# Regional Connector Transit Corridor
# Draft Environmental Impact Statement/
# Draft Environmental Impact Report

## APPENDIX E

## PURPOSE AND NEED REPORT

State Clearinghouse Number: 2009031043

# Regional Connector Transit Corridor
# Purpose and Need Report

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**Prepared for**

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# ACRONYMS

| | |
|---|---|
| AA | Alternatives Analysis |
| AVTA | Antelope Valley Transit Authority |
| CALTRANS | California Department of Transportation |
| CBD | Central Business District |
| CRA | Community Redevelopment Agency |
| DASH | Downtown Area Short Hop |
| DFD | Design For Development |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| HRT | Heavy Rail Transit |
| JANM | Japanese American National Museum |
| LADOT | Los Angeles Department of Transportation |
| LOS | Level of Service |
| LRT | Light Rail Transit |
| Metro | Los Angeles County Metropolitan Transportation Authority (LACMTA) |
| MOCA | Museum of Contemporary Art |
| MPO | Metropolitan Planning Organization |
| OCTA | Orange County Transportation Authority |
| PEIR | Preliminary Environmental Impact Report |
| RTP | Regional Transportation Plan |
| SCAG | Southern California Association of Governments |

| | |
|---|---|
| SCRRA | Southern California Regional Rail Authority |
| SR | State Route |

# 1.0 INTRODUCTION

This report describes the purpose and need for transportation investments in the Regional Connector Transit Corridor project area. The project area is located at the crossroads of the region's transportation system. However, there is currently a gap in the light rail system in downtown Los Angeles between the 7th Street/Metro Center Station and Union Station that forces riders to make transfers to reach many destinations.

## 1.1 Purpose of the Project

The purpose of this project is to improve the region's public transit service and mobility by connecting the light rail service of the Metro Gold Line to the Metro Blue Line and the Metro Expo Line. This link would serve communities across the region, allowing greater accessibility while serving population and employment growth in downtown Los Angeles.

The Regional Connector is a transit project planned by the Los Angeles County Metropolitan Transportation Authority (Metro) with the goal of improving travel times, reducing transfers, reducing traffic congestion, improving air quality, and creating a sustainable light rail transit system that serves people throughout the region as well as in downtown Los Angeles. The vision is to connect the spokes of the regional system and provide a "one seat ride" from Long Beach to Azusa and from East Los Angeles and the San Gabriel Valley to Santa Monica.

There are currently no direct trains for Metro Blue Line light rail passengers from Long Beach travelling to the Metro Gold Line to Pasadena or East Los Angeles. These passengers must transfer to the Metro Red or Purple Lines for travel between 7th Street/Metro Center Station and Union Station. At Union Station, passengers must transfer again, moving to platforms on different levels, to reach the Metro Gold Line. When the Metro Expo Line from Culver City to the 7th Street/Metro Center Station opens in 2011 its riders will also need to transfer at 7th Street/Metro Center Station to reach the Gold Line.

The Regional Connector would extend the shared Metro Blue/Expo Line tracks from their present terminus at 7th Street/Metro Center Station to a junction with the Metro Gold Line near the Little Tokyo/Arts District Station with continuing service to Union Station, Pasadena, East Los Angeles, and beyond. This would provide a one-seat ride for Metro Blue Line passengers travelling from Long Beach to Pasadena. Metro Expo Line passengers would also be able to ride from Washington/National Station in Culver City to East Los Angeles without transferring.

The Regional Connector would also provide increased transit coverage of the downtown area with new stations serving the Civic Center, Bunker Hill, Historic Core, Little Tokyo, and Financial Core along its route from 7th Street/Metro Center Station to the Metro Gold Line.

See Figure 1-1 for a map of the project area and Figure 1-2 for an overview map of the Metro Rail system, including projects currently under construction.

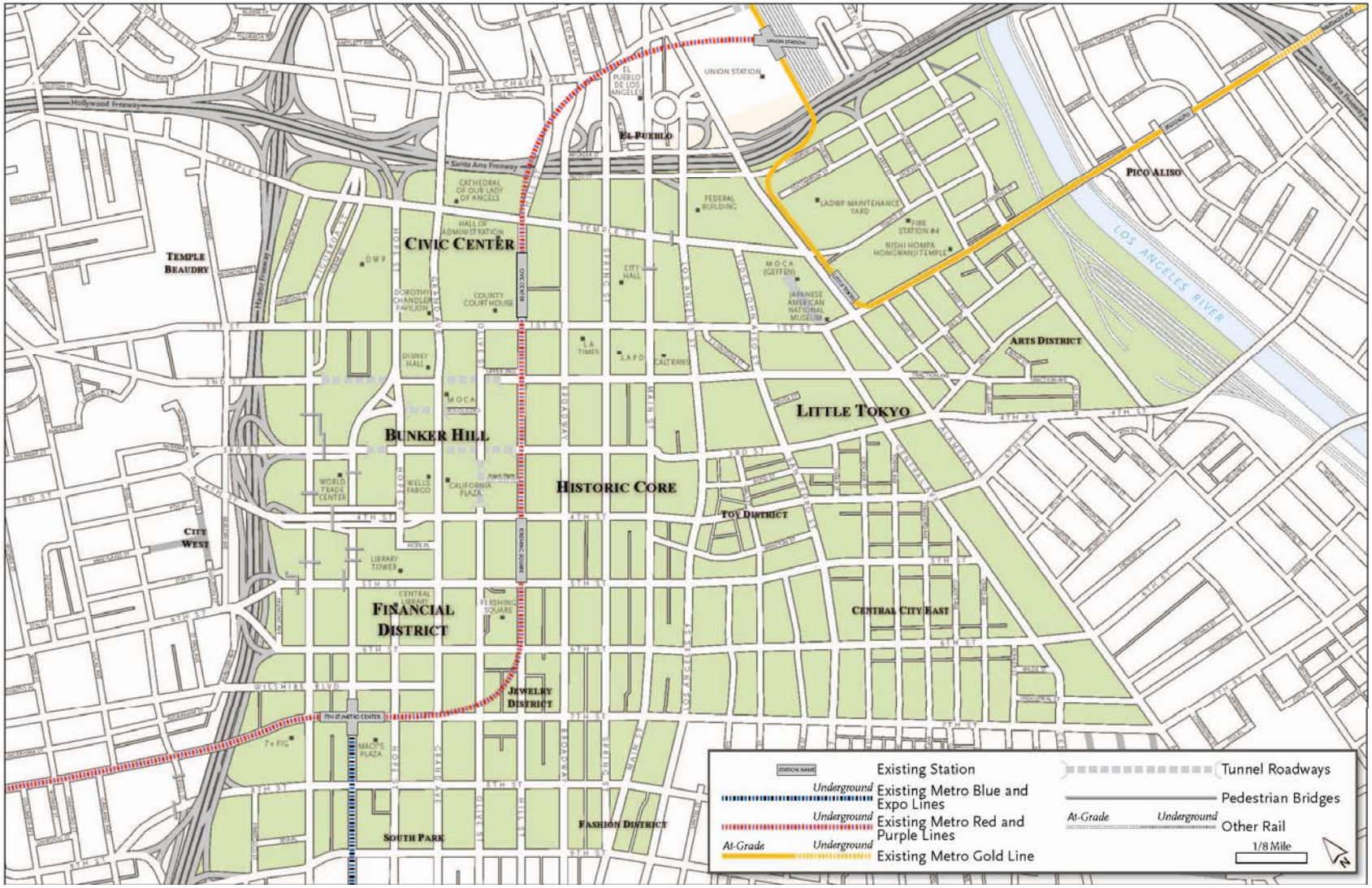


Figure 1-1. Project Area

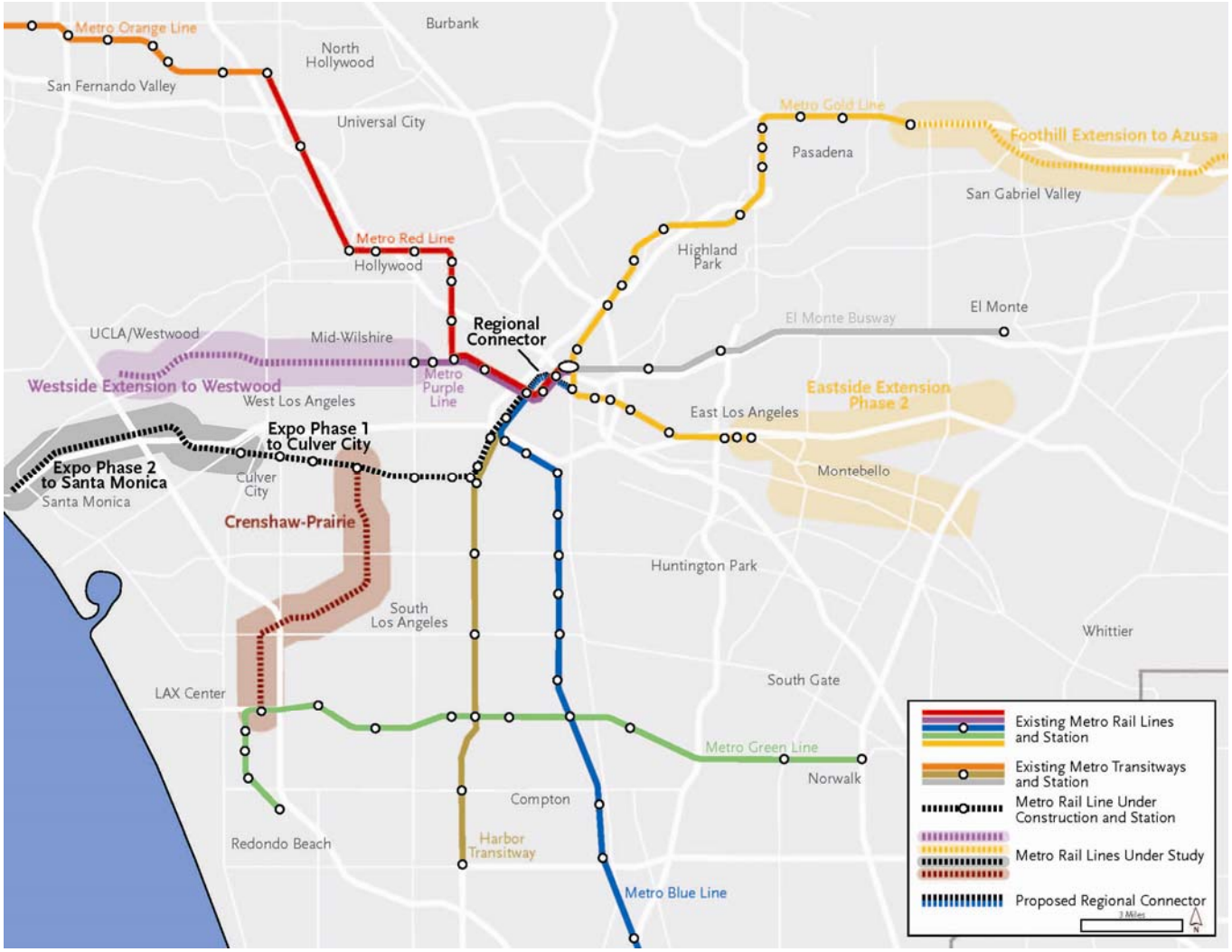


Figure 1-2. Regional Metro Rail Lines (2035)

# 2.0 BACKGROUND

## 2.1 Location

The project area is located in downtown Los Angeles. It is bounded on the west by State Route (SR) 110 (Harbor Freeway); on the north by US 101 (Hollywood Freeway); on the south by 7th and 9th Streets; and on the east by Alameda Street between 7th and 4th Streets and the Los Angeles River between 4th Street and US 101.

The project area is the largest regional employment center in Los Angeles County, and is densely developed with multi-family residences, industrial and public lands, commercial and retail establishments, government office buildings, and high-rise office towers. The corridor crosses several distinct community areas including the dense urban core of the Financial District; the residential high rises and regional entertainment centers of Bunker Hill; the Civic Center with a concentration of federal, state, and local government offices; residential and retail uses located in the historic structures of the Historic Core; and the culturally unique, mixed uses of Little Tokyo.

Given the density of employment within the project area, downtown Los Angeles has the highest concentration of transit service of any area in the County. Regional bus and commuter rail operators have routes that service the project area during peak hours from Los Angeles, Orange, San Bernardino, and Ventura Counties. Both Metro and the Los Angeles Department of Transportation (LADOT) operate local bus service throughout the day.

The southwest portion of the project area at the 7th Street/Metro Center Station is served by the Metro Blue Line to Long Beach and the Metro Expo Line to Culver City. The eastern edge of the project area (Union Station and the Little Tokyo/Art District Station) is served by the Metro Gold Line which currently connects Pasadena to East Los Angeles. These regional lines are connected by a variety of bus lines and the short east-west Metro Red Line but multiple transfers are required for longer north-south or east-west trips through the project area.

Due to its central location at the heart of the regional transit system, investments in the Regional Connector Transit Corridor project area have the potential to affect schedule reliability of the entire system. As the Metro Expo Line and Metro Gold Line to East Los Angeles are completed, this lack of regional connectivity will become even more apparent.

## 2.2 History

Rail transit in Los Angeles dates to 1872, when Southern Pacific began construction on a passenger rail line from downtown to San Pedro, with the intent of eventually monopolizing the regional transportation system. By the 1920s, the Southern Pacific and Pacific Electric systems had nearly 800 cars in service and hundreds of miles of tracks. Los Angeles Railway also operated a local streetcar system serving the downtown core and the nearby

neighborhoods, which carried the bulk of Los Angeles' urban ridership. Notable busy lines included the Aiso Street service to Boyle Heights, the Temple and 2nd Street cable cars on Bunker Hill, and the Angels Flight funicular railway. Pacific Electric's Hollywood, Glendale, and San Fernando Valley trains entered the one-quarter-mile long Belmont Tunnel at the tail end of their trips to the Subway Terminal Building at 4th and Hill Streets in downtown Los Angeles.

Despite the extensive track and power infrastructure, Los Angeles' rail transportation system would last only four more decades. Americans traded streetcars for private automobiles with record speed and moved to neighborhoods beyond the railroads' reach. Rail transit's final zenith came during World War II, when fuel, metal, and rubber rationing briefly forced millions of Americans back onto streetcars to get to their jobs.

With the end of the war came a period of economic and industrial prosperity and the pent-up demand for new automobiles could finally be met. With few rail riders remaining and new diesel bus technology offering a cheap substitute for streetcar service, cash-strapped transit operators nationwide began canceling routes and removing tracks. The Los Angeles system closed entirely, with the last train making its trip from downtown to Long Beach in 1963.

Freed by the heightened mobility that private cars offered, people began working in increasingly suburbanized settings, and the old downtown core plunged into decline for several decades. In recent years, with traffic congestion mounting, the mobility that supported geographically-dispersed job and housing patterns has become increasingly constrained. Longer commute times, ever-climbing gas prices and increased concern about vehicle greenhouse gas emissions leading to climate change have prompted many Los Angeles residents to seek a return to the transit-friendly urban form of decades past. Downtown Los Angeles has seen a recent surge in development and many residents are rediscovering the forgotten urban core.

During the mid-1980s, the Los Angeles County Transportation Commission and Southern California Rapid Transit District began piecing together the railroad rights-of-way abandoned decades earlier with the intent of bringing rail transit back to Los Angeles.

Today, the Metro Rail system consists of over 79 track miles and downtown Los Angeles is once again served by a radial network of rail transit lines. The Metro Red Line has assisted in the resurgence of the downtown area, including the project area, by improving accessibility and facilitating movement between various districts.

In addition, the Southern California Regional Rail Authority has gradually purchased its own right-of-way and developed a 512-mile commuter rail system over the course of the past two decades, linking commuters throughout the region to their downtown jobs.

## 2.3 Past Studies

Early studies from 1988 to 1993 focused on extending the light rail line from Long Beach to Los Angeles (Metro Blue Line) through downtown to Pasadena. A light rail line from downtown west to Santa Monica (Metro Expo Line) was not yet planned at the time and the light rail Metro Gold Line Eastside Extension was first fully approved as an extension of the Metro Red Line, a heavy rail subway system that was re-scoped to the currently operating Metro Gold Line Eastside Extension light rail system. Therefore these earlier studies did not account for the benefits of a cross-county east-west light rail service, and instead focus on the north-south route from Long Beach to Pasadena. The Regional Connector, however, would provide the benefits of both routes. The later studies from 2004 onward, including the recent Alternatives Analysis (AA) (Appendix H), focus on both the north-south and east-west routes, as described in the following subsections.

### 2.3.1 Pasadena – Los Angeles Light Rail Transit Project EIR

After the study was completed in 1993, the Board of Directors delayed the pursuit of the segment between 7th Street/Metro Center Station and Union Station due to funding constraints. The Pasadena-Los Angeles Light Rail Transit Project, now the Metro Gold Line, was constructed and began operations in 2003. The Metro Gold line ran from the Sierra Madre Villa Station in Pasadena to Union Station until an extension to East Los Angeles opened in 2009 allowing for continued operations between Pasadena, Union Station and East Los Angeles. As an interim solution for not having a direct light rail connection between the Long Beach and Pasadena lines, passengers must transfer to the Metro Red and Purple Lines to travel from Union Station to 7th Street/Metro Center.

It was specifically indicated in the study that a direct light rail connection is possible between Union Station and 7th Street/Metro Center Station to reduce transfers between the Metro Red, Purple, Gold and Blue Lines.

### 2.3.2 Blue Line Connection Preliminary Planning Study

In 1993, Metro completed a preliminary planning study to analyze alternatives for connecting the Long Beach Blue Line, already in operation, to the Pasadena Blue Line (now the Metro Gold Line), which was not yet under construction at that time. Although the Metro Gold Line provides a viable service as stand-alone transit from downtown Los Angeles to Pasadena, a potential capacity problem for the Metro Red Line was identified, as it was the sole rail connection between Union Station and the 7th Street/Metro Center Station. Metro officials recognized that building a connection between the Long Beach and Pasadena light rail lines would alleviate the capacity issues, and increase the overall usefulness of the system.

### 2.3.3 Los Angeles Eastside Corridor Final Supplemental EIR/EIS

At the time of the Blue Line Connection Preliminary Planning Study, an extension of the Metro Red Line to Boyle Heights was also being considered. The preferred alternative was a 3.1-mile long heavy rail transit (HRT) subway with four stations. After funding concerns in the mid-late 90's, all planned corridor projects were halted and re-evaluated in 1998.

In February 2002, Metro approved the Metro Gold Line Eastside Extension, using LRT in lieu of the previously identified HRT Metro Red Line Eastside Extension. The extension opened for revenue service in November 2009 with twice as many stations and twice a long as the original planned project. Running from Union Station to the Atlantic Station in East Los Angeles, this six-mile, eight-station extension traverses Alameda Street, 1st Street, Indiana Street, and 3rd Street. A new bridge connects Union Station to the eastern edge of downtown in Little Tokyo by crossing south over the US 101 freeway to the intersection of Alameda and Temple Streets. The route runs at grade on the eastern side of Alameda Street from Temple Street to 1st Street. An at-grade station at 1st and Alameda Streets (Little Tokyo/Arts District Station) is located at the northeast corner of the intersection.

This project reaches the eastern edge of the project area, but does not complete the gap across downtown Los Angeles to the transit lines that extend south and west.

### 2.3.4 Mid-City/Exposition Transit Corridor EIS/EIR

Also part of the re-scoping of projects, the Metro Expo Line was identified as a new light rail transit system providing service from Santa Monica to a shared terminus with the Metro Blue Line at 7th Street/Metro Center Station in downtown Los Angeles. The project was approved in 2005. A first phase from downtown Los Angeles to Culver City is currently under construction. A second phase extending to Santa Monica was approved in early 2010 and is expected to be in operation by 2015. This project reaches the southern edge of the project area and will bring additional transit riders to downtown, but it does not complete the gap across the project area to Union Station.

### 2.3.5 Regional Light Rail Connector Study

Based on new alignment opportunities created by the approval and construction of the Metro Gold Line Eastside Extension and the under construction Metro Expo Line, Metro completed an engineering feasibility study in 2004 to identify potential alignment, station and configuration alternatives for a new light rail transit (LRT) connection between the Metro Blue, Expo and Gold Lines. The new alternatives connected the Metro Gold Line in the vicinity of the Little Tokyo/Arts District Station at 1st and Alameda Streets to the 7th Street/Metro Center Station.

Forty-one initial alternatives were developed and initial screening reduced the number of alternatives to 16. The screening was based on alignment characteristics, service area, cost,

complexity of engineering, and other similar criteria. No public input process was performed, and no preferred alternative was identified in this study.

## 2.3.6 Regional Connector Transit Corridor Alternatives Analysis Report

Building on the findings of the Regional Light Rail Connector Study, the Alternatives Analysis (AA) Report, initiated in June 2007 and completed in January 2009 identified 36 conceptual alternatives for study. Initial environmental analysis, engineering, and public outreach activities including an FTA Early Scoping notice, were performed to assist preliminary study of the alternatives. The screening processes during the AA study produced two final recommended build alternatives, along with a No Build Alternative and TSM Alternative, which were subsequently carried into the EIS/EIR scoping process. The full AA Report is incorporated into this Draft EIS/EIR as Appendix H.

## 2.3.7 Adoption of the Regional Connector Transit Corridor Project

The Regional Connector Transit Corridor project was authorized by the Metro Board of Directors to proceed into the Draft EIS/EIR phase in February 2009. Regional plans and funding measures that identify the Regional Connector include the Southern California Association of Governments (SCAG) Regional Transportation Plan, the Metro Long Range Transportation Plan, and Measure R.

### 2.3.7.1 SCAG Regional Transportation Plan

SCAG's *2008 Regional Transportation Plan* includes the Regional Connector as a strategic transit system expansion project with implementation expected prior to 2035. As the designated Metropolitan Planning Organization (MPO) for Los Angeles, Riverside, San Bernardino, Ventura, Orange, and Imperial Counties, SCAG provides coordination between transit projects across the Southern California region.

### 2.3.7.2 Metro Long Range Transportation Plan

Metro's *2009 Long Range Transportation Plan* includes the Regional Connector among the projects planned for implementation by 2035 (possible opening date of 2019). The other projects outlined in the plan are also included in the baseline year 2035 conditions assumed for the regional transportation analysis presented in this Draft EIS/EIR.

### 2.3.7.3 Measure R

In November 2008, Los Angeles County voters approved a half-cent sales tax (Measure R) that will be used to fund approximately $40 billion worth of transportation projects in Los Angeles County over the next 30 years. Due to the uncertainty of the passage of Measure R during the development of the AA, projects identified in Measure R were not included in the AA Report, as they had not yet been identified as funded in the *Long Range Transportation Plan*. With the passing of Measure R, identified funded projects to be completed and operational by 2035

are incorporated in the analysis conducted for this Draft EIS/EIR, as part of the No Build Alternative.

# 3.0 PROJECT AREA DEMOGRAPHICS

## 3.1 Data Sources and Methodology

Demographics in the project area were examined to establish a baseline for assessing the potential benefits of adding improved transit service. Data presented in this section were obtained from the Southern California Association of Governments (SCAG, 2009) and the U.S. Census Bureau (2000). Data are representative of demographic conditions at the time of data-gathering and are used as the basis of evaluation in the Draft EIS/EIR.

The project area is currently undergoing significant changes in terms of housing and demographics. Within the last five years, new market-rate condominium towers have been completed, historic buildings have been converted to loft housing, and new entertainment centers have been approved for construction, bringing renewed interest to downtown. These activities continue to bring about demographic changes that may not be reflected in data from 2005 or earlier.

Some data was not available or not relevant for certain portions of the project area, so field reconnaissance was substituted for the missing data. The project area encompasses portions of several census tracts requiring block-level data to get an accurate representation of each neighborhood. Some tracts are relatively homogeneous which allows data for the whole tract to represent the portions. Other tracts have different characteristics throughout, and attempting to represent one neighborhood with data from the entire tract would be inaccurate. For this characterization of the project area it is more meaningful to show that available census data is not applicable and substitute field reconnaissance rather than inaccurately represent portions of the project area.

For these reasons, the data presented here may be slightly different than the data presented in the Environmental Justice and the Community and Neighborhoods Technical Memoranda.

## 3.2 Population and Employment

The Regional Connector project area covers 2 square miles, or 0.04 percent of the 4,752 square miles of the County. The total residential population of the project area is 19,396, or 0.19 percent of the total County population. The average population density within the project area is 9,968 per square mile, 3.76 times that of the County.

Despite its small size and residential population, the Regional Connector project area offers 3.82 percent of the County's total employment of 171,750 jobs. Employment density in the project area is 85,875 employees per square mile which is more than 85 times the County-wide employment density.

Table 3-1 summarizes the project area and County population and employment information for 2008. Population and employment growth are discussed further with respect to transit dependency in Section 3-4.

**Table 3-1. Population and Employment**

| Demographics | Project Area | L.A. County | Percent of County |
|---|---|---|---|
| Population | 19,396 | 10,449,838 | 0.19% |
| Population Density (people/sq. mi.) | 9,698 | 2,573 | NA |
| Total Employment | 171,750 | 4,498,598 | 3.82% |
| Employment Density (jobs/sq. mi.) | 85,875 | 1,108 | NA |

Source: SCAG, 2008

## 3.3 Project Area Ethnicity

According to the most recent Census data, the project area has higher proportions of Asian and African-American residents than the County. African-American residents compose 28.5 percent of the population of the project area, compared with 9.6 percent of the County; they reside in the project area primarily east of Hill Street and south of 1st Street.

Asian residents, who live primarily between 1st Street and 5th Street, compose 23.8 percent of the project area, compared with 11.9 percent of the County.

According to the most recent census data, the project area has significantly lower compositions of White and Hispanic populations when compared to the County.

Table 3-2 shows the racial and ethnic breakdown of the project area. Figures 3-1 through 3-6 illustrate the population's racial and ethnic distribution throughout the project area.

## 3.4 Transit Dependency

Transit dependent populations are those groups that rely on public transit to meet their mobility and access needs to a greater degree than the general population. Within the project area, transit dependent populations include low income households, seniors, and zero car households

| Table 3-2. Racial and Ethnic Composition | | | | |
|---|---|---|---|---|
| Demographics | Project Area | | Total LA County | |
| | Number | % | Number | % |
| **Race** | | | | |
| Total Population | 19,396 | 100% | 9,519,338 | 100% |
| White | 5,564 | 28.7% | 4,622,759 | 48.6% |
| Black/African American | 5,534 | 28.5% | 916,907 | 9.6% |
| American Indian | 206 | 1.1% | 68,471 | 0.7% |
| Asian | 4,612 | 23.8% | 1,134,263 | 11.9% |
| Pacific Islander/Hawaiian | 40 | 0.2% | 27,221 | 0.3% |
| Some other race | 2,433 | 12.5% | 2,262,925 | 23.8% |
| Two or more races | 1,007 | 5.2% | 486,792 | 5.1% |
| **Ethnicity** | | | | |
| Total Population of Project Area | 19,396 | 100% | 9,519,338 | 100% |
| Hispanic or Latino (regardless of race) | 4,700 | 24.2% | 4,242,213 | 44.6% |

Source: U.S. Census Bureau, Summary File 3, 2000; SCAG 2008

Residents in the project area are categorized within the US Census Data as either below or above the poverty level. In 2000, there were 3,575 households in the project area below the poverty level. Income projections to 2035 for the project area are currently unavailable.

Based on the 2000 data, 38% of the households in the project area are below the poverty level.

| Table 3-3. Project Area Income Status | | |
|---|---|---|
| Demographics | Project Area | Percent (%) |
| Total Households | 9,648 | 100 |
| Households Below Poverty Level | 3,575 | 38.2 |

U.S. Census Bureau, Table P92, 2000

According to data presented in Table 3-4, only 6.1 percent of the population in the project area is age 18 or younger, compared to 29.4 percent of the population of the County. The project area also has a higher percentage of elderly residents (19.6 percent) compared to the County (9.7 percent).

| Table 3-4. Population Age | | | | |
|---|---|---|---|---|
| Age | Project Area | Percent (%) | L.A. County | Percent (%) |
| 18 and under | 1,188 | 6.1 | 2,798,604 | 29.4% |
| 65 and over | 3,795 | 19.6 | 926,670 | 9.7% |

Source: U.S. Census Bureau, Summary File 3, 2000; SCAG, 2005

The young and the elderly have a higher propensity for using public transportation, since these groups are less likely to have driver's licenses or access to private automobiles.

Project area residents use transit more than people in other areas of the County. Eleven percent of the households (or 1,121 households) with people age 16 and older who both live and work in the project area commute via public transportation, compared to seven percent of the entire County.

Figure 3-7 shows the distribution of public transportation users within the project area. They tend to live in areas where there are high percentages of zero-vehicle households, as shown in Figure 3-8. A much higher proportion of households in the project area lack vehicle access (67 percent) than in the County as a whole (12 percent).

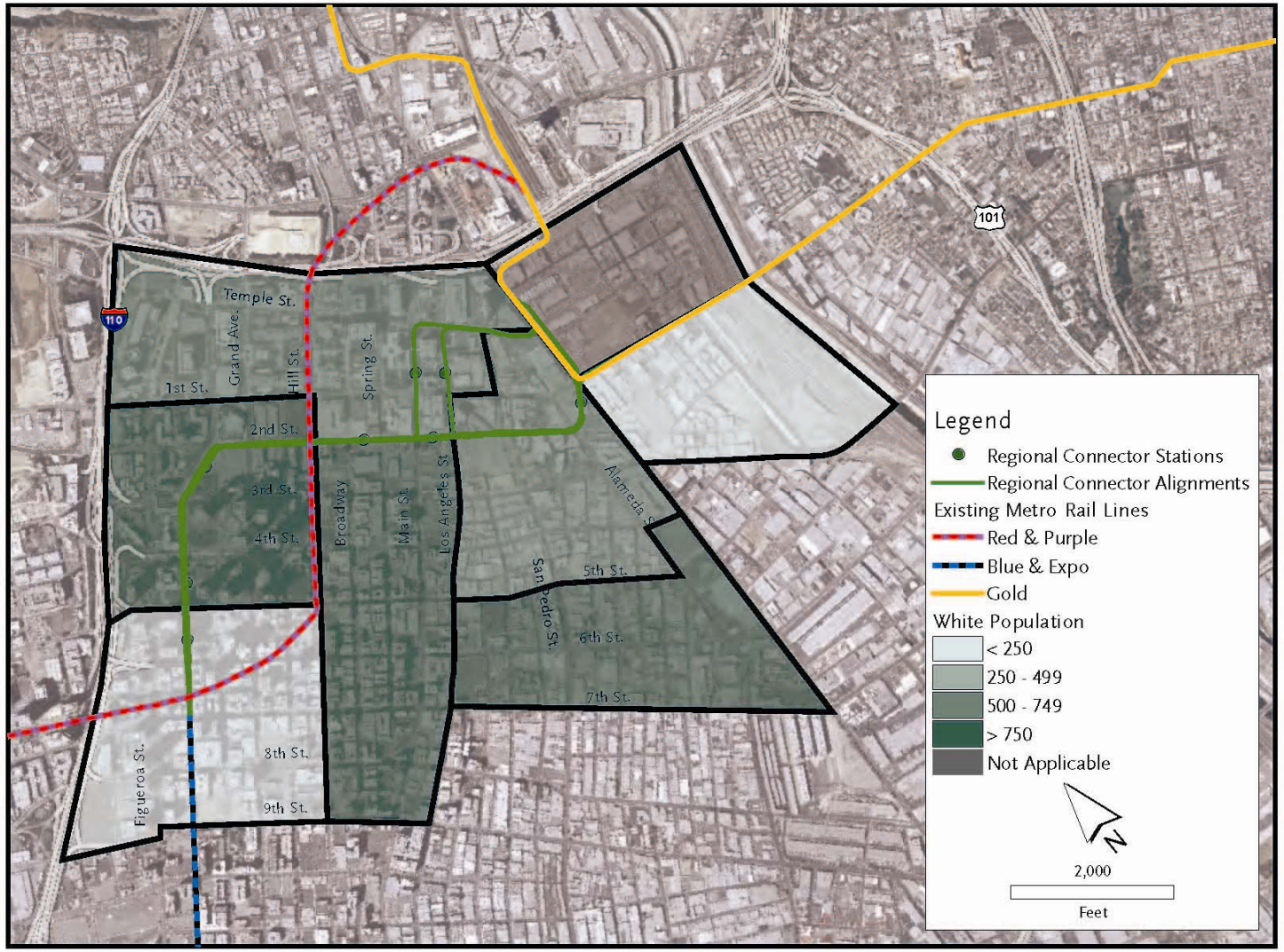


**Figure 3-1. Ethnicity, White Population in Project Area**

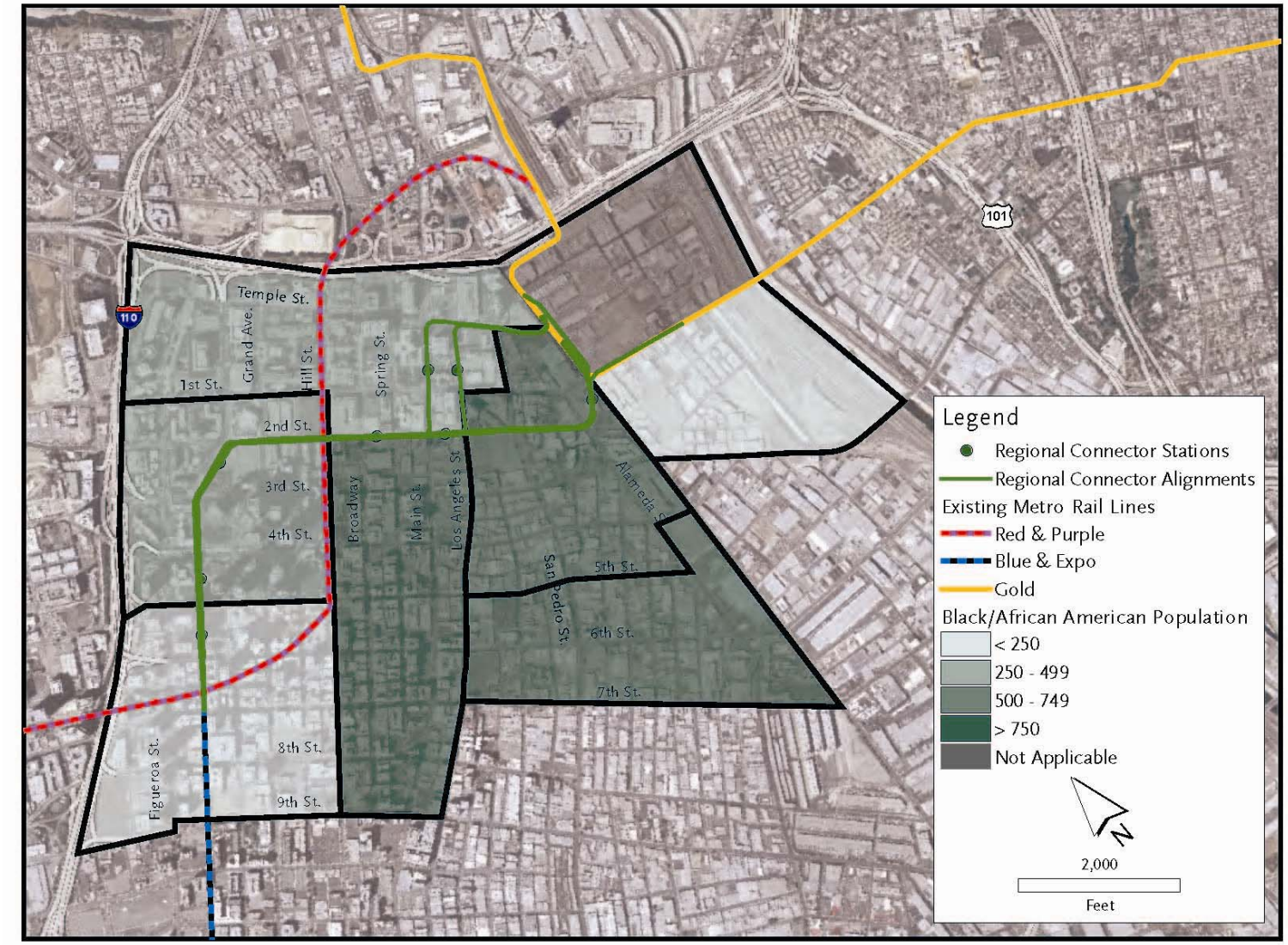


**Figure 3-2. Ethnicity, Black/African-American Population in Project Area**

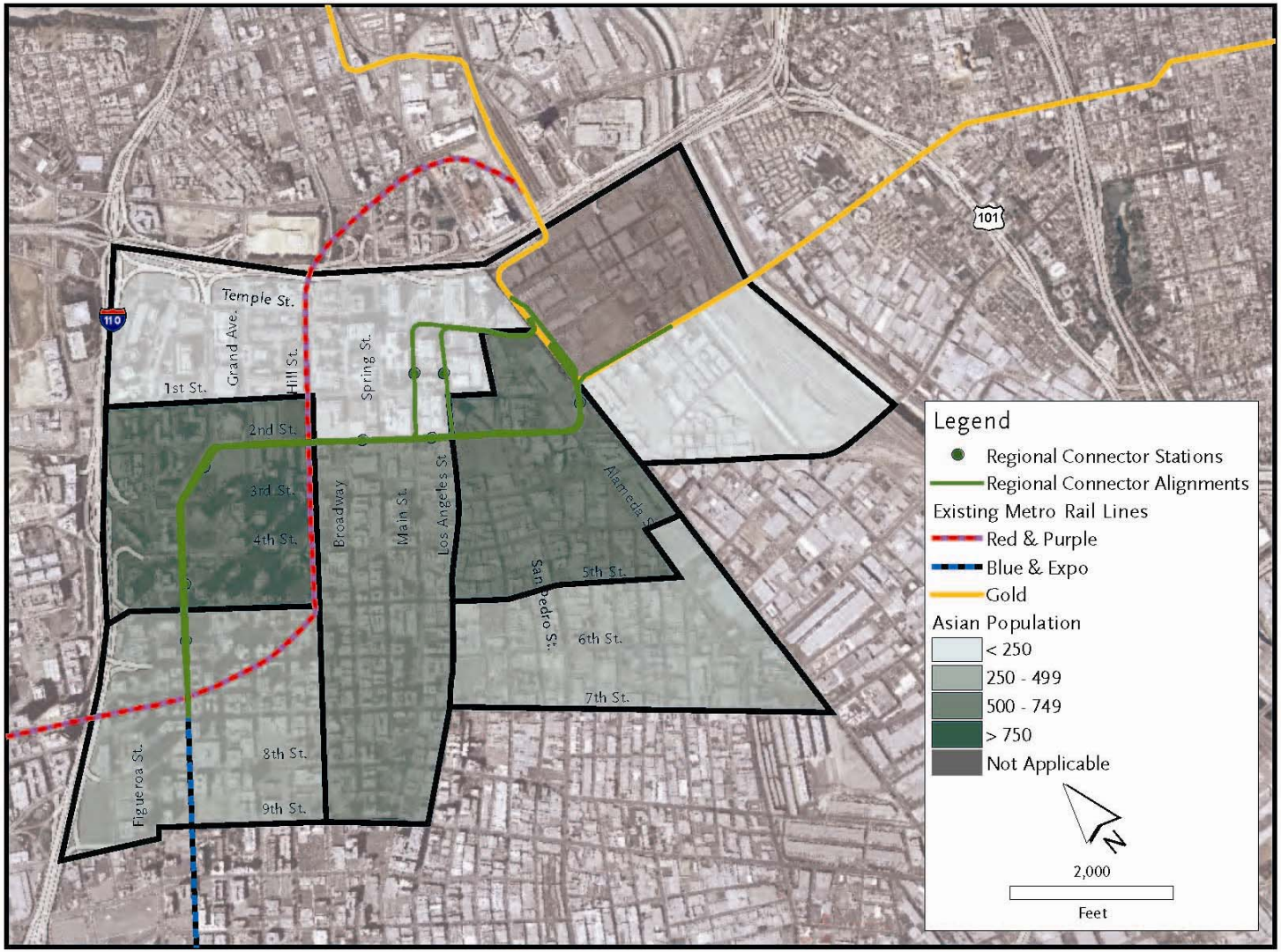


**Figure 3-3. Ethnicity, Asian Population in Project Area**

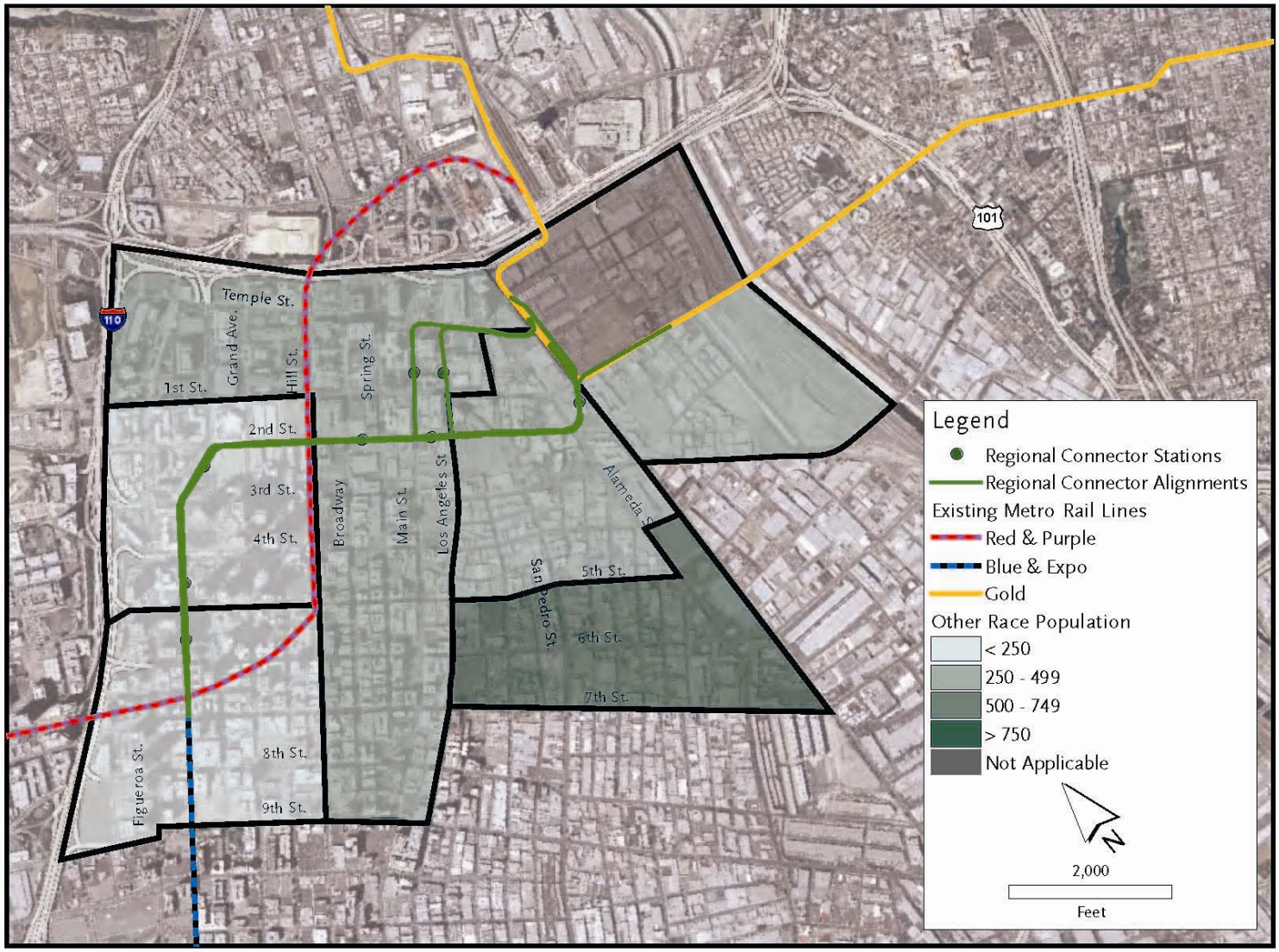


**Figure 3-4. Ethnicity, Other Races Population in Project Area**

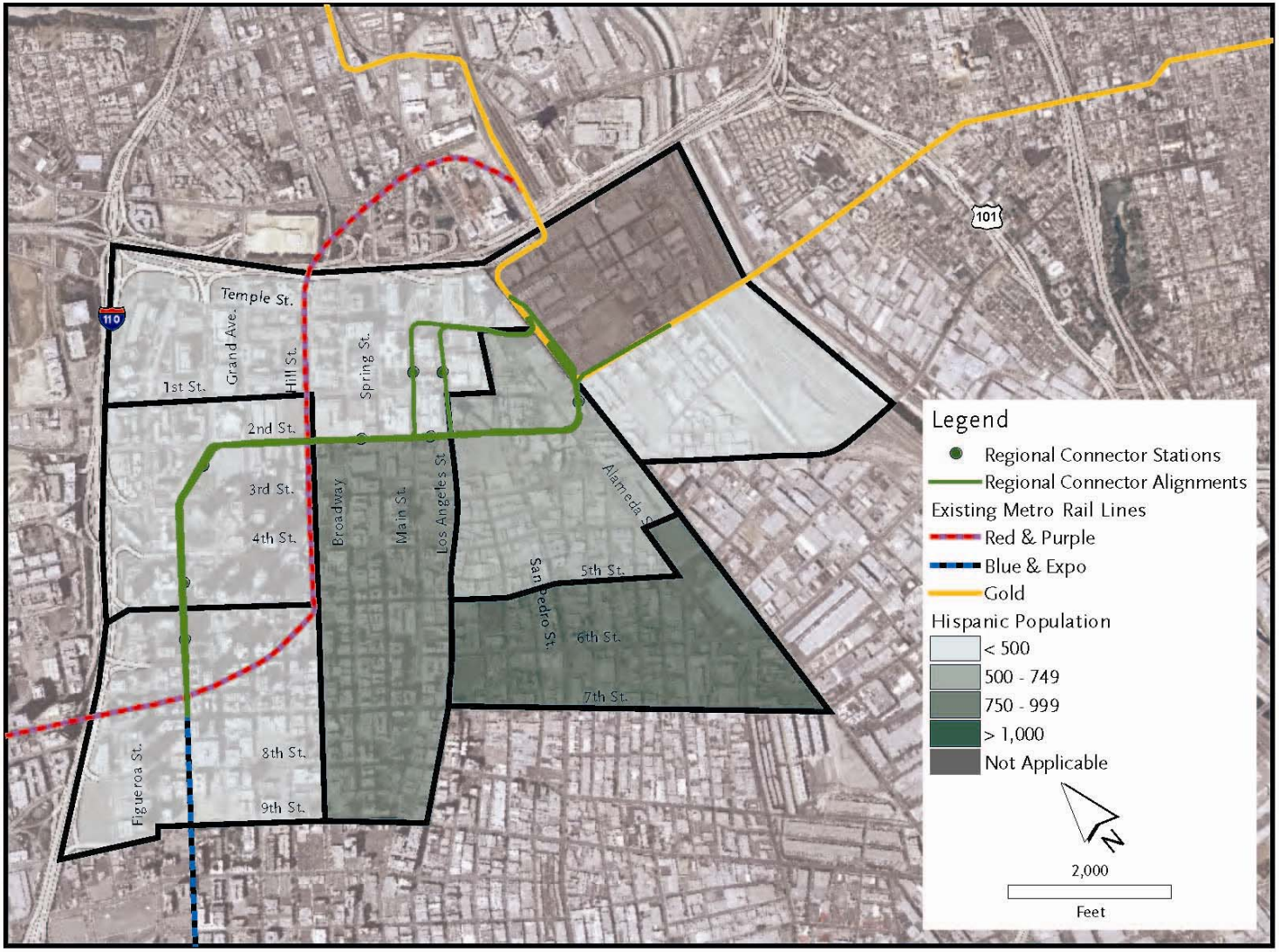


**Figure 3-5. Ethnicity, Hispanic Population in Project Area**

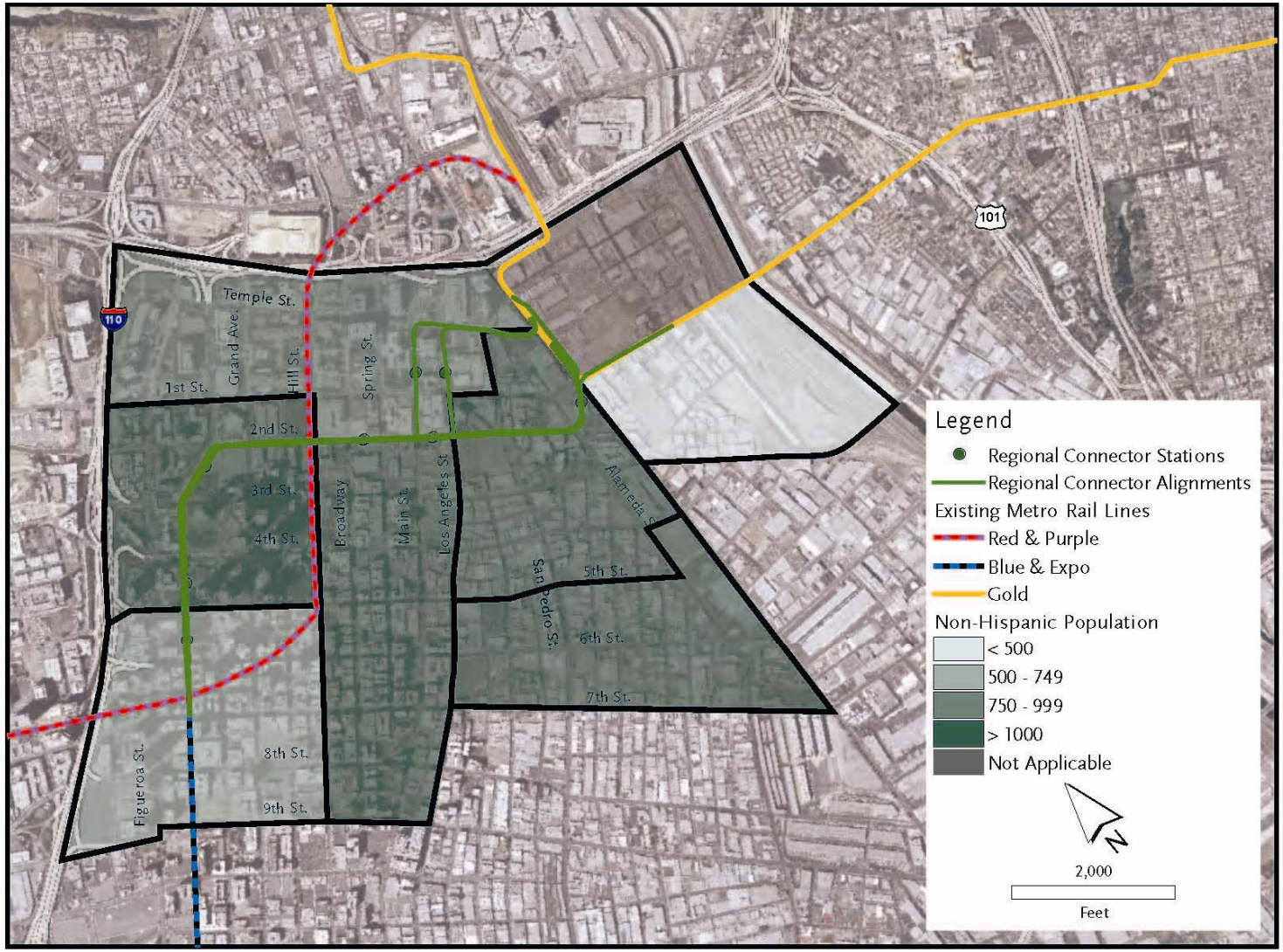


**Figure 3-6. Ethnicity, Non-Hispanic Population in Project Area**

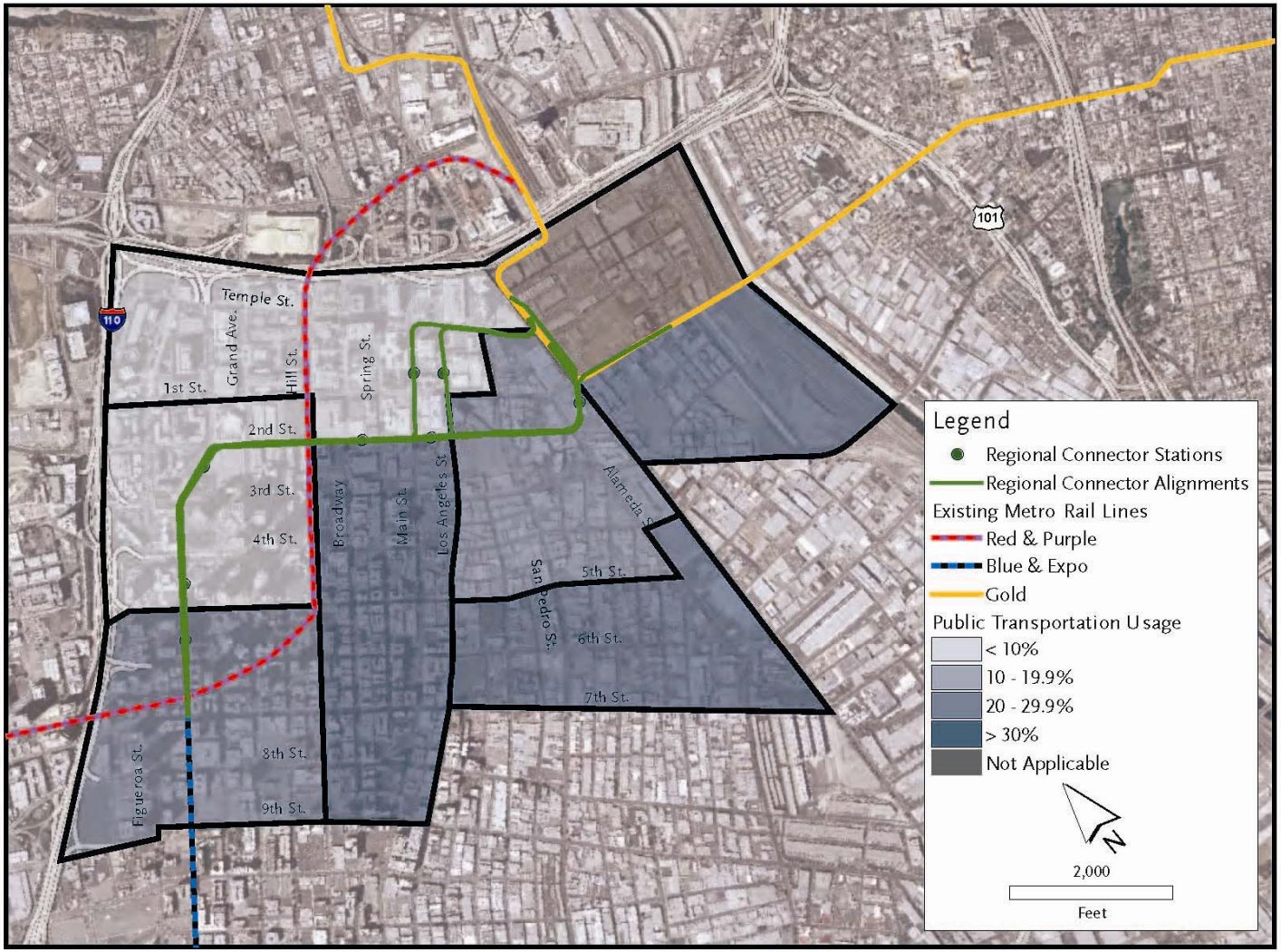


**Figure 3-7. Public Transportation Users in Project Area**

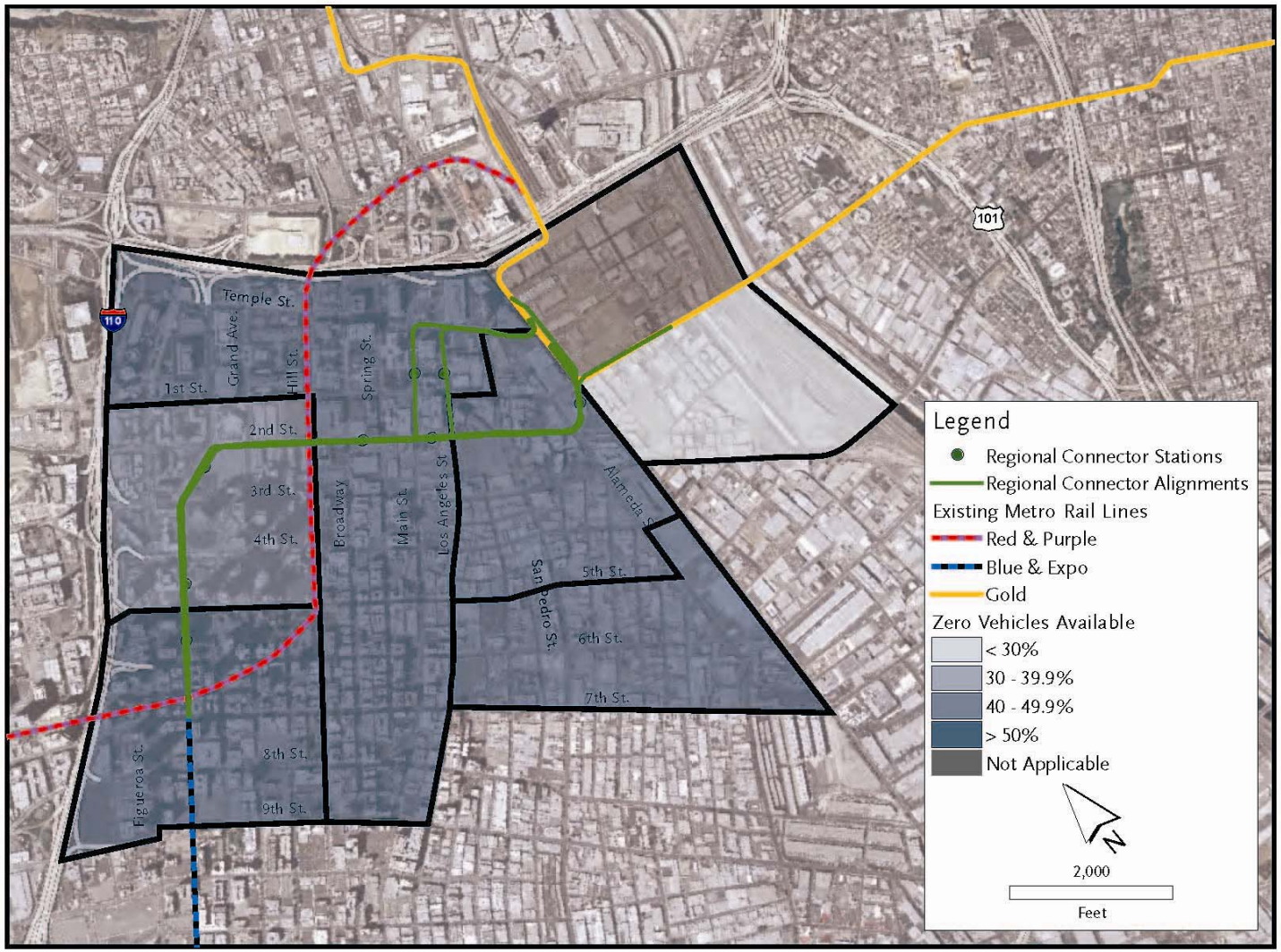


**Figure 3-8. Households with No Available Car in Project Area**

# 4.0 PUBLIC TRANSPORTATION FACILITIES AND SERVICES

## 4.1 Project Area Public Transit Context

Downtown has the highest concentration of transit service of any area in the County. At present, ten transit operators provide service along 110 bus routes and four Metro Rail lines within the project area, as illustrated in Figure 4-1. There is also heavy pedestrian activity throughout the project area. The bus and rail lines branch out in all directions from the project area to many destinations in Los Angeles County. Freeway express service also allows riders to reach destinations in Orange, San Bernardino, and Ventura Counties during peak commute hours.

## 4.2 Transportation Facilities and Services in the Project Area

### 4.2.1 Metro Rail

Metro provides rail service to the project area with the Metro Red Line from Union Station to North Hollywood, the Metro Purple Line from Union Station to Wilshire Center, the Metro Blue Line from the 7th Street/Metro Center Station to Long Beach, and the Metro Gold Line from East Los Angeles to Pasadena. The rail service consists of 70 rail stations and over 79 track miles.

Service has recently been extended to East Los Angeles through the opening of the Metro Gold Line to East Los Angeles and will be extended to Culver City in 2011 via the Metro Expo Line that is currently under construction. All Metro Rail stations provide connections to additional public transportation options, including Metrolink and Amtrak commuter rail services and bus service provided by Metro and other transit operators. Table 4-1 summarizes existing and future Metro Rail Lines currently under construction in the project area.


Figure 4-1. Metro Service Map for Downtown Los Angeles

| Table 4-1. Existing and Future Metro Rail Lines in the Project Area | | | | | |
|---|---|---|---|---|---|
| **Line** | **Mode** | **Route** | **Length** | **Weekday Ridership** | **Year Completed** |
| Existing Metro Rail Lines | | | | | |
| Red/Purple | HRT | Union Station to North Hollywood, Wilshire/Western | 17.4 Miles | 139,409 | 1993-2000 |
| Blue | LRT | 7th Street/Metro Center to Long Beach | 22 Miles | 70,583 | 1990-1991 |
| Gold | LRT | Sierra Madre Villa to East Los Angeles | 19.7 Miles | 28,227 | 2003, 2009 (Eastside Extension) |
| Future Metro Rail Lines (under construction) | | | | | |
| Expo | LRT | 7th Street/Metro Center to Culver City | 8.6 | 27,000 | 2011 |

[1] Source of anticipated weekday ridership: BuildExpo.org for projection year 2020

Metro Red Line – This heavy rail transit (HRT) subway line originates from Union Station and travels west (Figure 4-2). The line began operating with service between Union Station and Westlake/MacArthur Park station (5 stations) in 1993. An extension to Wilshire/Western station, which was later renamed the "Metro Purple Line," was completed in 1996. The extension of the Metro Red Line northwest from Wilshire/Vermont station to Hollywood/Vine station with an additional 5 stations opened in 1999. Three more stations were added with the opening of the extension to North Hollywood in 2000.


**Figure 4-2. Metro Red Line**

Metro Purple Line – This HRT line originated when the Union Station-Wilshire/Western route of the Metro Red Line was renamed the Metro Purple Line in 2006. Service began on this

route in two phases, in 1993 and 1996. As of the 2009 fiscal year, the Red and Purple Lines experienced approximately 139,409 weekday boardings on 17.4 miles of track.

Metro Blue Line – This line opened in 1990 and was the first light rail transit (LRT) system in Los Angeles since the previous rail transit system closed in the 1960s. The 22-mile line has 22 stations and runs from 7th Street/ Metro Center Station south to Long Beach. The Blue Line averaged 70,583 weekday boardings in the 2009 fiscal year.

Metro Gold Line – This LRT line from East Los Angeles to Pasadena has 21 stations, approximately 20 miles of track, and began operating in 2003 from Union Station to Pasadena. In the 2009 fiscal year, the line averaged 28,227 weekday boardings. The Metro Gold Line to East Los Angeles opened in late 2009, making stops in Little Tokyo, Boyle Heights, and East Los Angeles. The six-mile extension features eight new stations and connects with the existing Metro Gold Line to Pasadena without requiring riders to transfer at Union Station. Metro estimates that there will be 23,000 riders each weekday on the Metro Gold Line to East Los Angeles by 2020.

**Figure 4-3. Metro Gold Line**

Metro Expo Line – The first phase of the Exposition LRT line is expected to open in 2011. The 8.5-mile line will run primarily at grade and serve 11 stations from 7th Street/Metro Center Station in downtown to the intersection of Washington Blvd. and National Blvd. in Culver City. Average weekday ridership is expected to reach 43,600 by 2020 (Metro 2005). A second phase of the Expo Line to Santa Monica is currently in the planning phases.

There are four Metro Rail stations located within the project area. The HRT Metro Red and Purple Line stations are Civic Center Station (Hill Street between Temple and 1st Streets), Pershing Square Station (Hill Street between 4th and 5th Streets), and 7th Street/Metro Center Station (7th Street between Figueroa and Hope Streets, and Flower Street between Wilshire Blvd. and 8th Street). The 7th Street/Metro Center Station serves as a transfer point to the LRT Metro Blue Line as well. The LRT Little Tokyo/Arts District Station (Alameda Street between Temple and 1st Streets) is the newest station that opened in late 2009 as part of the Metro Gold Line to East Los Angeles.

### 4.2.2 Bus Service

Since downtown Los Angeles is a regional employment hub, there are numerous bus operators serving the area. These operators include:

- Antelope Valley Transit Authority (AVTA)
- City of Gardena (Gardena Municipal Bus Lines)
- City of Santa Clarita Transit
- City of Santa Monica (Big Blue Bus)
- Foothill Transit
- City of Los Angeles Department of Transportation (LADOT)
- Los Angeles County Metropolitan Transportation Authority (Metro)
- City of Montebello (Montebello Bus Lines)
- Orange County Transportation Authority (OCTA)
- City of Torrance (Torrance Transit)


**Figure 4-4. Metro Bus**

With the exception of Metro, LADOT, Montebello Bus Lines, City of Santa Monica, and Gardena Municipal Bus Lines, these transit operators run mostly peak commute (rush) hour, peak-direction commuter bus service in and out of the project area. LADOT provides both long-distance freeway commute service as well as frequent Downtown Area Short Hop (DASH) service along short, mostly circular shuttle routes within the downtown area. In addition to public transit services, several high-rise office building landlords within the project area offer shuttle bus service to Union Station for their tenants.

The majority of bus transit service in the project area, as well as the Los Angeles region, is provided by Metro, which operates a number of short and long-distance radial lines, as well as cross-town service, express service, and limited overnight service. The combined number of transit vehicle boardings and alightings in the project area on Metro buses alone totals 174,000 on a typical weekday. The 86,000 weekday boardings account for 15.2 percent of the 569,046 bus boardings system-wide.

Metro's bus transit services vary considerably in speed and capacity. The most basic routes provide line-haul service to and from downtown along arterial streets. Heavily-traveled routes often have overlaid limited-stop or Metro Rapid bus service.

Metro Rapid bus service includes traffic signal priority, short headways, and limited stops, which increase corridor average bus speeds by about 3-4 mph compared to local service, which typically operates in the 9-12 mph range. Metro currently provides Rapid service into the Regional Connector project area from major intersections along busy routes, including Beverly Blvd. (during peak hours only), Wilshire Blvd., Whittier Blvd., South Broadway, Hawthorne Blvd, Pico Blvd., and Central Avenue, Long Beach Blvd, Garvey Avenue, Cesar Chavez Avenue, and San Fernando Rd.

The majority of the publicly-provided commuter services originating east of downtown use the El Monte Busway. Constructed in 1976, these high capacity bus-carpool lanes parallel the San Bernardino Freeway (I-10) between the City of El Monte and downtown. Similarly, the commuter buses coming from points south and southeast of downtown primarily use the Harbor Transitway, completed in 1996, which runs along the median of SR-110 between Artesia Blvd. and Adams Blvd. Several transit operators use these facilities, and Metro also operates the Silver Line service, which runs on both facilities.

Busway stations are located in freeway medians which are uninviting to pedestrians and usually not immediately adjacent to activity centers. The busway stations are convenient to commuters who arrive on feeder bus lines or use adjacent park and ride lots. However, light rail stations are usually better situated to enhance neighborhood activity.

### 4.2.3 Commuter Rail

Commuter rail service to downtown is provided primarily by Metrolink and Amtrak, with connections to Metro Rail service at Union Station, located one-tenth-mile outside of the project area. Most passengers arriving at Union Station on Metrolink are bound for the central business district and presently use the Metro Red Line, DASH buses, or employer-provided shuttles to complete their trips. Some passengers may use the Regional Connector if it reduces trip times or transfers.

Metrolink has operated under the Southern California Regional Rail Authority (SCRRA) since 1992, serving the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. Metrolink provides 512 miles of service (including tracks shared with Amtrak) to 55 stations on seven routes. Average weekday ridership on Metrolink trains from October through December 2009 was over 40,000 daily boardings, with the majority of trips (57.5 percent) beginning or ending at Union Station.

Amtrak is an inter-city rail system providing passengers at Union Station with regional, statewide, and nationwide service.

## 4.3 Performance of the Travel System

Southern California is faced with multiple mobility challenges that hinder the region's ability to effectively meet additional travel demand. One of the most pressing issues is population growth. The County alone is expected to increase by 2.3 million people, nearly twice the population of the City of San Diego, to a total of 12.3 million people by 2035. This expected population growth will lead to increased travel demand throughout the region.

The transportation network includes 9,000 lane-miles of freeway, more than 42,000 lane-miles of arterials, and several large public transit service providers (SCAG 2008). Yet growth of the transportation system has not kept pace with population growth and increases in transportation demand. As the population in the region doubled from 1960 to 2000, highway miles increased by less than 30 percent (SCAG 2008). The congestion caused by insufficient transportation lanes affects both personal travel and goods movement. The majority of the congestion is from travel on the highways and local arterial network regardless of transportation mode. If the current trend persists, travel delays are expected to rise to 5.7 million person hours by 2035, more than double currently experienced delays, which will deeply affect highway productivity (SCAG 2008).

If inadequately addressed, these challenges could hamper future population growth, economic development, commuter safety, existing infrastructure, goods movement, air quality, and other environmental conditions. If no action is taken to improve transportation mobility, SCAG estimates that daily person hours of delay would increase from 2.2 million hours under the 2000 Base Year to 5.7 million hours under the 2035 Baseline.

To define and address mobility issues, SCAG developed regional performance indicators that help in understanding the problem, setting goals for improvement, and measuring progress towards the goals. The following section describes regional performance indicators and baseline estimates of performance. By providing more attractive alternatives to the automobile, improving transit connections to and through the downtown Los Angeles area becomes one part of a larger, comprehensive strategy to meet regional travel demand.

### 4.3.1 Traffic Volumes and Operating Conditions

Performance of intersections is measured by "level of service" (LOS) (Table 4-2). All of the key intersections currently operate at LOS D or better during both the AM and PM peak hours. Only the Figueroa Street and Wilshire Boulevard intersection is operating at LOS F in the PM peak hour (Figure 4-5). By 2035, up to 28 intersections in the project area will be at LOS E or F in the PM peak hour without transit improvements in the project area (Figure 4-6).

Freeways within the project area already operate at LOS F during peak hours and, if not addressed, this trend is expected to worsen through the year 2035. Nearly all areas of the County experience freeway congestion during peak hours. However, the congestion on

freeways within the project area is among the worst and occurs during both the morning and evening rush hour periods, as illustrated in Figure 4-7.

In addition to congestion at intersections and on the freeways, many of the key roadway segments are also projected to operate at LOS D or worse in 2035 in the absence of transit improvements in the project area. In particular, most of the segments along Alameda and 3rd Street are projected to be at LOS F.

For a complete description of the traffic operating conditions analysis, see the Transportation Technical Memorandum (Appendix L).

**Table 4-2. Level of Service Definitions**

| Level of Service | Volume/Capacity Ratio | Definition |
|---|---|---|
| A | 0.000 - 0.600 | FREE FLOW. No vehicle waits longer than one red light and no green light phase is fully used. |
| B | 0.601 - 0.700 | REASONABLY FREE FLOW. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles. |
| C | 0.701 - 0.800 | STABLE FLOW. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles. |
| D | 0.801 - 0.900 | APPROACHING UNSTABLE FLOW (acceptable for urban conditions). Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups. |
| E | 0.901 - 1.000 | UNSTABLE FLOW (practical capacity). Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles. |
| F | >1.000 | FORCED OR BREAKDOWN FLOW. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. There are tremendous delays with continuously increasing queue lengths. |

Source: Transportation Research Board, Highway Capacity Manual, 2000.

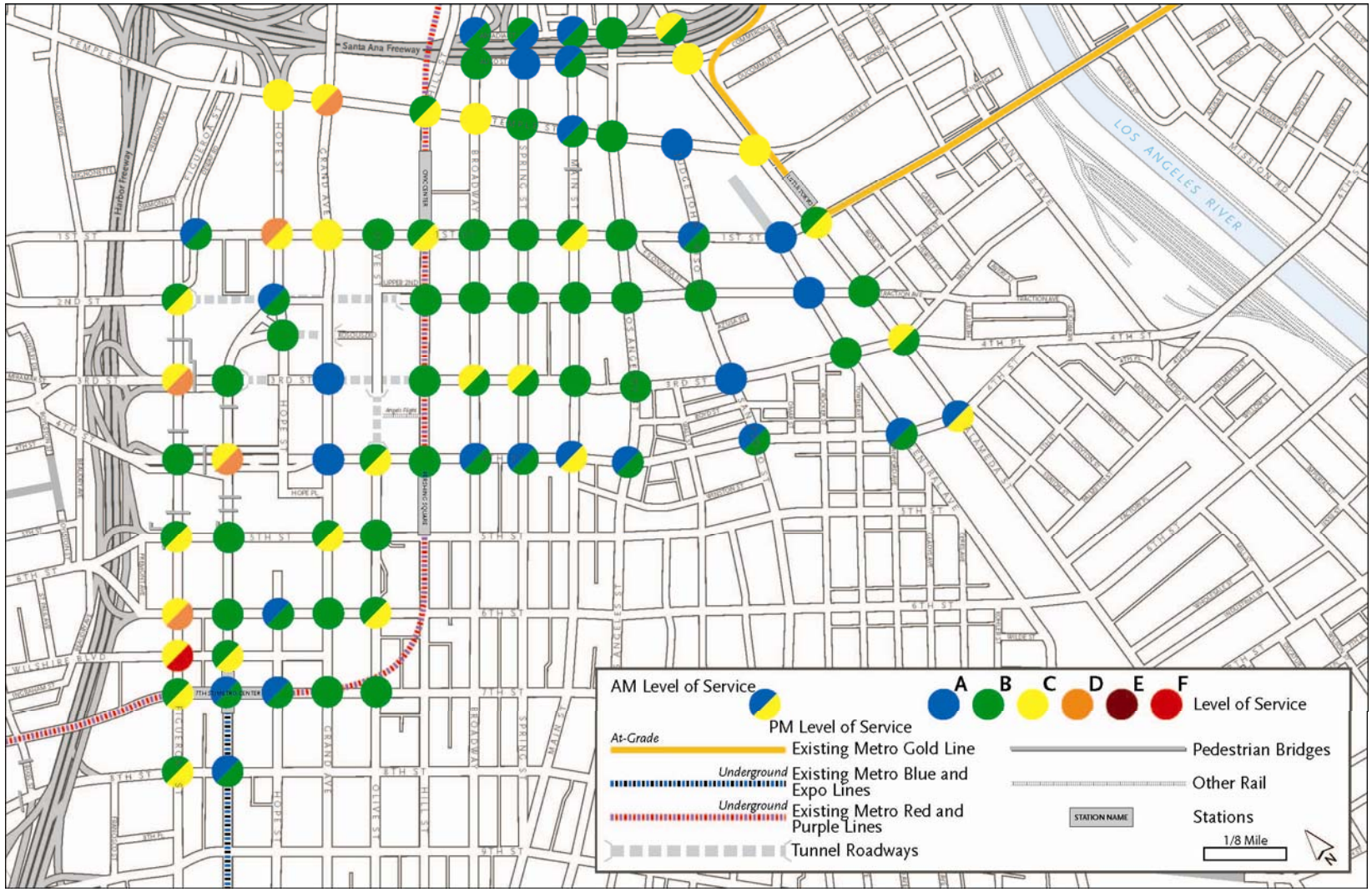


**Figure 4-5. Existing Level of Service in Project Area**

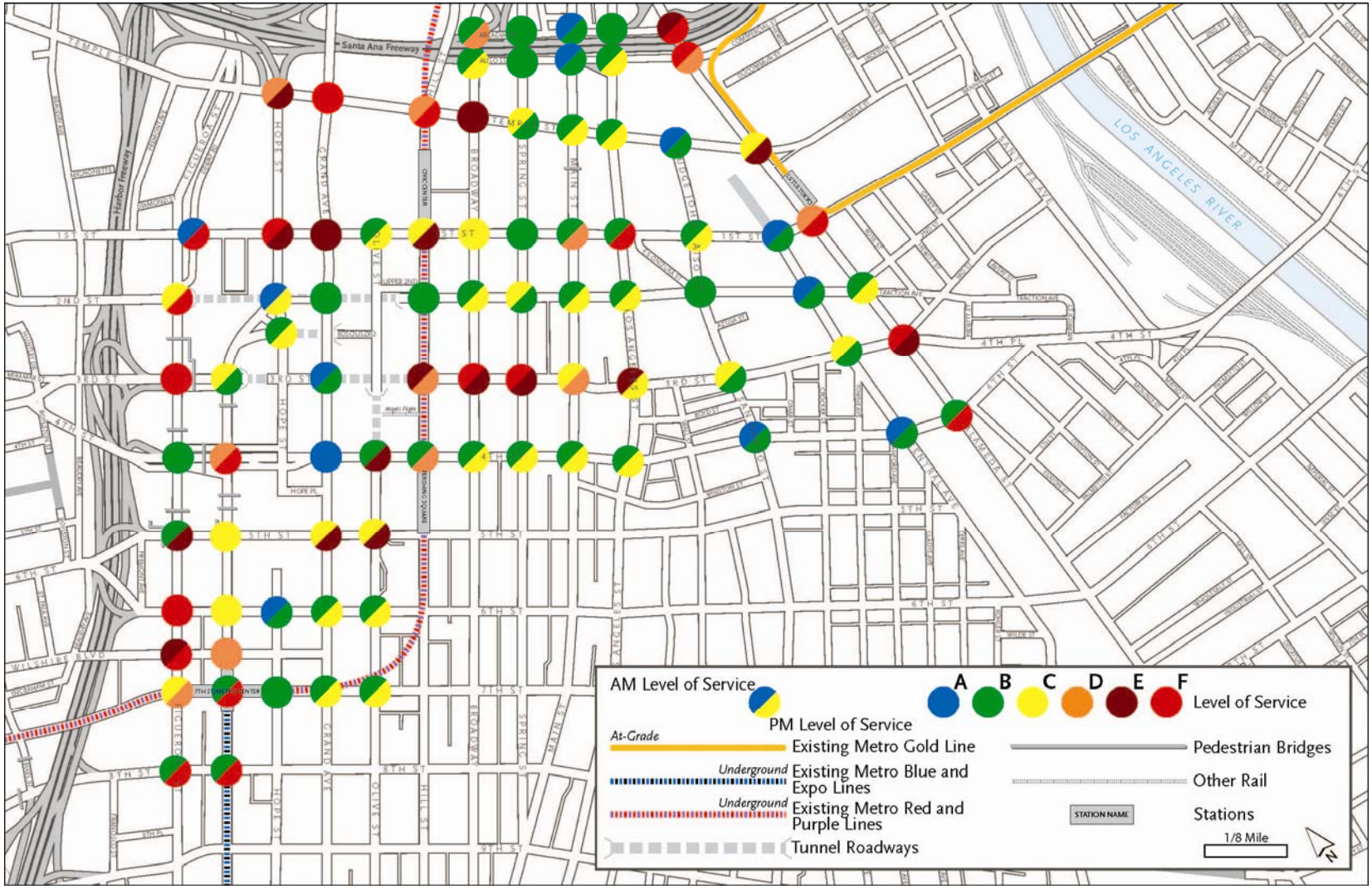


**Figure 4-6. Predicted Level of Service in Project Area Without Transit Improvements (2035)**

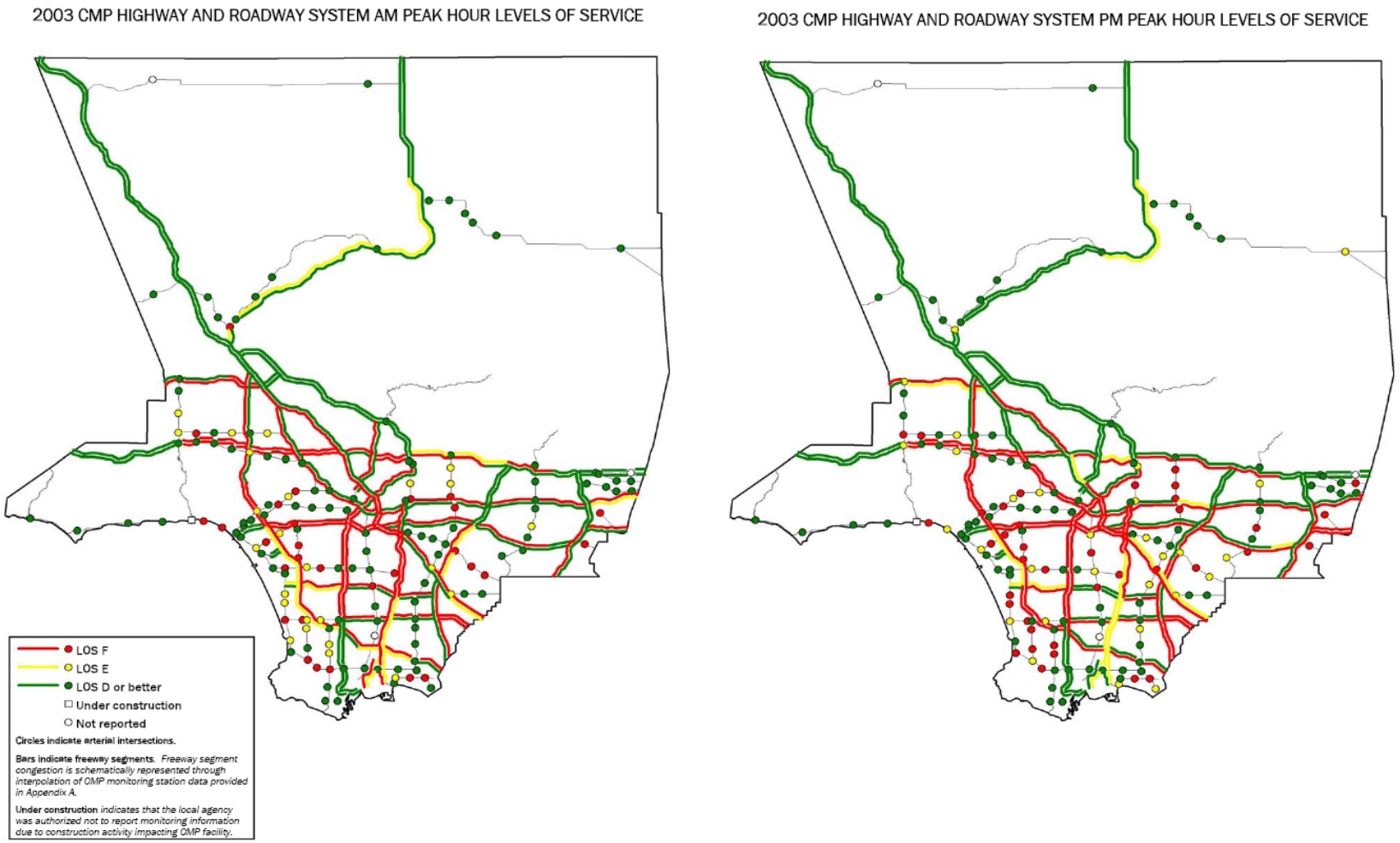


Figure 4-7. Freeway Levels of Service

### 4.3.2 Transit Operating Conditions

Bus service runs in a grid pattern through the downtown area, with most lines terminating at the periphery after having passed through. Nearly all streets within the project area have bus service during peak hours.

On several routes, headways shrink to less than five minutes during rush hour, and some stops are served by over a dozen lines. Some of the most heavily transit-served streets in the project area are 1st Street, the 4th Street/5th Street couplet, Hill Street, Broadway, the Main Street/Spring Street couplet, and the Grand Street/Olive Street couplet. Downtown streets with the highest bus ridership include Broadway, Hill Street, Spring Street, Main Street, Flower Street, and Grand Avenue.

Of the numerous bus routes serving downtown, over 30 pass within one block of both Union Station and the 7th Street/Metro Center Station, the termini of the Regional Connector corridor. There are 51 bus lines, mostly operated by Metro, with over 174,000 daily passenger boardings and alightings within the project area. Table 4-3 shows the bus lines provided by each bus operator, and the frequency of available service for each bus route.

The four busiest Metro bus lines serving the downtown area all originate in West Los Angeles or Santa Monica. The Metro bus lines with the highest number of boardings within the project area serve areas east and south of downtown. This supports the Westside, the Eastside, and South Los Angeles as primary origins and destinations for current bus passengers traveling in and out of the project area. See Table 4-4 for a summary of Metro bus transit ridership by line and direction.

Of the 38 Metro bus lines that pass within a block of both Regional Connector termini (Union Station and 7th Street/Metro Center Station) only a small percentage of the total ridership on these lines boards within the project area. This could indicate that riders are reluctant to transfer between modes (Table 4-5).

Most of the lines paralleling the Regional Connector route (serving both Union Station and the 7th Street/Metro Center Station) originate from points east of downtown, and five of them use the El Monte Busway. Most of the lines function primarily as peak hour commuter buses. Compared to other Metro bus lines in the project area, these routes do not carry as many riders which may be attributable to their lack of off-peak service.

Metro operates 125 bus stops within the project area. The five busiest Metro bus stops, each with 3,400 - 6,300 daily boardings, are located along Hill Street and Broadway between 5th and 7th Streets (Table 4-6). All of these stops are within one-quarter mile of the existing Pershing Square Station. If the Regional Connector includes stations near Broadway, Hill, and Spring Streets, it will enable transfers between the LRT system and the busiest north-south bus corridors in the area.

Most of the other busy Metro bus stops in the project area are located in the Financial Core and Civic Center areas, both of which will be served by the Regional Connector. Additionally, other transit operators have bus stops within the project area, although their ridership data were not available at this level of detail for this Draft EIS/EIR.

Table 4-3. Existing Bus Service in the Project Area

| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
|---|---|---|---|---|---|
| AVTA | 785 | Freeway Express Bus | 4AM-6AM, 3PM-6PM | 20 mins | Palmdale/Lancaster |
| BBB | 10 Express | Freeway Express Bus | 6AM-8PM | 15 mins | Santa Monica |
| Gardena | 1 | Freeway Express Bus | 5AM-12AM | 15 mins | Gardena/Lawndale |
| Foothill | 481 | Freeway Express Bus | 6AM-9AM, 3PM-6PM | 20 mins | El Monte/Wilshire Center |
| Foothill | 493 | Freeway Express Bus | 5AM-8AM, 2PM-8PM | 10 mins | Phillips Ranch/Diamond Bar/Puente Hills Mall Transit Center |
| Foothill | 497 | Freeway Express Bus | 5AM-8AM, 2PM-7PM | 12 mins | Chino/Industry |
| Foothill | 498 | Freeway Express Bus | 5AM-8AM, 2PM-7PM | 7 mins | Covina/Azusa |
| Foothill | 499 | Freeway Express Bus | 5AM-8AM, 2PM-7PM | 12 mins | San Dimas |
| Foothill | 699 | Freeway Express Bus | 4AM-8AM. 2PM-7PM | 9-12 mins | Montclair |

Table 4-3. Existing Bus Service in the Project Area

| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
|---|---|---|---|---|---|
| Foothill | Silver Streak | Freeway Express Bus | 24 Hours | 10 mins | Montclair |
| LADOT | CE 409 | Freeway Express Bus | 6AM-9AM, 4PM-6PM | 15 mins | Sylmar/Sunland/Tujunga/Montrose/Glendale |
| LADOT | CE 413 | Freeway Express Bus | 7AM-9AM, 4PM-6PM | 25 mins | Van Nuys/North Hollywood/Burbank |
| LADOT | CE 419 | Freeway Express Bus | 7AM-9AM, 4PM-7PM | 15 mins | Chatsworth/Northridge/Granada Hills/Mission Hills |
| LADOT | CE 422 | Freeway Express Bus | 5AM-9AM, 4PM-8PM | 8 mins | Hollywood/San Fernando Valley/Agoura Hills/Thousand Oaks |
| LADOT | CE 423 | Freeway Express Bus | 7AM-9AM, 4PM-7PM | 15 mins | Encino/Woodland Hills/Agoura Hills/Thousand Oaks/Newbury Park |
| LADOT | CE 430 | Freeway Express Bus | 6AM-7AM, 5PM-6PM | 30-50 mins | Brentwood/Pacific Palisades |
| LADOT | CE 431 | Freeway Express Bus | 7AM-9AM, 5PM-6PM | 30 mins | Westwood/Rancho Park/Palms |
| LADOT | CE 437 | Freeway Express Bus | 7AM-9AM, 4PM-6PM | 15-30 mins | Venice/Marina del Rey/Culver City |

| Table 4-3. Existing Bus Service in the Project Area | | | | | |
|---|---|---|---|---|---|
| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
| LADOT | CE 438/444 | Freeway Express Bus | 7AM-9AM, 4PM-6PM | 15 mins | Redondo Beach/Hermosa Beach/Manhattan Beach/El Segundo |
| LADOT | CE 448 | Freeway Express Bus | 7AM-9AM, 4PM-6PM | 15 mins | Rancho Palos Verdes/Torrance/Lomita/Wilmington Harbor City |
| LADOT | CE 534 | Freeway Express Bus | 7AM-8AM, 4PM-5PM | 30 mins | Century City/Westwood |
| LADOT | DASH A | Circulator Bus | 7AM-7PM | 7 mins | Little Tokyo/City West |
| LADOT | DASH B | Circulator Bus | 6AM-7PM | 8 mins | Chinatown/Financial District |
| LADOT | DASH C | Circulator Bus | 7AM-7PM | 7 mins | Financial District/South Park |
| LADOT | DASH D | Circulator Bus | 6AM-7PM | 5 mins | Union Station/South Park |
| LADOT | DASH E | Circulator Bus | 7AM-7PM | 5 mins | City West/Fashion District |
| LADOT | DASH F | Circulator Bus | 7AM-7PM | 10 mins | Financial District/Exposition |
| LADOT | DASH CH | Circulator Bus | 6AM-6PM | 6 mins | City Hall Shuttle |
| LADOT | DASH DD | Circulator Bus | Weekend Only | 20 mins | Downtown Discovery |

**Table 4-3. Existing Bus Service in the Project Area**

| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
|---|---|---|---|---|---|
| LADOT | DASH MBH | Circulator Bus | 7AM-9AM, 3PM-6PM | 10 mins | Metrolink/Bunker Hill |
| Metro | 2/302 | Local/Limited Stop Bus | 24 Hours | 4-10 mins | Pacific Palisades via Sunset Blvd. |
| Metro | 4 | Local Bus | 24 Hours | 9-15 mins | Santa Monica via Santa Monica Blvd. |
| Metro | 10 | Local Bus | 5AM-12AM | 7-15 mins | West Hollywood via Temple Street and Melrose Avenue |
| Metro | 14 | Local Bus | 24 Hours | 12-25 mins | Beverly Hills via Beverly Blvd. |
| Metro | 16/316 | Local/Limited Stop Bus | 4AM-1AM | 2-6 mins | Century City via 3rd Street |
| Metro | 18 | Local Bus | 24 Hours | 3 mins | Wilshire Center – Montebello via 6th Street and Whittier Blvd. |
| Metro | 20 | Local Bus | 24 Hours | 4 mins | Santa Monica via Wilshire Blvd. |
| Metro | 26/51/52/352 | Local/Limited Stop Bus | 24 Hours | 4 mins | Hollywood – Compton – Artesia Blue Line via Avalon Blvd. |
| Metro | 28 | Local Bus | 5AM-1AM | 8 mins | Century City via Olympic Blvd. |

| Table 4-3. Existing Bus Service in the Project Area | | | | | |
|---|---|---|---|---|---|
| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
| Metro | 30/31 | Local/Limited Stop Bus | 24 Hours | 30-50 mins | Pico-Rimpau – Monterey Park via Pico Blvd. and E 1st Street |
| Metro | 33/333 | Local/Limited Stop Bus | 24 Hours | 6-16 mins | Santa Monica via Venice Blvd. |
| Metro | 35/335[1] | Local/Limited Stop Bus | 4AM-1AM | 5-12 mins | Fairfax/Washington via Washington Blvd. |
| Metro | 37 | Local Bus | 24 Hours | 6-12 mins | Fairfax/Washington via Adams Blvd. |
| Metro | 38 | Local Bus | 24 Hours | 10-15 mins | 17th/Broadway – Fairfax and Washington via Jefferson Blvd. |
| Metro | 40 | Local Bus | 24 Hours | 6-15 mins | South Bay Galleria via Hawthorne Blvd., Crenshaw Blvd., and ML King Blvd. |
| Metro | 42/42A | Local Bus | 24 Hours | 9-16 mins | LAX via MLK Blvd., Stocker Street, and La Tijera Blvd. |
| Metro | 45 | Local Bus | 24 Hours | 4-10 mins | Lincoln Heights – Rosewood via Broadway |
| Metro | 48 | Local Bus | 5AM-11PM | 7-18 mins | Avalon Green Line via Main Street and S. San Pedro Street |

[1] Trips into Project Area operate after 7PM.

Table 4-3. Existing Bus Service in the Project Area

| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
|---|---|---|---|---|---|
| Metro | 53 | Local/Limited Stop Bus | 24 Hours | 6-20 mins | CSU Dominguez Hills via Central Avenue |
| Metro | 55/355 | Local/Limited Stop Bus | 24 Hours | 4-12 mins | Imperial Blue/Green Line via Compton Avenue |
| Metro | 60 | Local Bus | 24 Hours | 3-7 mins | Artesia Blue Line via Long Beach Blvd. |
| Metro | 62 | Local Bus | 5AM-11PM | 15-27 mins | Hawaiian Gardens via Telegraph Rd. |
| Metro | 66/366 | Local/Limited Stop Bus | 4AM-1AM | 1-10 mins | Wilshire Center - Montebello via 8th Street and Olympic Blvd. |
| Metro | 68/84 | Local Bus | 24 Hours | 7-10 mins | Eagle Rock Blvd. – Cypress Avenue – Montery Park via Cesar Chavez Avenue |
| Metro | 70 | Local Bus | 24 Hours | 10-12 mins | El Monte via Marengo St & Garvey Avenue |
| Metro | 71 | Local Bus | 4AM-1AM | 12-30 mins | Cal State LA via Wabash Avenue & City Terrace Dr. |
| Metro | 76 | Local Bus | 24 Hours | 7-15 mins | El Monte – Downtown LA via Valley Blvd. |
| Metro | 78/79/378 | Local/Limited Stop Bus | 5AM-1AM | 5-15 mins | Arcadia via Huntington Dr. and Las Tunas Dr. |

| Table 4-3. Existing Bus Service in the Project Area | | | | | |
|---|---|---|---|---|---|
| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
| Metro | 81 | Local Bus | 5AM-1AM | 3-10 mins | Eagle Rock - Exposition Park via Figueroa Street |
| Metro | 83 | Local Bus | 24 Hours | 8-10 mins | Eagle Rock via York Avenue |
| Metro | 90/91 | Local Bus | 5AM-12AM | 16-30 mins | Sunland via Glendale Avenue, Foothill Blvd. |
| Metro | 92 | Local Bus | 24 Hours | 10-20 mins | Burbank Station via Glenoaks Blvd., Brand Blvd., Glendale Blvd. |
| Metro | 94 | Local Bus | 5AM-1AM | 10-14 mins | Sun Valley via Hill Street & San Fernando Rd. |
| Metro | 96 | Local Bus | 5AM-8PM | 20 mins | Sherman Oaks via Griffith Park Dr. and Riverside Dr. |
| Metro | 439 | Freeway Express Bus | 5AM-9PM | 30-45 mins | Aviation Green Line via Culver City |
| Metro | 442 | Freeway Express Bus | 6AM-8AM, 4PM-6PM | 25-30 mins | Hawthorne via Harbor Transitway, Manchester Blvd., and La Brea Avenue |
| Metro | 445 | Freeway Express Bus | 5AM-7PM | 30 mins | San Pedro via Harbor Transitway, 1st Street, and Pacific Avenue |
| Metro | 450X | Freeway Express Bus | 6AM-9AM, 4PM-6PM | 12-20 mins | South Bay Express via Harbor Transitway |

| Table 4-3. Existing Bus Service in the Project Area | | | | | |
|---|---|---|---|---|---|
| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
| Metro | 460 | Freeway Express Bus | 5AM-12AM | 19-28 mins | Disneyland via Harbor Transitway, I-105, and I-5 |
| Metro | 484 | Freeway Express Bus | 5AM-12AM | 5 mins | Pomona via El Monte Busway and Valley Blvd. |
| Metro | 485 | Freeway Express Bus | 5AM-12AM | 12-15 mins | Altadena via El Monte Busway, Oak Knoll Avenue, and Lake Avenue |
| Metro | 487/489 | Freeway Express Bus | 6AM-9PM | 16-30 mins | El Monte – Downtown LA \| Temple City – Downtown LA |
| Metro | 490 | Freeway Express Bus | 5AM-11PM | 10 mins | Pomona via El Monte Busway and Ramona Blvd. |
| Metro | 704 | Rapid Bus | 6AM-8PM | 8-10 mins | Santa Monica Blvd. Rapid |
| Metro | 714 | Rapid Bus | 6AM-9AM, 3PM-6PM | 10-20 mins | Beverly Blvd. Rapid |
| Metro | 720 | Rapid Bus | 4AM-1AM | 3-12 mins | Wilshire Blvd. - Whittier Blvd. Rapid |
| Metro | 728 | Rapid Bus | 5AM-8PM | 8-15 mins | Olympic Blvd. Rapid |
| Metro | 730 | Rapid Bus | 5AM-9PM | 10 mins | Pico Rimpau via Pico Blvd. |

| Table 4-3. Existing Bus Service in the Project Area | | | | | |
|---|---|---|---|---|---|
| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
| Metro | 740 | Rapid Bus | 5AM-8PM | 10-15 mins | Hawthorne Blvd. Rapid |
| Metro | 745 | Rapid Bus | 5AM-8PM | 4-15 mins | South Broadway Rapid |
| Metro | 753 | Rapid Bus | 5AM-10PM | 10 mins | Imperial/Wilmington Station via Central Avenue |
| Metro | 760 | Rapid Bus | 5AM-8PM | 10-15 mins | Long Beach Blvd. Rapid |
| Metro | 770 | Rapid Bus | 6AM-6PM | 10 mins | Garvey Avenue - Cesar Chavez Avenue Rapid |
| Metro | 794 | Rapid Bus | 5AM-10PM | 10-14 mins | Sylmar Station via San Fernando Rd., Brand Blvd. |
| Metro | Blue Line | Light Rail | 5AM-12AM | 5 mins | Long Beach via South Los Angeles, Willowbrook, and Compton |
| Metro | Gold Line | Light Rail | 5AM-12AM | 7 mins | Pasadena and East Los Angeles |
| Metro | Red/Purple Line | Heavy Rail | 5AM-12AM | 5 mins | Wilshire Center and North Hollywood |
| Metro | Silver Line | Transitway | 24 Hours | 1 mins | Harbor Gateway and El Monte |
| Montebello | 40 | Local Bus | 5AM-10PM | 8 mins | Montebello and Whittier via Beverly Blvd. |
| Montebello | 50 | Local Bus | 5AM-12AM | 30 mins | Whittier and La Mirada via Washington Blvd. |

**Table 4-3. Existing Bus Service in the Project Area**

| Operator | Line | Mode | Weekday Hours of Operation | Peak Hour Frequency | Route Description |
|---|---|---|---|---|---|
| Montebello | 341 | Limited Stop Bus | 7AM-9AM, 4PM-6PM | 30 mins | Montebello and Whittier via Beverly Blvd. |
| Montebello | 342 | Limited Stop Bus | 7AM, 5PM | One Trip | Montebello and Whittier via Beverly Blvd. |
| OCTA | 701 | Freeway Express Bus | 5AM-6AM, 4PM-5PM | 20 mins | Huntington Beach |
| OCTA | 721 | Freeway Express Bus | 6AM-9AM, 3PM-6PM | 30 mins | Fullerton |
| Santa Clarita | 799 | Freeway Express Bus | 5AM-7AM, 3PM-7PM | 20 mins | Valencia/Santa Clarita |
| Torrance | 1 | Freeway Express Bus | 6AM-9AM, 4PM-10PM | 30 mins | Torrance via Harbor Transitway and Artesia Transit Center |
| Torrance | 2 | Freeway Express Bus | 7AM-7PM | 60 mins | Torrance via Harbor Transitway |

Source: Antelope Valley Transit Authority, City of Santa Monica, Foothill Transit, City of Los Angeles Department of Transportation, Los Angeles County Metropolitan Transportation Authority, Montebello Bus Lines, Orange County Transportation Authority, Santa Clarita Transit, Torrance Transit, 2007-2010

| Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter) | | | | |
|---|---|---|---|---|
| Line | Direction | Average Daily Boardings within Project Area | Average Daily Alightings within Project Area | Line Ridership |
| 2/302 | East | 287 | 1628 | 21875 |
| | West | 1617 | 603 | |
| 4/304 | East | 190 | 1392 | 20873 |
| | West | 1427 | 449 | |
| 10 | East | 815 | 1573 | 13510 |
| | West | 1494 | 842 | |
| 14/37 | North | 747 | 934 | 16911 |
| | South | 911 | 685 | |
| 16/316 | East | 171 | 3798 | 26731 |
| | West | 4406 | 667 | |
| 18 | East | 2930 | 4571 | 26970 |
| | West | 3672 | 2752 | |
| 20 | East | 178 | 1585 | 17757 |
| | West | 2105 | 359 | |
| 26/51/52/352 | East | 2175 | 2865 | 27640 |
| | West | 3254 | 2982 | |
| 28/328 | East | 55 | 933 | 9362 |
| | West | 561 | 42 | |
| 30/31 | East | 1876 | 1995 | 16668 |
| | West | 1942 | 1276 | |

| Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter) | | | | |
|---|---|---|---|---|
| Line | Direction | Average Daily Boardings within Project Area | Average Daily Alightings within Project Area | Line Ridership |
| 33/333 | East | 102 | 1088 | 23209 |
| | West | 1131 | 119 | |
| 35/335 | East | 7 | 34 | 9098 |
| | West | 56 | 13 | |
| 38 | East | 0 | 11 | 5982 |
| | West | 7 | 0 | |
| 40 | North | 539 | 1757 | 17718 |
| | South | 1716 | 440 | |
| 42/42A | North | 353 | 850 | 4904 |
| | South | 767 | 218 | |
| 45/46 | North | 1705 | 2570 | 20974 |
| | South | 3002 | 1555 | |
| 53 | North | 477 | 1867 | 10588 |
| | South | 2004 | 506 | |
| 55/355 | North | 114 | 944 | 10442 |
| | South | 887 | 120 | |
| 60 | North | 1709 | 3596 | 17625 |
| | South | 3852 | 1813 | |
| 62 | East | 875 | 201 | 4327 |
| | West | 287 | 941 | |

| Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter) | | | | |
|---|---|---|---|---|
| Line | Direction | Average Daily Boardings within Project Area | Average Daily Alightings within Project Area | Line Ridership |
| 66/366 | East | 1750 | 2336 | 23320 |
| | West | 2324 | 1955 | |
| 68/84 | North | 454 | 415 | 9515 |
| | South | 216 | 481 | |
| 70 | East | 1587 | 200 | 13518 |
| | West | 132 | 1582 | |
| 76 | East | 1203 | 169 | 10744 |
| | West | 99 | 1004 | |
| 78/79/378 | East | 1500 | 163 | 11490 |
| | West | 10 | 129 | |
| 81 | North | 1659 | 1259 | 17116 |
| | South | 1208 | 1920 | |
| 83 | North | 1048 | 210 | 5744 |
| | South | 92 | 840 | |
| 90 | North | 1029 | 126 | 6156 |
| | South | 61 | 912 | |
| 92 | North | 670 | 78 | 5791 |
| | South | 57 | 812 | |
| 94 | North | 1165 | 155 | 6891 |
| | South | 80 | 979 | |

| Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter) | | | | |
|---|---|---|---|---|
| Line | Direction | Average Daily Boardings within Project Area | Average Daily Alightings within Project Area | Line Ridership |
| 439 | North | 18 | 130 | 954 |
| | South | 136 | 30 | |
| 442 | North | 1 | 61 | 220 |
| | South | 63 | 7 | |
| 444 | North | 23 | 366 | 2982 |
| | South | 277 | 67 | |
| 445 | North | 17 | 307 | 1339 |
| | South | 240 | 33 | |
| 446/447 | North | 20 | 260 | 4147 |
| | South | 298 | 69 | |
| 450X | Clockwise | 257 | 276 | 804 |
| 460 | East | 547 | 31 | 4333 |
| | West | 12 | 577 | |
| 484 | East | 1090 | 57 | 7128 |
| | West | 45 | 1038 | |
| 485 | North | 295 | 25 | 2949 |
| | South | 31 | 460 | |
| 487/489 | East | 654 | 50 | 3965 |
| | West | 35 | 820 | |
| 490 | East | 757 | 37 | 5822 |

| Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter) | | | | |
|---|---|---|---|---|
| Line | Direction | Average Daily Boardings within Project Area | Average Daily Alightings within Project Area | Line Ridership |
| | West | 34 | 1027 | |
| 714 | East | 26 | 428 | 3924 |
| | West | 385 | 52 | |
| 720 | East | 1628 | 2708 | 38393 |
| | West | 3050 | 2104 | |
| 728 | East | 71 | 841 | 8638 |
| | West | 702 | 193 | |
| 730 | East | 91 | 779 | 5096 |
| | West | 771 | 117 | |
| 740 | North | 174 | 1305 | 9264 |
| | South | 1365 | 158 | |
| 745 | North | 253 | 2041 | 8048 |
| | South | 1880 | 259 | |
| 753 | North | 80 | 744 | 3116 |
| | South | 509 | 44 | |
| 760 | North | 528 | 1672 | 8675 |
| | South | 1592 | 506 | |
| 770 | East | 757 | 42 | 9494 |
| | West | 30 | 811 | |
| 794 | North | 895 | 57 | 6306 |

| Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter) | | | | |
|---|---|---|---|---|
| Line | Direction | Average Daily Boardings within Project Area | Average Daily Alightings within Project Area | Line Ridership |
| | South | 51 | 810 | |
| | TOTAL | 86435 | 87698 | 569046 |
| Total Boardings and Alightings in Project Area | | | 174133 | |

Source: Los Angeles County Metropolitan Transportation Authority, 2009
Note: no ridership data for Metro routes 96 & 489

| Table 4-5. Metro Bus Ridership on Lines Passing Within One Block of Both Union Station and 7th Street/Metro Center Station, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| Line | Average Daily Boardings within Project Area | Average Daily Boardings for Entire Line | Route Description |
| 20 | 667 | 17757 | Santa Monica via Wilshire Blvd. |
| 26/51/52/352 | 1728 | 27640 | Hollywood - Compton - Artesia Blue Line via Avalon Blvd. |
| 33/333 | 532 | 23209 | Santa Monica via Venice Blvd. |
| 40 | 425 | 17718 | Montebello and Whittier via Beverly Blvd. |
| 42/42A | 336 | 4904 | LAX via MLK Blvd., Stocker Street, and La Tijera Blvd. |
| 60 | 360 | 17625 | Artesia Blue Line via Long Beach Blvd. |
| 66/366 | 321 | 23320 | Wilshire Center - Montebello via 8th Street and Olympic Blvd. |
| 68/84 | 928 | 9515 | West LA - Montebello via Washington Blvd. and |

| Table 4-5. Metro Bus Ridership on Lines Passing Within One Block of Both Union Station and 7th Street/Metro Center Station, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| **Line** | **Average Daily Boardings within Project Area** | **Average Daily Boardings for Entire Line** | **Route Description** |
| | | | Cesar Chavez Avenue |
| 70 | 420 | 13518 | El Monte via Garvey Avenue |
| 78/79/378 | 846 | 11490 | Arcadia via Huntington Dr. and Las Tunas Dr. |
| 81 | 130 | 17116 | Eagle Rock - Exposition Park via Figueroa Street |
| 439 | 127 | 954 | Aviation Green Line via Culver City |
| 442 | 25 | 220 | Hawthorne via Harbor Transitway, Manchester Blvd., and La Brea Avenue |
| 444 | 279 | 2982 | Rancho Palos Verdes via Harbor Transitway and Hawthorne Blvd. |
| 445 | 234 | 1339 | San Pedro via Harbor Transitway, 1st Street, and Pacific Avenue |
| 446 | 279 | 4147 | San Pedro via Harbor Transitway, Avalon Blvd., and Pacific Avenue |
| 450X | 141 | 804 | South Bay Express via Harbor Transitway |
| 460 | 210 | 4333 | Disneyland via Harbor Transitway, I-105, and I-5 |
| 484 | 283 | 7128 | Pomona via El Monte Busway and Valley Blvd. |
| 485 | 74 | 2949 | Altadena via El Monte Busway, Oak Knoll Avenue, and Lake Avenue |
| 487/489 | 237 | 3965 | Sierra Madre Villa Gold Line via El Monte Busway |
| 490 | 182 | 5822 | Pomona via El Monte Busway and Ramona Blvd. |

**Table 4-5. Metro Bus Ridership on Lines Passing Within One Block of Both Union Station and 7th Street/Metro Center Station, Fiscal Year 2010 (1st Quarter)**

| Line | Average Daily Boardings within Project Area | Average Daily Boardings for Entire Line | Route Description |
|---|---|---|---|
| 704 | 282 | 12710 | Santa Monica Blvd. Rapid |
| 728 | 196 | 8638 | Olympic Blvd. Rapid |
| 740 | 360 | 9264 | Hawthorne Blvd. Rapid |
| 745 | 326 | 8048 | South Broadway Rapid |
| 760 | 689 | 8675 | Long Beach Blvd. Rapid |
| 770 | 667 | 9494 | Garvey Avenue - Cesar Chavez Avenue Rapid |
| | | Total | 11284 |

Source: Los Angeles County Metropolitan Transportation Authority, 2009

**Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)**

| East/West Street | North/South Street | Average Daily Boardings | Average Daily Alightings |
|---|---|---|---|
| 6th | Broadway | 5980 | 6739 |
| 7th | Broadway | 6384 | 5636 |
| 5th | Broadway | 5930 | 4516 |
| 7th | Hill | 3390 | 4338 |
| 5th | Hill | 4108 | 3790 |
| 9th | Broadway | 1247 | 2707 |

| Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| East/West Street | North/South Street | Average Daily Boardings | Average Daily Alightings |
| 1st | Hill | 2682 | 3280 |
| 5th | Spring | 2229 | 2152 |
| 5th | Grand | 2230 | 3151 |
| 6th | Hill | 1153 | 3206 |
| 7th | Flower | 3449 | 1659 |
| 7th | Spring | 1656 | 1262 |
| 6th | Hope | 1906 | 2533 |
| 1st | Broadway | 2355 | 2804 |
| 8th | Broadway | 3221 | 3436 |
| 7th | Main | 1097 | 1856 |
| 8th | Hill | 1098 | 1148 |
| 3rd | Broadway | 1694 | 1079 |
| 7th | Olive | 2797 | 1244 |
| 4th | Broadway | 1382 | 1336 |
| 5th | Olive | 2245 | 525 |
| 7th | San Pedro | 1375 | 1339 |
| 3rd | Hill | 824 | 1232 |
| Temple | Broadway | 1192 | 742 |
| 5th | Los Angeles | 1067 | 590 |
| Temple | Hill | 738 | 936 |

| Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| East/West Street | North/South Street | Average Daily Boardings | Average Daily Alightings |
| 7th | Grand | 931 | 1578 |
| 8th | Hill | 1098 | 1148 |
| Temple | Spring | 785 | 943 |
| 8th | Spring | 439 | 378 |
| 9th | Main | 890 | 931 |
| 6th | Main | 405 | 764 |
| 7th | Hope | 421 | 1021 |
| 7th | Alameda | 948 | 1124 |
| 1st | Spring | 733 | 974 |
| 6th | Spring | 649 | 489 |
| 6th | Central | 853 | 751 |
| 7th | Maple | 747 | 757 |
| 7th | Figueroa | 243 | 1028 |
| 7th | Central | 471 | 518 |
| 6th | Los Angeles | 525 | 1320 |
| 5th | Flower | 972 | 295 |
| 4th | Hill | 678 | 489 |
| 5th | Wall | 1016 | 261 |
| 4th | Spring | 18 | 209 |
| 9th | Hill | 245 | 406 |

| Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| **East/West Street** | **North/South Street** | **Average Daily Boardings** | **Average Daily Alightings** |
| 7th | Los Angeles | 418 | 350 |
| 8th | Olive | 537 | 268 |
| 6th | Grand | 192 | 741 |
| 6th | San Pedro | 288 | 568 |
| 9th | Olive | 217 | 396 |
| 6th | Wall | 209 | 485 |
| 3rd | Grand | 215 | 736 |
| Wilshire | Flower | 469 | 356 |
| 9th | Grand | 202 | 331 |
| 6th | Alameda | 351 | 364 |
| 5th | San Pedro | 515 | 221 |
| Temple | Grand | 211 | 522 |
| General Thaddeus | Olive | 583 | 276 |
| 8th | Flower | 386 | 309 |
| 1st | Hope | 350 | 311 |
| 8th | Grand | 230 | 226 |
| 1st | Main | 258 | 234 |
| 3rd | Spring | 91 | 140 |
| Wilshire | Figueroa | 253 | 352 |
| 6th | Gladys | 77 | 303 |

| Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| East/West Street | North/South Street | Average Daily Boardings | Average Daily Alightings |
| 8th | Main | 23 | 131 |
| 7th | Towne | 117 | 157 |
| 7th | Ceres | 28 | 159 |
| 1st | Judge John Aiso | 256 | 296 |
| 9th | Hope | 234 | 280 |
| 7th | Gladys | 125 | 43 |
| 5th | Central | 135 | 71 |
| 1st | Olive | 318 | 44 |
| 8th | Figueroa | 130 | 113 |
| 5th | Towne | 216 | 66 |
| 1st | Los Angeles | 112 | 224 |
| 9th | Figueroa | 73 | 172 |
| Temple | Figueroa | 130 | 155 |
| 7th | Francisco | 66 | 98 |
| Aliso | Spring | 131 | 6 |
| 6th | Towne | 66 | 212 |
| Aliso | Los Angeles | 121 | 7 |
| 6th | Kohler | 139 | 240 |
| 5th | Figueroa | 35 | 172 |
| Temple | Los Angeles | 76 | 91 |

| Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| East/West Street | North/South Street | Average Daily Boardings | Average Daily Alightings |
| 1st | Grand | 18 | 126 |
| 6th | Flower | 89 | 94 |
| 3rd | Main | 12 | 5 |
| Winston | Main | 50 | 6 |
| Division 1 Layover | | 4 | 4 |
| Temple | Judge John Aiso | 74 | 100 |
| 4th | Flower | 65 | 22 |
| 1st | San Pedro | 256 | 296 |
| 2nd | Spring | 44 | 42 |
| Temple | Main | 21 | 69 |
| Wilshire | Hope | 8 | 142 |
| 5th | Main | 592 | 491 |
| 2nd | Grand | 22 | 110 |
| Diamond | Figueroa | 7 | 47 |
| James M Wood | Francisco | 15 | 21 |
| Temple | Hope | 45 | 10 |
| 3rd | Flower | 39 | 35 |
| 3rd | Figueroa | 13 | 42 |
| 2nd | Olive | 159 | 49 |
| 2nd | Main | 13 | 85 |

| Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter) | | | |
|---|---|---|---|
| East/West Street | North/South Street | Average Daily Boardings | Average Daily Alightings |
| 4th | Figueroa | 54 | 63 |
| 2nd | Figueroa | 7 | 33 |
| 6th | Maple | 109 | 96 |
| 9th | Flower | 5 | 4 |
| 2nd | Hill | 69 | 41 |
| 8th | Francisco | 6 | 5 |
| Maple Lot | | 759 | 442 |

Source: Los Angeles County Metropolitan Transportation Authority, 2009

### 4.3.3 Regional Objectives

SCAG is responsible for regional transportation planning for six counties within Southern California: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In May of 2008, SCAG released its Regional Transportation Plan (RTP) entitled "Making the Connections." This document provides a basic policy and program framework to improve the transportation system and integrate it with the population growth patterns for the region through 2035.

Making the Connections is a performance-based plan with the following goals:

- Maximize mobility and accessibility,
- Ensure safety and reliability,
- Preserve our transportation system,
- Maximize productivity of our system,
- Protect the environment,

- Encourage land-use and growth patterns that complement our transportation system, and
- Maximize security through improved system monitoring, rapid recovery planning, and coordination with other agencies.

SCAG developed performance indicators and measures to quantify the goals and evaluate progress towards achieving the goals. Table 4-7 lists the performance indicators, associated measures, and final projected outcomes. The outcomes are estimated for the Plan as a whole for 2035, and not for individual projects.

If no action is taken, performance in the region will worsen. SCAG projects that between Base Year 2000 and 2035:

- Average travel speed will reduce by 12.5 percent from 31.0 miles per hour (mph) to 27.1 mph.
- Daily person-hours of delay will increase by over 100 percent from 5.9 million hours to 12.6 million hours.
- Average daily delay per person will increase by 58 percent from 20.0 minutes to 31.5 minutes.
- The percentage of peak period evening work trips completed within 45 minutes for autos will decrease from 74 percent to 73 percent; for public transit, it will decrease from 43 percent to 42 percent.

**Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals**

| Performance Indicator | Performance Measure | | Plan 2035 | Base Year 2003 | Baseline 2035 |
|---|---|---|---|---|---|
| Mobility | Average Daily Speed (Miles per Hour) | | 29.5 | 31.0 | 27.1 |
| | Average Daily Delay (Daily Person Hours in millions) | | 10.4 | 5.9 | 12.6 |
| Accessibility | Percent PM peak period | Autos | 76% | 74% | 73% |

**Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals**

| Performance Indicator | Performance Measure | | Plan 2035 | Base Year 2003 | Baseline 2035 |
|---|---|---|---|---|---|
| | work trips within 45 minutes of home | Transit | 45% | 43% | 42% |
| Reliability | Percent variation in travel time | 6AM-7AM | 14% | 16% | N/A |
| | | 7AM-8AM | 20% | 22% | |
| | | 8AM-9AM | 21% | 23% | |
| | | 3PM-4PM | 23% | 25% | |
| | | 4PM-5PM | 23% | 26% | |
| | | 5PM-6PM | 25% | 28% | |
| | | 6PM-7PM | 23% | 25% | |
| Safety | Daily accident rates per million persons | Fatalities | 0.27 | 0.28 | 0.31 |
| | | Injuries | 17.5 | 16.9 | 17.8 |
| | | Property Damage | 30.5 | 29.0 | 30.8 |
| Productivity | Roadway capacity – vehicles per hour/lane (Lost Lane Miles) | AM peak | 232 | 288 | N/A |
| | | PM peak | 348 | 434 | |
| Sustainability | Total cost per capita to sustain current system performance | | Plan 2035 estimates the transportation system will perform better in safety, preservation but worse in delay per capita | | |

**Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals**

| Performance Indicator | Performance Measure | | Plan 2035 | Base Year 2003 | Baseline 2035 |
|---|---|---|---|---|---|
| Preservation | Percent of bridges and roadways requiring rehabilitation | Roadways | 28% | 11% | N/A |
| | | Bridges | 24% | 6% | |
| Environmental | Emissions generated by travel (over Baseline 2030) | CO | 6-8% reduction | | |
| | | PM10 | 6-8% reduction | | |
| | | Exhaust PM10 | 8-11% reduction | | |
| Environmental Justice | Benefit vs. Burden by quintiles – Auto Percentage of Tax Paid and Time Savings<br><br>(Quintile 1=lowest income, Quintile 5=highest income) | | Plan 2035 estimates: | | |
| | | | Expenditure | Time Savings | |
| | | 1 | 9% | 11% | |
| | | 2 | 13% | 15% | |
| | | 3 | 18% | 21% | |
| | | 4 | 24% | 25% | |
| | | 5 | 36% | 27% | |
| | Benefit vs. Burden by quintiles – Local Transit Percentage of Tax Paid and Time Savings<br><br>(Quintile 1=lowest income, Quintile 5=highest income) | | Plan 2035 estimates: | | |
| | | | Expenditure | Time Savings | |
| | | 1 | 9% | 37% | |
| | | 2 | 13% | 28% | |

**Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals**

| Performance Indicator | Performance Measure | | Plan 2035 | Base Year 2003 | Baseline 2035 |
|---|---|---|---|---|---|
| | | 3 | 18% | | 19% |
| | | 4 | 24% | | 11% |
| | | 5 | 37% | | 5% |

Source: SCAG 2008 RTP

The transit improvements within the Regional Connector project corridor would contribute to alleviating the mobility problem in the region and to achieving the Destination 2035 goals. It would do this by:

- Extending the reach and connectivity of all but one of Metro's operational and under-construction LRTs;
- Broadening the range of downtown destinations reachable with one transfer from the Metro Red and Metro Purple Lines;
- Alleviating congestion on the downtown bus network; and
- Increasing the availability of direct service to multiple destinations in Los Angeles County for passengers arriving on intercity services at Union Station.

The area from which Regional Connector ridership is expected to be drawn includes several freeways and major intersections that have significant traffic congestion and long delays. The improved convenience of transit improvements in the Regional Connector Transit Corridor would encourage use of a public transit alternative that would reduce daily vehicle trips, miles traveled, and congestion on the region's roadways.

Transit improvements within the Regional Connector Transit Corridor would also augment public transportation service originating in areas with high population densities and households dependent on public transit. This would increase potential ridership, thereby increasing the project benefits and making it more cost-effective. In addition, the Regional Connector's service area covers the County's most highly-concentrated employment area and a major cultural, entertainment, and tourist destination.

# 5.0 NEED FOR REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

In evaluating the mobility and travel conditions within the project area several issues emerge that reveal a need to provide improved transit connections and service across downtown Los Angeles. These needs include:

- Growth in population and employment will continue to draw both local and regional residents to the project area creating demand for transit services.
- Transit system expansions to the radial network centered on downtown Los Angeles will continue to funnel riders into the unconnected core creating concerns related to insufficient Red Line capacity for connecting riders, overcrowded station platforms, and regional system schedule reliability.
- Transit dependent populations within the project area include low income households, significant populations of very old persons, and a high percentage of zero car households.
- Travel demand data highlights the congested nature of the downtown core, the high percentage of commuters that come from outside of the project area, and the built up nature of the project area that prevents expansion of the road network.
- Transit usage requires multiple transfers for cross-town trips for both local and regional riders increasing travel times.
- Local land use plans and policies support increased transit alternatives, linking the regional system through downtown, and transit and pedestrian friendly design in downtown communities.

## 5.1 Growth and Increased Demand for Transit Services

One of the most pressing issues affecting the region's ability to effectively meet travel demands is population growth. Los Angeles County alone is expected to increase 18 percent to a total of 12.3 million people by 2035. Within the project area, population growth is expected to exceed 31 percent (Table 5-1). Along with increased population, employment within the project area is also expected to increase 7 percent by 2035 (Table 5-1). This expected growth will lead to increased travel demand throughout the region.

Employment in the project area is higher than the population (Table 5-1) which indicates that most of the people who work in the project area do not also live there and must come into the area from the surrounding region. As shown in Figure 5-1 and 5-2, the areas of highest

population density are not in the same locations as the areas of highest employment density. This geographical difference between where people live and where they work creates a transportation need. Improvements to transit services in downtown Los Angeles will be needed to bring workers from areas of high population and low employment density to the project area, where the highest concentration of employment opportunities is located. Figures 5-3 and 5-4 show that this condition is not expected to change in the projection year 2035.

In addition to regional commuters, the increase in population within the project area will continue to create a need to provide a variety of transit options within downtown Los Angeles. Transit improvements that increase mobility within the project area will benefit this increased population as well.

**Table 5-1. Population, Household, and Employment Growth**

| Area of Growth | 2008 | 2035 Forecast | Percent Change 2008-2035 (%) |
|---|---|---|---|
| **Population** | | | |
| Project Area | 19,396 | 25,417 | 31.0 |
| LA County | 10,449,838 | 12,338,620 | 18.1 |
| **Households** | | | |
| Project Area | 9,648 | 13,054 | 35.3 |
| LA County | 3,298,886 | 4,003,501 | 21.4 |
| **Employment** | | | |
| Project Area | 171,750 | 184,567 | 7.4 |
| LA County | 4,498,598 | 5,041,172 | 12.1 |

Source: SCAG, 2008 data and 2035 projections.

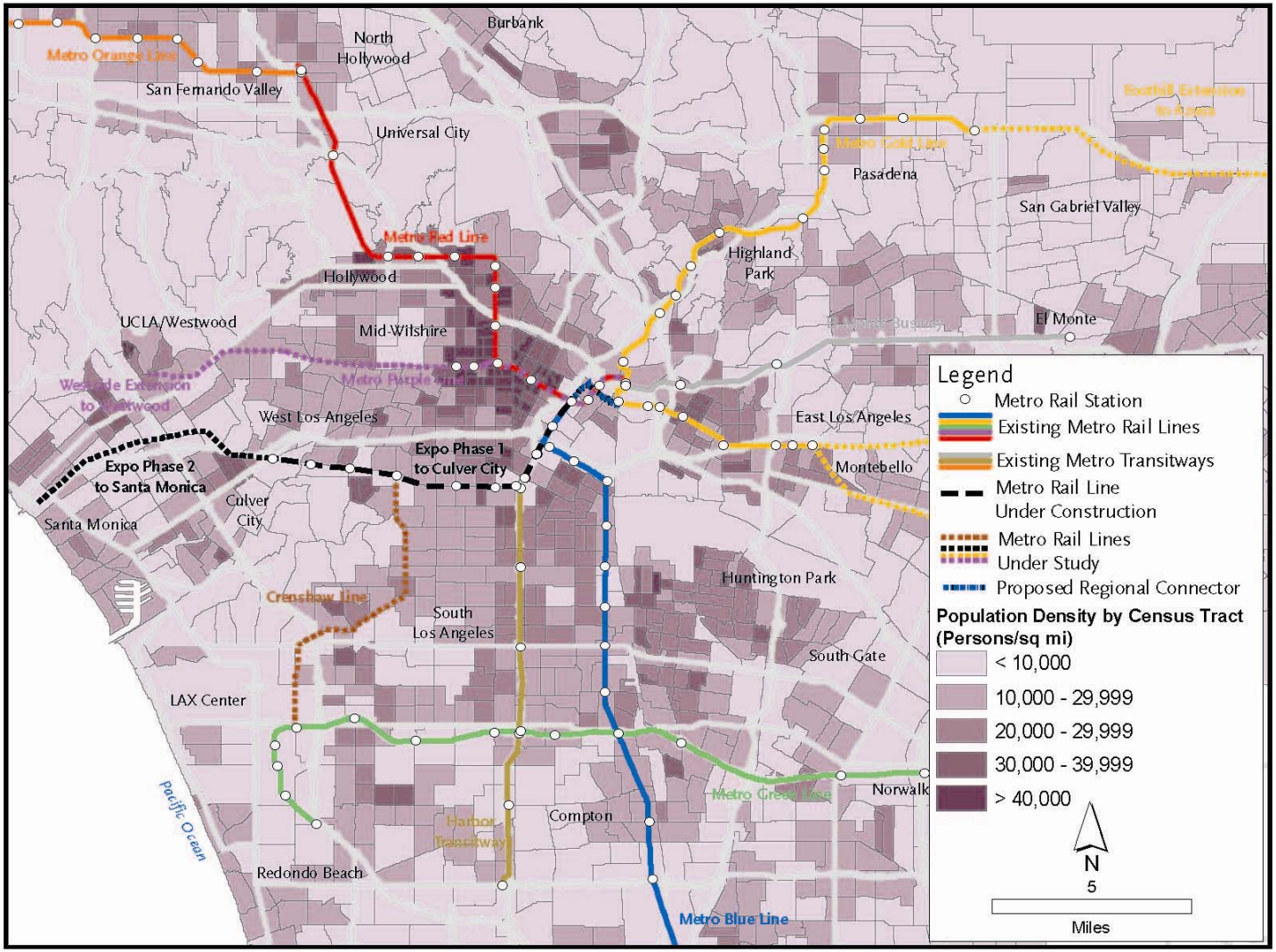


**Figure 5-1. Regional Population Density (2005)**

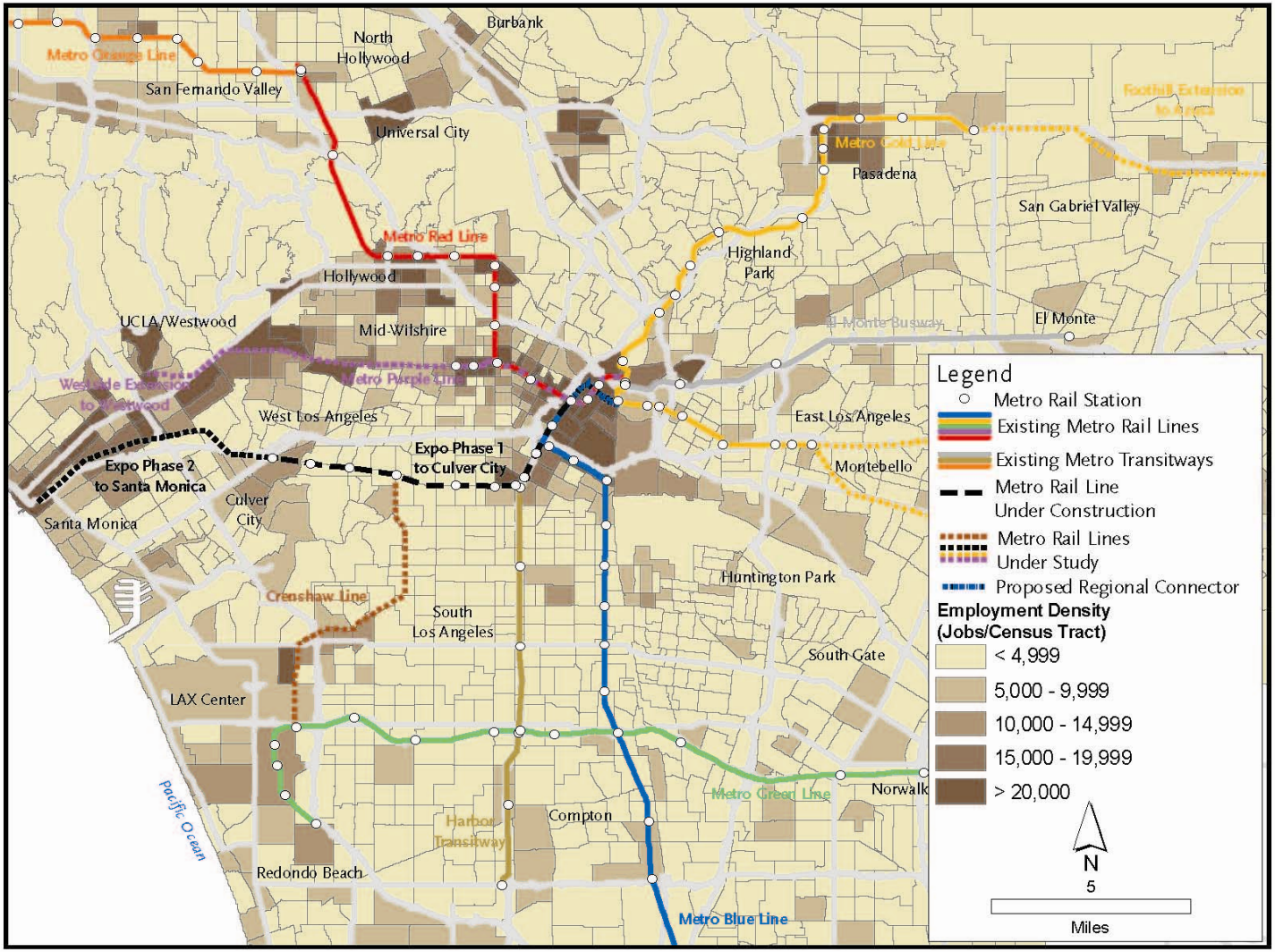


**Figure 5-2. Regional Employment Density (2005)**

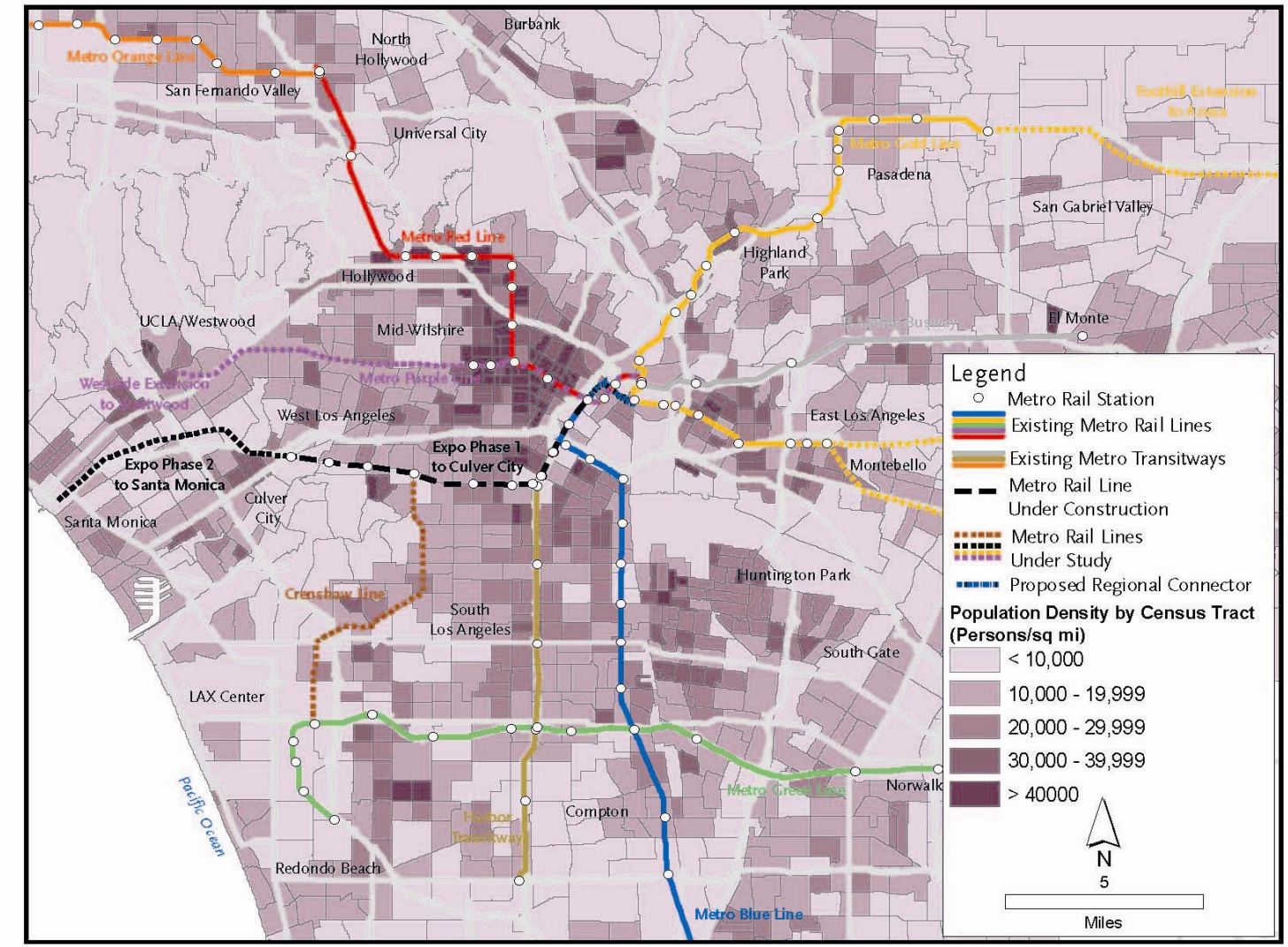


**Figure 5-3. Projected Regional Population Density (2035)**

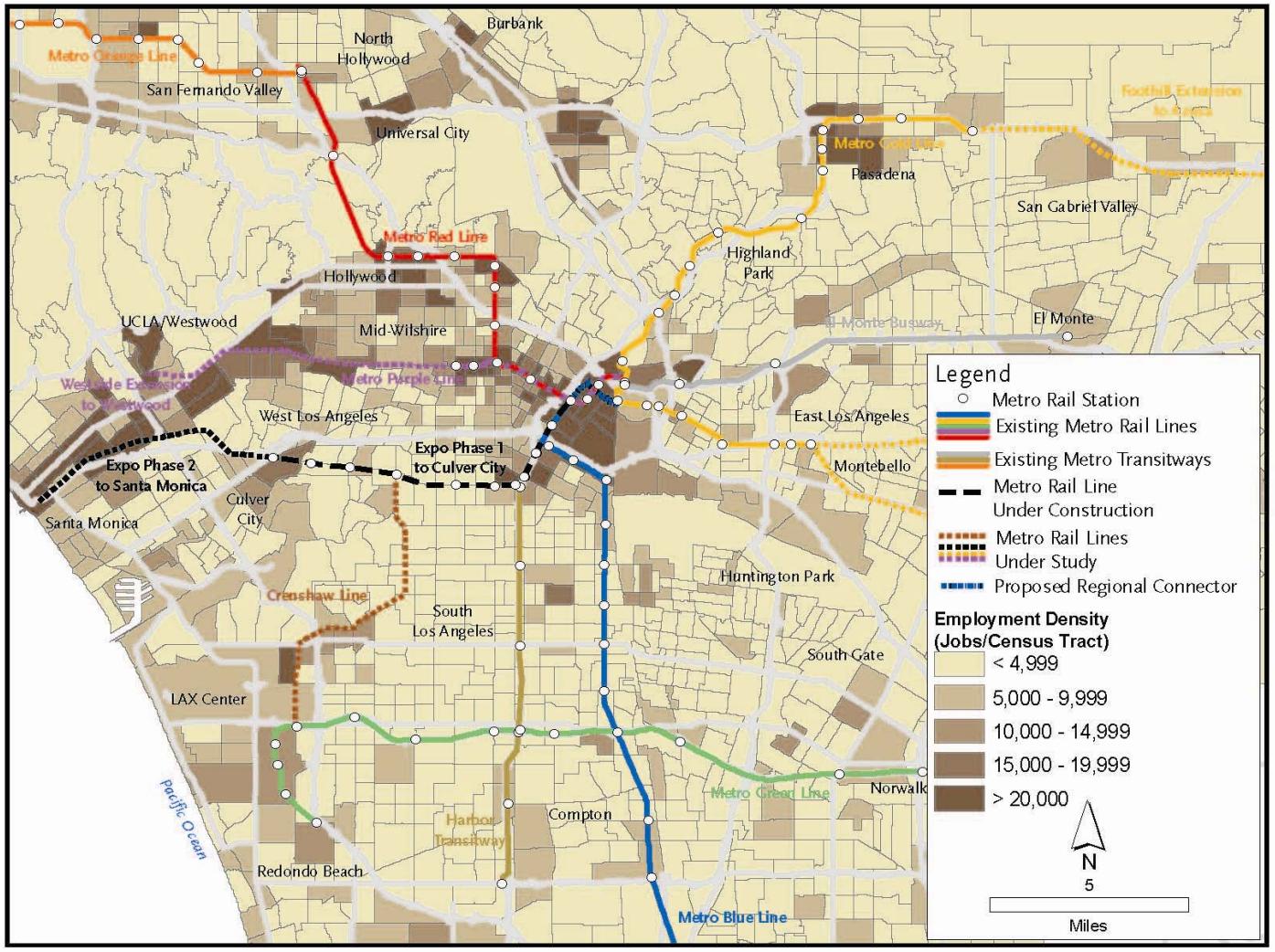


**Figure 5-4. Projected Regional Employment Density (2035)**

Census tracts with the largest populations (greater than 2000 people) are found within the project area east of Main Street between 1st Street and 7th Street and east of San Pedro Street between Temple Street and 1st Street According to SCAG projections, in 2035, slightly less growth is expected in the project area compared to the whole County. The population in the project area is expected to grow by about 30 percent from about 19,396 in 2008 to 25,417 people in 2035.

The largest growth in the project area is projected in two locations:

- The area bounded by SR-110, Hill Street, 1st Street, and 3rd Street, which will increase from between 1,500 to 1,999 people to over 2,000 people; and
- The area bounded by Hill Street, Main Street, 7th Street, and 9th Street, which will increase from 1,000 to 1,499 people to 1,500 to 1,999 people.

Projected population is based on fairly conservative estimates made by SCAG in 2008. Figures 5-5 and 5-6 show the distribution of existing and projected total population within the project area.

Several planned high-rise residential projects in the project area contribute to the high level of expected growth. These include the Park Fifth condominium project at 5th and Hill Streets, the Block 8 condominium and rental project under construction between 2nd, 3rd, San Pedro, and Los Angeles Streets, and the 8th & Grand condominium and retail project at 8th Street and Grand Avenue.

The total number of households is also projected to increase 27 percent from about 10,300 in 2008 to 13,000 in 2035, which is higher than the 21 percent projected for the County.

The employment base is projected to increase by about 7 percent from over 171,700 individuals in 2008 to over 184,500 in 2035. Current and projected employment within the project area are both between three and four percent of total County employment.

Figure 5-7 shows the distribution of employment in the project area in 2005. At that time, total employment in a majority of the census tracts within the project area was over 5,000, with areas of highest concentration (greater than 12,500 jobs) in three locations:

- The area bounded by SR-110, Flower Street, 7th Street, and 9th Street;
- The area bounded by SR 110, Hill Street, US 101, and 1st Street; and
- Part of the area bounded by Hill Street, Alameda Street, US 101, and 2nd Street

A large employment base indicates that a significant number of workers commute within, into, and out of the project area. Figure 5-8 shows the projected distribution of employment in 2035.

Providing public transportation to densely-populated areas can increase ridership by making transit more accessible to a larger population. The areas of highest population density are found in two locations within the project area:

- The area bounded by 1st Street, 3rd Street, SR 110, and Hill Street; and
- The area south of 5th Street and east of Hill Street

Figure 5-9 shows the distribution of population densities according to the 2000 census. The highest employment density exists in the project area in the area bounded by US-101, 3rd Street, SR 110, and Hill Street (Figure 5-10).

Average population density is projected to grow to roughly 12,700 persons per square mile, and average employment density is expected to be over 92,000 employees per square mile. Figures 5-11 and 5-12 show projected 2035 population and employment densities.

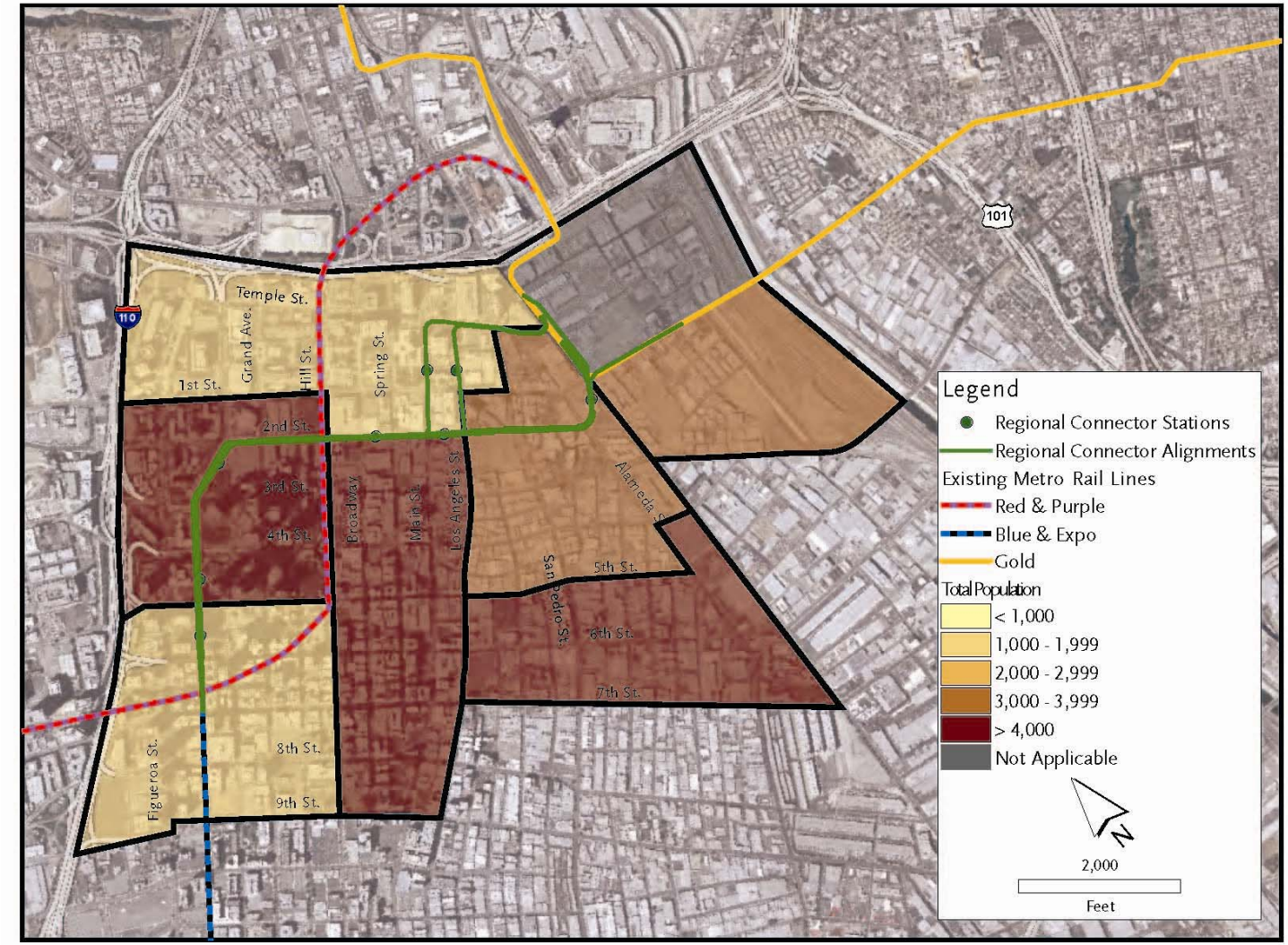


**Figure 5-5. Population in Project Area (2005)**

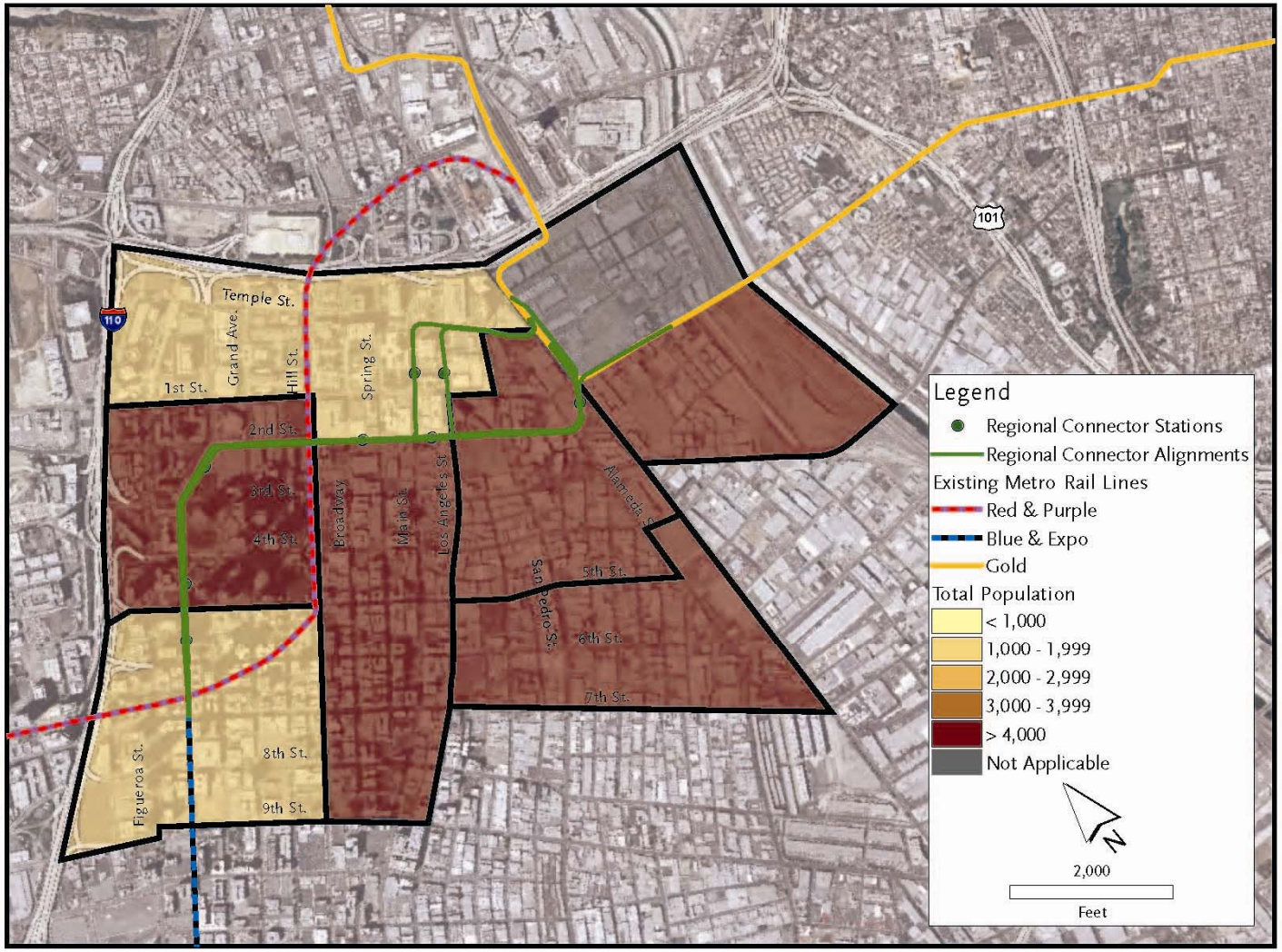


**Figure 5-6. Projected Population in Project Area (2035)**

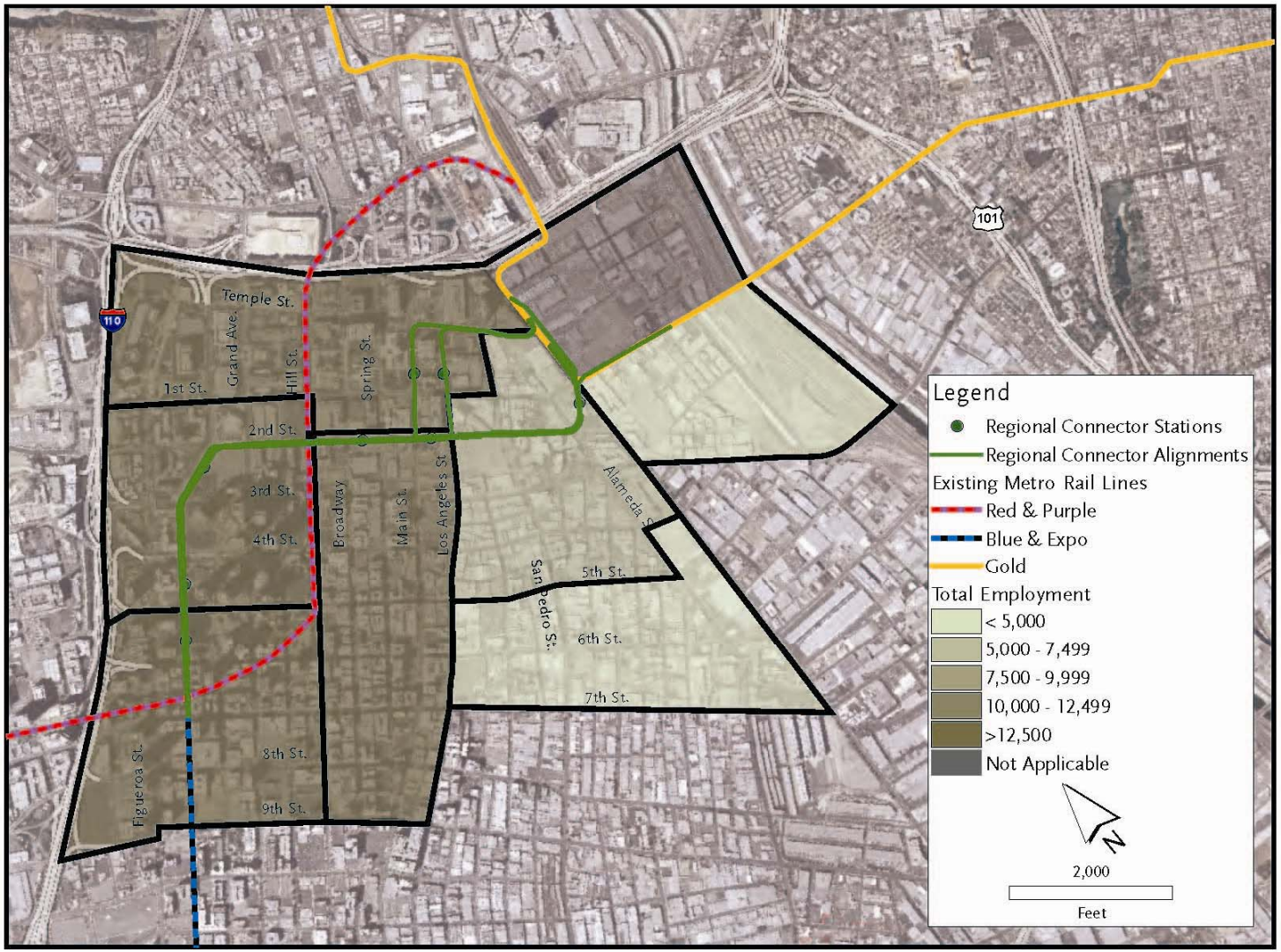


**Figure 5-7. Employment in Project Area (2005)**

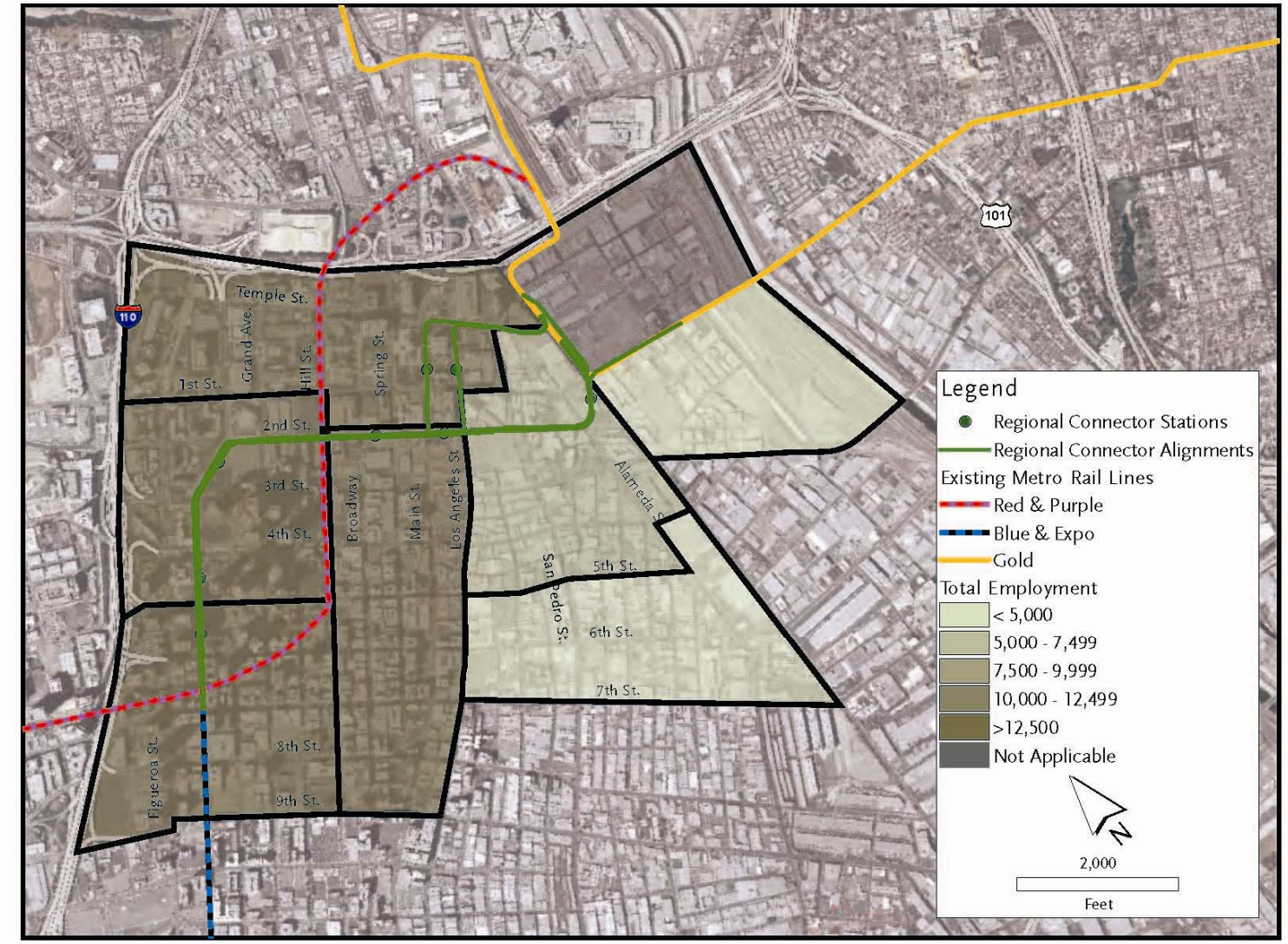


**Figure 5-8. Projected Employment in Project Area (2035)**

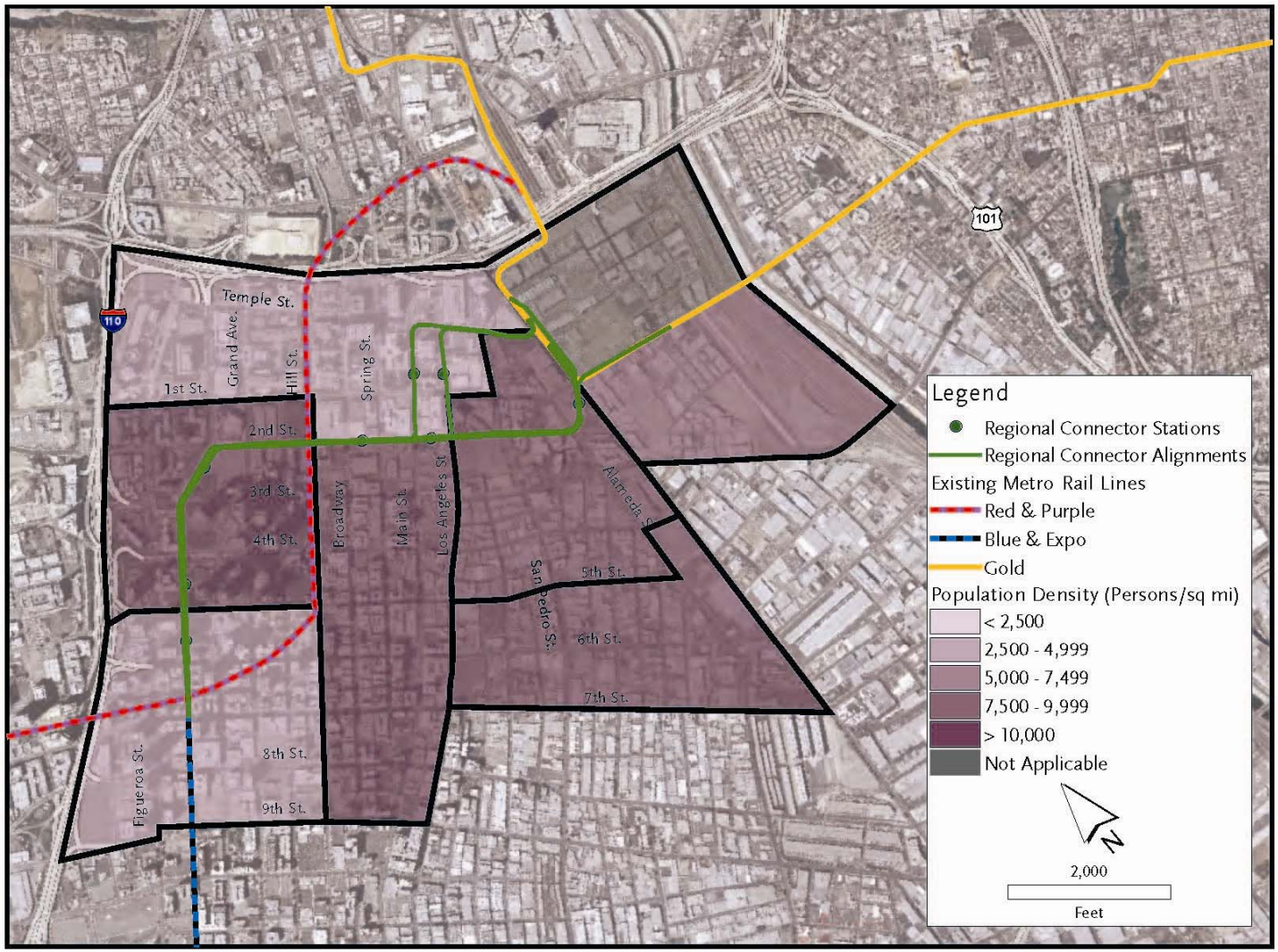


**Figure 5-9. Population Density in Project Area (2005)**

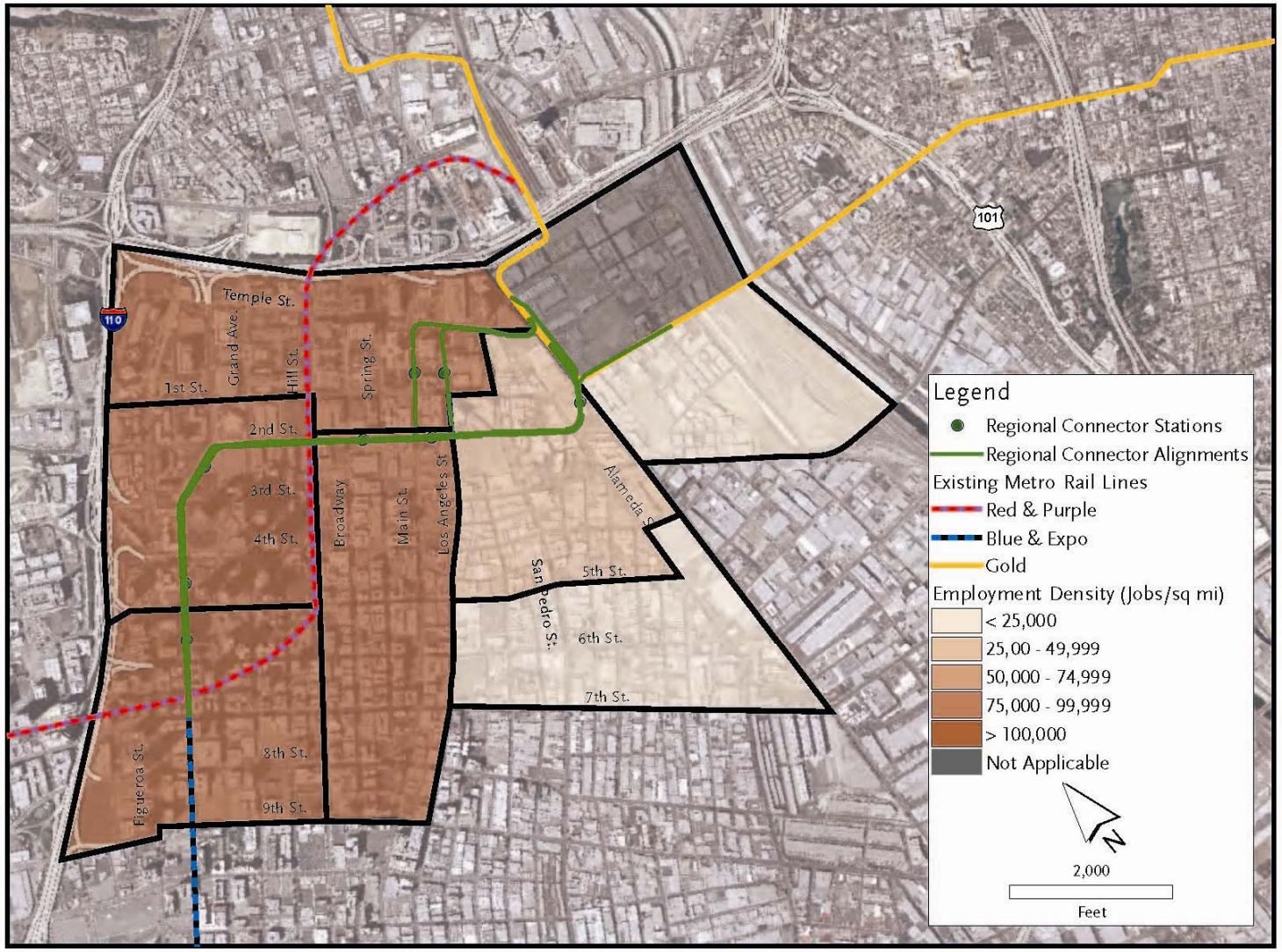


**Figure 5-10. Employment Density in Project Area (2005)**

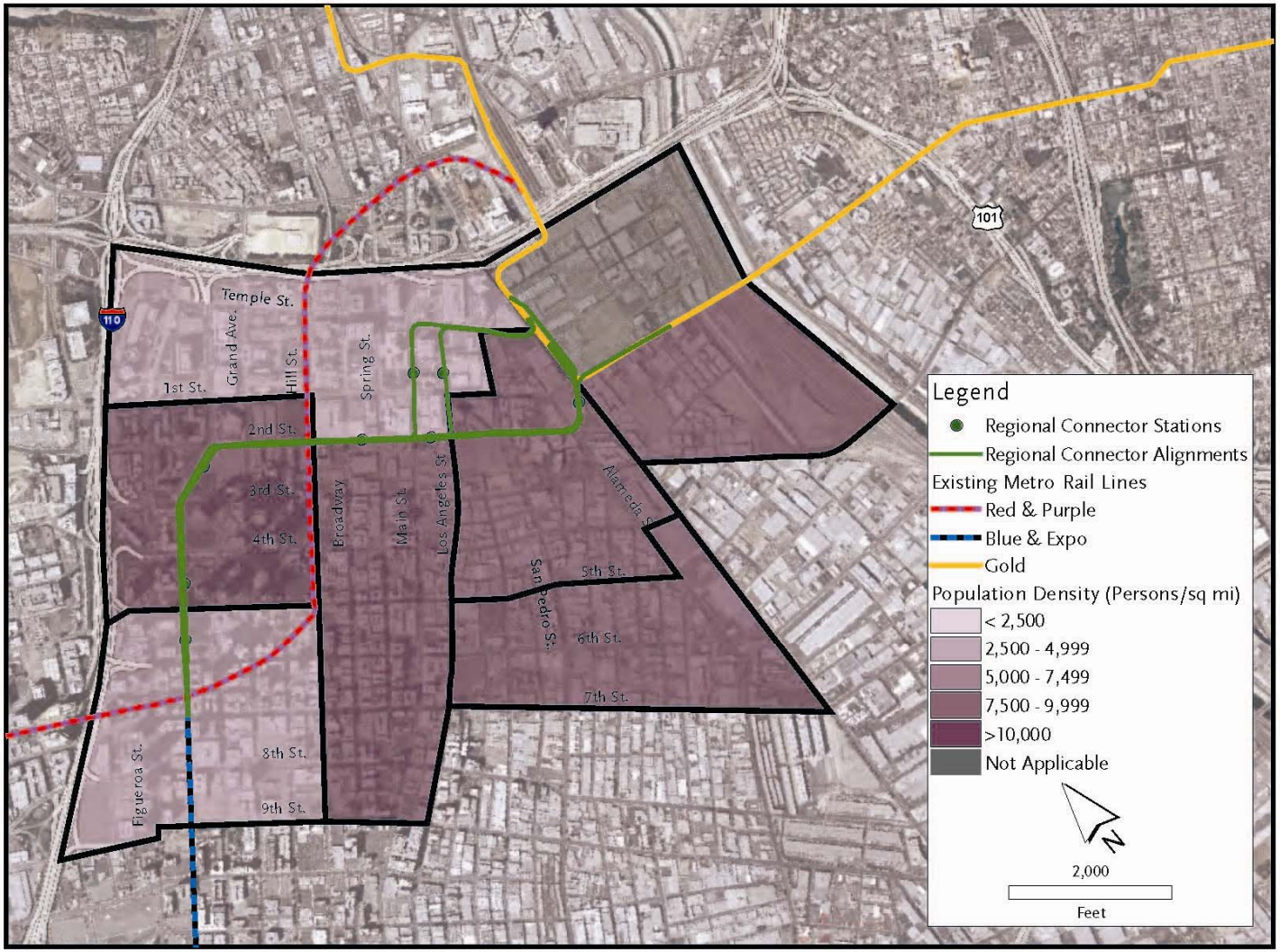


**Figure 5-11. Projected Population Density in Project Area (2035)**

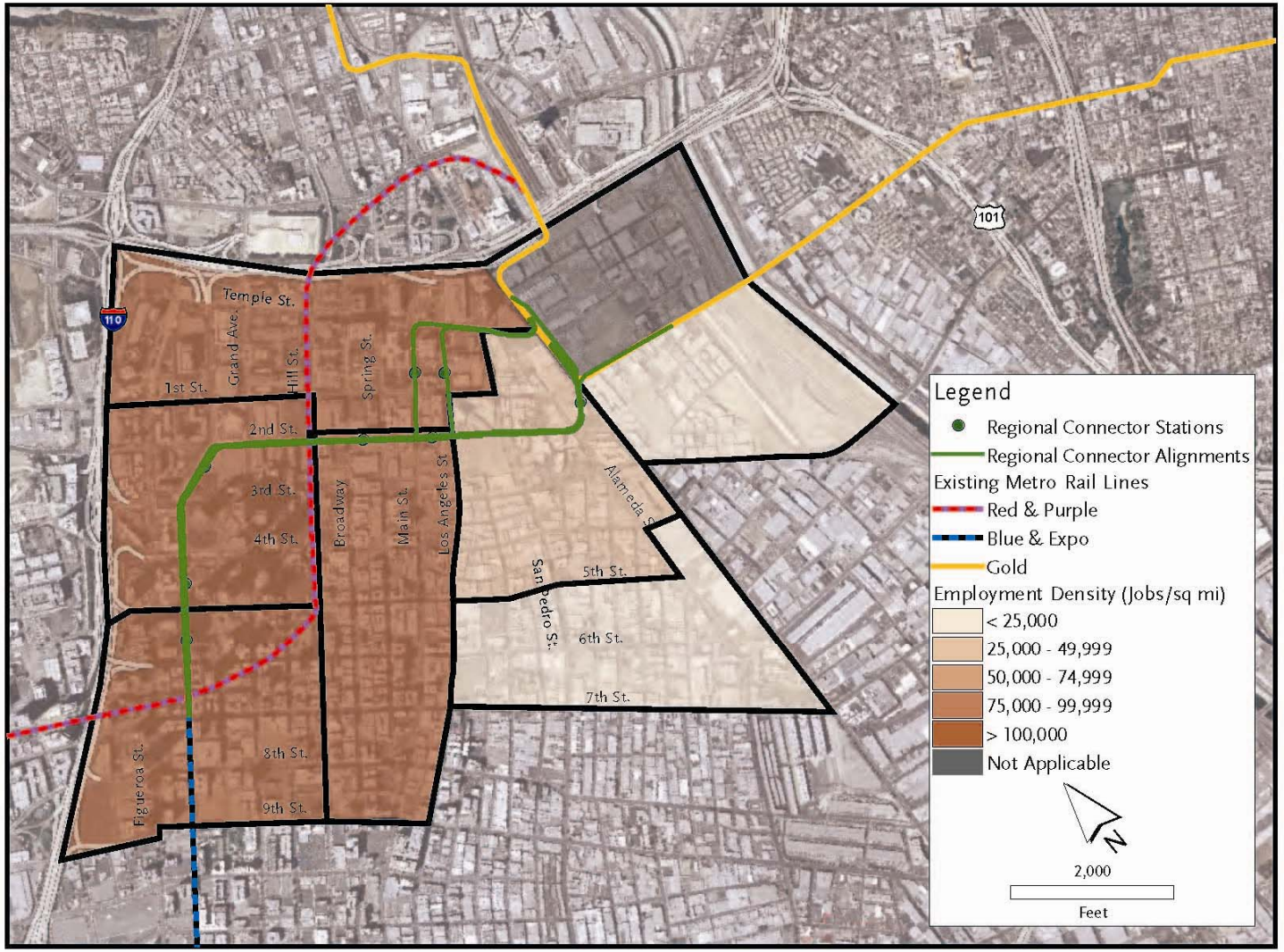


**Figure 5-12. Projected Employment Density in Project Area (2035)**

## 5.2 Regional Transit System Expansion

By 2035, the Metro rail system will have been expanded to the north and east with extensions to the Gold Line and to the west with extensions to the Purple and Expo Lines and the addition of the Crenshaw Line. This radial network centered on downtown Los Angeles will continue to funnel riders into the central city core.

Central downtown Los Angeles is a top destination for trips originating outside of the project area from both the east and west. For example, over 50,000 daily trips (approximately 25 percent of external trip destinations) are made for work from the greater eastside to central Los Angeles.

The project area is located in the crossroads of the region's transportation system. Transit riders that arrive at either the 7th Street/Metro Center Station or Union Station generally continue on to other destinations. For example, nearly three quarters of the passengers riding on the Metro Gold Line from Pasadena to Union Station transfer to the Metro Red Line for continued service into other parts of the City.

As additional service comes on line, additional riders to downtown will contribute to crowding on the platforms at these stations that serve as main transfer points to other destinations. At the 7th Street/Metro Center Station, Metro Red and Purple Line passengers wishing to use the Flower Street escalators must share the crowded passageways leading to the Metro Blue Line platform. Metro Expo Line passengers would add to the crowds on the existing Metro Blue Line platform. As riders from these lines transfer to the Metro Red and Purple Lines on the lower platform overcrowding is a concern there as well.

Additional service to downtown will increase the number of riders needing to transfer to the Red Line to continue to their ultimate destinations. This creates a concern related to insufficient Red Line capacity for connecting riders. Additional travel delays could be introduced for individuals if they are unable to get onto a particular Red Line train due to overcrowding.

The gap in rail service between the 7th Street/Metro Center Station and Union Station creates issues for riders who must transfer to the Red Line or other modes to continue their trips and contributes to overcrowding on main transfer station platforms. These issues will increase as new routes are brought into service.

Current transit usage in the region is the highest in Central Los Angeles, with additional areas of moderate transit usage in the Westside, Hollywood, Pasadena, the South Bay, and Pasadena, as shown in Figure 5-13. Transit usage is projected to increase in these areas by 2035. The highest transit usage areas are found along the existing Metro Red Line and Metro Purple Line corridors. There is also high transit usage in the Westside area where there are many students who are reliant on public transportation. It should be noted that Figure 5-13

shows the number of persons taking transit to work, and actual ridership is higher because patrons use transit for other types of trips as well. Also, the year 2000 census data predates many portions of the Metro Rail system, and transit ridership has risen in these areas since the initiation of service.

Additional transit opportunities created by the Regional Connector for commuters on the Metro Blue and Gold lines are expected to increase the number of trips along the corridors of both. The Regional Connector will alleviate congestion on the already heavily-used Metro Red and Purple Lines by eliminating the need for Metro Blue and Gold line commuters to transfer through them.

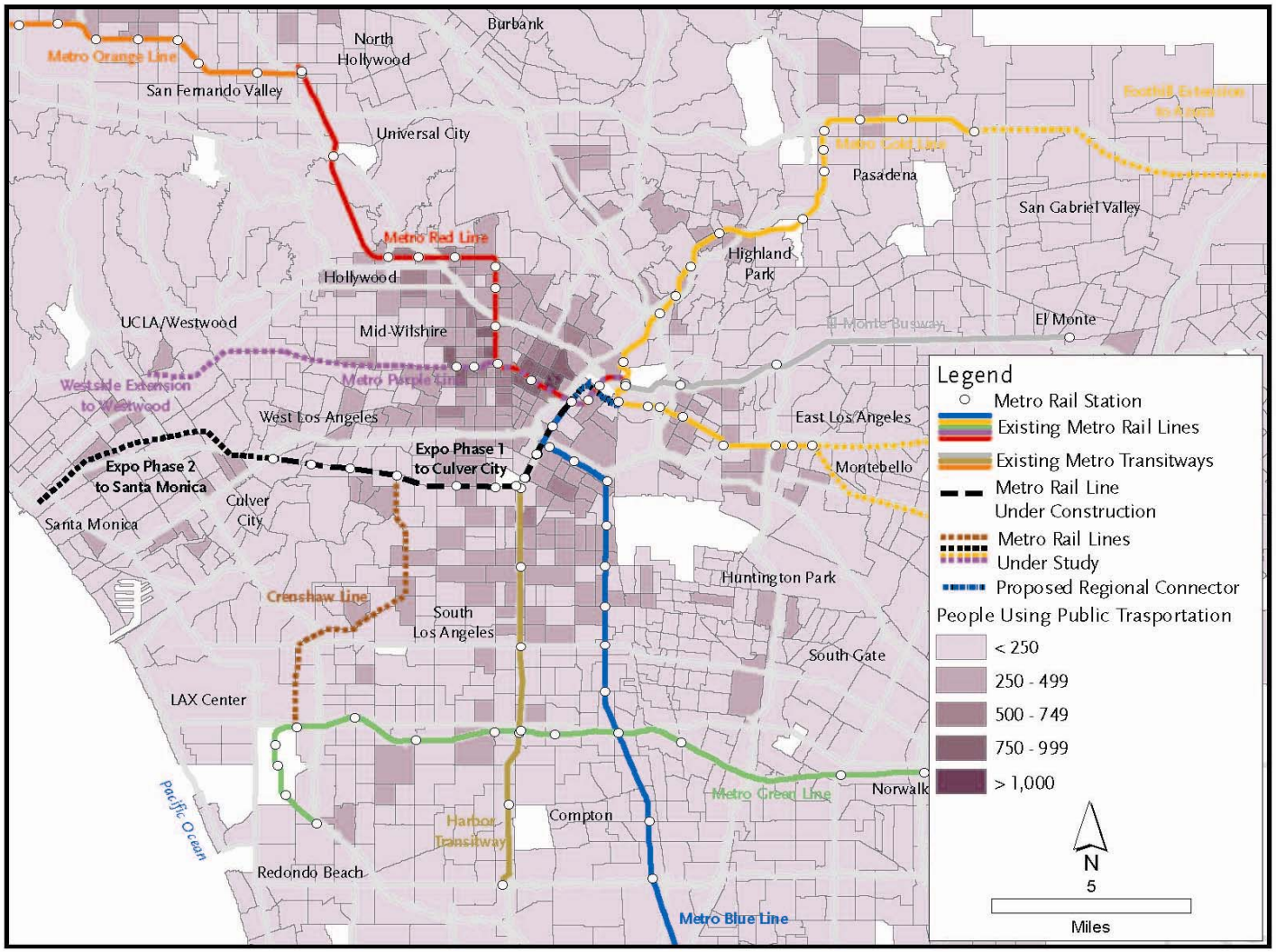


**Figure 5-13. Regional Work-bound Transit Trips (2000)**

## 5.3 Transit Dependent Populations

Transit dependent populations are those groups that rely on public transit to meet their mobility and access needs to a greater degree than the general population. Within the project area, transit dependent populations include low income households, seniors, and zero car households (Table 5-2).

Low-income households were defined by the US Census Bureau in 2005 as those below the poverty threshold with an annual average salary of $12,755 for a two-person household. Low-income households represented about 38 percent of the total households in the project area. This high proportion of low-income households underscores the need for public transit.

Senior residents within the Project Area are more likely to depend on public transit because of an inability to drive or lack of private vehicle accessibility. Almost 20 percent of the project area population is seniors. Young people, under 18 years of age, may also be considered transit dependent for similar reasons. Approximately 6 percent of the population in the project area is under the age of 18.

Over two thirds of the households in the project area have no car. Eleven percent of employed residents age 16 and over rely on public transit for their commuting needs. When comparing vehicle accessibility and public ridership patterns in the project area, the trends suggest that even households with one or more cars have a higher propensity to use public transportation than similar households elsewhere in the County.

**Table 5-2. Transit Dependent Demographic Information**

| Demographic | Project Area | Percent (%) of Project Area | LA County | Percent (%) of County |
|---|---|---|---|---|
| Population | 19,396 | NA | 10,010,315 | NA |
| Under 18 years | 1,188 | 6.1 | 2,798,604 | 27.9 |
| Over 65 years | 3,795 | 19.6 | 926,670 | 9.2 |
| Households | 9,648 | NA | 3,298,210 | NA |
| No vehicle households | 6,505 | 67.4 | 671,214 | 20.3 |
| Use public transportation | 1,121 | 11.6 | 254,091 | 7.7 |
| Households below poverty level | 3,575 | 37.0 | 1,481,896 | 44.9 |

Source: SCAG, 2005 data and 2030 projections and U.S. Census Data Summary Files 1 and 3, 2000

Some of the project area's transit-dependent population lives within convenient walking distance (one-quarter to one-half mile) of the Regional Connector termini, while much of the rest of the area will be able to easily access the corridor and potential stops along the corridor.

The project area can be characterized as more transit-dependent than the County as a whole because of its dense population, proportionately low income levels, number of households with zero vehicles, and public transportation users. A significant portion of the County's transit riders live and/or work within the project area; this is projected to increase through 2035.

Transit dependent populations are particularly impacted by deficiencies in the transit system. The gap in the light rail system between the 7th Street/Metro Center Station and Union Station that creates travel delays affects these populations disproportionately.

Figure 5-14 shows the distribution of low-income households in 2005. Census tracts within the project area that have greater than 1,000 low-income households were:

- The area bounded by SR-110, Hill Street, 1st Street, and 3rd Street; and
- The area bounded by Hill Street, Alameda Street, 5th Street, and 7th Street.

Figure 5-15 shows the distribution of residents age 65 and over in the project area. The senior population is highest west of Hill Street and south of 1st Street. Figure -16 shows the distribution of residents age 18 and under in the project area. The youth population is found primarily in the southern part of the project area, south of 5th Street.

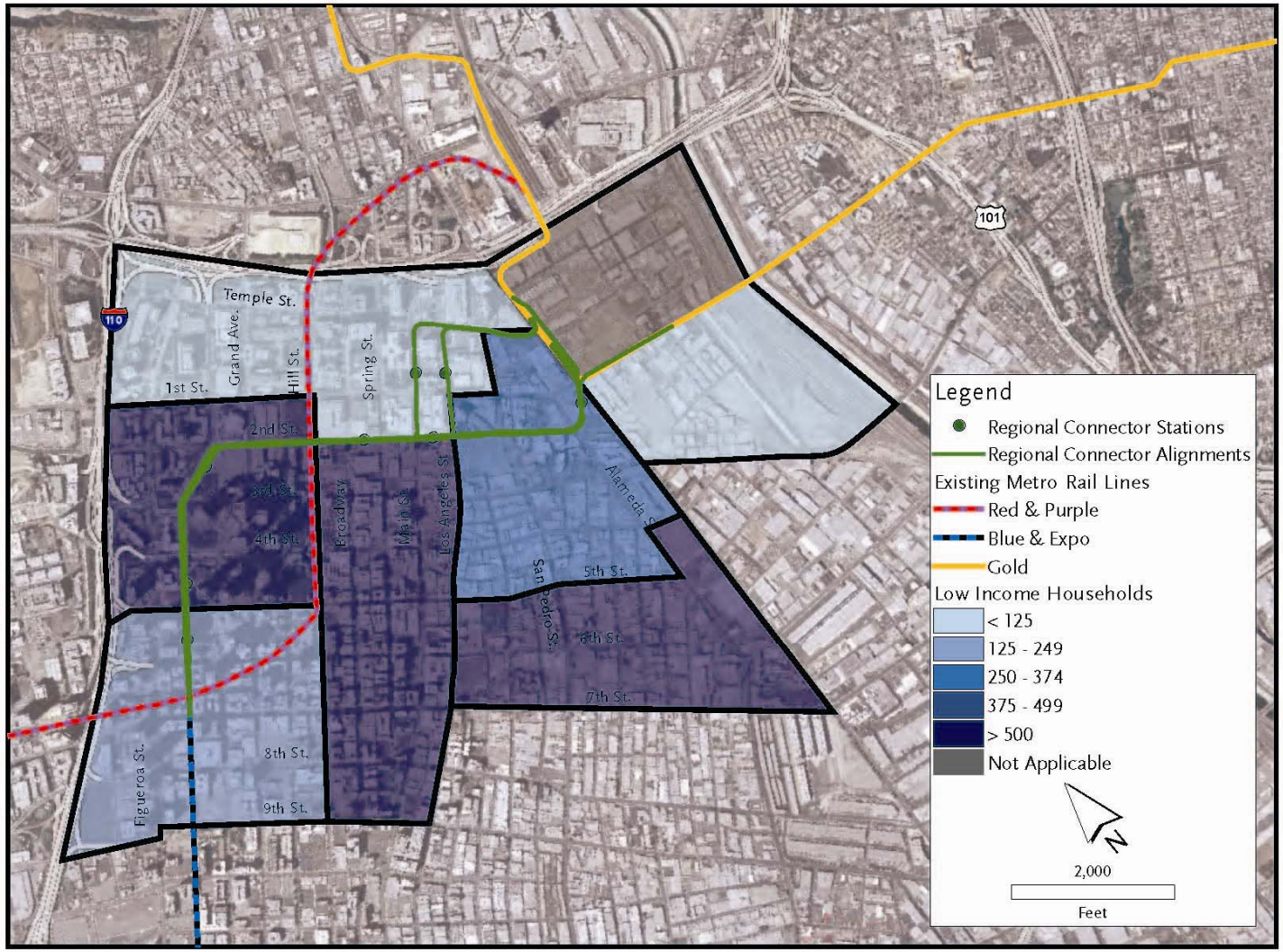


**Figure 5-14. Distribution of Low Income Households in Project Area (2006)**

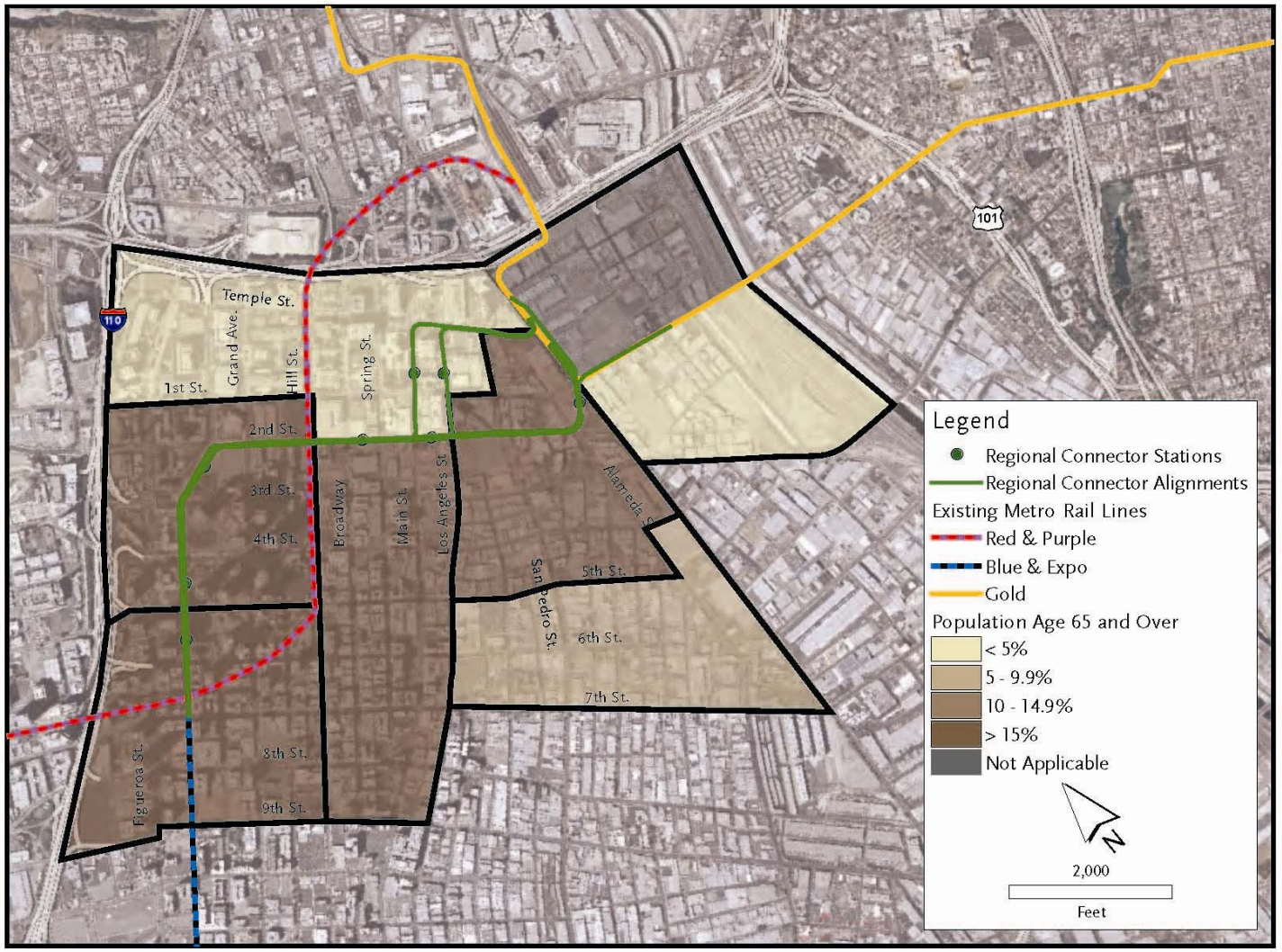


**Figure 5-15. Distribution of Population Age 65 and Over in Project Area**

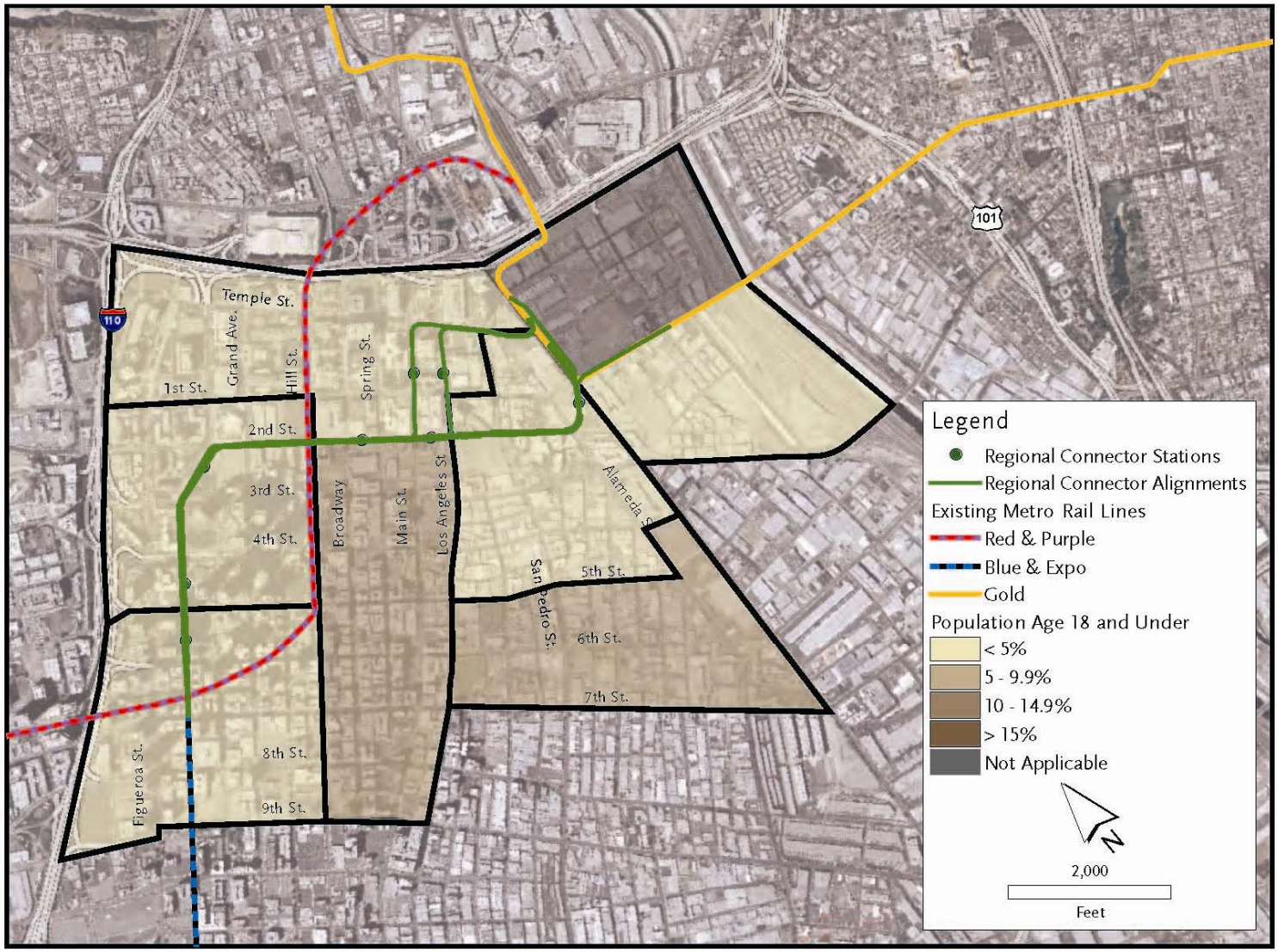


**Figure 5-16. Distribution of Population Age 18 and Under in Project Area**

## 5.4 Travel Demand

The majority of the congestion within the project area and the region is from travel on the highways and local arterial network regardless of transportation mode. If the current trend persists, travel delays are expected to rise to 5.7 million person hours by 2035, more than double currently experienced delays, which will deeply affect highway productivity (SCAG 2008).

Bus service runs in a grid pattern through the downtown area, with most lines terminating at the periphery after having passed through. Nearly all streets within the project area have bus service during peak hours. Transit service within the project area is highly dependent on the condition of the surface streets and connections to the freeway system.

Performance of intersections is measured by LOS. LOS D is a "fair" level of service with potential delays at the intersection between 35 and 55 seconds; LO F represents intersection failure with backups preventing movement out of the intersection. LOS is a measure of how congested an area is which helps to identify areas that need transportation improvements.

All of the key intersections currently operate at LOS D or better during both the AM and PM peak hours. Only the Figueroa Street and Wilshire Boulevard intersection is operating at LOS F in the PM peak hour. By 2035, up to 28 intersections in the project area will be at LOS E or F in the PM peak hour without transit improvements in the project area.

Demand for transit service in the project area is also high. There are 51 bus lines, mostly operated by Metro, with over 174,000 daily passenger boardings and alightings within the project area. On several routes, during rush hour the time between buses on a particular line shrinks to less than five minutes, and some stops are served by over a dozen lines.

Without transit improvements in the project area, service for all transportation modes within the project area will continue to decline.

## 5.5 Transit Usage

Downtown Los Angeles has long been considered a major destination for employment, education, and services; it is now experiencing a resurgence as a center for entertainment and the arts, and increasingly, residential living. However, travel to and from activity centers both in the project area and in the surrounding region often require more than one transfer. Examples of key activity centers include the University of Southern California, downtown Long Beach and Culver City, Old Town Pasadena, Chinatown, Los Angeles Coliseum, or the Los Angeles County Museum of Natural History.

The ridership benefits of increasing trip speeds have been demonstrated in Los Angeles by the Metro Rapid program. The 2002 Demonstration Program Final Report noted that the

implementation of the rapid bus service led to 23-29 percent improvement in trip speeds, an increase from 9mph to 12mph. While this difference may seem small, ridership on the Wilshire/Whittier corridor increased by 42 percent as a result.

According to Metro's 2004 Metro Rail Onboard Survey, 42 percent of Metro Gold Line riders indicated that they rode two trains on their one-way trips, and seven percent rode three trains. Since Union Station is the only current rail-to-rail transfer point on the Metro Gold Line, these results suggest that a large portion of Metro Gold Line riders are transferring to the Metro Red Line to complete their trips.

The transfer between the Metro Red or Purple Line and the Metro Gold Line at Union Station can take up to 20 minutes, and the platforms are approximately a four-minute walk apart. The transfer between the Metro Red or Purple Lines and the Metro Blue Line at 7th Street/Metro Center can also take up to 20 minutes.

The combination of these combined travel delays is a disincentive to riders wishing to travel in an east-west direction. As the number of transfers required increases, the number of people who will attempt a particular transit trip declines (Table 5-3).

**Table 5-3. Train/Bus Use per Trip**

| Train or Bus | All Lines |
|---|---|
| 1 Train | 53% |
| 2 Trains | 38% |
| 3 Trains | 7% |
| 4 Trains | 2% |
| 1 Bus/Train | 22% |
| 2 Bus/Train | 34% |
| 3 Bus/Train | 25% |
| 4+ Bus/Train | 19% |

Source: 2004 Metro Rail Onboard Survey

Metro's 2004 Metro Rail Onboard Survey indicates that relatively few Metro Gold Line riders currently continue beyond 7th Street/Metro Center Station toward Long Beach on the Metro Blue Line. The current bus ridership indicates that this is likely due to too many transfers

being needed. With the opening of the Metro Expo and Metro Gold Line to East Los Angeles it is likely that double transfers will increase due to the east-west travel demands.

## 5.6 Land Use Plans and Policies

Local land use plans and policies support increased transit alternatives, linking the regional system through downtown, and transit and pedestrian friendly design in downtown communities.

### 5.6.1 Regional Plans

In May of 2008, SCAG released its Regional Transportation Plan (RTP) entitled "Making the Connections". This document provides a basic policy and program framework to improve the transportation system and integrate it with the population growth patterns for the region through 2035.

### 5.6.2 Studies

Mobility issues throughout the region and the identified need to join the unconnected segments of the light rail system have been documented in several past studies, including the *Pasadena—Los Angeles Light Rail Transit Project Environmental Impact Report* (1993), the *Blue Line Connection Preliminary Planning Study* (1993), and the *Regional Light Rail Connector Study* (2004).

The *Pasadena - Los Angeles Light Rail Transit Project Environmental Impact Report* identified a need to connect the 7th Street/Metro Center Station with Union Station in 1993. However, this segment was not constructed with the development of the Metro Gold Line due to funding constraints.

Also in 1993, the *Blue Line Connection Preliminary Planning Study* identified a potential capacity problem for the Metro Red Line, as it was the sole rail connection between Union Station and the 7th Street/Metro Center Station.

### 5.6.3 Policies and Guidelines

Local land use plans and policies support the development of additional transit service within the project area. The City's General Plan establishes a number of goals and corresponding policies that support the development of public transit.

#### 5.6.3.1 County of Los Angeles General Plan

The County's General Plan establishes a number of goals and corresponding policies that support the development of public transit.

- Goal C-1: An accessible circulation system that ensures the mobility of people and goods throughout the County.
    - Policy C1.1: Expand the availability of transportation options throughout the County
    - Policy C1.2: Encourage a range of transportation services at both the regional and local levels, especially for transit dependent populations.
    - Policy C1.3: Secure an affordable countywide transportation system for all users.
    - Policy C1.4: Maintain transportation right-of-way corridors for future transportation.
- Goal C-2: An efficient circulation system that effectively utilizes and expands multi-modal transportation options.
    - Policy C2.1: Support the linking of regional transportation systems.
    - Policy C2.2: Expand transportation options throughout the County.

#### 5.6.3.2 Downtown Design Guidelines

The Community Redevelopment Agency of the City of Los Angeles (CRA) has drafted design guidelines for all new developments within downtown Los Angeles. These guidelines provide incentives for residential development by modifying code requirements such as density limits for projects that meet a number of criteria including providing accessible transportation with emphasis on walking, biking, and transit other than autos.

With the overall goal of creating a livable downtown, guidelines focus on providing the following:

- A broad range of housing types;
- Accessible transportation with emphasis on walking, biking, and transit other than autos;
- Shops and services within walking distance to housing;
- Safe, visually-pleasing and walkable streets;
- Parks and other gathering places near to shops and services; and
- Public recreational open space within walking distance to home.

The guidelines set forth specific standards for design and construction, including use of sustainable materials and practices, preserving historically- and culturally-significant buildings, and supporting environmental and aesthetic resources. The guidelines ultimately call for developers to consider pedestrians and not cars in their design process. The objective is to create a cohesive transition along blocks while creating inviting and open spaces that encourage pedestrian traffic. As outlined above, increasing public transit options is one way to meet this objective.

#### 5.6.3.3 Little Tokyo Planning & Design Guidelines

The Little Tokyo Community Planning and Design Guidelines also promote pedestrian- and transit-friendly designs which support cohesiveness through the corridor while maintaining cultural integrity.

As a result of recent resurgence and popularity in the Little Tokyo district of downtown, a set of design guidelines was created with the intent of encouraging individual expression and continuity of the surrounding environment through building and street design, while enhancing elements and aesthetics that are significant to the Japanese-American Community. In addition to the preservation of existing physical and cultural spaces, the guidelines identify specific standards for new developments and streetscapes in order to maintain continuity throughout. Street dedication requirements, such as those in place for new development east of Alameda Street between Temple Street and 1st Street, promote pedestrian- and transit-friendly designs which support cohesiveness through the corridor while maintaining cultural integrity. This, in turn, will enhance pedestrian activity and increase the attractiveness of walking and transit use in the area.

#### 5.6.3.4 CommuteSmart®

Metro provides services through CommuteSmart® to help people find alternatives to a single-person car commute such as carpooling, vanpooling, park-and-ride, and public transit. CommuteSmart® also assists employers to set up rideshare programs, create incentives for commuting, and perform ongoing assessments and training. Improvement of public transit options while promoting the use of public transit would increase ridership more than either done alone.

# 6.0 POTENTIAL TRANSIT MARKETS

Potential transit markets are two-fold for the Regional Connector:

- The activity centers and major destinations that include public and private uses, density of population and employment, and major travel patterns that traverse the project area;
- Travel patterns through the project area, since the Regional Connector would link over 50 miles of Metro LRT service from Pasadena to Long Beach, and from Culver City to the Eastside and everywhere in between.

This Draft EIS/EIR will result in projections of ridership generated by people moving within the project area and through the project area to get to and from homes, jobs, services, and entertainment.

Key advantages for the Regional Connector presented by the project area are the easy bus connections provided by the dense transit network, convenient regional and intercity rail interface, and the location of activities and services within walking and biking distance of each other.

## 6.1 Activity Centers and Destinations

Several activity centers exist within the project area. These include Educational, Recreational, Business/Industrial and Commercial centers.

Downtown has long been considered a major destination for employment and services; it is experiencing a resurgence as a center for entertainment and the arts, and increasingly, residential living.

### 6.1.1 Bunker Hill

The Bunker Hill District is located generally between First Street on the north, Hill Street on the east, Third Street on the south, and Figueroa Street on the west. Major downtown destinations located within Bunker Hill include the Walt Disney Concert Hall, Museum of Contemporary Art (MOCA) and several high-rise office towers, senior and market-rate housing, hotels and commercial/retail centers. Bunker Hill offers over 3,200 residential units mainly in mid- and high-rise buildings.

Large development projects planned for this area include Civic Park and the Grand Avenue Development Project, which will transform this area into a regional arts, entertainment, and residential destination. The Grand Avenue Development is a $3 billion project that includes

3.6 million square feet of development with 449,000 square feet of retail. It is currently planned for 2,600 housing units, almost doubling the existing number of units in the area.

### 6.1.2 Civic Center

Bordering Bunker Hill to the northeast is the Civic Center, which serves as a hub for City, County, State, and Federal government with the second-largest concentration of civic buildings in the country. The Cathedral of Our Lady of the Angels, the Ahmanson Theater, Mark Taper Forum, and the Dorothy Chandler Pavilion are other major destinations in this district.

Civic Center is undergoing active redevelopment. The new headquarters for the state Department of Transportation (Caltrans) District 7 has recently been completed, development of the new Los Angeles Police Department Headquarters is underway, and construction of a U.S. Federal Courthouse is soon to begin.

### 6.1.3 Little Tokyo

East of Civic Center is Little Tokyo, which serves as the center of the largest Japanese-American community in the continental United States. The Japanese American National Museum and The Geffen Contemporary at MOCA are located here, along with a lively shopping district.

The popularity of Little Tokyo is evidenced by the active residential development underway, with recently completed and current projects adding more than 2,000 residential units. Significant developments in the early planning stages include a 4.5-acre site adjacent to the Little Tokyo Arts District Station of the Metro Gold Line. Early concepts from developers identified high-density combination of office and housing with strong connections to the adjacent Metro Gold Line Eastside Expansion.

### 6.1.4 Toy District

The Toy District is a 12-block shopping area with over 500 retail businesses located south of Little Tokyo and north of Central City East. Development here is centered on mixed-use. The proposed Medallion building, one of several projects currently under construction, will provide 192 residential lofts and over 200,000 square feet of retail space.

### 6.1.5 Financial Core

The Financial Core District is located south of Bunker Hill and is dominated by high-rise office buildings. The Central Library, built in 1926, destroyed by fire in 1986, and rebuilt, expanded, and re-opened in 1993 is located here. Other landmarks in this district include the Millennium Biltmore Hotel (built in 1923) and Pershing Square (dating back as far as 1866 as a park).

The proposed 2.7-million square-foot, four-phase Metropolis mixed-use development will be located in the southwestern end of the Financial District. Phase I of this project, which began construction in 2008, will provide 360 residential units. Park Fifth is another major planned 76-story high-rise development across from Pershing Square and will include over 700 condos and a 200-room hotel.

### 6.1.6 Historic Core

To the east of the Financial Core is the Historic Core District, containing a large concentration of historic and architecturally-significant buildings, including the Bradbury Building (built in 1893). The Grand Central Market (dating back to 1917 as an open-air market) and the Broadway Historic Theater District (with theaters dating back to the early 1900s) are destinations in this district.

Development here is focused on conversion of old neglected buildings into lofts and apartments. The Historic Core experiences high volume retail sales on Broadway Street, which is a largely sidewalk-oriented retail district. Due to the shortage of parking in the area, the retail district is reliant on public transit to bring patrons to the neighborhood.

### 6.1.7 Jewelry District

The largest jewelry district in the U.S. and second largest in the world is located southwest of the Historic Core, where 5,000 businesses generate billions of dollars in revenue.

Development in this area includes the proposed construction of 875 condominium units at 8th Street and Grand Avenue. Like the Historic Core, parking is in short supply and the district attracts a high volume of retail sales.

### 6.1.8 Central City East

The Central City East District is located south of the Toy District and consists primarily of commercial uses, including wholesale buildings and warehouses. The Flower Market, produce, fish and food processing industries as well as import/export businesses employ nearly 20,000 people in this area. Housing in this district consists mainly of the 6,500 single-room occupancy hotel units. This area is also important in providing social services, including alcohol treatment, mental health services, and job training.

### 6.1.9 Outside of the Project Area

Other important downtown development projects outside of the project area include the recently-opened LA Live, a 4-million square foot complex of retail, restaurants, office, theater, hotel, parking, and residential space adjacent to the Staples Center.

### 6.1.10 Regional Activity Centers and Destinations

Due to the improved linkages provided by the Regional Connector, LRT will be enhanced throughout the region thereby attracting new ridership on existing lines.

Key regional activity centers that will attract riders to ride seamlessly through the project area to get destinations that, today, require more than one transfer, include:

- University of Southern California via Metro Expo Line
- Los Angeles Trade Technical College via Metro Blue Line
- Downtown Long Beach via Metro Blue Line
- Downtown Culver City via Metro Expo Line
- Crenshaw District via Metro Expo Line
- Downtown Pasadena via Metro Gold Line
- Old Town Pasadena via Metro Gold Line
- South Pasadena via Metro Gold Line
- Chinatown via Metro Gold Line
- City of Compton via Metro Blue Line
- Highland Park via Metro Gold Line
- Boyle Heights via Metro Gold Line
- Arts District via Metro Gold Line
- East Los Angeles Civic Center via Metro Gold Line
- East Los Angeles College via Metro Gold Line
- Los Angeles Coliseum via Metro Expo Line
- Los Angeles County Museum of Natural History via Metro Expo Line
- Watts via Metro Blue Line

## 6.2 Local Redevelopment Plans and Transit Improvements

Many of the communities in the project area are focusing on redevelopment projects to meet increasing residential and commercial demands. Several large commercial centers or mixed-use developments have been identified within the project area. These centers are typically ideal locations for public transit services due to the large number of patrons and opportunity to alleviate inbound and outbound traffic congestion.

Following are some of the current CRA projects in the project area:

- Downtown Streetcar – This transportation infrastructure project creates a 3 mile (approx) circulator using modern streetcar technology to connect the Broadway Corridor to LA Live and the Grand Avenue Project.
- Bunker Hill Design for Development – This project would amend the 1971 Design for Development (DFD) and increase the maximum floor area ratio in the Bunker Hill Redevelopment Area from 5.0 to 6.0. This would in turn allow 20 percent more square footage than the current DFD. The project is currently in the Environmental Impact Report (EIR) phase.
- Park Fifth – An EIR is currently being prepared for a new high-rise residential building on 5th Street between Hill and Olive Streets, proposed as the tallest U.S. residential structure west of Chicago. The project will contain market-rate condominium units, a five-star hotel, and ground floor commercial space.
- 8th & Grand – This is a condominium project with ground floor restaurants and retail located on 8th Street between Grand Avenue and Olive Street The project was approved by the CRA Board and the City Council in 2006.
- Medallion Phase I – Located at 334 S Main St this first of two phase project will create a mixed use development including apartments, commercial space, public parking and a mid-block paseo and central courtyard.
- Little Tokyo Business Incentive Program – This program provides financial assistance to business owners/tenants in the Little Tokyo area. It includes a façade improvement program and as well as a business loan program.
- Metropolis Project – Located on the southwest corner of 8th and Francisco Streets, this recently-approved development will add 2.8 million square feet of new condominium, office, hotel, and retail space.
- Grand Avenue Project – This project consists of a full-scale redesign of Grand Avenue as well as the addition of a 16-acre park in the Civic Center.

- Angelus Plaza Project – This project involves renovation of all units in the Angelus Plaza senior housing project. It will renovate over 1,000 affordable housing units on the site.

- Central Avenue Art Park - Development of a community park on City-owned surface parking lots, adjacent to the First Street Historic District, Geffen Museum of Contemporary Art (MOCA), Japanese American National Museum (JANM), and the Go For Broke Foundation.

- New Genesis Apartments - This affordable housing project includes efficiency residential units as well as ground-floor commercial retail space and supportive services offices, replacing the existing Genesis Hotel with new construction.

- Los Angeles Sports and Entertainment District/L.A. Live! – Large portions of this project are open as of this writing, but some are still under development. This project creates a major sports and entertainment destination just south of the Financial District, surrounding the existing Los Angeles Convention Center and Staples Center. Additional auditoriums and theaters, as well as retail and office space, have recently been added. Condominium and rental apartment buildings are presently under construction. This redevelopment project is located one block south of the project area, within one-quarter mile of the Pico Avenue on the Metro Blue and Expo Lines. The Regional Connector LRT alternatives directly connect the Metro Gold Line and Eastside Expansion lines to the complex.

- Downtown Women's Center Relocation/Expansion – This project will remove the existing Downtown Women's Center on San Pedro Street between 4th and 5th Streets in order to make way for The Medallion. The City will renovate its Renaissance Building as the new Women's Center, and will provide an additional 75 permanent housing units and eight day rest beds for homeless women. CRA is currently reviewing development plans for the relocation/expansion project.

- Residential Hotels Rehabilitation Program – Under this plan, CRA will acquire approximately 30 single-room occupancy hotels, lease them to non-profit housing operators, and preserve the units as low-income housing. CRA cites public ownership as a means of cleaning up crime-ridden slum hotel areas within the project area.

Additionally, CRA is preparing development plans for the Central Industrial District, located in the southeast portion of the project area. The City does not have any Specific Plan areas within the project area; however there are three in the downtown area that border the project area:

- Alameda District (North of the project area) covers Union Station and the surrounding parcels.
- Los Angeles Sports and Entertainment District (South of the project area) includes the L.A. Live development, Staples Center, the Convention Center, and surrounding parcels slated for high-density development.
- Central City West (West of the project area) covers the area immediately west of the 110 freeway.

## 6.3 Air Quality and Environmental Sustainability

The City is one of the most congested metropolitan areas in the nation and has been designated as a federal non-attainment area for air quality. The growing concern over global climate change and poor air quality is a predominant concern for Southern California. The use of fossil fuels for transportation generates large amounts of carbon dioxide (a greenhouse gas) emissions, which continue to disrupt progress toward improved air quality. Vehicle-related emissions account for over one-third of all air pollutants in the County (SCAG 2006).

During the 1990s, the County saw a significant increase in transit use. In 2002, SCAG reported that the City ranked 7$^{th}$ in the nation in public transit usage (SCAG 2002). These changes are due in large part to investments in the regional public transportation system.

Investments in public transportation can contribute to alleviating the air quality challenges faced by the region and mitigating the negative effects suffered by Southern California residents. The Regional Connector will contribute to improved mobility by increasing the speed and convenience of the rail system, thereby providing a more viable alternative to the automobile. As a result, projected degradation of air quality will be reduced (at a minimum) or reversed (at a maximum) through reduced automobile-related greenhouse gas emissions in the region.

## 6.4 Travel Demand and Patterns

Historic growth patterns have resulted in a multi-centered region with multiple transportation corridors converging in the project area. The transportation network includes 9,000 lane-miles of freeway, more than 42,000 lane-miles of arterials, and several large public transit service providers (SCAG RTP 2004). Yet growth of the transportation system has not kept pace with population growth and increases in transportation demand. As the population in the region doubled from 1960 to 2000, highway miles increased by less than 30 percent (SCAG RTP 2004). The congestion caused by insufficient transportation lanes affects both personal travel and goods movement. The majority of the congestion is from travel on the highways and local arterial network regardless of transportation mode. If the current trend persists, travel delays are expected to rise to 5.4 million person hours by 2035, more than

double currently experienced delays, which will deeply affect highway productivity (SCAG PEIR 2004). Expanding the public transportation system will provide more choices for commuters and potentially reduce travel demand and patterns on major highway and arterial systems.

The project area is at the central core of activity for the County. The project area is ranked very high as a destination zone for people coming from outside of the project area. For instance, over 50,000 daily trips (approximately 25 percent of external trip destinations) are made for work from the greater Eastside, to Central Los Angeles. The Central Business District (CBD) is also one of the top attractors of trips from the Westside. In 2006, of the more than 53,000 daily person trips from the project area to other parts of Central Los Angeles, 11,000 were on public transit.

Among passengers riding on the Metro Gold Line from Pasadena to Union Station, nearly three-quarters transfer to the Metro Red Line for continued service into other parts of the City. Figures 1-36 and 1-37 illustrate travel patterns to and from the project area.

## 6.5 Summary of Public Transit Markets

The project area is located in the crossroads of the region's transportation system because of historic development and population growth patterns. It contains the highest concentration of jobs in the County. Improving access to and through the project area is a vital part of a larger strategy for meeting the economic, social, and environmental goals of the region.

Areas with large and growing populations represent a large public transit market because of high travel demands on already-congested public transit, roads, and freeways. As described in Section 1.8.4, the total population in the project area is projected to increase by almost 16 percent by 2035, increasing the population density. High population densities can increase potential ridership on public transit.

Increasing economic development and employment opportunities in the project area also increases the size of the public transit market. Employment is expected to increase by about 7 percent by 2035. This will increase demands for public transit from commuters wishing to avoid travel in private vehicles during peak traffic hours on roads and freeways.

Improving public transit connectivity in the project area offers opportunities to increase ridership through access to regional transit markets. Balanced local land use and transportation policies can reduce auto travel and support more pedestrian-friendly, mixed-use and transit-oriented developments throughout the region.

Public transit provides an alternative means of personal mobility, supports increases in demands to alternatives to private transportation, and contributes to improving the quality of life in metropolitan communities.

Transit facilities, services and centers are best when they are customer-friendly, community-oriented and well-designed. A network of transit-based centers and corridors, supported by in-fill development, maximizes the use of existing infrastructure, supports transit ridership, reduces automobile air pollution and preserves natural areas. These improvements will help improve the region's economic vitality, quality of life, and environment.

# 7.0 GOALS AND OBJECTIVES

Based on the project purpose, Metro developed evaluation criteria. Metro applied the following goals and objectives in evaluating potential alternatives for the Regional Connector Corridor Project. These goals and objectives reflect Metro's mission to meet public transportation and mobility needs for transit infrastructure while also being a responsible steward of the environment and being considerate of affected agencies and community members when planning a fiscally responsible project.

Transportation goal:

- Improve mobility and accessibility both locally and regionally – Develop an efficient and sustainable level of mobility within Los Angeles County to accommodate planned growth and a livable environment

- Improve regional system functionality by minimizing transfers, improving travel times, maximizing ridership, and increasing transit accessibility

Environmental goal:

- Support efforts to improve environmental quality – Develop a project that minimizes adverse environmental impacts while providing environmental benefits, including providing air quality benefits

Land use goal:

- Support community planning efforts – Support the progression of the regional center area as an integrated destination and a dynamic livable area accommodating project growth in a sustainable manner

- Support adopted land use and transportation plans

Implementation goal:

- Provide a safe and secure alternative transportation system – Develop a project that is safe for riders, pedestrians, and drivers while meeting region's need for security

- Support public involvement and community preservation – Incorporate the public in the planning process and balance the benefits and impacts while preserving communities in the area, such as Little Toyko, the Arts District, Bunker Hill, Civic Center, and the Historic District

Financial goal:

- Provide a cost effective transportation system – Develop a project that provides sufficient regional benefits to justify the investment

- Achieve a financially feasible project – Develop a project that maximizes opportunity for funding and financing that is financially sustainable

# 8.0 CONCLUSIONS

The purpose of this project is to improve the region's public transit service and mobility by connecting the light rail service of the Metro Gold Line to the Metro Blue Line and the Metro Expo Line. This link would serve communities across the region, allowing greater accessibility while serving population and employment growth in downtown Los Angeles.

In addition to mobility benefits, the location of the Regional Connector project has the potential to improve the livability of the entire Los Angeles County region. Improved mobility to and through downtown Los Angeles has the potential to boost economic development and improve social justice by providing better access to employment. Improved transit connectivity will increase transit ridership which will also generate environmental benefits through reduced vehicle trips and less roadway congestion. The Regional Connector project sits at an ideal location where the region could realize tremendous benefits.

Since the completion of studies on the Metro Blue Line to Pasadena performed in 1993 and 1994, the Metro Rail system has grown substantially, with rail lines in operation and under construction extending over 80 track-miles within Los Angeles County. Currently, the Metro Red and Metro Purple subway lines serve as an interim connection between the Metro Blue Line at 7$^{th}$ Street/Metro Center and the Metro Gold Line at Union Station, but the transfers involved are time-consuming, contribute to crowding on the subway platforms and trains, and may dissuade passengers from riding. This may become more noticeable as the newly opened Metro Gold Line Eastside Extension (2009) becomes more widely used as well as when the Metro Expo Line opens in 2011, as it will share the Blue Line tracks at 7$^{th}$ Street/Metro Center Station and add to existing crowds.

The Regional Connector will improve service for communities locally and across the region, allowing greater mobility and accessibility while supporting the revitalization of downtown. New stations will provide greater coverage of the downtown area, thus enhancing the convenience of the existing rail and bus system.

# 9.0 REFERENCES

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