Also, Metro could recoup more revenue if there were more frequent ticket inspections. I believe many people ride free.	Jan 9, 2012 5:34 PM
54	more seats designated for disabled or aged only...ie those for some reason who cannot stand while the bus moves.	Jan 9, 2012 5:24 PM
55	What happened to "next train arrives in X minutes"?	Jan 9, 2012 4:10 PM
56	To provide additional seating for the elderly and handicapped, and that the driver insist that those provisions be implemented, since many people refuse to give up their seats to those of us physically challenged.	Jan 5, 2012 9:44 AM

Page 2, Q5. For the Orange Line station you've selected, how could transit service be improved?		
57	This is a test run to see if the survey is working correctly. Please disregard the answers.	Dec 30, 2011 1:50 PM
58	everything.	Dec 6, 2011 2:38 PM

Page 3, Q6. For the area within ½ mile of the station that you have selected, what pedestrian safety and access improvements are needed?		
1	Better synchronize the timing of the streetlights with pedestrian traffic patterns.	Mar 10, 2012 4:10 PM
2	I would like to see a Train Station in Altadena CA, running from Altadena in to Los Angeles CA or running in to another City or State or what ever and more save bike paths. I'm going to always add bike paths because that what i would like to see more of.	Feb 27, 2012 5:26 PM
3	More police	Feb 27, 2012 4:56 PM
4	none	Feb 24, 2012 6:32 PM
5	"NextBus digital display" More seeting at the station. PLEASE ADD A SUN CANOPY TO THE TRANSFER AREA- - so hot and/or windswept (no shelter)	Feb 20, 2012 11:23 PM
6	People will run across the street on a red light if they see a Orange Line bus pulling up to pick-up passengers. There needs to be coordination between the two lines to reduce the chances of this happening.	Feb 20, 2012 1:44 PM
7	Bicycle lockers on west side of Balboa for riders of commuter express 573 and 574. Many other riders of the commuter express either use lockers or park cars at the Orange line Balboa station. The lockers and parking is on the opposite side of Balboa from almost all of the departing commuter express buses. Putting lockers on the west side of Balboa would reduce the number of pedestrians that need to cross Balboa to catch a commuter express bus.	Feb 16, 2012 6:37 PM
8	more buses, they are always too crowded to get on	Feb 13, 2012 8:40 AM
9	Maybe cameras in the parking lot to deter drug dealing out of cars.	Feb 12, 2012 8:56 PM
10	The sidewalks along the southern portion of Chandler, moving west from the Laurel Canyon station, are cracked and in poor condition. The lighting on this side is very poor. The lighting on the north side of Chandler is nice. Planting trees that grow tall when mature (along Chandler) would be beneficial to the neighborhood west of Laurel Canyon.	Feb 2, 2012 7:21 PM
11	More control over the vendors who set up shop on Metro property.	Jan 30, 2012 11:54 PM
12	Add a bride that connect the Orange Line to the Red Line.	Jan 27, 2012 2:44 PM
13	There's no trash cans in the path way!	Jan 25, 2012 10:59 AM
14	I know this is a radical notion, but how about some drinking fountains and public restrooms?	Jan 19, 2012 1:08 PM
15	Need more interesting destinations with sidewalk oriented entrances. Not just a big field of asphalt and parked cars with	Jan 19, 2012 1:04 PM

Page 3, Q6. For the area within ½ mile of the station that you have selected, what pedestrian safety and access improvements are needed?		
	buildings located in the distance.	
16	Build an entrance from the west side of Lankershim directly down into the Red Line station.	Jan 18, 2012 4:37 PM
17	More security especially at night...	Jan 17, 2012 5:33 PM
18	THe Woodman Crossing is very confusing for motorists who may or may not see the bicyclists who use the bike lane of the busway. WHen cyclists are crossing the Burbank/Woodman intersection, it can be very dicey as to whether you are going to get hit or not.....Some kind of signage to watch out for the cyclists is definitely needed.	Jan 17, 2012 3:08 PM
19	More warnings for pedestrians ie:Ethel & Chandler.Pedestrians & bikers cross without paying attention to car traffic.They consider a pedesrian crossing for the train only	Jan 17, 2012 12:56 PM
20	Make bike path on Balboa Blvd north past Victory blvd. and dozen driver don't give space to bike on the streets	Jan 16, 2012 1:52 PM
21	Housing	Jan 10, 2012 11:44 AM
22	More high-density housing, encouraging folks to use public transportation.	Jan 10, 2012 10:24 AM
23	There are NO sidewalks on parts of Fulton, which is the station's crossstreet. And the ones that do exist in the area are incredicly broken & dangerous for even walking. One takes their life in their hands to attempt them on a bicycle.	Jan 9, 2012 10:51 PM
24	Pick up trash from planted areas beside the busway.	Jan 9, 2012 5:38 PM
25	More trash pickup on the streets; more drain system cleaning...of leaves and debris to prevent flooding. Valley college is a blight on the environment and is not a good steward of its resources. A community agency should overtake their "stewardship" of plant and animal life on that campus. Also "Help Group" drivers are a menace. and that site should not be used as a ballot location due to overcrowding and parking constraints.	Jan 9, 2012 5:27 PM

Page 3, Q7. Please provide any additional issues, comments or suggestions to improve pedestrian access and safety to and around the Orange Line station		
1	Have verbal safety announcements anboard Metroliners similar to those used at the Van Nuys Metro Orange Line stations.	Mar 10, 2012 4:10 PM
2	Synchronize bus lane signals with traffic-flowe patterns.	Mar 10, 2012 3:36 PM
3	Security that's always needed, Days, Swing, Grave yard, and the reason why I am saying that is because it some crazy people out here everywhere that will (F) with a person just for the (HELL) of it for No Good Reason, because i am living across the street from a guy that i had to call the Police on becasue he watches me everyday and that's not normal.	Feb 27, 2012 5:26 PM
4	Other than the bike path, I am pretty happy with this station.	Feb 24, 2012 10:56 PM
5	hello	Feb 24, 2012 6:32 PM
6	The Warner Center station should be a flag ship station. I realize it was put in after cars dominated the landscape but slowly additional infrastructure can be added.	Feb 24, 2012 5:37 PM
7	When you want improve safety think about passengers. They want easy and quickly catch another bus. Lets make them easy possible. They get off from Orange and do not want missing another connection bus.	Feb 22, 2012 10:33 AM
8	less wait time between pick ups would be great!	Feb 20, 2012 7:15 PM
9	I think it's pretty good already.	Feb 14, 2012 10:38 AM
10	more buses, they are always too crowded to get on	Feb 13, 2012 8:40 AM
11	That is all. Everything else seems great. The buses are clean and the drivers friendly. It would be great if the orange and red lines ran later on fridays and saturdays to make it easier to get home from bars and clubs, more like Chicago or New York.	Feb 12, 2012 8:56 PM
12	Again, an underground crossing to the Red Line Station would make it safer for all pedestrians.	Jan 24, 2012 6:31 PM
13	I seen the street light does not last long when people are crossing to get to the North Hollywood platform at Winnetka Station an some of the seniors take a bit longer to cross the light. Can this light be fix for seniors can make it to the end without the light going red on them.	Jan 23, 2012 8:36 PM
14	(see earlier remarks regarding grade separating the pedestrian walkway between the subway and busway platforms)	Jan 19, 2012 5:06 PM

Page 3, Q7. Please provide any additional issues, comments or suggestions to improve pedestrian access and safety to and around the Orange Line station		
15	come take bus north holly wood	Jan 18, 2012 7:46 PM
16	Safety would increase if pedestrians could enter the Red Line station directly from the Orange Line platform on the west side of Lankershim Blvd. Most pedestrians would not have to use the cross walk on Lankershim.	Jan 18, 2012 4:37 PM
17	At Corteen and Chandler, the lights need to be re-set to accommodate the Orthodox Jewish population who need to cross the street on the Sabbath without using the signal controls. There are many families who live in the area and are unable to cross the street safely in order to go to their synagogue of choice or to friends and family.	Jan 18, 2012 11:38 AM
18	maybe a call box in case of problems linked to the LAPD or whoever services the metro	Jan 17, 2012 7:48 PM
19	For Sabbath observers: The lights need to change more quickly on Friday evening at Sundown and Saturday all day until one hour after sundown. We are a walking community and many people feel frustrated when having to wait for a green light for many minutes when they are late for Temple or something else.	Jan 17, 2012 1:45 PM
20	No comments - I'm pleased with the facilities	Jan 15, 2012 9:38 PM
21	I see many people running across the street to catch the buses. Lights should last longer so that elderly citizens or people with small children in tow should not be at risk trying to get a cross to public transportation. Trash containers should be set at intervals along the pathway between Woodman and Valley College. There are many fast food places and the litter is a quite ugly. Most people will use a trash container if they can find one within in a reasonable distance.	Jan 10, 2012 10:46 PM
22	Housing	Jan 10, 2012 11:44 AM
23	Continued maintenance (grafitti removal, crime monitoring, etc.)	Jan 10, 2012 10:24 AM
24	Definitely more street lighting`.	Jan 9, 2012 10:51 PM
25	Existing sidewalks, lighting and access are fine. Please pick up trash and remove graffiti promptly.	Jan 9, 2012 5:38 PM
26	Bigger signs on intersections like Fulton and Burbank to prevent right hand turns across metro designated lanes..... bigger signage and blinking lights.....	Jan 9, 2012 5:27 PM
27	The brush and foliage along some sections of the busway, especially near Van Nuys Blvd. need regular pruning to discourage homeless encampments.	Jan 5, 2012 9:45 AM

Page 4, Q8. Where are new bicycle facilities and amenities needed in and around the station you've selected?		
1	When a person is riding a bike Security is always needed in every case.	Feb 27, 2012 5:30 PM
2	non	Feb 24, 2012 6:33 PM
3	Somehow add a bike station like in long beach.	Feb 24, 2012 5:39 PM
4	Larger Street Curbs for bikes / pedeseterians.	Feb 20, 2012 11:25 PM
5	A north/south lane or path is needed to connect to the Orange Line. There is more bike parking at the Red Line North Hollywood station than any other subway stop and so there is obviously a great need for a safer way of traveling by bicycle to the Orange Line/Red Line stations.	Feb 20, 2012 1:48 PM
6	more buses, they are always too crowded to get on	Feb 13, 2012 8:40 AM
7	Bike lockers would be beneficial, as the Laurel Canyon intersection contains bike lines that reach from all sides.	Feb 2, 2012 7:22 PM
8	I think you should put cameras by the bike lockers.	Jan 23, 2012 8:39 PM
9	No addtional bike amenities are needed for this station.	Jan 22, 2012 12:04 PM
10	No additional bike amenities.	Jan 22, 2012 11:11 AM
11	As stated above, the bike trail to the west of the Balboa station paralleling Victory needs pavement repair and lighting. The trees planted to the bike trail are the perfectly wrong trees to have next to a bike trail -- they drop round balls full of thorns that have caused me many flat tires -- it would be nice to replace them with Japanese Fern Pines, for example.	Jan 19, 2012 1:13 PM
12	Bike wayfinding signs.	Jan 19, 2012 1:05 PM
13	Don't use a bike.	Jan 18, 2012 4:38 PM
14	We don't bike so I don't know	Jan 17, 2012 1:45 PM
15	Garages for the new housing.	Jan 10, 2012 11:44 AM
16	If I have my bicycle, I am taking it on the bus. The newer bus racks allow 3 bikes; older ones only 2. During non-peak, with ample standing room, Metro should allow drivers the discretion of allowing cyclists to bring their bike on the bus (back door only) if the bike racks on the front of the bus are full.	Jan 10, 2012 11:04 AM

Page 4, Q9. Please provide any additional issues, comments or suggestions to improve bicycle access and safety to and around the Orange Line station		
1	Create bike paths around station.	Mar 10, 2012 4:11 PM
2	Safety is always needed for people that's beginning at riding a bike.	Feb 27, 2012 5:30 PM
3	See previous comments	Feb 24, 2012 10:56 PM
4	hello	Feb 24, 2012 6:33 PM
5	Provide a commuter kiosk. Sell stuff there maybe at the bike station. We need to make the commuter feel like they are being treated well. Maybe we can close part of owensmouth to cars and only allow bikes and buses.	Feb 24, 2012 5:39 PM
6	Please use that new "Green stripping" for the REseda Avenue Bike path!	Feb 20, 2012 11:25 PM
7	Have two buses start at the same time during peak hours will double the amount of bike rack space available for that scheduled time for a bus ride. The bike user will be less likely to have to wait for the next scheduled bus.	Feb 20, 2012 1:48 PM
8	The Balboa station is served by a great network of bike lanes. Riders of the commuter express buses 573 and 574 use the bike lockers at the Balboa station. Putting some bike lockers on the west side of Balboa - the side where almost of the buses depart - would make biking to the commuter express more convenient.	Feb 16, 2012 6:40 PM
9	more buses, they are always too crowded to get on	Feb 13, 2012 8:40 AM
10	Maybe better directions on how to rack your bike on the front of the bus. While not a bike rider myself, it seems that a lot of riders can not properly rack their bike on the bus, resulting in the bike starting to fall of while the bus is in motion.	Feb 12, 2012 9:00 PM
11	All along the Orange Line bicycle trail the wait time to get a green signal is too long. These should at least be reprogrammed for the weekends.	Jan 19, 2012 1:13 PM
12	plase bicycle good	Jan 18, 2012 7:47 PM
13	?	Jan 18, 2012 4:38 PM
14	more bike racks and every bus have 3 or more bikes on the bike rack system.	Jan 16, 2012 1:54 PM
15	Bike lanes merge into pedestrian lanes at the end of the pathway. There should be clearly delineated bike lanes all the way to the streets.	Jan 10, 2012 10:47 PM
16	Lights and cameras	Jan 10, 2012 11:44 AM

Page 4, Q9. Please provide any additional issues, comments or suggestions to improve bicycle access and safety to and around the Orange Line station		
17	For all stations, work with local service station (76 at Oxnard & Woodman for this station) to provide free air / water if they show a Metro pass.	Jan 10, 2012 11:04 AM
18	The high-density housing should have space in the parking garage for bicycles.	Jan 10, 2012 10:24 AM
19	More bike lanes are needed throughout the valley.	Jan 9, 2012 5:38 PM
20	Unsafe numbers of riders standing up.	Jan 9, 2012 5:28 PM
21	During non-peak hours it would be great to be able to bring bikes on the bus (as on subway) rather than be limited by how many bicycles fit on the front. By the time the bus gets to Woodman on way to NoHo station, they are inevitably filled.	Jan 9, 2012 4:12 PM

Page 5, Q10. What new uses are needed in the station area (within 1/2 mile of the Orange Line station)?		
1	I'm seeking employment for my self and i would like to see more Office building.	Feb 27, 2012 5:37 PM
2	hello	Feb 24, 2012 6:33 PM
3	Please add a bike station and a commuter kiosk	Feb 24, 2012 5:43 PM
4	There needs to be a grocery store or CVS , restaurants, and preferably Starbucks ;)	Feb 20, 2012 11:27 PM
5	Have some bicycle amenities such as tube patches or tubes available through a automated dispenser. There should also be a bicycle tire pump.	Feb 20, 2012 1:51 PM
6	Nothing I have noticed. I live close by and nothing seems to be lacking.	Feb 12, 2012 9:01 PM
7	bathrooms	Jan 19, 2012 7:37 PM
8	I've often thought that the vacant lot just to the East of the Armory (at Victory & Louise) would make a nice spot for a mini development by Caruso! Give him some tax breaks to develop a nice little complex with a coffee house, bike shop, used book store, etc.	Jan 19, 2012 1:19 PM
9	Market rate housing.	Jan 19, 2012 1:06 PM
10	bathrooms :)	Jan 18, 2012 8:17 PM
11	Parks	Jan 18, 2012 6:26 AM
12	no more commercial buildings or restaurants or anything else, this is/was a nice residential area and should be able to stay that way!	Jan 17, 2012 7:51 PM
13	Would like to see more greenway - less development .....except for better signage for everyone.	Jan 17, 2012 3:09 PM
14	We are a wonderful, higher end, residential community.	Jan 17, 2012 1:47 PM
15	a system that bike rider could that the bike rack are full or not on the next bus.	Jan 16, 2012 1:59 PM
16	Work with LAVC to have housing and facilities for students.	Jan 10, 2012 10:27 AM
17	parking	Jan 10, 2012 12:29 AM

Page 5, Q10. What new uses are needed in the station area (within 1/2 mile of the Orange Line station)?		
18	We do NOT want additional liquor outlets, pawn shops, adult businesses, recycling centers, tattoo parlors, massage parlors, fast food establishments, etc. There are too many of these in our neighborhood. I would love to see a Trader Joe's nearby.	Jan 9, 2012 5:46 PM
19	none. It is already over crowded....the streets in this part of Van Nuys/Sherman Oaks are always full of cars and traffic.	Jan 9, 2012 5:29 PM

Page 5, Q11. Do you like the mix of uses, the scale of development and the quality of development in the Orange Line station area?		
1	East Los Angeles needs more development needed and Altadena CA needs development right now.	Feb 27, 2012 5:37 PM
2	The station is a little transit island in a vast ocean of parking lots. Those poor people driving all alone wasting their money on their addiction. Maybe we can have more events for the commuters more incentives...free coffee here and there or maybe free hot chocolate on cold mornings. How about lemonade on hot summer afternoons. I have seen pictures in copenhagen the city hands out hot chocolate on cold cold mornings at key locations as a way to say thank you to the commuters on bikes.	Feb 24, 2012 5:43 PM
3	not enough entertainment shopping and restraunts etc..	Feb 22, 2012 12:10 AM
4	Very auto oriented--- do not feel safe as a bicyclist in the area. ARea is run down and needs some rehabilitation	Feb 20, 2012 11:27 PM
5	more trees, green tech solar etc..	Feb 20, 2012 7:19 PM
6	Larger lots, charming storefronts along Laurel Canyon, are beneficial	Feb 2, 2012 7:24 PM
7	I like the amount of parking available but I do not like where the station is located. Its not right on Sepulveda Blvd. This makes it hard to catch a 234 or 734 bus ontime.	Jan 22, 2012 11:38 AM
8	A good coffeehouse would be great.	Jan 19, 2012 1:19 PM
9	It is currently not mixed, unless you consider parking and office mixed uses.	Jan 19, 2012 1:06 PM
10	it brings in people who don't belong in the area	Jan 17, 2012 7:51 PM
11	No housing. No Emplyment opportunities.	Jan 10, 2012 11:45 AM
12	This is the way to go. Folks are livign in the past, protecting their space but not allowing fols to have housing near transportation. Burbank (LAVC station) should have mixed use housing and commercial along Burbank and Fulton.	Jan 10, 2012 10:27 AM
13	There's not much there. I don't see many people using it ever.	Jan 10, 2012 12:29 AM
14	I do not want more development. However, I would like to see older businesses replaced with businesses such as cafes, book stores, art galleries, etc.	Jan 9, 2012 5:46 PM
15	There is very little mixed use. It is largely commercial and industrial, with a smattering of single family homes	Jan 5, 2012 9:47 AM

Page 5, Q12. Are there opportunities for new development in the station area?		
1	Altadena CA needs development a new Station is needed.	Feb 27, 2012 5:37 PM
2	A bicycle store for service and or a bicycle station that provides secure, indoor parking.	Feb 20, 2012 1:51 PM
3	Baseball field takes up a lot of room. great area for parking lot and/or cafe/restaurant	Feb 15, 2012 1:38 PM
4	on east side of bus line opposite canoga ave. fed ex mov for shopping center/movie theater	Feb 14, 2012 10:42 PM
5	They just knocked down a the old Wicks building next to the orange line. Also, they parking lot is too big, they should have sold off some for food places.	Feb 13, 2012 8:05 PM
6	sherman way and van nuys connecting to westwood and weyburn	Feb 4, 2012 4:39 PM
7	There is an opportunity to upgrade the area by building mixed-use development on the 7-11 lot, as well as the parking lot/mini mall at the northeast corner of Laurel Canyon and Chandler.	Feb 2, 2012 7:24 PM
8	At the parking lot.	Jan 29, 2012 10:27 PM
9	I think perhaps extending it out to Burbank.	Jan 27, 2012 2:45 PM
10	1/2 mile north of Van nuys blvd. It can be another melrose or sunset strip.	Jan 26, 2012 12:09 AM
11	The current surface parking lots should be replaced with LEED-rated, mixed-use buildings that house ground-floor retail, parking on the 2nd-??? floor, and office and residential uses above that. This would be a far more efficient use of space than surface parking lots (which appear to already be full frequently) and would allow for even more parking capacity, further encouraging park-and-ride commuting.	Jan 19, 2012 5:12 PM
12	See my answer to No. 10 above.	Jan 19, 2012 1:19 PM
13	Between Fulton and Woodman, in particular at Fulton & Oxnard, the area there could be built up nicely with nice restaurants and entertainment usage.	Jan 18, 2012 11:40 AM
14	nowhere, I hope, don't overdevelop!!!!	Jan 17, 2012 7:51 PM
15	Corner of Lankershim across from Metro Red Line, Orange Line in north Hollywood. next to Federal Bar. Grocery store!	Jan 17, 2012 7:03 PM
16	all empty lots or above current parking lots	Jan 17, 2012 5:33 PM

Page 5, Q12. Are there opportunities for new development in the station area?		
17	Radio station on Bellair & Burbank needs redeveloping	Jan 17, 2012 12:57 PM
18	crosswalk from the orange line.	Jan 16, 2012 1:59 PM
19	On corner of Fulton and Burbank there are empty stores. Should be developed into outdoor communal spaces for sitting and waiting for buses. Look at cities like Zurich where there is no car traffic allowed in the inner cities, or other communities focusing on pedestrian-public transportation mixes.	Jan 10, 2012 10:50 PM
20	Anywhere along Oxnard and Woodman.	Jan 10, 2012 11:45 AM
21	All along Burbank and Fulton. Re-zone the area for high-denasity/mixed use.	Jan 10, 2012 10:27 AM
22	Older businesses could be "revamped" at the southeast corner of Woodman and Oxnard, and on either side of the 76 station on Oxnard.	Jan 9, 2012 5:46 PM
23	The parking lot at the Sepulveda Station is enormous and could be put to much better use.	Jan 5, 2012 9:47 AM

Page 8, Q24. What corridor-wide transit improvments are needed to improve the overall performance of the Orange Line?		
1	More bike racks on buses and no stopping at red lights (buses should always have priority for faster transit time.)	Mar 8, 2012 7:24 AM
2	Altadena CA needs a Train Station.	Feb 27, 2012 5:42 PM
3	We ride at about 10am, and the trains are so crowded, its difficult to find standing room, let alone anywhere to sit with my child and a stroller.	Feb 24, 2012 10:59 PM
4	Improve at grade crossing to speed trips	Feb 23, 2012 1:09 AM
5	A lindley avenue station would be excellent in routing a new Rapid busline up to CSUN.	Feb 20, 2012 11:30 PM
6	nothing connects the valley to santa monica through sepulvida or burbank to north hollywood and nothing goes from the west valley to sylmar and along foothill to pasadena goldline this should be considered!	Feb 20, 2012 7:59 PM
7	Have other bus lines utilize the Orange Line busway to increase the amount of passengers that the busway can handle per hour. Have these additional bus lines make stops only at some of the Orange Line busway stops and then turn off of the busway when they need to head in another direction such as north along Van Nuys Blvd.	Feb 20, 2012 2:01 PM
8	The Orange line should always have priority at traffic crossings. This would reduce the transit time for riders and make the service more attractive relative to car travel. I have stopped riding the Orange line at off-peak hours because the transit time is too long relative to car travel.	Feb 16, 2012 6:47 PM
9	NEEDS to be replaced by LRT	Feb 15, 2012 1:40 PM
10	It takes a long time to get from Canoga to North Hollywood. The bus needs to go faster.	Feb 3, 2012 3:17 PM
11	Install crossing gates and decrease end to end travel times. Institute an express skip-stop service.	Jan 29, 2012 10:30 PM
12	24/7 hour service on fridays and saturday.	Jan 28, 2012 1:07 PM
13	I think more people would take this line if it were light rail.	Jan 27, 2012 2:47 PM
14	Extend the orange line to burbank. After midnight services!!!!	Jan 26, 2012 12:06 AM
15	For additional service on weeknights and weekends bus get pack/full on weekends that you are always standing up. That's why I think the orange line should be more frequent. On the announcement it should show how long till the next bus is coming. I seen graffiti at the stations I been to for months I seen the a truck that has on the side graffiti control just drive up an down each day. I'm heading to work an the same graffiti has been at the station. This does not look right at	Jan 23, 2012 8:50 PM

Page 8, Q24. What corridor-wide transit improvments are needed to improve the overall performance of the Orange Line?		
	the station an watching him drive up an down s neither it just shows me an other at the station that he's not doing what he's their to do.	
16	need stop at Whitsett or Coldwater Canyon!! Please.	Jan 19, 2012 7:39 PM
17	I would like to see more use of solar panels on the station canopies. That way, some of the station's energy could be generated on site in a sustainable fashion. I'd also like to see clean, neat, clearly marked recycling bins attached to the station's trash-only bins. That way travelers can recycle just as easily as they can throw trash away. Alternately, if Metro already sorts all of its trash to remove recyclables, some obvious signage should be posted on each trash bin informing users of this sustainability measure.	Jan 19, 2012 5:16 PM
18	Better transit facilities = restrooms, drinking fountains	Jan 19, 2012 1:24 PM
19	Improve the speed of buses... Improve the safety of some crossings and sections of the busway so that higher speeds can be attained	Jan 17, 2012 5:37 PM
20	More bathrooms.	Jan 17, 2012 1:50 AM
21	more bike racks.	Jan 16, 2012 2:01 PM
22	More housing, employment (offices) and retail.	Jan 10, 2012 11:47 AM
23	Would vote strongly AGAINST more frequent stops along Orange Line (between existing stations). The major draw for taking this transit option is its speed, and LACK of stops. There are already multiple other options for local buses that traverse similar routes.	Jan 10, 2012 11:14 AM
24	Work with LAVC to match transit schedule with class schedule.	Jan 10, 2012 10:30 AM
25	It would be beneficial if the Orange Line could be a dedicated busway the entire route. Currently, the bus must use streets with other vehicles near the Warner terminus.	Jan 9, 2012 5:53 PM

Page 8, Q25. Please provide any additional comments or ideas about how Orange Line service or the Orange Line corridor could be improved.		
1	When Chatsworth Station is opened, operate buses on a frequent basis(every 15 minutes or less) as to provide reliable service to that area.	Mar 10, 2012 4:18 PM
2	Altadena CA needs a Train Station.	Feb 27, 2012 5:42 PM
3	make the boarding process better and keep those who do not pay off the busses	Feb 27, 2012 4:59 PM
4	You are doing a good job...now we have to take it to the next level	Feb 24, 2012 5:44 PM
5	It is necessary to make pedestrian tunnel between Metro red line and Orange line. Underground connection is really necessary.	Feb 22, 2012 10:38 AM
6	Please make more standing room on the buses, or bigger buses.	Feb 20, 2012 11:30 PM
7	nothing connects the valley to santa monica through sepulvida or burbank to north hollywood and nothing goes from the west valley to sylmar and along foothill to pasadena goldline this should be considered!	Feb 20, 2012 7:59 PM
8	On opening day the Orange Line handled 83,000 passengers by having the buses go off of the busway at ends of the line. Continue this by having other bus lines utilize the busway for part of the trip and then turn off the busway to head in another direction. This will increase the capacity of the Orange Line busway and increase the service for the passengers.	Feb 20, 2012 2:01 PM
9	more buses, they are always too crowded to get on	Feb 13, 2012 8:43 AM
10	I am looking forward to the orange line expansion opening. Also friday and saturday service extended until bars and clubs close at 2am. It would be great to be able to go with friends downtown or to Hollywood on the weekend evenings, with worrying about missing the last connecting red line train at midnight. I feel that people having a late night public transportation option would cut down on drunk drivers and increase public safety. Los Angeles is one of the only major cities in the world where we do not have this late night public option. If there is one, please advertise it better because neither myself or anyone I know can tell me about it. On a positive note, the buses are very clean and I feel very safe once I am on the bus.	Feb 12, 2012 9:13 PM
11	Maybe an express bus that skips certain stops along the route.	Feb 3, 2012 3:17 PM
12	Expanding into North Hollywood and Burbank would be ideal.	Feb 2, 2012 7:26 PM
13	Allow bikes in the bus IF the racks are full, and if there is ample room inside the back door.	Jan 30, 2012 11:56 PM
14	Attention should be paid to how quickly Orange Line busses fill up with passengers. If a Warner Center bus is full by the	Jan 28, 2012 12:06 PM

Page 8, Q25. Please provide any additional comments or ideas about how Orange Line service or the Orange Line corridor could be improved.		
	time it reaches the Reseda station, not enough busses are running.	
15	Expand the Orange Line to the City of Burbank. This will make commuting to the East San Fernando Valley very easy.	Jan 22, 2012 12:11 PM
16	Expand the Orange Line to the City of Burbank. This. Would make commuting to the East San Fernando Valley easy.	Jan 22, 2012 11:46 AM
17	The Orange Line should expand to the City of Burbank.	Jan 22, 2012 11:21 AM
18	I would like to see more use of solar panels on the station canopies. That way, some of the station's energy could be generated on site in a sustainable fashion. I'd also like to see clean, neat, clearly marked recycling bins attached to the station's trash-only bins. That way travelers can recycle just as easily as they can throw trash away. Alternately, if Metro already sorts all of its trash to remove recyclables, some obvious signage should be posted on each trash bin informing users of this sustainability measure.	Jan 19, 2012 5:16 PM
19	good palce i like cuity	Jan 18, 2012 7:49 PM
20	leave our neighborhood be, we need space and a safe environment for our children, and less traffic on the sabbath and holidays.	Jan 17, 2012 7:54 PM
21	upgrade to light rail already... the ridership is high and it would be even higher if it were a train... also expand it east along the Chandler Bikepath and provide a connection to the Burbank Metrolink Station or Downtown Burbank...	Jan 17, 2012 5:37 PM
22	Need mixed-use, more housing, encourage folks to take transportation. As new housing is added, increase service.	Jan 10, 2012 11:47 AM
23	At North Hollywood end, boarding and deboarding is a free-for-all. There are too few seats for those who are unable/ tired of standing. Those who come to the waiting area last are often closest to the buses when they pull up, and rush onto the bus first, leaving less-able people to be the last ones on - and forced to stand! Consider some type of "Disneyland-style" array of rails to make a zig-zag line. Not 1-person wide, with 20 turnbacks between entry & the bus, but maybe ~4' wide, with 5 or 6 turnbacks. The deboarding is a free-for-all, too. The sidewalk between the bus and the crosswalk at Lankershim is too narrow. People walk with all different speeds (and the slow ones always wind up in the middle, taking JUST enough room so NOBODY can pass). Despite all the warnings to stay out of the driveway, people go into the driveway (besides, who's coming? The only bus there is the one we just got off of!). Debottleneck the boarding/ deboarding process at North Hollywood. It's overwhelming to people who haven't done it before - and it has scared MORE than one newbie away from coming back.	Jan 10, 2012 11:14 AM
24	Make it a lot more than just a very short, glorified hyped up bus line.	Jan 10, 2012 12:32 AM
25	Please consider "finishing" the Orange Line near Warner Center. Also, please promptly remove any graffiti from the	Jan 9, 2012 5:53 PM

Page 8, Q25. Please provide any additional comments or ideas about how Orange Line service or the Orange Line corridor could be improved.		
	buses.	
26	buses listed as regular sometimes do not come at all!!! they cannot be depended on as Orange Line adjacent services.....The orange line is great.	Jan 9, 2012 5:32 PM

APPENDIX F

CORRIDOR WORKING GROUP OUTREACH LIST

CORRIDOR WORKING GROUP OUTREACH LIST

MAY 16, 2012, 2:00 - 5:00PM

NAME	AGENCY/ DIVISION
Angela Fentiman	Valley Industry & Commerce Association
Ann Kinzle	Reseda Chamber
Annie G. Reed	Universal/North Hollywood Chamber of Commerce
Arran McNabb	FAST
Arturo Trinidad, Member	Community Advisory Committee
Ayla Stern	Los Angeles Bicycle Advisory Committee
Barry Katzen	Sierra Club - SFV Club
Barry Seybert, Board Member	West Hills Neighborhood Council
Bart Reed, Exec. Director	The Transit Coalition
Brendan Huffman	Valley Industry and Commerce Association's Transp. Comm.
Bruce Rosky	Pierce College
Byron Maltez	LA Unified School District, Local District 1
Carlos Ferreyra	Valley Glen Homeowner's Association
Charles Bearchell	California State University Northridge
Cheryl Schramm	Valley Economic Alliance
Chris Park	Warner Center TMO
Christine Aure	ULI Los Angeles
Coby King (Transp. Committee)	Valley Industry & Commerce Association (VICA)
Colleen Langford	Woodland Hills-Tarzana Chamber Of Commerce
Dan Blake	California State University Northridge
D'Artagnan Scorza, Exec. Director	Social Justice Learning Institute
David Iwata	VEDC- Build, Connect, Grow 100 Program
Deane Leavenworth	Time Warner Cable
Gloria Ohland	Move LA
Derek Waleko	Van Nuys Neighborhood Council

NAME	AGENCY/ DIVISION
Diana Donovan	Encino Chamber of Commerce
Diana Williams	Woodland Hills/Tarzana Chamber of Commerce
Don Rosenberg	Los Angeles Bicycle Advisory Committee
Doug Arsenault	Valley Industry & Commerce Association (VICA)
Gopi Shah	NRDC
Ed Crowe	West Valley News
Ed Youngblood, Co-Chairman	West Hills Neighborhood Council
Edwin Dockus	West Hills Neighborhood Council
Esther Walker	Studio City COC
Francine Oschin (Transp. Committee)	Valley Industry & Commerce Association (VICA)
Gail Goldbert	ULI Los Angeles
Garth Carlson	Reseda Neighborhood Council
George Truesdell	Northridge West Neighborhood Council
Glenn Bailey	Encino Neighborhood Council
Gordon Murley	Woodland Hills Homeowners Organization
Greg Koubek	YMCA - West Valley
Hilary Norton	FAST
Horace Heidt	SFV Business & Professional Association
Jean Jauck, President	Main Street Canoga Park, Historical Society, etc…
Jean Strauber	Government Center Gazette
Jeff Schaffer	Enterprise Community Partners
Jennifer Klausner, Exec. Director	Los Angeles County Bicycle Coalition
Jessica Meaney	Safe Routes to School
Jessica Yasukochi	Valley Industry & Commerce Association
Gerry Malais	Northridge West Neighborhood Council
Jim Dawson	Pierce College
Jimmy Link	Southland Regional Association of Realtors
John Alderson	Westfield
John Parker	Canoga Park Chamber of Commerce
John Popowich	Winnetka Neighborhood Council
John Walker	Woodland Hills Homeowners Organization
Jolene Koester	California State University Northridge
Justin Walker	Transit Coalition

NAME	AGENCY/ DIVISION
Karen Koe	Woodland Hills / Warner Center NC
Kelly Lord	Northridge East Neighborhood Council
Ken Bryant	Midtown NOHO Neighborhood Council
Ken Hitts	Valley Economic Alliance
Kenn Phillips	Valley Economic Alliance
Keven Steinberg	Encino Chamber of Commerce
Kymberleigh Richards	San Fernando Valley Governance Council
Larry Hoffman	Los Angeles Bicycle Advisory Committee
Leo Maranan	SFV Filipino-American COC
Leonard J. Shaffer	Tarzana Neighborhood Council
Adam Halaby	North Hills West Neighborhood Council
Linda Chan	Robert M. Wilkinson M/P Center
Linda Del Cueto	LA Unified School District, Local District 1
Lisa Clayden	Sherman Oaks COC
Liz Florio	Valley Economic Alliance
Lupe Solorio	Commuity Partners
M. C. Townsend	Regional Black Chamber
Marissa Aho	Warner Center Association
Marlen Bello	VEDC-Women's Business Center
Mary Garcia	Midtown NOHO Neighborhood Council
Mary Paterson, Exec. Director	Canoga Park Improvement Association (BID) (e-blast)
Mina Nichols	The Transit Coalition
Nancy Hoffman Vanyek	Greater SFV Chamber
Omar Bayter	Northridge Village Homeowners Association
Pat Patton	Woodland Hills
Patti Lippel	Universal City/N. Hollywood Chamber
Paul Myers	Van Nuys - Sherman Oaks Senior Center
Paul Zimmerman	SCANPH
Paulina Gonzalez, Exec. Director	Strategic Actions for a Just Economy
Pauline Tallent	Winnetka Chamber of Commerce
Peter McCarty	Northridge East Neighborhood Council
Peter Schick	Metro Citizens' Advisory Council
President's Office, Cheryl Smith	Pierce College Los Angeles

NAME	AGENCY/ DIVISION
Rachel Yip	FAST
Richard Franklin	Canoga Park Community Center
Robert L. Scott, Exec. Director	San Fernando Valley Council of Governments
Robert Scott	Mulholland Institute
Roberto Barragan	Valley Economic Development Center
Ron L. Wood	Valley Economic Alliance
Ron L. Wood	Valley Economic Alliance
Seymour Rosen	Metro Citizens' Advisory Council
Siddie Neal	San Fernando Valley Service Center
Stephanie Taylor, Int. Exec. Director	Green LA Coalition
Stephanie Warren	Valley Industry & Commerce Association (VICA)
Stephen Naczinski	Woodland Hills Warner Center Neighborhood Council
Steven Anthony	Woodland Hills Homeowners Organization
Stuart Waldman	Valley Industry & Commerce Association (VICA)
Terry Anderson	Valley Glen Neighborhood Council
Tony Braswell	Valley Village Neighborhood Council
Tori Kjer	Trust for Public Land
Valerie Bush	Mid-Valley Senior Center
Victor Viereck	Universal City North Hollywood Chamber of Commerce
Warren Cooley	VEDC - Retail & Business Services
Bob Peppermuller	Midtown NOHO Neighborhood Council
Frank Mihelcic	Midtown NOHO Neighborhood Council
Kathy Pelle Donne	Tarzana Neighborhood Council
Daniel Blake	Valley Economic Alliance
Mary Mann	Midtown NOHO Neighborhood Council

APPENDIX G

GHG AND HEALTH ANALYSIS

SCENARIO ANALYSIS: TECHNICAL MEMORANDUM

This memorandum summarizes the methodology and results of the scenario analysis conducted as part of the Orange Line Bus Rapid Transit Sustainable Corridor Implementation Plan. Using the Southern California Association of Government's (SCAG) GIS-based Sustainability Tool 2.0, land use scenarios were developed for each station area along the Orange Line corridor to evaluate the effects of different land use configurations on a variety of quality of life indicators related to transportation, environment, and public health. The scenarios are representations of the "station area intent" section of each station area identified in Chapter 4 of this report. The station area intent's were developed based on the project's public participation efforts, including meetings with various neighborhood council's along the corridor.

This evaluation compared two scenarios – an existing conditions scenario and then the TOD scenario based on the results of this project. The analysis showed that increasing development around the transit districts would result in a number of positive transportation, environmental, and health outcomes. In addition to accommodating new housing units and employment, a targeted TOD scenario resulted in lower rates of vehicle ownership, vehicle miles traveled, and greenhouse gas emissions, while increasing transit ridership and walking and biking. As a result of these changes in travel, the TOD scenario improved health outcomes.

BACKGROUND

Transit-oriented districts (TOD) are areas designed to maximize access and use of public transportation to both reduce auto dependence for residents and workers and increase transit ridership. TODs accomplish these goals by integrating transit planning, development, urban design, streetscape improvement, and reinvestment to create compact, walkable, mixed-use neighborhoods that link jobs and housing and are within an easy walk of transit stations. TODs offer people more trip choices, provide additional transit stops and transit lines, and make multiple modes of transportation – including walking, cycling, taxis, and car-sharing – more convenient and connected. Successful TODs exhibit a mutually reinforcing land use and transportation pattern.

This evaluation compared the differences between the existing land use development patterns along the Orange Line corridor with a targeted, TOD scenario. The Existing Conditions Scenario assumed that current land uses would not change in the future, and as a result, travel behavior would not change. For the TOD Scenario, it was assumed that land uses and travel behavior would remain the same for the majority of stations, but small to large changes would occur at specific locations within specific station areas. These areas correspond with the Station-Area Intent and Recommendations described in the Orange Line BRT Sustainable CIP.

The TOD Scenario assumed that the majority of stations areas along the Orange Line corridor will receive little or no new development. These stations included:

- Valley College

- Woodman
- Woodley
- Balboa
- Tampa
- Pierce College
- DeSoto (in areas outside of the Warner Center Specific Plan area)

The station area where a limited amount of development could occur in the future were:

- Laurel Canyon, where mixed-use and multifamily residential development may occur primarily along Laurel Canyon Boulevard based on current zoning

Station areas where there is the potential for new, transit-supportive development. The stations in this category are:

- North Hollywood, where development may occur along major corridors and expand the existing arts, entertainment, office and multi-family housing development pattern based on zoning
- Reseda, where development may occur in adjacent to the station
- Sepulveda, where development may occur along Sepulveda Boulevard and in the existing industrial areas that may convert to higher intensity job uses
- Van Nuys, where development may occur along Van Nuys Boulevard north of the station
- DeSoto, in areas covered by the Warner Center Specific Plan
- Canoga, in areas covered by the Warner Center Specific Plan
- Warner Center, in areas covered by the Warner Center Specific Plan

METHODOLOGY

The Southern California Association of Governments Sustainability Tool 2.0 was used to evaluate land use scenarios around Orange Line stations. The Sustainability Tool is a GIS sketch planning tool that illustrates how land use changes affect vehicle ownership, vehicle miles traveled (VMT), and travel mode, enabling local jurisdictions to visualize land use strategies.

The Sustainability Tool includes a series of pre-defined styles of development typical in the Los Angeles region. These development types range from low intensity rural development to mixed-use, high intensity development. The Sustainability Tool standardizes these development types and allows the user to “paint” each development type into a user-defined scenario, which can be utilized to test the implications of different land use patterns or policies. Table 1 shows the density and mix of land uses for each type. After creating a scenario, the Sustainability Tool reports detailed information about housing and employment types, travel mode, vehicle miles traveled, and greenhouse gas emissions. The following section describes the results of the scenario development of the Orange Line.

Table 1: Development Type Density and Land Use Mix

	DENSITY		HOUSING MIX		EMPLOYMENT MIX			LAND MIX			
DEVELOPMENT TYPE	Housing (Unit/acre)	Employment (Jobs/acre)	Single Family	Multi Family	Retail	Office	Industrial	Resid-ential	Retail	Non-Retail	LANDMIX
Urban Core Res High Mix	177.72	462.08	0.0%	100.0%	23.1%	76.9%	0.0%	50.0%	15.0%	35.0%	0.72
City Res High Mix	60.71	157.60	3.9%	96.1%	22.2%	77.8%	0.0%	52.0%	14.4%	33.6%	0.85
Town Res High Mix	31.48	36.91	0.9%	99.1%	31.5%	68.5%	0.0%	69.8%	13.1%	17.1%	0.65
Neighborhood Res High Mix	11.94	10.62	53.4%	46.6%	32.8%	67.2%	0.0%	79.0%	9.4%	11.6%	0.97
Suburban Res High Mix	4.89	10.97	90.3%	9.7%	31.2%	68.8%	0.0%	66.6%	14.4%	19.0%	0.83
Urban Core Emp High Mix	23.70	577.88	0.0%	100.0%	12.3%	87.7%	0.0%	10.0%	15.0%	75.0%	0.53
City Emp High Mix	13.28	316.29	6.6%	93.4%	11.8%	88.2%	0.0%	11.3%	14.8%	73.9%	0.59
Town Emp High Mix	5.64	114.41	22.4%	77.6%	10.7%	89.3%	0.0%	14.9%	14.2%	70.9%	0.69
Neighborhood Emp High Mix	2.57	57.24	56.9%	43.1%	10.8%	89.2%	0.0%	14.0%	14.4%	71.6%	0.70
Suburban Emp High Mix	0.66	27.11	88.0%	12.0%	10.7%	89.3%	0.0%	10.9%	14.9%	74.3%	0.63
Urban Core Res Low Mix	145.14	4.94	0.0%	100.0%	100.0%	0.0%	0.0%	98.0%	2.0%	0.0%	0.07
City Res Low Mix	41.95	1.61	6.3%	93.7%	100.0%	0.0%	0.0%	98.2%	1.8%	0.0%	0.40
Town Res Low Mix	21.45	0.99	0.0%	100.0%	100.0%	0.0%	0.0%	98.0%	2.0%	0.0%	0.07
Neighborhood Res Low Mix	6.34	0.04	87.5%	12.5%	100.0%	0.0%	0.0%	99.8%	0.2%	0.0%	0.26
Suburban Res Low Mix	3.47	0.00	97.7%	2.3%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.06
Urban Core Emp Low Mix	0.00	479.21	0.0%	100.0%	3.0%	97.0%	0.0%	0.0%	5.0%	95.0%	0.14
City Emp Low Mix	0.00	286.99	0.0%	100.0%	3.4%	69.0%	0.0%	0.0%	5.0%	95.0%	0.14
Town Emp Low Mix	0.00	127.72	0.0%	100.0%	3.5%	96.5%	0.0%	0.0%	5.0%	95.0%	0.14
Neighborhood Retail Low Mix	0.00	21.43	100.0%	0.0%	92.4%	7.6%	0.0%	0.0%	95.0%	5.0%	0.14
Suburban Retail Low Mix	0.00	13.96	100.0%	0.0%	92.7%	7.3%	0.0%	0.0%	95.0%	5.0%	0.14
Neighborhood Office Low Mix	0.00	38.22	100.0%	0.0%	3.3%	96.7%	0.0%	0.0%	5.0%	95.0%	0.14
Suburban Office Low Mix	0.00	22.96	100.0%	0.0%	3.4%	96.6%	0.0%	0.0%	5.0%	95.0%	0.14
Suburban Industrial Low Mix	0.00	9.37	100.0%	0.0%	2.9%	0.0%	97.1%	0.0%	2.0%	98.0%	0.07
Rural Low Mix	0.02	4.99	100.0%	0.0%	2.9%	0.0%	97.1%	0.0%	2.0%	98.0%	0.12

SCENARIO RESULTS

The targeted TOD scenario accommodated 29,000 additional housing units and 68,000 new jobs as compared to the existing conditions.[1] Under the TOD scenario, vehicle ownership fell from 1.5 vehicles per household to 1.3 vehicles per household, while annual VMT per household declined from 12,000 to 10,000. Daily transit trips increased by approximately 10,000 and non-auto trips (walk and bicycle) increased by 30,000. As a result of these changes in VMT and travel mode, greenhouse gas emissions decreased from 1.8 metric tons of carbon dioxide equivalent ($MTCO_2e$) per person per year from automobile travel to 1.5 $MTCO_2e$, a 16% reduction. Reducing VMT and increasing non-auto trips also resulted in a number of positive health benefits.

[1] Approximately, 21,000 of additional housing units 55,000 of the new jobs were added to the Warner Center Specific Plan area, as proposed in the Draft Warner Center Specific Plan Environment Impact Report.

Table 2 shows the results of the scenario analysis.

Table 2: Orange Line Scenario Indicator Analysis

Indicator	Existing Conditions Scenario		Targeted TOD Scenario	
Housing				
Single Family	10,801	28%	12,037	18%
Multifamily	27,972	72%	55,399	82%
Total	*38,773*	-	*67,436*	-
Employment				
Retail	15,973	24%	22,780	17%
Office	41,635	63%	109,618	81%
Industrial	8,592	13%	2,220	2%
Total	*66,200*	-	*134,618*	-
Auto Ownership and Vehicle Miles Traveled				
Vehicle Ownership per Household	1.5	-	1.3	-
Daily Vehicle Miles Traveled	1,353,551	-	1,968,698	-
Annual Vehicle Miles Traveled	468,328,652	-	681,169,634	-
Annual VMT per Household	12,079	-	10,001	
Travel Mode Split (Daily)				
Drive Alone Trip	146,475	54%	225,736	54%
Auto-Passenger Trip	69,302	26%	99,064	24%
Transit Trip	16,821	6%	27,090	6%
Non-Auto Trip	39,536	14%	69,738	17%
Total Trips	*421,628*		*272,135*	
Greenhouse Gas Emissions				
Annual Greenhouse Gas Emissions ($MTCO_2e$)	207,332		301,558	
GHG Per Capita ($MTCO_2e$)	1.8		1.5	

Greenhouse Gas Emissions

During the last several decades, an overwhelming body of scientific evidence has demonstrated that human activity is altering the Earth's climate by increasing the concentration of greenhouse gases in the atmosphere. Climate change poses significant risks for, and may already be affecting, human and natural systems, including coastal infrastructure, human health, energy sources, agriculture, and freshwater resources.[2]

Although the targeted TOD scenario increased total greenhouse gas emissions from VMT for the corridor, the mixed use, higher density scenario reduced the greenhouse gas emissions on a per capita basis. GHG emissions fell from 1.8 $MTCO_2e$ to 1.5 $MTCO_2e$ as a result of more non-automobile trips, transit trips, and shorter auto trips. These reductions in per capita emissions will help move the region closer to meeting the per capita greenhouse gas reduction targets established for SCAG.

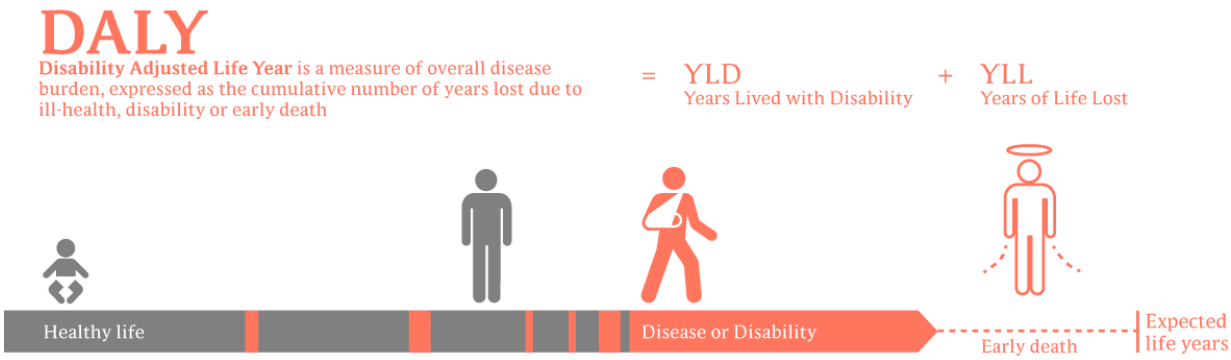
[2] National Research Council, 2010. *Advancing the Science of Climate Change*. Washington, DC: The National Academies Press.

Health Outcomes

Many land use and transportation strategies aimed at reducing greenhouse gas emissions also have the added benefit of reducing air pollution and increasing physical activity levels. The targeted TOD Scenario reduced VMT per household by approximately 2,000 miles per year. At the same time, the TOD Scenario increased non-motorized trips by 30,000 per day. By shifting vehicle trips to walking and biking, the risk associated with chronic diseases, such as heart disease, diabetes, stroke, dementia, depression, and some forms of cancer, is expected to decline.

The reduction in disability-adjusted life years (DALYs) was estimated to evaluate how the targeted TOD Scenario affects health outcomes. DALYs combine the impact of mortality (death) and morbidity (illness) into a single measure of disease burden. DALYs are useful in understanding conditions with low or moderate mortality rates that may be a major source of chronic disability, reducing quality of life, economic productivity, and health care costs. Figure 1: Disability-Adjusted Life YearFigure 1 provides a graphic representation of DALY.

Figure 1: Disability-Adjusted Life Year[3]



To estimate changes in the DALYs for the half-mile walkshed around the Orange Line stations, the change in the relative risk of heart disease, diabetes, stroke, depression, and dementia were gathered for different scenarios of active transportation.[4] The analysis found that an increase in walking and bicycling and a reduction in VMT resulted in significant, measurable changes in the burden of disease. The attributable fractions of diseases were compiled and used to estimate the change in the region-specific DALYs for the planning area. This analysis focused on the half-mile walkshed around the Orange Line stations, but it would likely have additional benefits for the area surrounding the station. Table 3 shows the rate of DALYs per 1,000 people, the DALYs for the planning area under existing conditions, and an estimation of the reduction in DALYs for the TOD Scenario as compared to existing conditions.

[3] By Planemad (Own work) [CC-BY-SA-3.0 (http://creativecommons.org/licenses/by-sa/3.0)], via Wikimedia Commons

[4] Maizlish, Neil, et. al., 2011. Health Co-Benefits and Transportation-Related Reductions in Greenhouse Gas Emissions in the Bay Area.

Table 3: Estimated Reduction in the Disability-Adjusted Life Years for the TOD Scenario Compared to Existing Conditions

Disease	Disability-Adjusted Life Years		Estimated Reduction in DALYs for the TOD Scenario
	Rate per 1,000[5]	Total	
Heart Disease	8.37	1,693	50 – 200
Diabetes	4.09	827	25 – 100
Stroke	3.69	747	25 – 75
Depression	4.58	927	< 25
Dementia	3.79	767	< 25

By reducing DALYs and improving the health of the planning area residents, the direct and indirect costs to treat disease will decline. For example, in 2007, the total estimated cost of diabetes in the United States was $174 billion. Individuals with diabetes incur average expenses of $6,650 annually, and their health care expenses were 2.3 times higher than individuals without diabetes.[6] By avoiding 25 to 100 DALYs, direct diabetes expenditures would be expected to decline in the range of $175,000 to $650,000.

[5] The Los Angeles County Department of Health Services and UCLA Center for Health Policy Research. 2000. The Burden of Disease in Los Angeles County.
[6] American Diabetes Association. 2008. Economic Costs of Diabetes in the U.S. in 2007.

Figure 2: Orange Line Existing Conditions Scenario

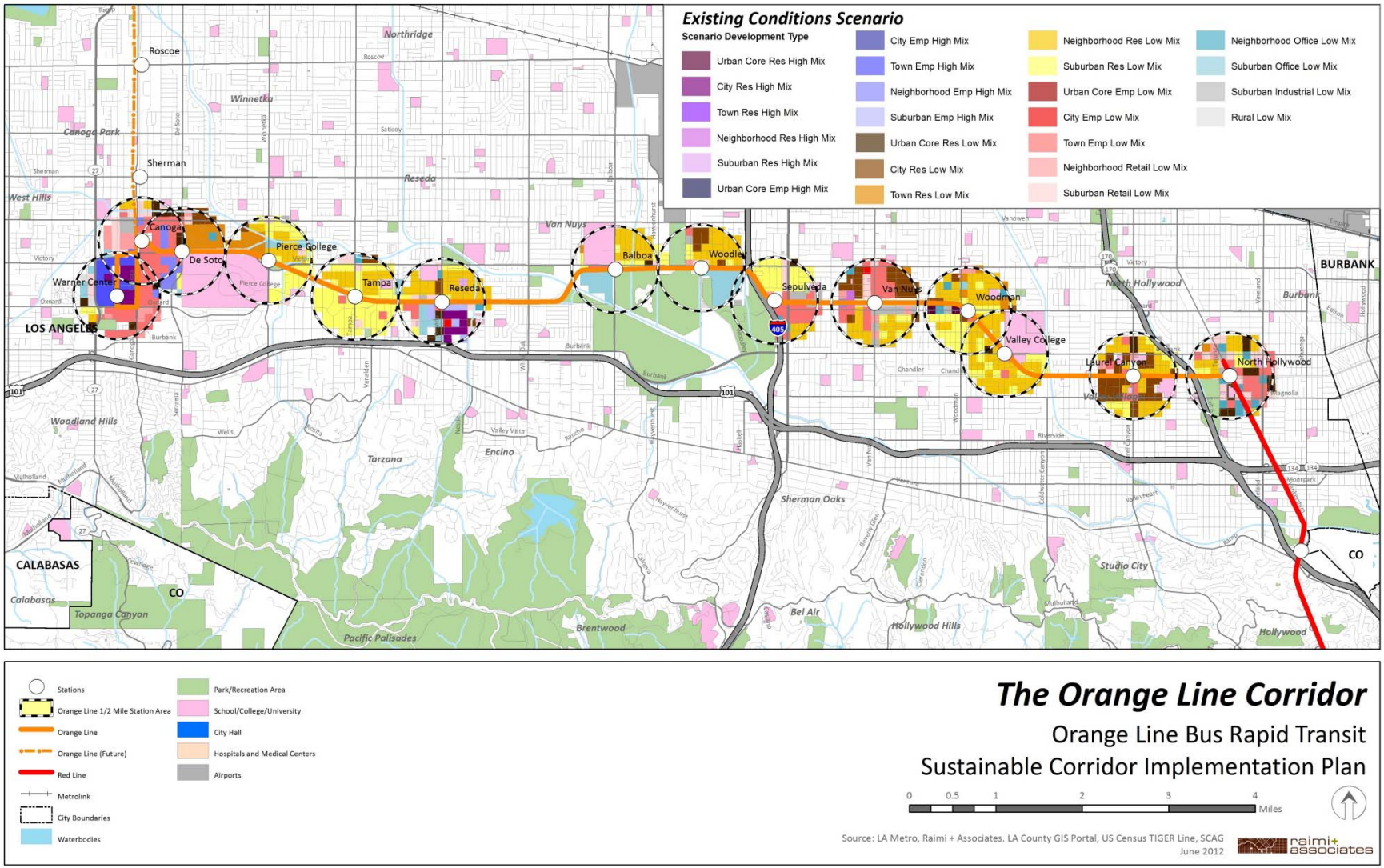
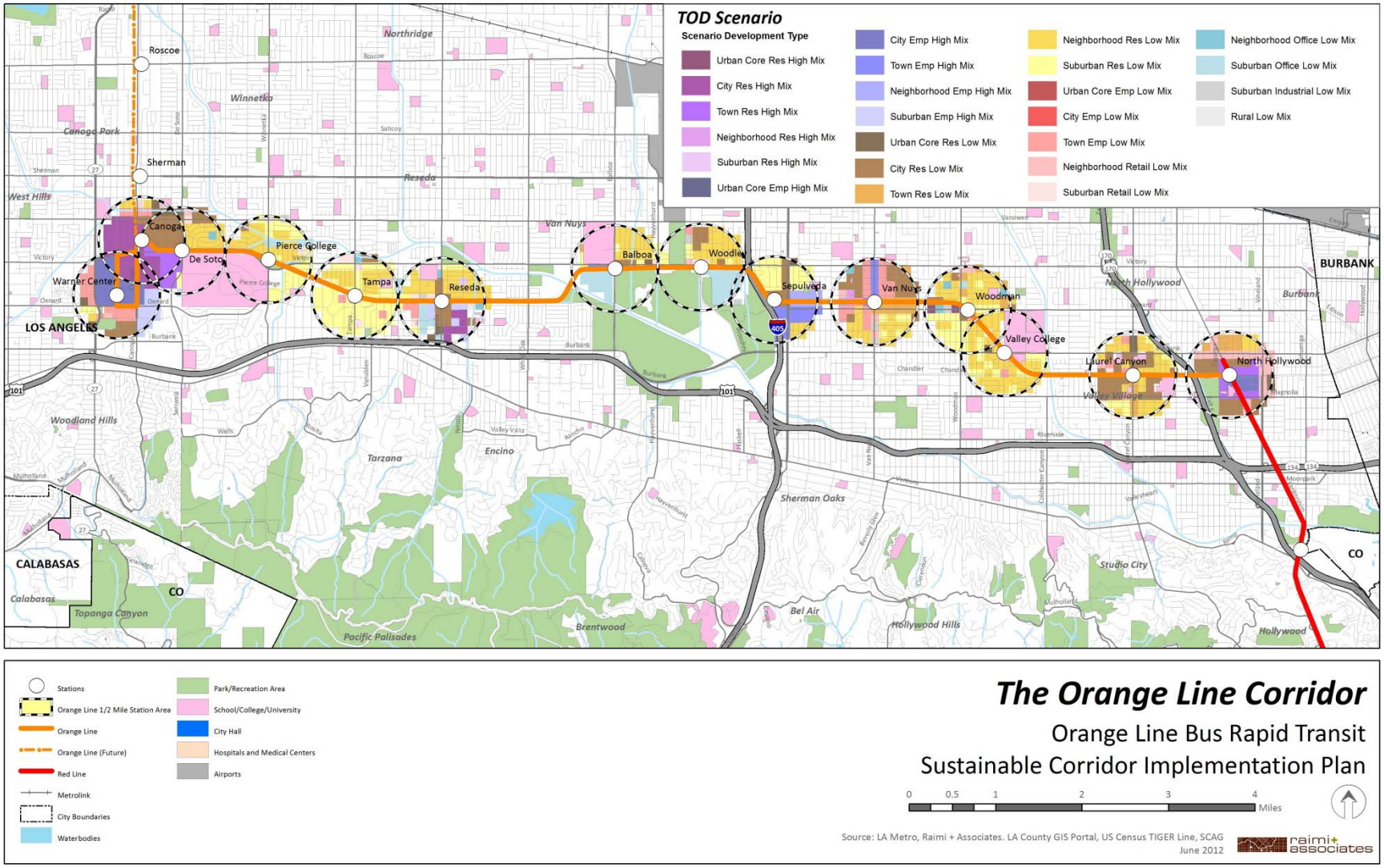


Figure 3: Orange Line TOD Scenario



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