

Table 4-24 Households in the SCAG Region, 2008

County	Number of Households
Los Angeles	3,299,573
Imperial	52,323
Orange	1,015,906
Riverside	677,256
San Bernardino	612,859
Ventura	269,066
SCAG Region	5,926,983

Source: Southern California Association of Governments, 2008 Household estimates

Table 4-25 Regional Employment Growth, 2000-2008

County	2000 Total Employment	2008 Employment	2000-2008 Employment Change	2000-2008 Annual Average % Change
Los Angeles	4,079,800	4,490,248	410,448	1.26%
Imperial	50,400	67,130	16,730	4.15%
Orange	1,396,500	1,699,475	302,975	2.71%
Riverside/San Bernardino	1,010,100	1,498,958	488,858	6.05%
Ventura	294,300	362,209	67,909	2.88%
SCAG Region	6,831,100	8,118,020	1,286,920	2.35%

Source: State of California, Employment Development Department, Labor Market Information Division, Industry Employment and Labor Force by Annual Average, March 2006 Benchmark, May 18, 2007; SCAG, 2008 Population Growth Estimates

Table 4-26 Regional Population, Households, and Employment, 2030

County	Population	Households	Employment
Los Angeles	12,221,799	4,120,270	5,660,992
Imperial	269,874	83,735	111,072
Orange	3,552,742	1,098,474	1,921,806
Riverside	3,143,468	1,127,780	1,188,976
San Bernardino	2,713,149	897,739	1,178,890
Ventura	989,765	332,109	465,466
SCAG Region	22,890,797	7,660,107	10,527,202

Source: Southern California Association of Governments, 2004 RTP

#### 4.17.1.4 PSA Growth Projections

Table 4-27 shows the population, housing, and employment projections that are estimated for the PSA, the City of Los Angeles, and the CLACG subregion. For population, between 2005 and 2030, the City of Los Angeles and the CLACG subregion are expected to have a slightly higher annual average population growth rates (0.4 percent) than the PSA (0.3 percent). However, for housing, during the same time period, the PSA is expected to have a higher average annual growth in the number of households (1.2 percent) compared to the City of Los Angeles and the CLACG subregions (both 1.0 percent).

Table 4-27 Population, Housing, and Employment Growth for the Project Study Area, City of Los Angeles and CLACG Subregion, 2005-2030				
Element	2005	2030	2005-2030 Population Change	2005-2030 Annual Average % Change
Population				
PSA /a/	77,823	83,492	5,669	0.3%
City of Los Angeles	3,950,347	4,309,625	359,278	0.4%
CLACG subregion	4,032,474	4,413,425	380,951	0.4%
Housing				
PSA/a/	24,049	31,244	7,195	1.2%
City of Los Angeles	1,311,134	1,637,475	326,341	1.0%
CLACG subregion	1,330,724	1,663,002	332,278	1.0%
Employment				
PSA /a/	288,990	314,936	25,946	0.4%
City of Los Angeles	1,800,766	2,223,338	422,572	0.9%
CLACG subregion	1,833,577	2,265,209	431,632	0.9%

/a/ Project Study Area is comprised of the following Census block groups: 1976, 2060.20, 2060.30, 2060.40, 2060.50, 2062, 2063, 2071, 2073, 2074, 2075, 2077.10, 2079, 2080, 2083, 2092, 2093, 2100.10, 2260

Source: SCAG 2004 Regional Transportation Plan

Table 4-27 shows projected employment growth for the PSA, the City of Los Angeles, and CLACG subregion. It is estimated that 25,946 new jobs would be created in the PSA from 2005 to 2030, with an annual average growth rate of 0.4 percent. This rate is lower than the average annual rate for the City of Los Angeles and the CLACG subregion over the same time period (both 0.9 percent).

#### 4.17.2 Evaluation Methodology

Federal Transit Administration (FTA) guidelines require that regional growth projections be created by the MPO, assuming future year conditions. As mentioned in Section 4.17.1.2, SCAG is the MPO for the PSA. In order to evaluate growth-inducing impacts, the SCAG 2004 Regional Transportation Plan will be used. The RTP examines current and future transportation plans, population and employment growth, and land use data for the SCAG region to develop projections through the year 2030. The 2004 SCAG RTP serves as the basis for this analysis of growth-inducing impacts.

### 4.17.3 Environmental Issues

#### Population and Housing Growth

Fundamentally, mass transit projects do not tend to induce growth directly, except at the station level where there is opportunity for transit-oriented development (TOD). The PSA serves as a hub for most Metro buses, Metro Rail, and for bus and rail services provided by other entities, such as the Foothill Transportation Authority, the Orange County Transportation Authority, and the Montebello Bus Line. Also, the downtown Los Angeles area has recently experienced a significant rise in high-density residential development and, consequently, an increase in the number of residents in the area. Therefore, due to the high amount of transit and the high density, both residential and commercial, downtown Los Angeles already functions as a TOD. Implementation of the Regional Connector would not directly induce growth in the downtown Los Angeles area. However, it would facilitate certain developments, such as the Bunker Hill Design for Development and the Grand Avenue Project, reach their goals of more transit-oriented development.

At a regional level, the increased connectivity between the San Gabriel Valley and the Westside or Long Beach areas would not potentially induce population or housing growth. Most of these areas are already fully urbanized so it is unlikely that the increased regional connectivity would induce housing construction.

#### Employment Growth

The PSA is already a center of employment for the Los Angeles region. The implementation of the Regional Connector would create employment opportunities in the downtown Los Angeles area, particularly in the construction phase. However, these construction jobs would be temporary. Similar to population and housing growth, the proposed project would not directly induce employment growth, but it could serve to facilitate the movement of employees anticipated by projects that are already planned, such as the Grand Avenue Project in Bunker Hill.

The proposed project would increase connectivity by reducing the need to make several transfers from one destination to another. While this alone could change some of the perceived employment opportunities for some individuals, it is unlikely that employment growth at any of the termini would occur.

## 4.18 Environmental Justice

This section describes the existing conditions related to environmental justice indicators within the PSA. A discussion of the Federal and State environmental justice regulations is provided along with a demographic profile of the PSA and proposed stations areas. Ultimately, the potential impacts on minority and low-income communities will be assessed to determine if there are potential impacts that would be disproportionately borne by minority or low-income communities.

## 4.18.1 Affected Environment

### 4.18.1.1 Regulatory Framework

On February 4, 1994, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was signed into law. Executive Order 12898 requires federal agencies to achieve environmental justice by “identifying and addressing social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the United States.”<sup>7</sup> As Executive Order 12898 applies to the United States Environmental Protection Agency (EPA), environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or policies. Meaningful involvement means that (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants will be considered in the decision making process; and (4) the decision makers shall seek out and facilitate the involvement of those potentially affected.

In response to Executive Order 12898, the U.S. Department of Transportation (USDOT) issued an Order to Address Environmental Justice in Minority Populations and Low-Income Populations. This order, issued in April 1995, sets guidelines to ensure that all federally-funded transportation-related programs, policies, or activities that have the potential to adversely affect human health or the environment involve a planning and programming process that explicitly considers the effects on minority populations and low-income populations.

Following the lead of the environmental justice movement at the federal level, a series of laws beginning in 1999 have been enacted in California to implement environmental justice. The Governor's Office of Planning and Research (OPR) has been designated the “coordinating agency in state government for environmental justice programs.” As part of its new environmental justice coordinator role, OPR must now incorporate environmental justice considerations into local government planning decisions. California law requires OPR to coordinate with federal agencies regarding environmental justice based on Executive Order 12898.

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<sup>7</sup>Federal Highway Administration, <http://fhwa.dot.gov>, accessed February 1, 2008.

#### 4.18.1.2 Existing Conditions - Socioeconomic Characteristics

##### Los Angeles County

As of the 2000 U.S. Census, 9,519,338 persons lived in Los Angeles County. Approximately 69 percent of the Los Angeles County population is characterized as minority. The largest minority population is Hispanic, making up approximately 45 percent of the total population. According to the 2000 U.S. Census, approximately 18 percent of Los Angeles County is characterized as low-income.

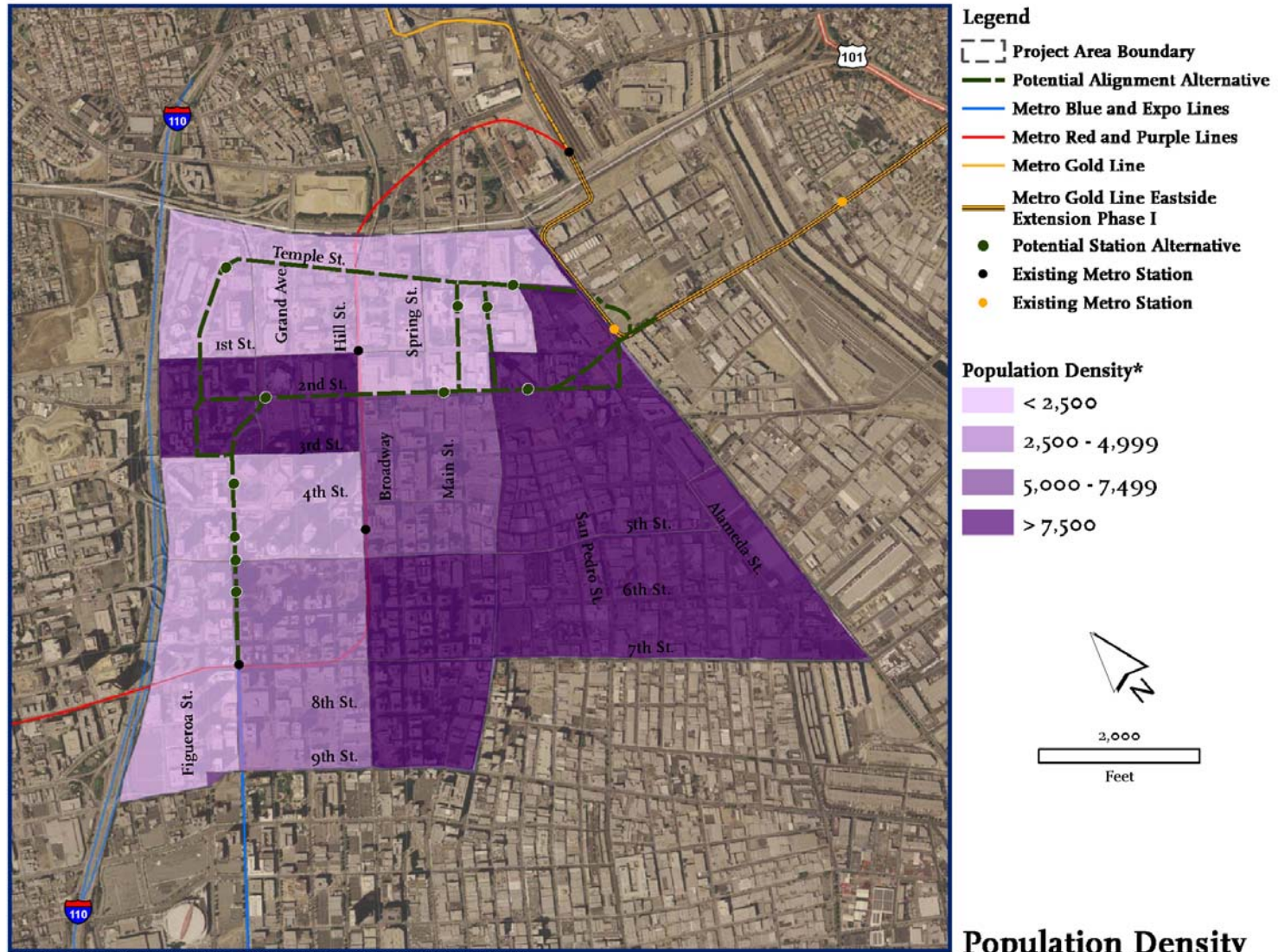
##### Project Study Area

The PSA is located entirely within the City of Los Angeles and includes several districts within the City of Los Angeles, including the Financial District, Bunker Hill, Civic Center, Little Tokyo, Fashion District, Toy District, Historic Core, Jewelry District, and Central City East. Little Tokyo is the only one of these communities that has been identified as an ethnic enclave, and where disproportionate impacts could occur. As shown in Table 4-28, as of the 2000 U.S. Census, there are 18,202 persons residing within the PSA. Based on the 2000 U.S. Census data, most of the PSA has a population density of less than 250 persons per acre (Figure 4-28). In addition, there are 9,150 households and approximately 300,000 jobs<sup>8</sup> within the PSA. The resident unemployment rate for the PSA is 35 percent, compared to the overall Los Angeles County unemployment rate of five percent.

Approximately 80 percent of the PSA population belongs to a minority group, as shown in Table 4-28. The minority group with the largest representation in the Regional Connector PSA is African-American (29.4 percent). The second and third largest minority groups in the Regional Connector PSA are Asian (24.5 percent) and Hispanics/Latinos (21.9 percent), respectively. The Regional Connector PSA is composed of less than ten percent of the following races: American Indian or Native Alaskan, Native Hawaiian or other Pacific Islander, or other race. Of the total population, 3.2 percent identify themselves as belonging to more than one race. Additionally, the percentage of White, Non-Hispanic for the PSA is approximately 20 percent. The demographic density for the PSA is shown in Figure 4-9.

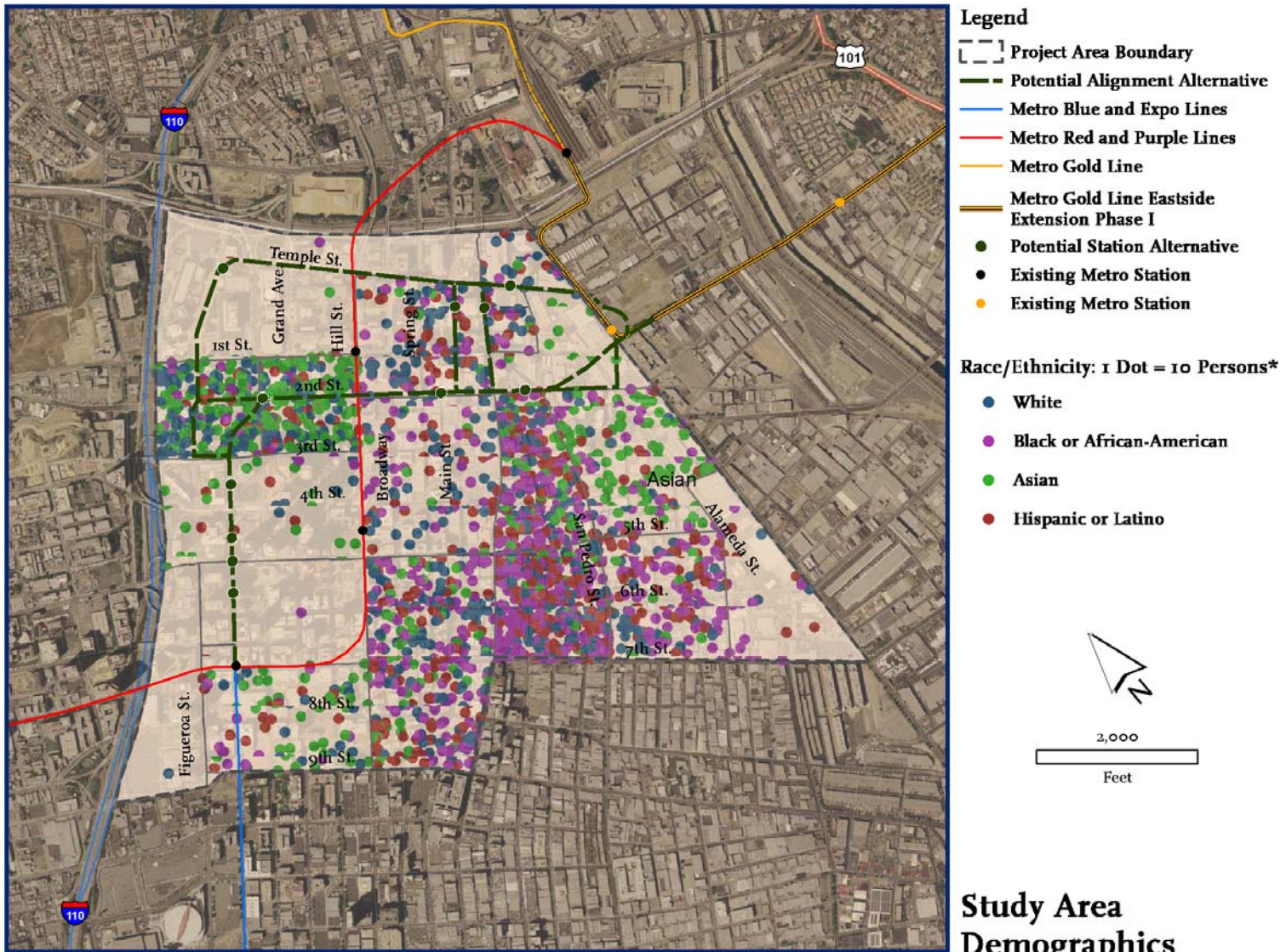
The median household income in the PSA was \$10,295 according to the 2000 U.S. Census. Of the various income levels shown in Table 4-28, the highest percentage of the working population (15 percent) earned less than \$10,000 per year. In the 2000 U.S. Census, which is the latest census information, 92 percent of the PSA's population (16,722 persons) was evaluated for poverty status. Poverty status computations are derived by the U.S. Census using the Health and Human Services poverty thresholds (Table 4-29). As shown in the Table 4-28, 46.8 percent of the population in the PSA is living below the poverty threshold.

<sup>8</sup>Southern California Association of Governments (SCAG) 2004 Regional Transportation Plan.



### Population Density

Figure 4-8 Population Density



Source: U.S. Census as provided by ESRI, 2007. \*Weighted-Average calculation of White, Black or African-American, Asian and Hispanic or Latino populations.

### Study Area Demographics

Figure 4-9 PSA Demographics



Table 4-28 Project Study Area Demographic Data

General		
Total Persons	18,202	
Total Households	9,150	
Race	Persons	% of Total Population
White	3,615	19.9%
Black or African American	5,354	29.5%
American Indian or Native Alaskan	122	0.7%
Asian	4,455	24.4%
Native Hawaiian and Other Pacific Islander	9	0.1%
Some Other Race	65	0.4%
Two or more Races	588	3.2%
Hispanic or Latino	3,994	21.9%
Total Minority Population	14,587	80.1%
Annual Income	Total	% of Total Working Population /a/
Less than \$10,000	2,625	15%
Between \$10,000 and \$14,999	940	5.4%
Between \$15,000 and \$19,999	711	4.1%
Between \$20,000 and \$24,999	543	3.1%
Between \$25,000 and \$29,999	466	2.7%
Between \$30,000 and \$39,999	355	2%
Between \$40,000 and \$54,999	475	2.7%
Between \$55,000 and \$99,999	741	4.2%
Over \$100,000	529	3%
Median Household Income	\$10,295	
Poverty Levels	Total	% of Total Population /b/
Population below Poverty Threshold	7,853	46.8%
Population above Poverty Threshold	8,919	53.2%

/a/ The total working population is 17,447 persons.

/b/ Percentage of total population evaluated for poverty status is 16,772 persons, which is 92 percent of the total population.

Table 4-29 2000 U.S. Census Poverty Thresholds

Household Size	Income Threshold
One-Person	\$8,794.00
Two-Person	\$11,239.00
Three-Person	\$13,738.00
Four-Person	\$17,603.00
Five-Person	\$20,819.00
Six-Person	\$23,528.00
Seven-Person	\$26,754.00
Eight-Person	\$29,701.00
Nine-Person	\$35,060.00

Source: U.S. Census Bureau, Housing and Household Economic Statistics Division, 2000

### Limited English Proficiency

Executive Order 13166 requires federally assisted programs to identify any need for services to those persons with limited English proficiency (LEP) and develop and implement a system to provide those services so LEP persons can have meaningful access to them. The 2000 U.S. Census data indicates that approximately 21 percent of the population in the PSA was linguistically isolated (i.e., all household members over age five have limited English proficiency [not well to not at all]). Approximately 63 percent of this linguistically-isolated population (1,872 persons, or 14 percent of total population over five years of age) spoke an Asian or Pacific Island language and 35.44 percent (1,059 persons or 10.4 percent of total population over five years of age) spoke Spanish (Figure 4-9). The geographic distribution of linguistically isolated Asian or Pacific Island language-speaking households corresponds with the distribution of the Asian population in the area around Little Tokyo (Figure 4-9).

### Elderly Population

According to the 2000 U.S. Census, approximately 19 percent of the PSA population is elderly (approximately 3,500 persons). As shown in Figure 4-11, the distribution of the elderly population corresponds with the geographic distribution of LEP residents in Little Tokyo (Figure 4-10).

### The Homeless and Single Room Occupants

In downtown Los Angeles, a major low-income group primarily consists of the homeless. However, the 2000 U.S. Census does not include the homeless in their calculations. In 2007, the Los Angeles Homeless Services Authority released the 2007 Greater Los Angeles Homeless Count, which is a report on a physical counting effort conducted to better estimate the number of homeless in the City of Los Angeles. The count found approximately 68,600 homeless persons at any one time in the City of Los Angeles. In the area where the PSA is located, there are approximately 22,030 homeless persons, which account for 32 percent of the total homeless population of the City of Los Angeles. As approximately one-third of the total estimated homeless population of the City is in the PSA, many services and shelters that serve this population are present as well. There are approximately four shelters, some year-round, 15 to 16 single-room occupancy establishments (SROs), and approximately nine homeless service providers within one-quarter mile of the proposed alignments. Resources for the homeless population within the PSA are listed in Table 4-30.

### Alignment Areas

The total alignment is approximately 1.7 miles. Since the proposed stations would be in close proximity to each other, over the short distance of the two build alternatives, any analysis at the station level would be repetitious. Therefore, an analysis of the entire alignment was conducted for socioeconomic impacts. Census block groups within a one-quarter mile radius of the alignment locations were evaluated. The results are summarized in Table 4-31.

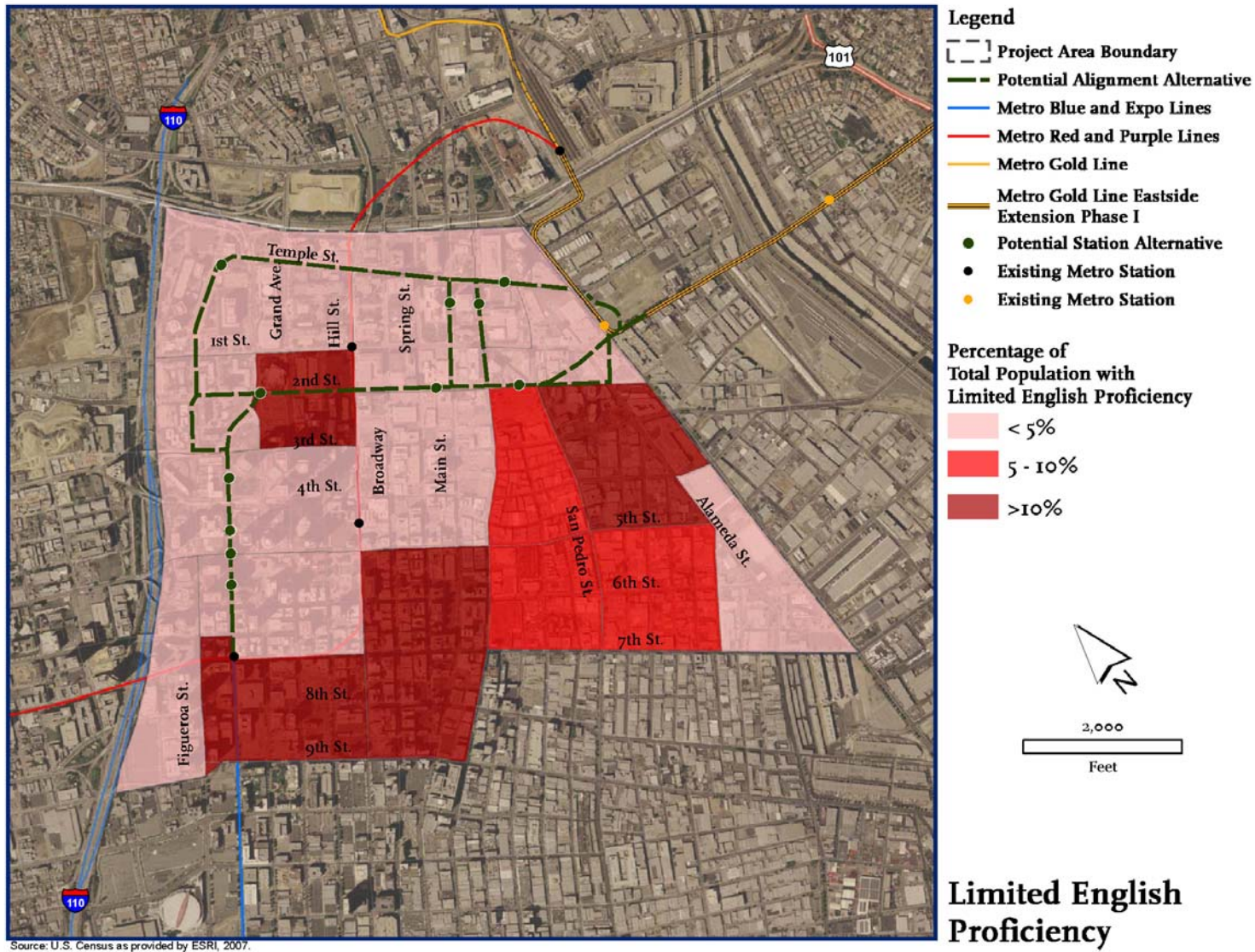
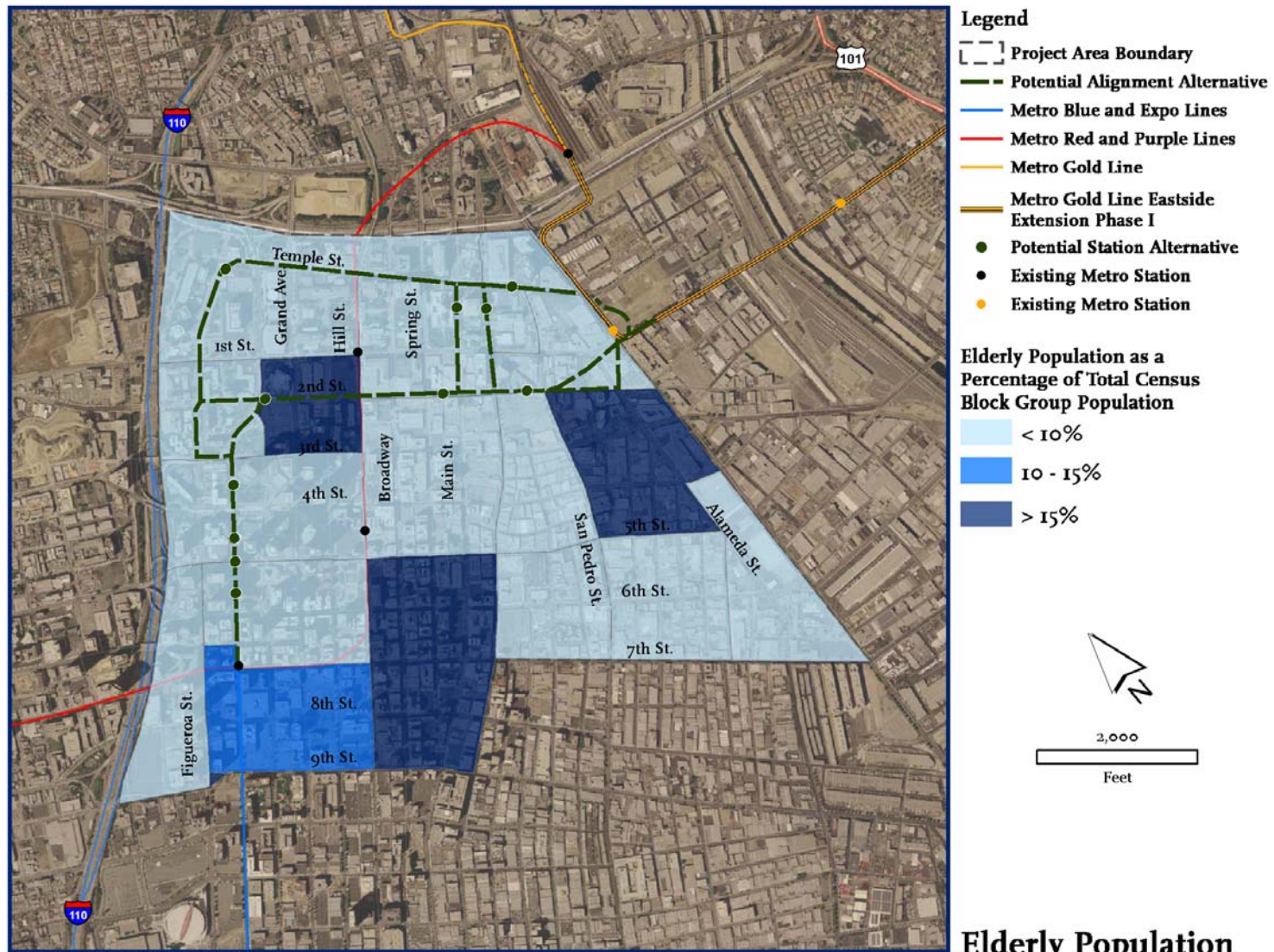


Figure 4-10 Limited English Proficiency



Source: U.S. Census as provided by ESRI, 2007.

## Elderly Population

Figure 4-11 Elderly Population



Table 4-30 Alignment Areas Homeless Shelters, SROs, and Service Providers

Name	Address	Affected Alignments*	No. of Units/ Beds	Availability
<b>Shelters</b>				
Emmanuel Baptist Mission - Bible Program In-House Residency	530 E. 5 <sup>th</sup> St.	A,B, U	N/A	Emergency
Los Angeles Mission - Anne Douglas Center of the Los Angeles Mission	310 Winston St.	A,B, U	N/A	Transitional
Los Angeles Mission - Overnight Beds for Men	303 E. 5 <sup>th</sup> St.	A,B, U	N/A	Emergency
Year Round Overnight Emergency Shelter	1208 Pleasant Ave.	A,B, U	N/A	Emergency
<b>SROs</b>				
Year Round Overnight Emergency Shelter	832 W. James M. Wood Blvd.	A,B, U	6	Emergency
La Posada - Emergency Shelter	1320 Pleasant Ave.	A,B, U	10	Emergency
Proyecto Pastoral	171 S. Gless St.	U	45	Emergency
Zahn New Emergency Housing Program	832 W. James M. Wood Blvd.	A,B, U	64	Emergency
Year Round Overnight Emergency Shelter	403 E. 5 <sup>th</sup> St.	A,B, U	100	Emergency
Panama Hotel	403 E. 5 <sup>th</sup> St.	A,B, U	221	Emergency
LTSC - Far East Building	347 E. 1 <sup>st</sup> St.	A,B, U	16	Permanent
Brownstone	425 E. 5 <sup>th</sup> St.	A,B, U	48	Permanent
Southern	412 E. 5 <sup>th</sup> St.	A,B, U	55	Permanent
Harold Hotel	323 E. 5 <sup>th</sup> St.	A,B, U	58	Permanent
Florence Hotel	310 E. 5 <sup>th</sup> St.	A,B, U	61	Permanent
Leonide Hotel	512-516 S. Main St.	A,B, U	66	Permanent
Fred Jordan Missions - Men's Christian Discipleship	445 S. Towne Ave.	A,B, U	36	Transitional
JWCH Institute	515 6 <sup>th</sup> St.	A,B, U	45	Transitional
Golden West Transitional Housing	417 E. 5 <sup>th</sup> St.	A,B, U	61	Transitional
Casa Olivares	1208 Pleasant Ave.	A,B, U	150	Transitional
<b>Service Providers</b>				
Assistance for Skid Row Families	207 S. Broadway	A,B, U	N/A	Year-Round
Day Labor Program	516 S. Main St.	A,B, U	N/A	Year-Round
Downtown Women's Center	325 S. Los Angeles St.	A,B, U	N/A	Year-Round
Employment Program	516 S. Main St.	A,B, U	N/A	Year-Round
Family Transition Program	207 S. Broadway	A,B, U	N/A	Year-Round
Golden West Hotel Life Skills Program	417 E. 5 <sup>th</sup> St.	A,B, U	N/A	Year-Round
LTSC Emergency Care Givers	231 E. 3 <sup>rd</sup> St.	A,B, U	N/A	Year-Round
Street Works	516 S. Main St.	A,B, U	N/A	Year-Round
Weingart Access Center	506 S. Main St.	A,B, U	N/A	Year-Round

Source: Community Redevelopment Agency of Los Angeles, 2008.

\* At-Grade Alternative - Option A (A)

At-Grade Alternative - Option A (B)

Underground Alternative (U)

As shown in Table 4-31, there are 11,369 persons and 5,482 households within one-quarter mile of the At-Grade Emphasis LRT Alternative. The unemployment rate for the area within one-quarter-mile of the At-Grade Emphasis LRT Alternative is 24.1 percent compared to the overall Los Angeles County unemployment rate of five percent.

Approximately 80 percent of the population in the area within one-quarter mile of the At-Grade Emphasis LRT Alternative belongs to a minority group, as shown in Table 4-31. The minority group with the largest representation for the At-Grade Emphasis LRT Alternative is Asian (33.3 percent). The second and third largest minority groups are Hispanic/Latino (24.2 percent) and African American (19.1 percent), respectively. The area within one-quarter mile of the At-Grade Emphasis LRT Alternative is composed of less than ten percent of the following races: American Indian or Native Alaskan, Native Hawaiian or other Pacific Islander, or other race. Of the total population, 2.2 percent identify themselves as belonging to more than one race. Additionally, the percentage of White, non-Hispanic population for the area within one-quarter mile of the At-Grade Emphasis LRT Alternative is approximately 20 percent.

The median household income in the area within one-quarter mile of the At-Grade Emphasis LRT Alternative was \$14,753 according to the 2000 U.S. Census. Of the various income levels shown in Table 4-31, the highest percentage of the working population (31.7 percent) earned less than \$10,000 per year. In the 2000 U.S. Census, 90.3 percent of the PSA's population (10,275 persons) was evaluated for poverty status. Poverty status computations are derived by the U.S. Census using the Health and Human Services poverty thresholds (Table 4-29). As shown in the Table 4-31, 36.6 percent of the population in the area within one-quarter mile of the At-Grade Emphasis LRT Alternative is living below poverty.

For the Underground Emphasis LRT Alternative, as shown in Table 4-31, there are 11,496 persons and 5,677 households within one-quarter mile. The unemployment rate for the area within one-quarter mile of the Underground Emphasis LRT Alternative is approximately 23.3 percent compared to the overall Los Angeles County unemployment rate of five percent.

Approximately 79 percent of the population in the area within one-quarter mile of the Underground Emphasis LRT Alternative belongs to a minority group, as shown in Table 4-31. The minority group with the largest representation for the Underground Emphasis LRT Alternative is Asian (33.6 percent). The second and third largest minority groups are Hispanics/Latinos (23.5 percent) and African-Americans (18.8 percent), respectively. The area within one-quarter mile of the Underground Emphasis LRT Alternative is composed of less than ten percent of the following races: American Indian or Native Alaskan, Native Hawaiian or other Pacific Islander, or other race. Of the total population, 2.4 percent identify themselves as belonging to more than one race. Additionally, the percentage of White, Non-Hispanic for the area within one-quarter mile of the Underground Emphasis LRT Alternative is approximately 20 percent.



Table 4-31 Alignment Areas Demographic Data

Socioeconomic Characteristic	At-Grade Alternative		Underground Alternative	
	General			
Total Persons	11,369		11,496	
Total Households	5,482		5,677	
Race	Persons	% of Total Population	Persons	% of Total Population
White	2,272	20.0%	2,364	20.6%
Black or African American	2,167	19.1%	2,158	18.8%
American Indian or Native Alaskan	74	0.7%	74	0.6%
Asian	3,784	33.3%	3,861	33.6%
Native Hawaiian and Other Pacific Islander	23	0.2%	23	0.2%
Some Other Race	42	0.4%	42	0.4%
Two or more Races	255	2.2%	277	2.4%
Hispanic or Latino	2,752	24.2%	2,697	23.5%
Total Minority Population	9,097	80.0%	9,132	79.4%
Annual Income	Total	% of Total Working Population /a/	Total	% of Total Working Population /b/
Less than \$10,000	1,571	30.0%	1,515	27.8%
Between \$10,000 and \$14,999	590	11.3%	601	11.0%
Between \$15,000 and \$19,999	488	9.3%	527	9.7%
Between \$20,000 and \$24,999	344	6.6%	351	6.4%
Between \$25,000 and \$29,999	362	6.9%	381	7.0%
Between \$30,000 and \$39,999	322	6.1%	411	7.5%
Between \$40,000 and \$54,999	411	7.8%	468	8.6%
Between \$55,000 and \$99,999	643	12.3%	686	12.6%
Over \$100,000	509	9.7%	509	9.3%
Median Household Income	\$14,753		\$18,776	
Poverty Levels	Total	% of Total Population /c/	Total	% of Total Population /d/
Population below Threshold	3,758	36.6%	3,620	34.8%
Population above Threshold	6,517	63.4%	6,782	65.2%

/a/ The total working population for the At-Grade Alternative is 10,765 persons.

/b/ The total working population for the Underground Alternative is 10,892 persons.

/c/ Percentage of total population evaluated for poverty status for the At-Grade Alternative is 10,275 persons, which is 90.3 percent of the total population.

/d/ Percentage of total population evaluated for poverty status for the Underground Alternative is 10,402 persons, which is 90.5 percent of the total population.

Source: 2000 U.S. Census

The median household income in the area within one-quarter mile of the Underground Emphasis LRT Alternative is \$18,776 according to the 2000 U.S. Census. Of the various income levels shown in Table 4-31, the highest percentage of the working population (13.9 percent) earned less than \$10,000 per year. In the 2000 U.S. Census, 90.5 percent of the PSA's population (11,496 persons) was evaluated for poverty status. Poverty status computations are derived by the U.S. Census using the Health and Human Services poverty thresholds (Table 4-29). As shown in the Table 4-31, 34.8 percent of the population in the area within one-quarter mile of the Underground Emphasis LRT Alternative is living below the poverty threshold.

#### 4.18.1.3 Public Participation

To ensure opportunities for public participation during the project development process, Metro held four public project scoping meetings, two in the early planning process and two after the alternatives screening process. The first early scoping meeting was held on November 6, 2007, at the City of Los Angeles Central Library in downtown Los Angeles, and the second on November 7, 2007, at the Japanese American National Museum in Little Tokyo. A total of 117 people attended the two meetings to provide comments on the alignment alternatives for the proposed project. Two additional meetings to provide a progress update of the alternatives screening were held at the Japanese American National Museum and at the City of Los Angeles Central Library on February 26, 2008.

The format of the scoping meetings included an open house element where attendees had the opportunity to review the project information prior to the start of the presentation and the comment period. Project team members were present at the display boards to address questions related to the project. Spanish and Japanese translators were made available, as appropriate. Following the open house period, a PowerPoint presentation was made to provide attendees with information regarding the purpose of the scoping meeting and the proposed project. Emphasis was placed on the importance of the community's participation in providing comments in person at the scoping meetings, or by telephone, fax, postal mail, or e-mail. Following the presentation, the public was given the opportunity to make verbal comments, which were recorded by a transcriber. The deadline for receiving comments was November 30, 2007. A total of 88 comments were received by Metro from public agencies, community organizations, elected officials, and the general public.

Of the 88 comments received by Metro, 16 were directly related to the topic of environmental justice. Three of these 16 comments were regarding Americans with Disabilities Act (ADA) compliance and access, and regarding community impacts. There was much coordination with numerous downtown community committees, including the Little Tokyo Subcommittee and other groups. Several presentations were conducted, including those after the second round of public meetings held in October 2008, in order to keep community members informed of project updates and public participation.

Table 4-32 Public Meetings

Type of Meeting	Date	Location	Number of Attendees
Early Scoping Meeting	November 6, 2007	Central Library	68
Early Scoping Meeting	November 7, 2007	Japanese American National Museum	49
Community Update Meeting Series #1	February 26, 2008	Japanese American National Museum	59
Community Update Meeting Series #1	February 28, 2008	Central Library	55
Community Update Meeting Series #2	October 16, 2008	Central Library	109 Combined
Community Update Meeting Series #2	October 21, 2008	Japanese American National Museum	

#### 4.18.1.4 Project Alignment Alternatives Screening Process

As part of the required screening process, segments of several proposed alignments were eliminated from consideration in the PSA. As part of the public outreach effort, 33 alternatives were presented at the early scoping meetings in November 2007. At each of the two public meetings, each alternative was presented in various ways, from poster boards to PowerPoint slides; which were accessible as well by internet through the Metro page [www.metro.net](http://www.metro.net). After the public input was incorporated into the screening process, eight alternatives remained and were identified for further screening. With a thorough screening process as described in the Alternative Screening Report, six of the eight alternatives were eliminated from further consideration for environmental evaluation. The two remaining alternatives were presented at the May 2008 public meetings.

#### 4.18.2 Evaluation Methodology

In assessing compliance of the proposed project with the intent of Executive Order 12898 regarding environmental justice, there are three major considerations:

- Whether the project provides transit service equity;
- Whether any potential adverse impacts would be disproportionately borne by low-income and minority communities; and
- Whether low-income and minority communities have had opportunities to actively participate in the planning of the project.

The analysis of impacts also considers:

- Adverse impacts to human health;
- Adverse environmental impacts to natural resources;
- Impacts that would adversely affect the stability and economic and social functioning of a community or neighborhood; and

- Adverse impacts related to noise and vibration, displacement and relocation, and pedestrian safety and security in low-income and minority communities.

As mentioned in Section 4.18.1.2, Little Tokyo is the only established ethnic community in the PSA. For this analysis, disproportionate impacts to Little Tokyo will be evaluated.

### 4.18.3 Environmental Issues

The following are potential environmental justice impacts associated with the proposed project.

#### At-Grade Emphasis LRT Alternative

- Transit Service Equity Impacts. The At-Grade Emphasis LRT Alternative would bypass and place stations outside the only established minority community in the PSA, Little Tokyo, but would keep the current location of the Little Tokyo/Arts District station along Alameda St. Additionally, as shown in Figure 4-11, Little Tokyo contains a high concentration of elderly, which are often transit dependent. Routing the alignment and locating a proposed station outside Little Tokyo can be perceived as a potential environmental justice impact because it can be interpreted as a lack of transit infrastructure investment in an under-represented community. However, the close proximity of the Little Tokyo/Arts District Station (one-quarter mile away), which is part of the Metro Eastside Extension, minimizes the potential of these justice impacts.
- Displacement Impacts. Pertaining to the homeless, changes in sidewalk widths may potentially have direct impact on homeless encampments.

#### Underground Emphasis LRT Alternative

- Transit Service Equity Impacts. The alignment for the Underground Emphasis LRT Alternative would traverse Little Tokyo underground and surface at a proposed portal at 1st and Alameda Streets. The Underground Emphasis LRT Alternative would introduce a station on 2nd St. between Los Angeles and Main Streets. Although the station is not within Little Tokyo, it is located next to the Little Tokyo branch library as well as the future location of the Block 8 development which is a significant Japanese inspired condominium and rental housing property scheduled to be opened in the Spring of 2009.
- Noise Impacts. The proposed project has potential to have noise impacts related to the proposed portal location at 1st and Alameda Streets. There are sensitive receptors around the portal area (museums and residences). This could be considered disproportionate because the portal would be located in the only minority community in the PSA.

- Construction Impacts. Bored tunnel construction impacts would be largely concentrated at portal areas where equipment is inserted for underground use or where debris from tunnel mining is removed. Portals will be concentration points of construction activity, including workers, stationary equipment, and truck activity. Construction in the portal area within the Little Tokyo community may be particularly disruptive to residences and businesses in this minority community.

## 4.19 Major Utilities

As part of the evaluation of existing conditions along the different alignment alternatives, major utilities are identified in order to assess potential impacts to the infrastructure. This process allows for identification of potential conflicts and resolution to these issues in the early stages of design and development of alternatives.

### 4.19.1 Affected Environment

There are several items that control the utility work design, including gravity lines, sanitary sewers, storm drains, telephone cables, and other power lines such as water and gas. The physical dimensions of these utilities vary from one to the next and various elements affect the placement and relocation of each. Gravity lines are usually the deepest utility which eventually controls the top of the station structure; sanitary, sewer, and storm drains are in this category. For sanitary sewers, polyvinylchloride (PVC) is utilized temporarily during underground station construction. Permanent vitrified clay pipe (VCP) is then installed during the restoration phase. For storm drains, temporary lines are installed during underground station construction. Permanent reinforced concrete pipe (RCP) is then constructed during the restoration phase.

Generally, it is preferable to save telephone cables. During underground and at-grade station construction support, the existing telephone duct bank remains in place. If the telephone duct bank is shallow, then breaking the existing ducts is required and lower supports are needed in order to clear the decking structure. During restoration phase, the telephone duct is encased in concrete.

Overhead power lines impacted by construction are to be relocated or new underground cables are installed as needed. For an underground configuration, during station construction, electrical ducts should be supported in place. If the electrical duct bank is shallow, then it requires lowering and supporting to clear the decking structure. Existing water lines are usually cast iron, which means they tend to have weak joints. During underground construction, new steel water lines will be constructed above the excavation, to be supported from the decking structure. The use of ductile iron pipes is restricted to lengths up to 20 feet. Also, for underground structures, new steel gas lines are to be installed above the excavation and to be supported from the decking structure.

The identification of all the above utilities is essential in order to understanding the existing conditions in the PSA as well as to understand potential design restrictions which must be considered.

### 4.19.2 Evaluation Methodology

The main source used for utility locations is the City of Los Angeles' Electronic Vault. This resource, which is part of the Bureau of Engineering division, provides detailed data history and utility characteristics which aid in assessing the impacts of construction.

For assessing the impact of construction, the existing utility data and information was incorporated and superimposed on LADOT Traffic Geometric plans, along with all the potential alternative alignments. One of the crucial issues for drawing existing utilities from as-built maps to the various alternative corridors was to locate the exact location of the current right-of-way. The mapping and discussions related to utilities were directed at street segments where a number of conflicts and/or issues may arise. Existing utility data were first obtained at intersections along the alignment, including Alameda St., 2<sup>nd</sup> St. and Flower St. Other key locations are intersections along 2<sup>nd</sup> St, including Central Ave, San Pedro St., Los Angeles St., and Main St., and the Flower St. segment with intersections at 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> Streets.

### 4.19.3 Environmental Issues

Implementation of the Underground Alternative would result in potential impacts to underground utility lines that would be avoided with the At-Grade Emphasis LRT Alternative. The following describes the utility issues along the alignment for the Underground Emphasis LRT Alternative and the impacts they may present.

#### At-Grade/Underground Affects on Flower St. and Intersections at 6<sup>th</sup>, 5<sup>th</sup>, 4<sup>th</sup>, and 3<sup>rd</sup> Streets

Between 3<sup>rd</sup> and 4<sup>th</sup> Streets there is a 33-inch storm drain line. There is a large gravity line, 72-inch to 84-inch reinforced concrete pipe (RCP) which turns from 4<sup>th</sup> St. onto Flower St. and continues south to 6<sup>th</sup> St. At 5<sup>th</sup> St., the 84-inch pipe changes temporarily to an eight-foot six-inch by 36-inch concrete box to allow a sanitary sewer line to cross underneath. At 6<sup>th</sup> St., the 72-inch RCP discharges into a 48-inch line and a 36-inch line. At the intersection of Flower and 6<sup>th</sup> Streets, the pipes are approximately 15-feet deep. There are also two storm drain manholes within this intersection.

Heading south on Flower St. from the potential station at Grand Ave., the alignment heads underground. The large gravity lines in this area will impact the location of the underground structures such as the tunnel, cut and cover, and stations. Identification of these lines in plan and cross sections are being studied at the present time.

A 15-inch concrete sanitary sewer crosses 7<sup>th</sup> St. 12 feet below grade. A 21-inch sanitary sewer crosses Wilshire Blvd. 14 feet below grade. A 20-inch sanitary sewer crosses 5<sup>th</sup> and 6<sup>th</sup> Streets 12-feet below-grade. A 30-inch storm drain crosses 4<sup>th</sup> St., one to 15 feet below-grade and an 18-inch sanitary sewer crosses 3<sup>rd</sup> St. 27 feet below-grade.

One of the noticeable things about the sanitary sewer pipes is the change in sizes throughout various segments of the pipeline. This may indicate merging pipe through deep man holes or junction structures. These would impact the underground structures.

### **At-Grade/Underground Affects on 2<sup>nd</sup> St. between Hill St. and Spring St.**

An information gap for the section of 2<sup>nd</sup> St. between Hill St. and Spring St. exists in data files, and further research is being conducted in order to correctly identify all utility types and locations. Currently, relieving pressure system discharges storm water over the 2<sup>nd</sup> St. tunnel, directing 12-inch to 24-inch diameter drain lines located at both sides of the tunnel adjacent to the sidewalks. More investigation is needed to identify the causes of this occurrence. A storm drain is also located on the north side of 2<sup>nd</sup> St., east of the 2<sup>nd</sup> St. tunnel.

### **At-Grade/Underground Affects on 2<sup>nd</sup> St. between Main St. and Los Angeles St.**

Currently, there is a large storm drain gravity line, nine-feet six-inch by 11-feet six-inch reinforced concrete box. There is also a 14-inch storm drain line running on the northern side of the 2<sup>nd</sup> St., approximately 13 feet away from the northern property line and about four feet underground. There are two sanitary sewer lines located on each side of the nine-feet six-inch by 11-feet six-inch storm drain, with an 18 inch distance from the center line to the face of the larger pipe. One of the lines is a 14-inch diameter pipe with 17.5 feet distance from the northern line of the property, located 16 feet underground. The second line is an eight-inch diameter pipe with 23-feet distance from the southern line of the property, located 16 feet underground.

Other utilities in this area are telephone, cable, and power lines with three-inch to 22-inch diameter conduits located approximately four feet underground. Water and gas lines are also located four feet underground and between two inches to six inches in diameter. Two gas lines are abandoned and one line of gas and the water line are active lines.

One of the options for the Underground Emphasis LRT Alternative is the location of a potential station somewhere in between these streets on 2<sup>nd</sup> St. Although the location of this station has not been determined, existing utility lines may impact the station wall footings and catenary pole footings.

### **At-Grade/Underground Affects on 2<sup>nd</sup> St. between Los Angeles St. and Central Ave.**

Between Los Angeles St. and Central Ave. there is a large storm drain gravity line and an 11-feet six-inch by 13-feet reinforced concrete box. There is also a 44-inch storm drain line running on the north side of 2<sup>nd</sup> St., 16 feet away from the northern property line and about six feet underground. There are two sanitary sewer lines located on both sides of the large storm drain 18 inches or more in distance away from the storm drain line's outside face. The first line is an eight-inch sanitary sewer line, 23 feet away from the northern property line, located 16 feet underground. The second line is an eight-inch sanitary sewer line, 18 feet away from the southern property line, located 16 feet underground.

Other utilities in this area are telephone, cable, and power lines with four-inch to 25-inch diameter conduits located approximately four feet underground. Water and gas lines are also located four feet underground, with the water line at eight inches and the gas line at six inches in diameter.

Potential impacts may occur in the area where the alignment curves off Alameda St. to enter southwest through private properties toward 2<sup>nd</sup> St. This area has a higher than average level of congested utility lines and would need to be further studied and evaluated.

#### **At-Grade/Underground Affects on 2<sup>nd</sup> St. between Main St. and Spring St.**

Between Main and Spring Streets there is a large storm drain gravity line and a 9.5-foot by 11.5-foot reinforced concrete box. There is also a 14-inch storm drain line running on the north side of the street approximately 15 feet away from the northern property line, about six feet underground. There are two sanitary sewer lines located along this segment. One of the lines is an eight-inch sanitary sewer line located above the large storm drain pipe, located ten feet underground. The second line is an eight-inch sanitary sewer line located on the north side of the large storm drain pipe, located ten feet underground and approximately 25.5 feet away from the northern property line.

Other utilities in this area are telephone, cable, and power lines with diameters ranging from 12-inch to 29-inch located at a maximum of six feet underground. Water and gas lines are also located four feet underground, and range from four inches to six inches in diameter. Two gas lines and one water line are abandoned.

#### **At-Grade/Underground Affects on 2<sup>nd</sup> St. between Spring St. and Broadway**

Between Spring St. and Broadway there is a large storm drain gravity line, and a 9.5-foot by 11.5-foot reinforced concrete box. There is a 14-inch line running on the north side of the street, approximately 15 feet in distance from the northern property line and six feet underground.

There are two sanitary sewer lines located along this segment. One of the lines is an eight-inch sanitary sewer line located above the large storm drain, approximately ten feet underground. The second line is also an eight-inch sanitary sewer line located north, off the large storm drain line, approximately ten feet underground, and 25.5 feet away from the northern property line.

Other utilities in this area are telephone, cable, and power lines with 12-inch to 29-inch diameter conduits located approximately six feet underground. Water and gas lines ranging from four inches to six inches in diameter are located at a maximum of four feet underground. Two gas lines and one water line are abandoned.

#### **At-Grade/Underground Affects on 2<sup>nd</sup> St. between Broadway and Hill St.**

Between Broadway and Hill St. there is a storm drain large gravity line, ten-inch diameter reinforced concrete pipe (RCP) approximately 22 feet underground. This line alignment moves north approximately 15 feet after passing the Hill St. intersection. There are also two eight-inch storm drain lines running on the north and south sides of the street, approximately three feet underground.

An eight-inch sanitary sewer line is located north of the large sanitary sewer approximately 18 feet underground.

Other utilities in this area are telephone, cable, and power lines with 22-inch to 41-inch diameter conduits located at a maximum of six feet underground. This particular location, however, also has a deeper line at 16 feet underground. Water and gas lines ranging from four inches to eight inches in diameter are located at a maximum of four feet underground. There is an eight-inch gas line that is abandoned.

#### **Affects on Alameda St. at Temple St. (At-Grade), 1<sup>st</sup> St., and 2<sup>nd</sup> St. (Underground)**

In the PSA, Alameda St. is a very heavily trafficked corridor that is used by both automobiles and large freight trucks. The land uses around the Alameda St., 1<sup>st</sup> St., and 2<sup>nd</sup> St. intersections has experienced a change from low scale industrial to residential/commercial in the past years. Because a grade separation is being proposed as a solution for possible congestion issues, utilities in and around the area must be identified thoroughly in order to design the station and tunnel to appropriate standards.

Currently, there is a 12-inch water line located approximately in the center of Alameda St. and another 36 inch water line located on the west side of the street. A 14-inch sanitary sewer is located on the eastern side of Alameda St. A 75-inch storm drain is also located on the eastern side of Alameda St. as well as 14-inch lines that run along the length of the street. There also exist electrical boxes with two and three conduits, telephone lines, and a six-inch abandoned gas line. This area is critical because a grade separation (underpass) built along Alameda St. from approximately north of Temple St. to south of 2<sup>nd</sup> St. will mean the removal and relocation of these utility lines.

For this particular scenario, it is advised that the 75-inch storm drain cannot be located under the northbound bus deck because there would not be enough room. Instead, two possibilities are suggested: 1) change the storm drain pipe such that it runs under the southbound bus deck (west of Alameda St.) or 2) relocate the project alignment east of the Metro Eastside Extension LRT tracks where there is a passage. With the first option,, the storm drain pipe would be relocated to pass the grade separation (north of Temple St.) and meet its original alignment south of 2<sup>nd</sup> St. This option would be preferred over altering the project alignment, as that would require significant additional analyses and public input. Once the large storm drain is relocated, the smaller pipes can be moved under the bus deckway. The crossing utility lines can be supported from the beam bridge decks at Temple and 1<sup>st</sup> Streets.

## 4.20 Summary of Environmental Issues

Table 4-33 Comparison of Alternatives

Environmental Resource Area	No Build	TSM	At-Grade	Underground
Land-Use and Development	0	+	+	+
Displacement and Relocation of Existing Uses	0	+	-	-
Community and Neighborhood Impact	0	+	-	-
Visual and Aesthetic Impacts				
Air Quality Impacts	0	+	+	+
Noise and Vibration	0	-	-	-
Ecosystems/Biological Resources	0	-	-	0
Geotechnical/Subsurface/Seismic and Hazardous Materials Impacts	0	0	-	-
Water Resources	0	0	0	0
Energy				
Historic, Archeological and Paleontological Impacts	0	0	-	-
Parklands and Other Community Facilities	-	+	-	-
Economic and Fiscal Impacts	-	-	-	-
Safety and Security	-	-	-	-
Construction Impacts	-	-	-	-
Growth Inducing Impacts	+	+	+	+
Environmental Justice				
Major Utilities				
Total				



## Section 5 Financial Analysis

### 5.1 Introduction

This section provides a comparison of the capital and operating and maintenance costs and revenues associated with the promising alternatives under consideration for the project. These alternatives consist of a No Build, TSM and two build alternatives. The build alternatives are comprised of an at-grade and cut-and-cover alternative (At-Grade Emphasis LRT Alternative) that includes two configuration options (Option A and Option B) and a twin-bore tunnel alternative (Underground Emphasis LRT Alternative). It is important to note that this financial analysis was conducted prior to the recent national economic crisis. As the impacts of this crisis are still working their way through the private and public sectors, including transit systems, the cost and revenue assumptions described in the following sections should be considered preliminary and will likely need to be refined. As the Regional Connector continues through the project implementation process, cost, funding and financing projections will be revised to reflect the best available information.

Section 5.2 focuses on the capital costs of the alternatives. Costs are presented in both base year and Year of Expenditure (YOE) dollars using annual inflation rates and a preliminary implementation schedule developed for the project. In order to understand the financial impact of actual funds that would need to be expended in the actual year of expenditure and the relative effects of inflation on costs and revenues, an inflation rate is used to project from base year dollars to YOE dollars. More specifically, YOE dollar values are computed by multiplying base year dollar values by the compounded escalation factor for the year in which funds would be expended. For example, in YOE dollars, \$1.00 in 2008 is equivalent to \$1.04 in 2009, using an inflation rate of 4.0 percent.

Additionally, the capital costs are presented using FTA's Standard Cost Categories (SCC). FTA implemented the SCC to establish a consistent format for the reporting, estimating and managing of capital costs for projects proceeding through the New Starts major capital project development process.

Following the discussion of capital costs, Section 5.3 describes the potential federal, state, and local capital revenue sources and funding strategies that could be used for the Regional Connector project. For purposes of this analysis, the Regional Connector build alternatives are assumed to be funded with a combination of federal and non-federal funds, including 50 percent in FTA New Starts (Section 5309) funding and 50 percent in local funding from a combination of state and local sources. The proposed funding sources are described first, followed by a discussion of other potential state and local sources. Funding strategies considered include the potential for changes to Metro's policy regarding bonding capacity. Also considered is the potential to work with FTA to include the Regional Connector project as part of a multi-corridor program of projects, to be funded through the FTA New Starts program, similar to the process being used in Salt Lake City and Houston.

Section 5.4 compares projected operating and maintenance (O&M) costs of the alternatives and projected farebox revenues assuming average fares consistent with Metro services. This section also identifies potential system-wide operating savings that could be realized due to improved efficiency of service associated with the selected alternatives. An estimate is also provided of the potential level of operating support required.

Section 5.5 summarizes the key findings of the preliminary financial analysis. As the alternatives selection process moves forward, future iterations of the financial analysis will be conducted, with increasing levels of detail and refinement. The refined financial analysis will include a detailed cash flow analysis in YOE dollars through the project horizon year of 2030.

### 5.1.1 Background

The Regional Connector project is proposed to create a connection in downtown Los Angeles that will link the Metro Blue and Expo Lines termini at 7th St./Metro Center Station (7th and Flower Streets) to the Metro Gold Line Pasadena and Eastside links at the Little Tokyo/Arts District Station at 1st and Alameda Streets. This connection will provide through service between the Metro Blue Line to Long Beach, the Metro Gold Line to Pasadena and East Los Angeles, and the Metro Expo Line to Culver City. With the implementation of the Regional Connector, these four lines will share tracks and stations in downtown Los Angeles. The result of this connection will be enhanced regional connectivity without the need to transfer thus making it easier for potential riders to get to and from downtown Los Angeles.

### 5.1.2 Status of the Regional Connector Transit Corridor in Existing Long Range Financial Plans

The Regional Connector Transit Corridor is included in both of the existing long range financial planning documents for the region: Metro's 2008 Long Range Transportation Plan (LRTP) and the Southern California Association of Governments Regional Transportation Plan (SCAG RTP). Within the LRTP, the Regional Connector Transit Corridor is the highest priority project within the Strategic Unfunded component of the plan and is one of 12 "Tier 1" projects that are "currently under planning study or environmentally cleared/route refinement study." Projects in the Strategic Unfunded component of the plan could be implemented if additional funding were made available from new sources. With regard to the SCAG RTP, the Regional Connector is included as a funded project (project identification number 1TR0404) at an estimated cost of \$4.24 billion and is assumed to be completed by 2035.

### 5.1.3 Description of the Alternatives

The following provides a brief overview of the alternatives under consideration in order to reflect assumptions used for the cost estimates. See section 2 for maps of alternatives for consideration.

## No Build Alternative

The No Build alternative includes all existing transportation facilities as well as all committed transportation projects outlined in the Metro LRTP (2001) and the SCAG Regional Transportation Plan (2004). This includes the Metro Gold Line Eastside Extension (Phase 1) scheduled to open in 2009, the first and second phase of the Metro Exposition Line scheduled to open in 2010, and the second phase of the Metro Rapid Bus expansion plan scheduled to be completed in 2008. An update to Metro's LRTP was released for public review in March 2008 and is anticipated to be finalized and approved during the winter of 2008. This final AA study will reflect the 2001 LRTP commitments but acknowledge the potential inclusion of additional projects pending the approval of the updated plan. The No Build Alternative would preserve existing service levels, as well as the projects listed in the LRTP and Regional Transportation Plan. It may also call for improving service frequency in some areas, but will largely leave the present transit coverage unchanged.

## TSM Alternative

The TSM Alternative would assume no build and would imitate the proposed light rail link between 7th St./Metro Center Station and Union Station using two shuttle bus routes. Shuttle buses operated by Metro would run frequently, perhaps just a few minutes apart during peak hours, and routes would be designed to move passengers between the two stations as quickly as possible. The shuttle buses would use mixed-flow arterial street lanes or existing bus only lanes and attempt to avoid major conflicts with existing bus routes. Peak-hour parking restrictions would facilitate the movement of the shuttle buses along the routes. Intermediate stops would provide additional transit coverage of Bunker Hill, Little Tokyo, and the Civic Center. A variety of bus sizes could be used to tailor capacity to demand, ranging from 30-foot shuttle buses to 60-foot articulated buses.

In addition to frequent headways, Regional Connector shuttle buses could employ a Transit Priority System (TPS) system similar to the ones currently used on Metro Rapid lines within the City of Los Angeles. Transponders mounted to the undersides of the buses would trigger detector loops embedded in the pavement in advance of each signalized intersection along the route. Upon detecting the bus, the City's central Automated Traffic Surveillance and Control (ATSAC) system would trigger the signal controller to grant additional green phase time to the oncoming bus (usually 10-15 percent of the total cycle time), up to once per cycle. Metro Rapid lines have shown TPS to keep buses moving quickly, reduce trip times, and increase passenger throughput.

## Build Alternatives

Based on the results of a detailed screening process, two build alternatives are being recommended to be carried forward for further evaluation: a combined at-grade/underground alternative that includes one-way couplets on Main St. and Los Angeles St. (At-Grade Emphasis LRT Alternative) and an alternative that is almost entirely underground (Underground Emphasis LRT Alternative). The At-Grade Emphasis LRT Alternative includes two alignment options that are still under consideration. A description of the alternatives is provided below.

### At-Grade Emphasis LRT Alternative Option A

The At-Grade Emphasis LRT Alternative Option A is 1.8 miles long with approximately 71 percent of the alignment at grade and 29 percent of the alignment underground. The underground portions of the alignment are proposed to use the cut and cover construction technique. The estimated capital cost of the At-Grade Emphasis LRT Alternative – Option A is \$795.7 million in FY2008 constant dollars, or \$1.019 billion in Year of Expenditure throughout (YOE) dollars, inclusive of inflation.

The At-Grade Emphasis LRT Alternative Option A has a total of three station locations, of which two are underground and one is at-grade. The underground stations are at Flower St. between 5th and 6th Streets, and adjacent to the Grand Avenue Project development, south of 2nd St. The third station is a split station (two platforms) located at grade with one on Main St. and one on Los Angeles St.

As shown in Figure 5-1, the alignment for the At-Grade Emphasis LRT Alternative – Option A, from west to east, begins/ends at the existing underground 7th St./Metro Center station and heads north under Flower St. resurfacing to an at grade alignment via a portal located north of 4th St. The alignment continues across 3rd St. in a northeasterly direction where it then enters the existing hillside and ‘punches’ into the existing 2nd St. tunnel.

The alignment then uses the existing 2nd St. tunnel to run east, at-grade in a dual track configuration until it reaches Main St. The alignment splits into a couplet configuration at grade, with one track continuing north on Main St. and the other track continuing east on 2nd St. to north on Los Angeles St.

Both tracks then head east on Temple St. realigning into a dual track configuration at Los Angeles and Temple Streets. The alignment then heads east until the connection with the Metro Gold Line at Temple and Alameda Streets. In this alignment, 2nd St. between Los Angeles St. and Hill St. is transformed into a transit mall.

### At-Grade Emphasis LRT Alternative Option B

The At-Grade Emphasis LRT Alternative Option B is 1.79 miles long with approximately 79 percent of the alignment at grade and 21 percent of the alignment underground. The underground portions of the alignment are proposed to use the cut and cover construction technique. The estimated capital cost of this option is \$709.3 million in FY2008 constant dollars, or \$909.1 million in YOE dollars, inclusive of inflation.

The At-Grade Emphasis LRT Alternative Option B has a total of three stations locations, of which one is underground and two are at-grade. One at-grade station is on Flower St. between 3rd and 4th St. A second station is located adjacent to the Grand Avenue Project development, and a third station is a split station (two platforms) located at-grade with one on Main St. and one on Los Angeles St.

As shown in Figure 5-2, the alignment for the At-Grade Emphasis LRT Alternative – Option B, from west to east, begins/ends at the existing underground 7th St./Metro Center Station and heads north under Flower St., resurfacing to an at-grade alignment from a portal located north of 5th St. The alignment continues on Flower St. at-grade and then across 3rd St. in a northeasterly direction where it then enters the existing hillside and ‘punches’ into the existing 2nd St. tunnel. The alignment then uses the existing 2nd St. tunnel to run east, at-grade in a dual track configuration until it reaches Main St. The alignment splits into a couplet configuration at-grade, with one track continuing north on Main St. and the other track continuing east on 2nd St. then north on Los Angeles St. Both tracks then head east on Temple St., realigning into a dual track configuration at Los Angeles and Temple Streets. The alignment then heads east until the connection with the Metro Gold Line at Temple and Alameda Streets. In this alignment, 2nd St. between Los Angeles St. and Hill St. is transformed into a transit mall.

### Underground Emphasis LRT Alternative

The Underground Emphasis LRT Alternative is 1.58 miles long and is proposed to use a bore tunneling construction technique. The estimated capital cost of this alternative is \$910.4 million in FY2008 constant dollars, or \$1.167 billion in YOE dollars, inclusive of inflation.

The Underground Emphasis LRT Alternative has a total of three stations, all underground. One station is under Flower St. between 4th and 5th Streets. A second station is located underneath the Grand Avenue Project development, and a third station is under 2nd St. between Main and Los Angeles Streets.

As shown in Figure 5-3, the alignment for the Underground Emphasis LRT Alternative begins at the existing underground 7th St./Metro Center Station and heads north under Flower St. It then turns northeast under the Grand Avenue Project development and heads east beneath the 2nd St. tunnel. The alignment continues east under 2nd St. until Central Ave., then it turns northeast under private property and rises through a new portal to the surface. The alignment then crosses the intersection of 1st St. and Alameda St. at grade to join the Metro Gold Line Eastside Extension tracks.

Based on the above descriptions, Table 5-1 summarizes the key alignment characteristics of the build alternatives. As shown in the table, the Underground Emphasis LRT Alternative is approximately 1,000 feet shorter than the At-Grade Emphasis LRT Alternative, with all of its alignment in bored tunnel underground. While the two At-Grade Emphasis LRT Alternative options are similar in length, Option A has a larger share its alignment in cut-and-cover underground and one more station underground compared to Option B.

Table 5-1 Key Alignment Characteristics of the Build Alternatives

Alignment	At-Grade Emphasis LRT Alternative – Option A		At-Grade Emphasis LRT Alternative – Option B		Underground Emphasis LRT Alternative	
	Feet	%	Feet	%	Feet	%
At-Grade	4,830	51%	5,520	58%	-	0%
Couplet	1,900	20%	1,900	20%	-	0%
Underground	2,790	29%	2,030	21%	8,342	100%
Total Feet	9,520		9,450		8,342	
Miles	1.8		1.79		1.58	
Stations						
At-Grade	1		2		0	
Underground	2		1		3	

## 5.2 Capital Costs

### 5.2.1 Capital Costs of the Alternatives

This section describes the capital costs of the alternatives. As shown in Table 5-2, capital costs are presented in 2008 constant dollars and in Year of Expenditure dollars inclusive of inflation. The capital costs of the alternatives range from \$62.7 million (\$73.5 million in YOE dollars) for the TSM Alternative to \$910.4 million (\$1,166.9 million in YOE dollars) for the Underground Emphasis LRT Alternative. At this stage of project development, a conceptual implementation plan has been assumed for the build alternatives, whereby all cost categories are assumed to be incurred over a ten-year implementation period. In future iterations of the financial analysis, the costs and implementation schedule will be refined.

Table 5-2 Capital Costs in 2008 Dollars and YOE Dollars (\$ millions)

Alternative	2008 Dollars	YOE Dollars
TSM	\$62.74	\$73.51
At-Grade Emphasis LRT Alternative Option A	\$795.67	\$1,019.91
At-Grade Emphasis LRT Alternative Option B	\$709.30	\$909.17
Underground Emphasis LRT Alternative	\$910.36	\$1,166.91

Table 5-3 and Figure 5-4 present the capital costs of the alternatives using the FTA's Standard Cost Categories. FTA requires submission of capital costs in the SCC format at key milestones in the major capital project development process, including the application to enter Preliminary Engineering which follows the AA. The ten main cost categories are:

- 10 Guideway and Track Elements
- 20 Stations, Stops, Terminals, Intermodal
- 30 Support Facilities: Yards, Shops, Administration Buildings
- 40 Sitework and Special Conditions (removal of structures or existing trackwork, utility relocations, roadway modifications, and environmental mitigation)
- 50 Systems (overhead catenaries and communication infrastructure)
- 60 Row, Land, Existing Improvements
- 70 Vehicles
- 80 Professional Services
- 90 Unallocated Contingency
- 100 Finance Charges

Cost categories 10 through 60 are the construction and right-of-way elements associated with each alternative. Category 70 is the cost of vehicles and includes buses (TSM Alternative) and/or light rail vehicles (build alternatives). Categories 80 through 100 represent “soft costs.” These costs include allowances for professional services (Category 80) such as engineering and design, construction management, agency program management, project management oversight, project implementation, and training/start-up/testing. The allowances are computed by applying a percentage to the total construction cost estimated for each cost category (Categories 10 through 50). Unallocated contingency (Category 90) is an overall project contingency which is typically higher during the early stage of project development and decreases as more detailed planning and engineering is completed. Finally, finance charges are estimated if the financial plan for the project includes the issuance of bonds. No financing charges have been assumed at this time.

Costs for each alternative are shown in Table 5-3 and Figure 5-1, and explained below.

FTA Standard Cost Categories	Build Alternatives			
	TSM	At-Grade Emphasis LRT Alternative-Option A	At-Grade Emphasis LRT Alternative-Option B	Underground Emphasis LRT Alternative
10 Guideway and Track Elements		\$215.59	\$204.64	\$231.02
20 Stations, Stops, Terminals, Etc.		\$82.75	\$44.75	\$116.27
30 Support Facilities	\$21.00	\$15.60	\$15.60	\$5.20
40 Sitework and Special Conditions		\$154.87	\$144.87	\$184.91
50 Systems		\$32.61	\$32.52	\$30.92
60 ROW, Land, Existing		\$3.78	\$3.78	\$54.18
70 Vehicles	\$29.11	\$52.67	\$52.67	\$17.56
80 Professional Services	\$6.93	\$165.47	\$145.99	\$187.54
90 Unallocated Contingency	\$5.70	\$72.33	\$64.48	\$82.76
100 Finance Charges				
<b>Total</b>	<b>\$62.74</b>	<b>\$795.67</b>	<b>\$709.30</b>	<b>\$910.36</b>

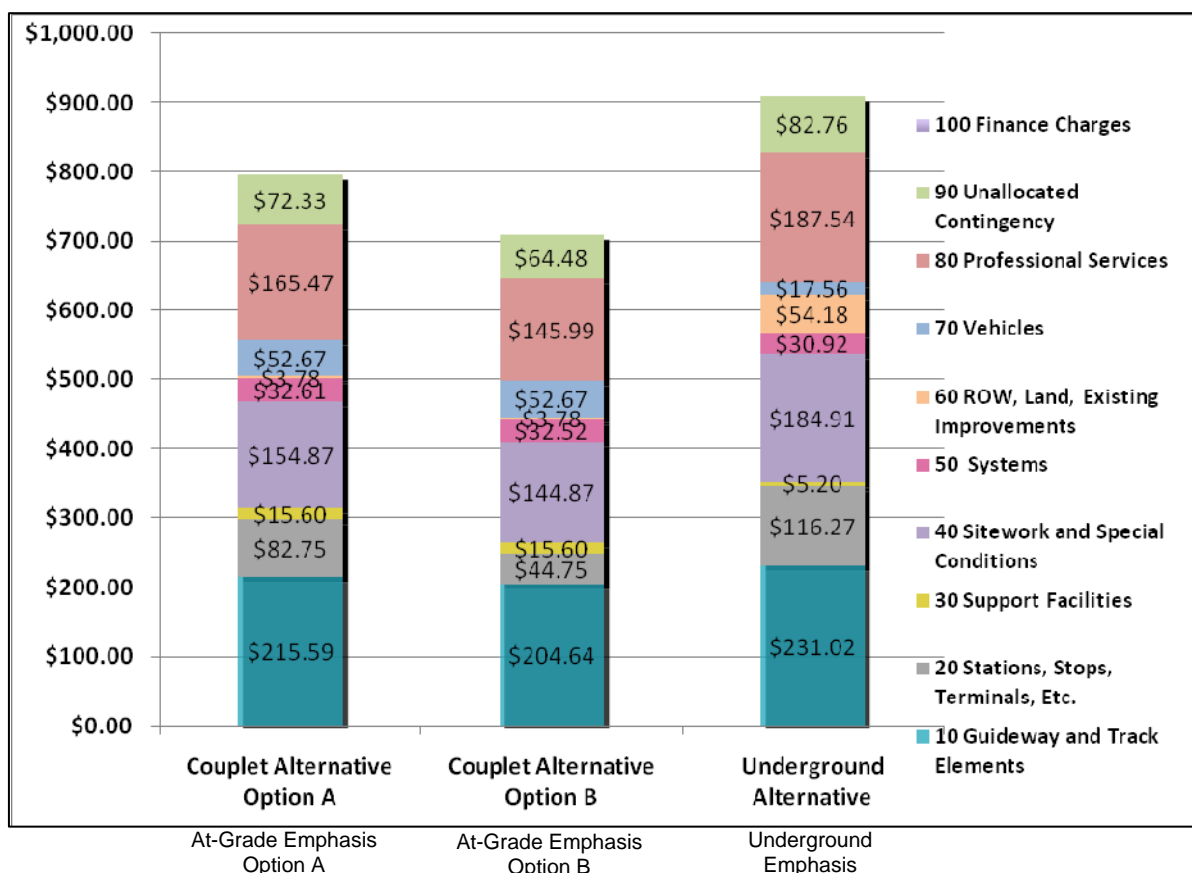


Figure 5-1 Capital Costs of the Alternatives, by Standard Cost Category(2008 \$, in millions)

## TSM Alternative

Of the \$62.7 million cost of this alternative, approximately \$50.1 million (80 percent) is for support facilities (33 percent) and vehicles (46 percent). This reflects the need for a new maintenance facility and a total of 42 new buses for this alternative. Professional services account for approximately \$6.9 million (11 percent), with \$5.7 million (9 percent) for unallocated contingencies.

## At-Grade Emphasis LRT Alternative Option A

Of the \$795.7 million cost of this alternative, approximately \$501.5 million (63 percent) is related to the construction elements of the FTA SCC, with guideway and track (27 percent), sitework and special conditions (19 percent) and stations (10 percent) accounting for the majority of the construction costs. Twelve light rail vehicles would be required for this alternative which is \$52.7 million (7 percent) of the total costs. Professional services account for \$165.5 million (21 percent), with \$72.3 million (9 percent) for unallocated contingencies.

## At-Grade Emphasis LRT Alternative Option B

Similar to Option A, of the \$709.3 million cost of this alternative, approximately \$442.4 million (62 percent) is related to the construction elements of the FTA SCC, with guideway and track (29 percent), sitework and special conditions (20 percent) and stations (6 percent) accounting for the majority of the construction costs. Station costs are lower with Option B since only one station is underground compared to two in Option A. Similar to Option A, 12 light rail vehicles would be required for this alternative at a cost of \$52.7 million (7 percent of the total costs). Professional services account for \$146.0 million (21 percent), with \$64.5 million (9 percent) for unallocated contingencies.

## Underground Emphasis LRT Alternative

Of the \$910.4 million cost of this alternative, \$568.3 million (62 percent) is related to the construction elements of the FTA SCC, with guideway and track (25 percent), sitework and special conditions (20 percent) and stations (13 percent) accounting for the majority of the construction costs. Compared to the At-Grade Emphasis LRT Alternative, only four light rail vehicles would be required for this alternative which is \$17.6 million (2 percent of total costs). Professional services account for \$187.5 (21 percent), with \$82.8 million (9 percent) for unallocated contingencies.

### 5.2.2 Year of Expenditure Cost Analysis

For the YOE cost analysis, capital costs were escalated from 2008 dollars using annual growth rates and a preliminary implementation plan developed by other team members. The annual and compound growth rates are shown in Table 5-4. In addition to these escalation rates, the percentage of project completion by year (cost curve) shown in Table 5-5 was used to estimate the annual costs for the TSM and the build alternatives.

Table 5-4 Year of Expenditure Dollar Escalation Rates

Capital Costs	Growth Rate	Compound Annual Growth Rate
2009	1.04	1.04
2010	1.04	1.08
2011	1.04	1.12
2012	1.04	1.17
2013	1.04	1.22
2014	1.04	1.27
2015	1.03	1.30
2016	1.03	1.34
2017	1.03	1.38
2018	1.03	1.42

Table 5-5 Cost Curve Assumptions

Assumed Cost Curves

Year	TSM Alternative	Build Alternatives
2009	14.3%	1.6%
2010	14.3%	2.4%
2011	14.3%	3.2%
2012	14.3%	12.0%
2013	14.3%	13.6%
2014	14.3%	14.4%
2015	14.3%	15.2%
2016		15.2%
2017		14.4%
2018		8.0%

Table 5-2, shown previously, compares the total costs for each build alternative in 2008 dollars and in YOE dollars. Table 5-6 and Figure 5-2 provide a comparison of the alternatives with respect to costs incurred per year in YOE dollars. As shown in the tables and figure, the major expenditures for the build alternatives are assumed to occur in years 4 through 9 of the 10-year project implementation period, while the costs of the TSM Alternative are assumed to be incurred over the first 7 years.

Table 5-6 Comparison of Annual Capital Costs  
(YOES, in millions)

Year	TSM Alternative	Couplet Alternative-Option A	Couplet Alternative-Option B	Underground Alternative
2009	\$9,321	\$13,240	\$11,803	\$15,148
2010	\$9,694	\$20,654	\$18,412	\$23,631
2011	\$10,082	\$28,641	\$25,532	\$32,769
2012	\$10,485	\$111,699	\$99,574	\$127,799
2013	\$10,905	\$131,656	\$117,365	\$150,632
2014	\$11,341	\$144,977	\$129,239	\$165,872
2015	\$11,681	\$157,622	\$140,512	\$180,340
2016	\$0	\$162,350	\$144,727	\$185,750
2017	\$0	\$158,420	\$141,223	\$181,253
2018	\$0	\$90,651	\$80,811	\$103,717
<b>Total</b>	<b>\$73,510</b>	<b>\$1,019,910</b>	<b>\$909,197</b>	<b>\$1,166,911</b>

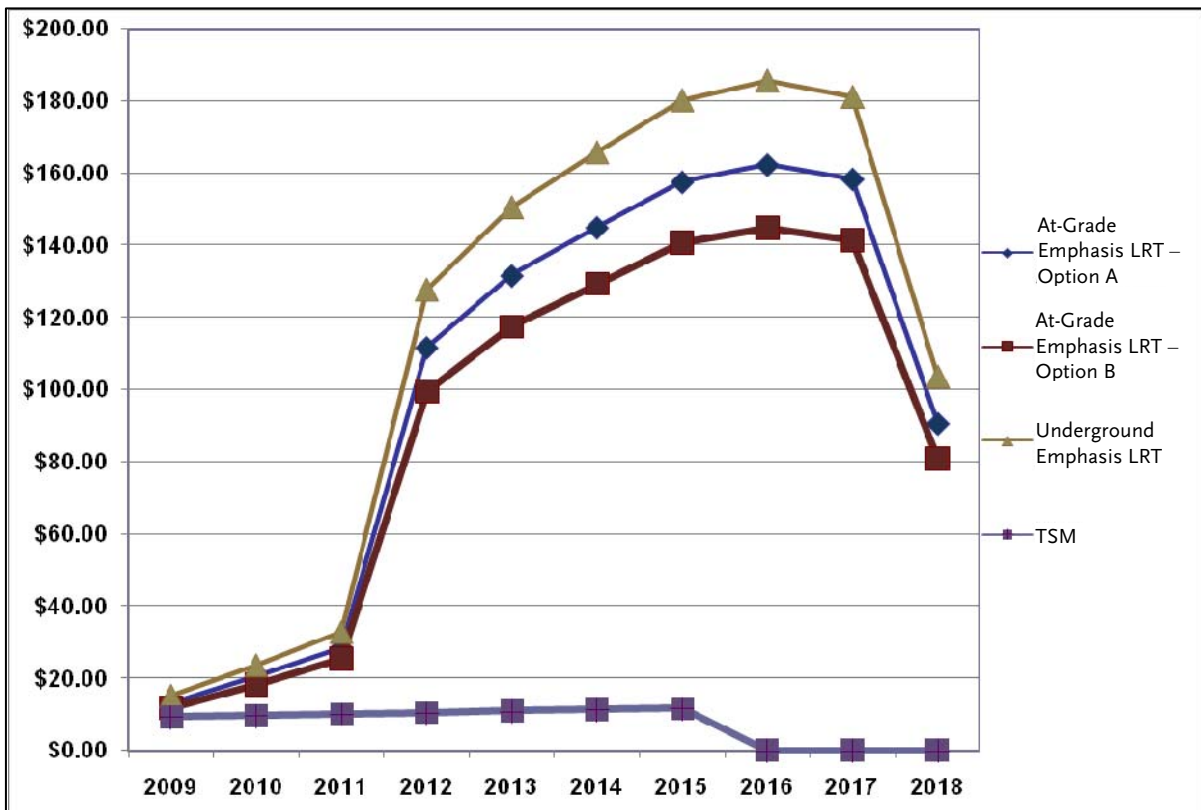


Figure 5-2 Annual Capital Costs by Alternative (YOE dollars, in millions)

## 5.3 Potential Capital Revenue Sources

This analysis identifies potential funding sources and financing strategies to fund the capital costs of the TSM and build alternatives. As shown in Table 5-7, the preliminary assumption is that the TSM and build alternatives would be funded 50 percent from federal sources and 50 percent from local sources. However, as the project development process continues and a locally preferred alternative is selected, these funding split assumptions may change, as may the funding sources proposed.

Funding Source	TSM Alternative	Build Alternatives
Federal	50%	50%
State	0%	0%
Local	50%	50%

The subsequent sections provide a description of the conceptually proposed federal and local funding sources identified at this stage of project development. This is followed by descriptions of other potential state and local funding sources that could be examined in greater detail in future iterations of the financial analysis.

### 5.3.1 Conceptually Proposed Funding Sources

The federal and local/state funding sources conceptually proposed for the TSM and build alternatives are:

Federal:

- FTA Section 5309 New Starts (for the build alternatives);
- FTA Section 5309 Bus Discretionary (for the TSM Alternative); and
- Congestion Mitigation and Air Quality (CMAQ).

Local/State:

- Proposed New Countywide Transportation Sales Tax;
- Proposition A and Proposition C Countywide Transportation Sales Taxes (if restrictions on expenditure for subway construction were removed); and
- Regional Improvement Program (RIP).

#### 5.3.1.1 Conceptually Proposed Federal Sources

##### FTA Section 5309 New Starts Program

The most viable federal funding source for the build alternatives is the FTA New Starts program. The New Starts program is the federal government's primary financial resource for supporting locally-planned, implemented, and operated transit fixed guideway capital investments, such as the build alternatives identified for the project. Since the TSM

Alternative does not include a fixed guideway element, it would not be eligible for New Starts funds.

Projects applying for New Starts funding must undergo evaluation by the FTA throughout the entire project development process. Projects are evaluated according to a variety of criteria such as mobility improvements, environmental benefits, cost-effectiveness, operating efficiencies, transit supportive land use, and local financial capacity. At this stage of project development, FTA's New Starts program is proposed to provide 50 percent of the total funding for the project.

According to Metro's 2008 LRTP, the agency anticipates receiving between \$80-\$100 million dollars a year in New Starts funds for a variety of planned fixed guideway projects. The projects identified in the LRTP to receive New Starts Funds are the:

- Eastside Light Rail Project;
- Exposition Phase II to Santa Monica; and
- Crenshaw Transit Corridor.

Metro has a successful history of obtaining New Starts funds, including the Red Line and the Eastside Light Rail Project, which received a Full Funding Grant Agreement in the amount of \$490.7 million in June 2004.

Metro's LRTP assumes that after the \$490.7 million is received for the Eastside Light Rail Project, the agency will receive approximately \$80 million per year through FY 2025. As stated above, these funds are currently planned to be used on the Exposition Phase II to Santa Monica and the Crenshaw Transit Corridor projects, with the Regional Connector Transit Corridor not currently identified.

Beyond 2025, Metro staff have determined that no local funds will be available to provide match for federal New Starts funds. According to the LRTP, if in the future local matching funds become available, Metro will evaluate and select future capital projects to be included into the New Starts applications.

Assuming that Metro will have additional New Starts funds available for the Regional Connector's build alternatives in the near future, a 50 percent share would require the following total funding amounts.

- At-Grade Emphasis LRT Alternative – Option A:           \$509.9 million
- At-Grade Emphasis LRT Alternative – Option B:       \$454.59 million
- Underground Emphasis LRT Alternative:                 \$583.45 million

Since the Eastside, Exposition, and Crenshaw projects currently have a higher priority than the Regional Connector, the timing for receipt of the New Starts funds could likely be at the end of the project's construction period. If this is the case, Metro would have to use local funds to cover FTA shares and be paid back when New Starts funds are available. Analysis of this issue will be addressed in future iterations of the financial analysis.

#### **FTA Section 5309 Bus Discretionary Program**

The Section 5309 Bus Discretionary Program allocates grants on an annual basis primarily through Congressional earmarks. Eligible purposes are acquisition of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, bus malls, transportation centers, intermodal terminals, park-and-ride stations, acquisition of replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities such as passenger shelters and bus stop signs, accessory and miscellaneous equipment such as mobile radio units, supervisory vehicles, fareboxes, computers, shop and garage equipment, and costs incurred in arranging innovative financing for eligible projects. Grants are typically provided in the form of an 80 percent federal and 20 percent local match. The primary components of the TSM Alternative, buses and a new maintenance facility, would be eligible for federal funding under this program.

#### **Congestion Mitigation and Air Quality Program**

The CMAQ program is a federal formula grant program for use on projects that contribute to attainment of national ambient air quality standards. Within the 2008 LRTP, Metro has programmed CMAQ funds for new transit lines including Eastside, Exposition Light Rail Line Phases I and II, Crenshaw Transit Corridor and for the first three years of operation of various Metro Rapid bus projects.

While the deadline for compliance with federal air quality standards is 2020, Metro has programmed declining levels of CMAQ funds through 2030 within the 2008 LRTP. The Regional Connector would qualify for CMAQ funding as a project that would contribute to attainment of national ambient air quality standards and reduce congestion.

### **5.3.1.2 Conceptually Proposed Local/State Funding Sources**

#### **Los Angeles Countywide Sales Taxes for Transportation**

Currently there are two existing countywide transportation sales taxes in Los Angeles County – Proposition A and Proposition C. However, the 1998 Reform and Accountability Act restricts the use of Proposition A and C funds to construct underground subways. In order to use these funds for the build alternatives, this restriction would need to be removed.

#### **Proposition A**

Proposition A is a county-wide half-cent sales tax that was passed in 1980. This voter-approved sales tax is used to improve and expand public transportation throughout Los Angeles County. Proposition A funds are allocated among four funding programs: Local Return Program (25 percent), Rail Development Program (35 percent), Discretionary Program (40 percent), and the 5 percent of 40 percent Incentive Program. The build alternatives would likely only be eligible for one of these programs, the Rail Development

program. The TSM Alternative would be eligible under the Local Return and Discretionary programs. Neither the build alternatives nor the TSM Alternative would be eligible under the 5 percent of 40 percent Incentive Program, as this is for paratransit and special transit programs.

**Rail Development Program:** For previous major construction projects, such as the Blue, Green and Red Lines, Metro has leveraged these funds by bonding in accordance with the agency's adopted debt policy. Bond debt service has the first claim of funds from this program. Other eligible uses include the acquisition, renovation, rehabilitation, and replacement of rail vehicles, rail facilities, and wayside systems, operation of rail systems, and acquisition and maintenance of rights of way.

**Local Return Program:** Funds from this program are distributed to Los Angeles County and the cities in the County on a per capita basis for public transit uses. These funds may be traded to other jurisdictions in exchange for general or other funds if the traded funds are used for public transit purposes. Eligible uses include expenditures related to fixed route and paratransit services, Transportation Demand Management (TDM), Transportation System Management (TSM), and fare subsidy programs that exclusively benefit transit.

**Discretionary:** These funds are allocated based on Metro Board policy for County bus operators by formula based on projected receipts plus CPI, and adjusted once during the mid-year reallocation. Eligible uses include any transit purpose, however current practice limits expenditures to bus capital and operations.

### Proposition C

Proposition C is a county-wide half-cent sales tax that was passed in 1990. This voter-approved sales tax is used for public transit purposes throughout Los Angeles County. Proposition C funds are allocated among five funding programs: Rail and Bus Security (5 percent), Commuter Rail/Transit Centers (10 percent), Local Returns (20 percent), Transit-related Improvements to Freeways and State Highways and Public Mass Transit Improvements to Railroad Rights-of-Way (25 percent) and Discretionary program (40 percent). The build alternatives would likely only be eligible for one of these programs, the Discretionary program. The TSM Alternative would be eligible for funds from the Discretionary and Local Returns programs.

**Discretionary Program:** Funds from this program are currently allocated at the discretion of Metro Board to Metro and non-Metro operators and agencies after all other funding opportunities are exhausted. Eligible uses include the improvement and expansion of rail and bus transit countywide, provision of fare subsidies, increased graffiti prevention and removal, and increased energy-efficient, low polluting public transit service. These funds may also be used for Metro's Call for Projects and other regionally significant transit programs at discretion of Metro Board.

**Local Returns Program:** These funds are distributed to cities on a per capita basis exclusively for public transit purposes. Unlike the Proposition A Local Returns program, these funds may not be traded to other jurisdictions in exchange for general or other funds. Eligible uses include expenditures related to fixed route and paratransit services, Transportation Demand Management (TDM), Transportation System Management (TSM), fare subsidy programs that exclusively benefit transit, Congestion Management Programs, commuter bikeways and bike lanes, street improvements supporting public transit service, and Pavement Management System projects.

### **Regional Improvement Program (RIP)**

The State's funding for transportation is programmed in the State Transportation Improvement Program (STIP). Within the STIP, 75 percent of the funding is allocated and programmed by the regional transportation planning agencies such as Metro under the Regional Improvement Program (RIP). The remaining 25 percent is programmed by the State under the Interregional Improvement Program. The actual sources of RIP funding are the federal Surface Transportation Program (STP) and the State's Public Transportation Account (PTA). PTA revenues accrue from a sales tax on gasoline and diesel fuel, with revenues used for transit.

Based on a fund estimate prepared by Caltrans, the California Transportation Commission develops the annual RIP programming targets for each agency. Metro selects and programs the projects to be funded through its Call for Projects process and the Metro Long and Short Range Transportation Plans. Metro has programmed and re-programmed its STIP projects to conform to the targets, which have been subject to change based on level of funds available and the extent of borrowing of PTA revenues by the State for use in balancing the State Budget. Future RIP revenues could potentially be used to assist in funding the Regional Connector.

## **5.3.2 Other Potential Funding Sources**

As the project moves forward, the following sources may become viable revenue sources for the alternatives. These potential sources described below include one state source and five local sources.

### **5.3.2.1 Potential State Source**

At this stage of project development, five other potential local funding sources have been identified. While these sources may provide funding in the future, they should be considered as minor supportive sources as they would generate a much smaller revenue stream than the county-wide sales taxes and RIP funding described previously.

### **Benefit Assessment District Revenues**

Under a benefit assessment district, a fee is placed on properties in a specified area to pay part or all of the cost of specific capital improvements made within and specifically benefiting that area. The underlying principle for the creation of benefit assessment districts is that owners of property located within close proximity to a particular public asset, such as a rail transit station, derive benefits from the presence of that asset and, therefore, should share in the costs of its construction, maintenance, operation, and/or

upgrading. In a benefit assessment district, a connection between benefit received and cost charged is essential, in that assessments charged should be proportional to and no greater than the benefit received by the assessed property.

In July 1985, Metro established two benefit assessment districts as part of the funding plan for Segment 1 of the Red Line. The districts, referred to as District A1 and A2, were formed in advance of the initiation of service in 1993. Annual assessments were levied on the gross square footage of the assessable improvement or parcel area of non-residential properties. For District A1, the 2007-2008 assessment rate is \$0.33 while the assessment rate for District A2 is \$0.32.

Funding from the two benefit assessment districts provided approximately \$130.0 million or 9 percent of the Red Line's total costs. The \$130.0 million was in the form of bond proceeds to support the construction of stations in each district. The benefit assessment districts have provided the revenue stream to repay the bonds. The final assessment fee was collected in April 2009 with the final bond payment scheduled for September 2009.

At the time the two existing benefit assessment districts were formed, Metro was not required to conduct an election in order to levy an assessment on property owners. With passage of State Proposition 218 in 1996, new assessment districts require approval by a two-thirds vote of property owners. The 2008 L RTP assumes no future funding from benefit assessment districts.

While the existing benefit assessments are expiring, it is of interest to note the considerable overlap between these districts and the PSA boundaries. For this reason, a description of the two districts is provided below.

District A1 – Central Business District: District A1 covers approximately 1,205 acres and includes Bunker Hill, the Civic Center portions of Chinatown, Little Tokyo and the Financial District areas of downtown Los Angeles. This district includes four Red Line stations, Union Station, Tom Bradley Civic Center Station, Pershing Square Station and 7th St./Metro Center Station. The benefit assessment district boundaries were set at a one-half mile distance from the station locations. Within the District A1's one-half mile boundaries there are approximately 2,700 properties, of which 1,250 properties are assessable and contain 63.2 million square feet. Bonds in the amount of \$123.5 million were issued for this assessment district to support the construction of the four stations.

District A2 – Westlake/MacArthur Park District: District A2 is located on Wilshire Blvd., midway between Miracle Mile to the west and the Los Angeles Central Business District to the east. The district reflects a one-third mile boundary around one Red Line station, Westlake/MacArthur Park Station, and covers approximately 207 acres. Within the district there are approximately 460 properties of which 230 are assessable and contain 3.3 million square feet. Bonds in the amount of \$6.5 million were issued for this assessment district to support the construction of the station.

### Joint Development Proceeds

Metro has a long, successful history of joint development projects along its major transit corridors. According to Metro's Joint Development Policies and Procedures document, joint development is a real property asset development and management program designed to secure the most appropriate private and/or public sector development on Metro-owned property at and adjacent to transit stations and corridors. Joint Development also includes coordination with local jurisdictions in station area land use planning in the interest of establishing development patterns that enhance transit use.

The goals of Metro's Joint Development Program include:

- Encouraging comprehensive planning and development around station sites and along transit corridors; and
- Reducing auto use and congestion through encouragement of transit-linked development.

For the specific sites, the Metro's Joint Development Program seeks developments that

- Promote and enhance transit ridership;
- Enhance and protect the transportation corridor and its environs;
- Enhance the land use and economic development goals of surrounding communities and conform to local and regional development plans; and
- Generate value to the MTA based on a fair market return on public investment.

Table 5-8 summarizes the current status of Metro's Joint Development Program. The table includes completed projects, projects under construction, projects that have been approved by Metro's Board, and potential future joint development sites. Additional joint development sites could potentially be identified for the Regional Connector.

### Mello-Roos District Revenues

The Mello-Roos Community Facilities Act of 1982, Gov. Code §§ 53311 ff. provides an alternative method of financing certain public capital facilities and services, especially in developing areas and areas undergoing rehabilitation. A local legislative body may create a Mello-Roos Community Facilities District (or "CFD") within defined boundaries to finance a broad range of facilities and services, including the purchase, construction, expansion, improvement, or rehabilitation of any real or other tangible property with an expected useful life of 5 years or longer which the agency conducting the proceedings is authorized by law to construct, own, or operate, or to which it may contribute revenue. The CFD may impose a "special tax" within the boundaries of the CFD, which requires a two-thirds vote of registered voters (if the district is developed). If the vote passes, a "Notice of Special Tax Lien" is recorded which imposes a continuing lien on affected properties. CFD's may issue bonds secured by the special tax.