

WESTSIDE SUBWAY EXTENSION

Analysis of Environmental Justice Technical Report



August 2010





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Acronyms and Abbreviations

ACS	American Community Survey
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
County	County of Los Angeles
EJ	Environmental Justice
EO	Executive Order
FHWA	Federal Highway Administration
HHS	U.S. Department of Human and Health Services
LEP	Limited English Proficiency
LRTP	Long Range Transportation Plan (Metro's)
Metro	Los Angeles County Metropolitan Transportation Authority
NEPA	National Environmental Policy Act
OPR	California Office of Planning and Research
sq. mi.	Square Miles
U.S.	United States
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency



1.0 INTRODUCTION

This Environmental Justice report identifies Environmental Justice (EJ) populations within the Study Area and presents the impact determinations regarding the likelihood that disproportionately high and adverse impacts would be experienced by minority and low-income communities. This report presents key demographic and socioeconomic indicators in the Study Area that will influence the assessment of environmental justice concerns. A discussion of the Federal and State environmental justice regulations is provided along with a comparative demographic profile of the region, the Study Area and proposed stations areas. In addition, a summary of the outreach to EJ populations is included. This section concludes with an assessment of the potential for disproportionate adverse impacts to minority and low-income populations in the Study Area.

There are three fundamental Environmental Justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations



2.0 PROJECT DESCRIPTION

This chapter describes the alternatives that have been considered to best satisfy the Purpose and Need and have been carried forward for further study in the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Details of the No Build, Transportation Systems Management (TSM), and the five Build Alternatives (including their station and alignment options and phasing options (or minimum operable segments [MOS]) are presented in this chapter.

2.1 No Build Alternative

The No Build Alternative provides a comparison of what future conditions would be like if the Project were not built. The No Build Alternative includes all existing highway and transit services and facilities, and the committed highway and transit projects in the Metro LRTP and the SCAG RTP. Under the No Build Alternative, no new transportation infrastructure would be built within the Study Area, aside from projects currently under construction or projects funded for construction, environmentally cleared, planned to be in operation by 2035, and identified in the adopted Metro LRTP.

2.2 TSM Alternative

The TSM Alternative emphasizes more frequent bus service than the No Build Alternative to reduce delay and enhance mobility. The TSM Alternative contains all elements of the highway, transit, Metro Rail, and bus service described under the No Build Alternative. In addition, the TSM Alternative increases the frequency of service for Metro Bus Line 720 (Santa Monica–Commerce via Wilshire Boulevard and Whittier Boulevard) to between three and four minutes during the peak period.

In the TSM Alternative, Metro Purple Line rail service to the Wilshire/Western Station would operate in each direction at 10-minute headways during peak and off-peak periods. The Metro Red Line service to Hollywood/Highland Station would operate in each direction at five-minute headways during peak periods and at 10-minute headways during midday and off-peak periods.

2.3 Build Alternatives

The Build Alternatives are considered to be the “base” alternatives with “base” stations. Alignment (or segment) and station options were developed in response to public comment, design refinement, and to avoid and minimize impacts to the environment.

The Build Alternatives extend heavy rail transit (HRT) service in subway from the existing Metro Purple Line Wilshire/Western Station. HRT systems provide high speed (maximum of 70 mph), high capacity (high passenger-carrying capacity of up to 1,000 passengers per train and multiple unit trains with up to six cars per train), and reliable service since they operate in an exclusive grade-separated right-of-way. The subway will operate in a tunnel at least 30 to 70 feet below ground and will be electric powered.

Furthermore, the Build Alternatives include changes to the future bus services. Metro Bus Line 920 would be eliminated and a portion of Line 20 in the City of Santa Monica would be eliminated since it would be duplicated by the Santa Monica Blue Bus Line 2. Metro Rapid



Bus Line 720 would operate less frequently since its service route would be largely duplicated by the Westside Subway route. In the City of Los Angeles, headways (time between buses) for Line 720 are between 3 and 5 minutes under the existing network and will be between 5 and 11.5 minutes under the Build Alternatives, but no change in Line 720 would occur in the City of Santa Monica segment. Service frequencies on other Metro Rail lines and bus routes in the corridor would be the same as for the No Build Alternative.

2.3.1 Alternative 1—Westwood/UCLA Extension

This alternative extends the existing Metro Purple Line from the Wilshire/Western Station to a Westwood/UCLA Station (Figure 2-1). From the Wilshire/Western Station, Alternative 1 travels westerly beneath Wilshire Boulevard to the Wilshire/Rodeo Station and then southwesterly toward a Century City Station. Alternative 1 then extends from Century City and terminates at a Westwood/UCLA Station. The alignment is approximately 8.60 miles in length.

Alternative 1 would operate in each direction at 3.3-minute headways during morning and evening peak periods and at 10-minute headways during midday. The estimated one-way running time is 12 minutes 39 seconds from the Wilshire/Western Station.

2.3.2 Alternative 2—Westwood/Veterans Administration (VA) Hospital Extension

This alternative extends the existing Metro Purple Line from the Wilshire/Western Station to a Westwood/VA Hospital Station (Figure 2-2). Similar to Alternative 1, Alternative 2 extends the subway from the Wilshire/Western Station to a Westwood/UCLA Station. Alternative 2 then travels westerly under Veteran Avenue and continues west under the I-405 Freeway, terminating at a Westwood/VA Hospital Station. This alignment is 8.96 miles in length from the Wilshire/Western Station.

Alternative 2 would operate in each direction at 3.3-minute headways during the morning and evening peak periods and at 10-minute headways during the midday, off-peak period. The estimated one-way running time is 13 minutes 53 seconds from the Wilshire/Western Station.

2.3.3 Alternative 3—Santa Monica Extension

This alternative extends the existing Metro Purple Line from the Wilshire/Western Station to the Wilshire/4th Station in Santa Monica (Figure 2-3). Similar to Alternative 2, Alternative 3 extends the subway from the Wilshire/Western Station to a Westwood/VA Hospital Station. Alternative 3 then continues westerly under Wilshire Boulevard and terminates at the Wilshire/4th Street Station between 4th and 5th Streets in Santa Monica. The alignment is 12.38 miles.

Alternative 3 would operate in each direction at 3.3-minute headways during the morning and evening peak periods and operate with 10-minute headways during the midday, off-peak period. The estimated one-way running time is 19 minutes 27 seconds from the Wilshire/Western Station.

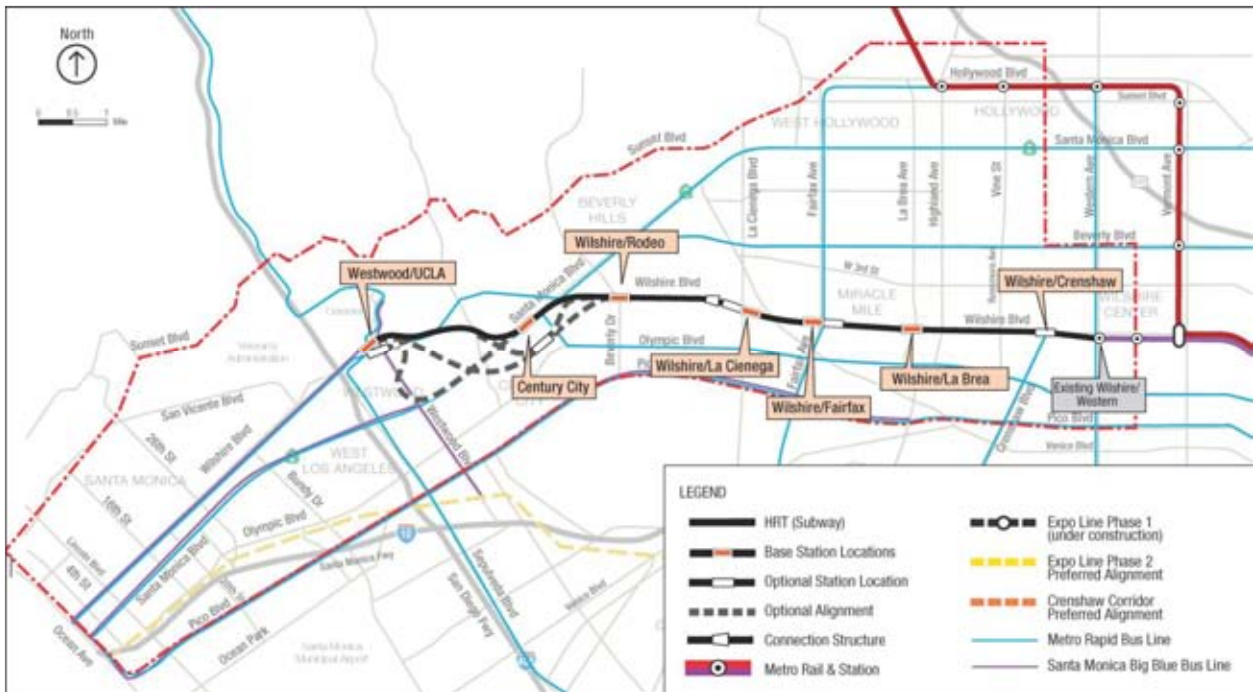


Figure 2-1. Alternative 1—Westwood/UCLA Extension

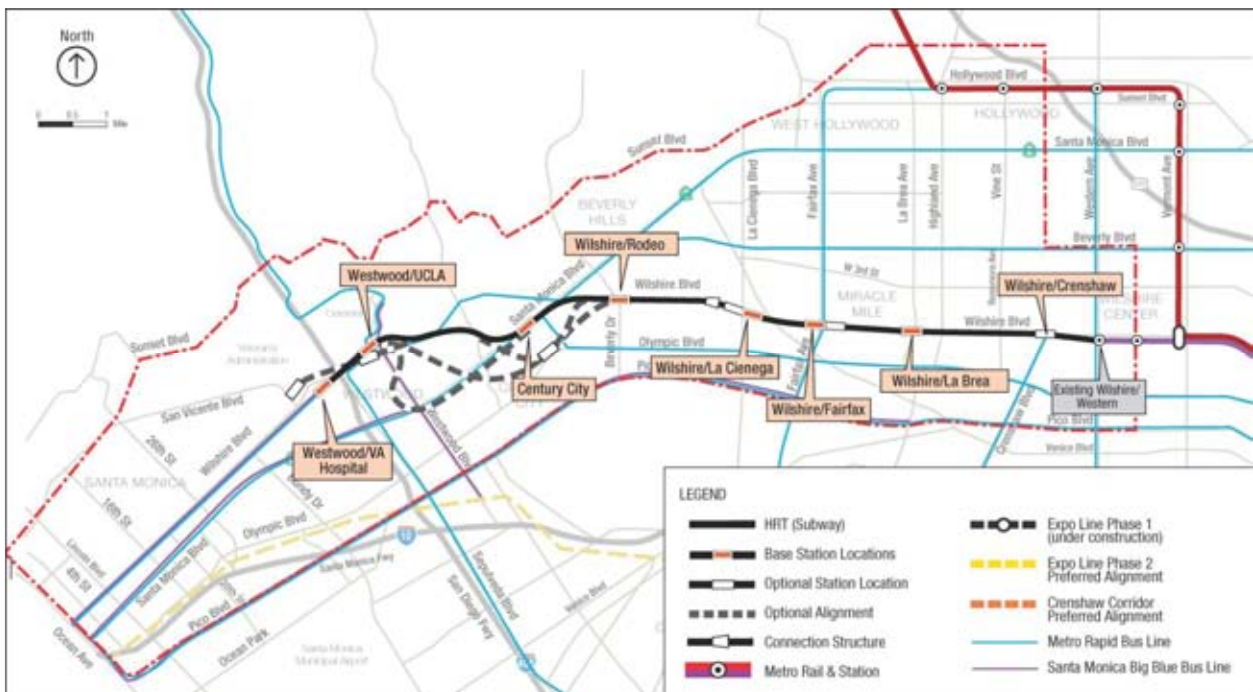


Figure 2-2. Alternative 2—Westwood/Veterans Administration (VA) Hospital Extension

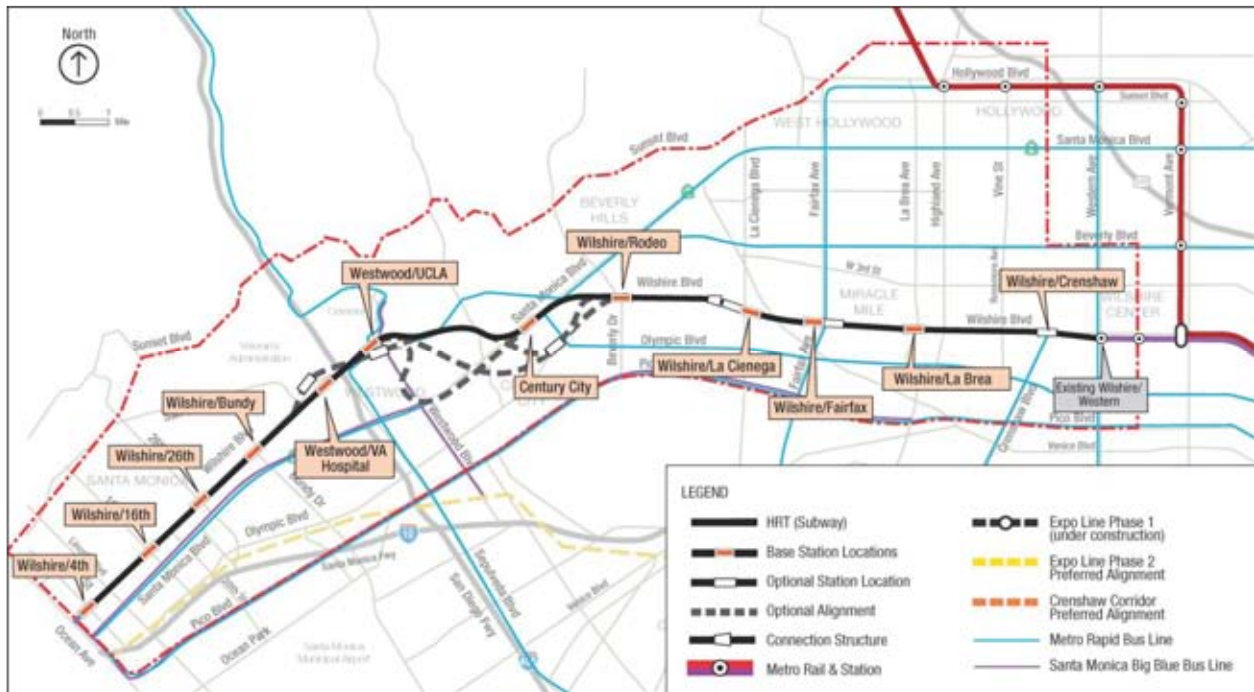


Figure 2-3. Alternative 3—Santa Monica Extension

2.3.4 Alternative 4—Westwood/VA Hospital Extension plus West Hollywood Extension

Similar to Alternative 2, Alternative 4 extends the existing Metro Purple Line from the Wilshire/Western Station to a Westwood/VA Hospital Station. Alternative 4 also includes a West Hollywood Extension that connects the existing Metro Red Line Hollywood/Highland Station to a track connection structure near Robertson and Wilshire Boulevards, west of the Wilshire/La Cienega Station (Figure 2-4). The alignment is 14.06 miles long.

Alternative 4 would operate from Wilshire/Western to a Westwood/VA Hospital Station in each direction at 3.3-minute headways during morning and evening peak periods and 10-minute headways during the midday off-peak period. The West Hollywood extension would operate at 5-minute headways during peak periods and 10-minute headways during the midday, off-peak period. The estimated one-way running time for the Metro Purple Line extension is 13 minutes 53 seconds, and the running time for the West Hollywood from Hollywood/Highland to Westwood/VA Hospital is 17 minutes and 2 seconds.

2.3.5 Alternative 5—Santa Monica Extension plus West Hollywood Extension

Similar to Alternative 3, Alternative 5 extends the existing Metro Purple Line from the Wilshire/Western Station to the Wilshire/4th Station and also adds a West Hollywood Extension similar to the extension described in Alternative 4 (Figure 2-5). The alignment is 17.49 miles in length. Alternative 5 would operate the Metro Purple Line extension in each direction at 3.3-minute headways during the morning and evening peak periods and 10-minute headways during the midday, off-peak period. The West Hollywood extension would operate in each direction at 5-minute headways during peak periods and 10-minute headways during the midday, off-peak period. The estimated one-way running time for the

Metro Purple Line extension is 19 minutes 27 seconds, and the running time from the Hollywood/Highland Station to the Wilshire/4th Station is 22 minutes 36 seconds.

2.3.6 Stations and Segment Options

HRT stations consist of a station “box,” or area in which the basic components are located. The station box can be accessed from street-level entrances by stairs, escalators, and elevators that would bring patrons to a mezzanine level where the ticketing functions are located. The 450-foot platforms are one level below the mezzanine level and allow level boarding (i.e., the train car floor is at the same level as the platform). Stations consist of a center or side platform. Each station is equipped with under-platform exhaust shafts, over-track exhaust shafts, blast relief shafts, and fresh air intakes. In most stations, it is anticipated that only one portal would be constructed as part of the Project, but additional portals could be developed as a part of station area development (by others). Stations and station entrances would comply with the *Americans with Disabilities Act of 1990*, Title 24 of the California Code of Regulations, the California Building Code, and the Department of Transportation Subpart C of Section 49 CFR Part 37.

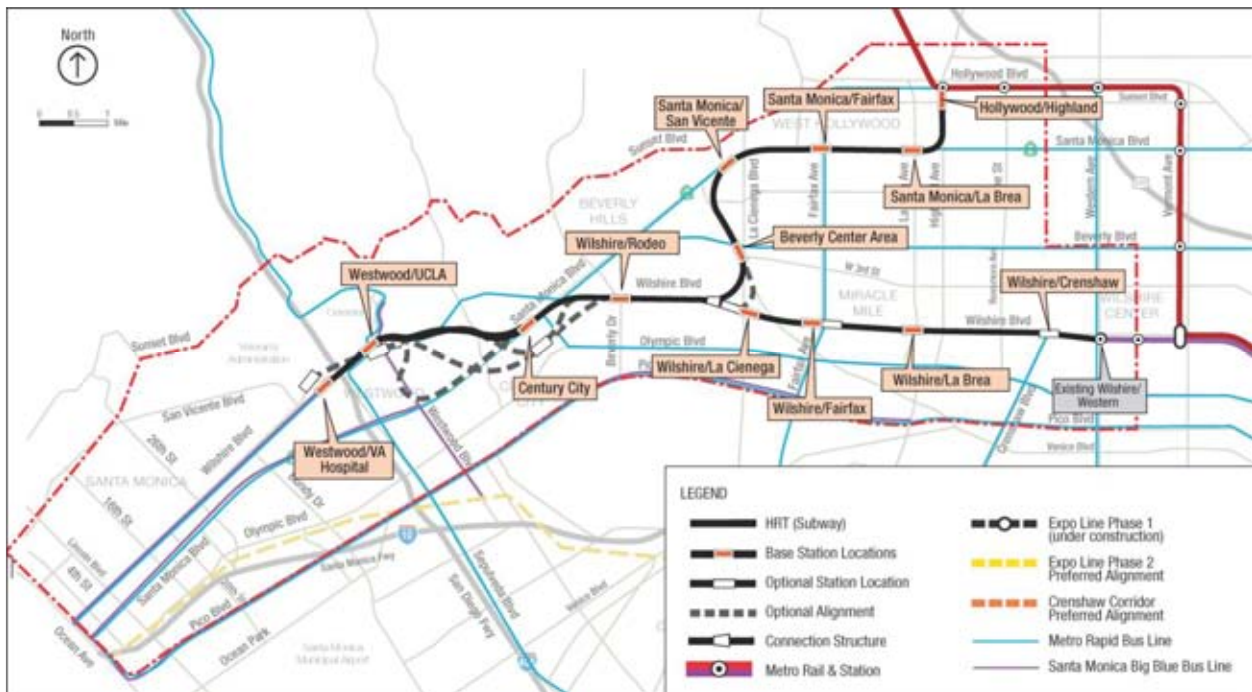


Figure 2-4. Alternative 4—Westwood/VA Hospital Extension plus West Hollywood Extension

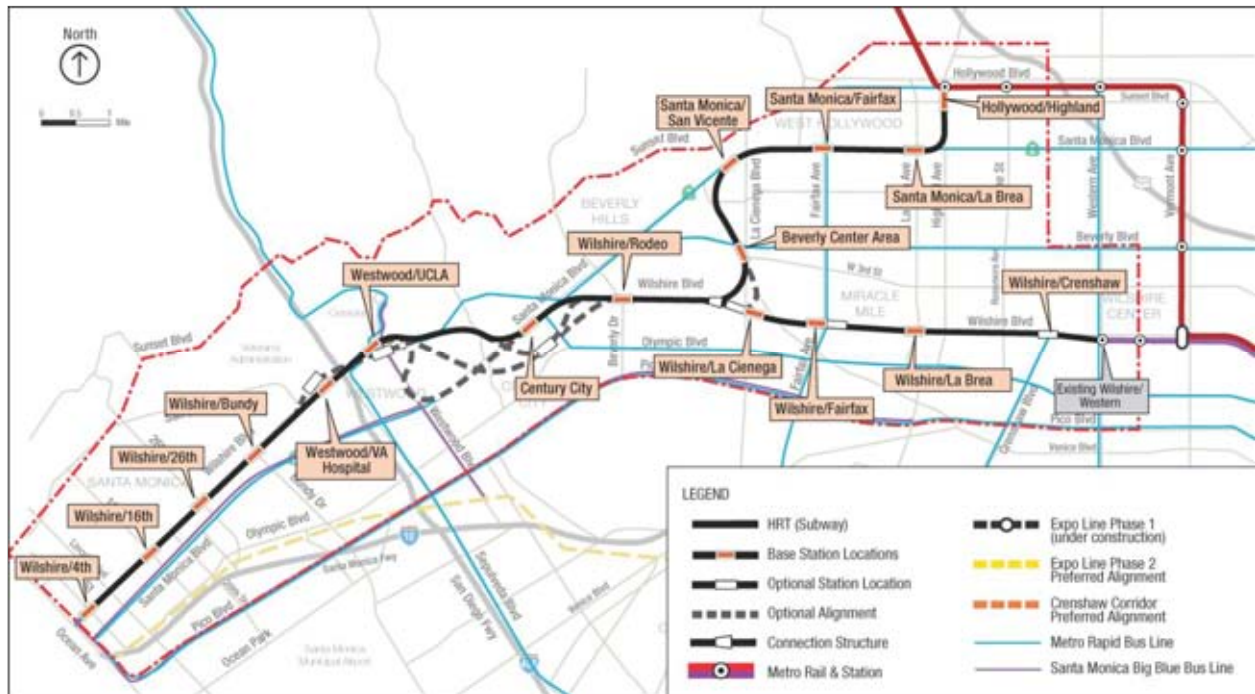


Figure 2-5. Alternative 5—Santa Monica Extension plus West Hollywood Extension

Platforms would be well-lighted and include seating, trash receptacles, artwork, signage, safety and security equipment (closed-circuit television, public announcement system, passenger assistance telephones), and a transit passenger information system. The fare collection area includes ticket vending machines, fare gates, and map cases.

Table 2-1 lists the stations and station options evaluated and the alternatives to which they are applicable. Figure 2-6 shows the proposed station and alignment options. These include:

- Option 1—Wilshire/Crenshaw Station Option
- Option 2—Fairfax Station Option
- Option 3—La Cienega Station Option
- Option 4—Century City Station and Alignment Options
- Option 5—Westwood/UCLA Station Option
- Option 6—Westwood/VA Hospital Station Option



Table 2-1. Alternatives and Stations Considered

Stations	Alternatives				
	1	2	3	4	5
	Westwood/ UCLA Extension	Westwood/ VA Hospital Extension	Santa Monica Extension	Westwood/ VA Hospital Extension Plus West Hollywood Extension	Santa Monica Extension Plus West Hollywood Extension
Base Stations					
Wilshire/Crenshaw	•	•	•	•	•
Wilshire/La Brea	•	•	•	•	•
Wilshire/Fairfax	•	•	•	•	•
Wilshire/La Cienega	•	•	•	•	•
Wilshire/Rodeo	•	•	•	•	•
Century City (Santa Monica Blvd)	•	•	•	•	•
Westwood/UCLA (Off-street)	•	•	•	•	•
Westwood/VA Hospital		•	•	•	•
Wilshire/Bundy			•		•
Wilshire/26th			•		•
Wilshire/16th			•		•
Wilshire/4th			•		•
Hollywood/Highland				•	•
Santa Monica/La Brea				•	•
Santa Monica/Fairfax				•	•
Santa Monica/San Vicente				•	•
Beverly Center Area				•	•
Station Options					
1—No Wilshire/Crenshaw	•	•	•	•	•
2—Wilshire/Fairfax East	•	•	•	•	•
3—Wilshire/La Cienega (Transfer Station)	•	•	•	•	•
4—Century City (Constellation Blvd)	•	•	•	•	•
5—Westwood/UCLA (On-street)	•	•	•	•	•
6—Westwood/VA Hospital North		•	•	•	•

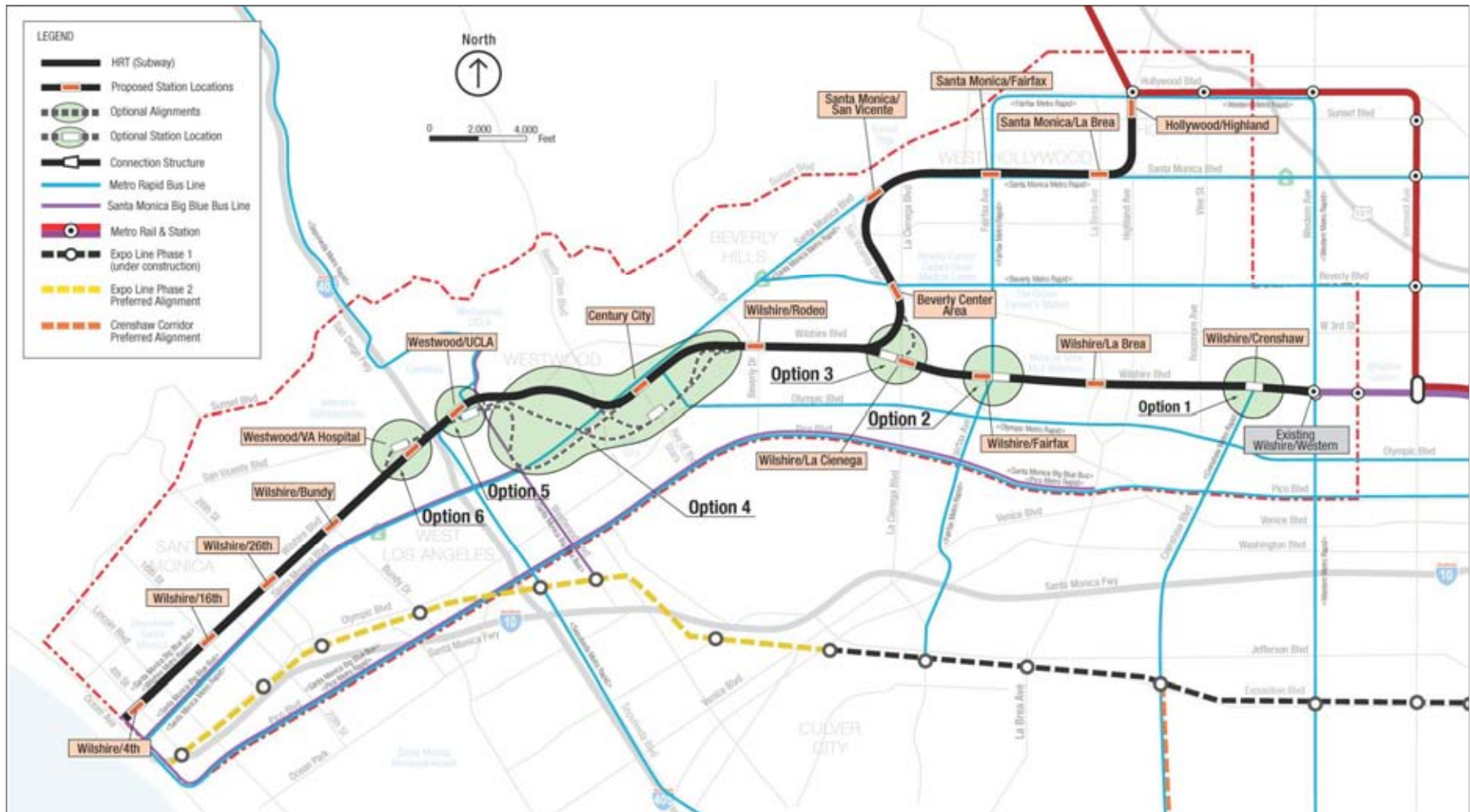


Figure 2-6. Station and Alignment Options



2.3.7 Option 1—Wilshire/Crenshaw Station Option

- **Base Station: Wilshire/Crenshaw Station**—The base station straddles Crenshaw Boulevard, between Bronson Avenue and Lorraine Boulevard.
- **Station Option: Remove Wilshire/Crenshaw Station**—This station option would delete the Wilshire/Crenshaw Station. Trains would run from the Wilshire/Western Station to the Wilshire/La Brea Station without stopping at Crenshaw. A vent shaft would be constructed at the intersection of Western Avenue and Wilshire Boulevard (Figure 2-7).

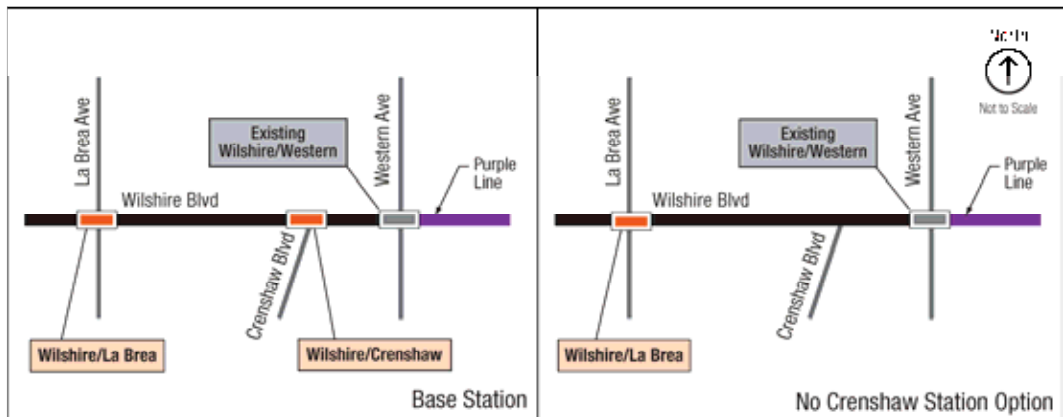


Figure 2-7. Option 1—No Wilshire/Crenshaw Station Option

2.3.8 Option 2—Wilshire/Fairfax Station East Option

- **Base Station: Wilshire/Fairfax Station**—The base station is under the center of Wilshire Boulevard, immediately west of Fairfax Avenue.
- **Station Option: Wilshire/Fairfax Station East Station Option**—This station option would locate the Wilshire/Fairfax Station farther east, with the station underneath the Wilshire/Fairfax intersection (Figure 2-8). The east end of the station box would be east of Orange Grove Avenue in front of LACMA, and the west end would be west of Fairfax Avenue.

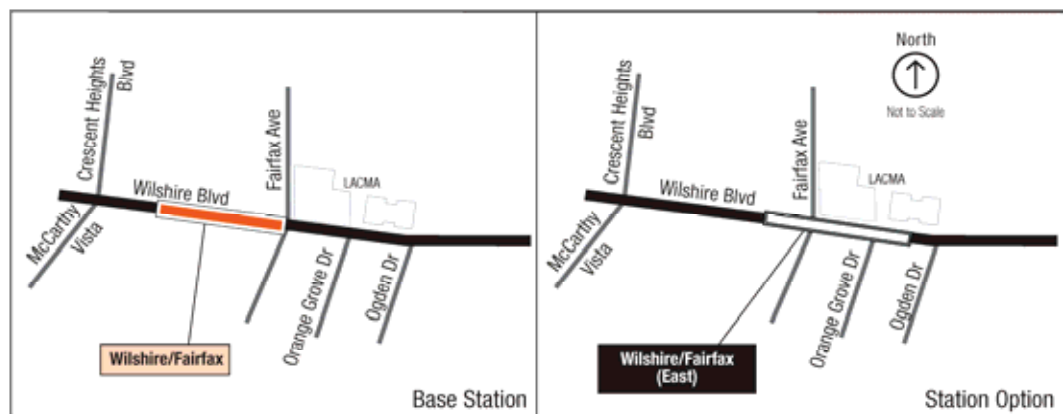


Figure 2-8. Option 2—Fairfax Station Option

2.3.9 Option 3—Wilshire/La Cienega Station Option

- **Base Station: Wilshire/La Cienega Station**—The base station would be under the center of Wilshire Boulevard, immediately east of La Cienega Boulevard. A direct transfer between the Metro Purple Line and the potential future West Hollywood Line is not provided with this station. Instead, a connection structure is proposed west of Robertson Boulevard as a means to provide a future HRT connection to the West Hollywood Line.
- **Station Option: Wilshire/La Cienega Station West with Connection Structure**—The station option would be located west of La Cienega Boulevard, with the station box extending from the Wilshire/Le Doux Road intersection to just west of the Wilshire/Carson Road intersection (Figure 2-9). It also contains an alignment option that would provide an alternate HRT connection to the future West Hollywood Extension. This alignment portion of Option 3 is only applicable to Alternatives 4 and 5.

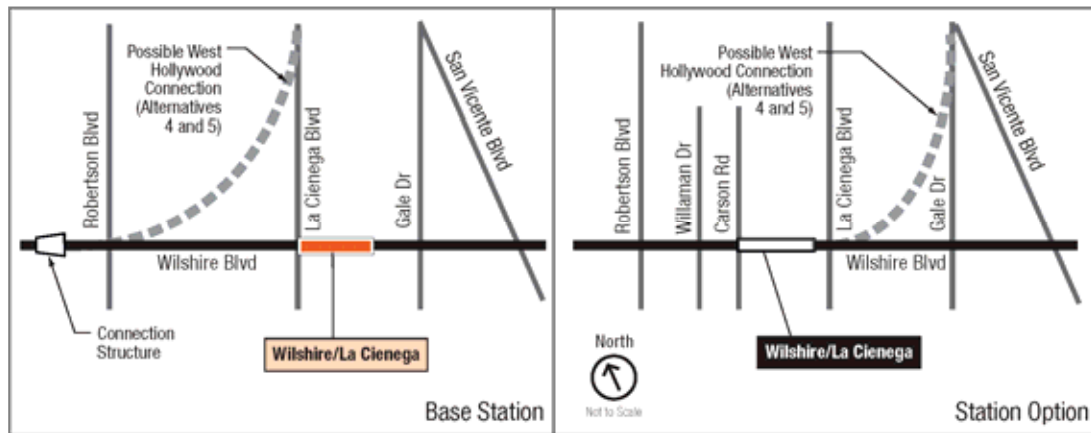


Figure 2-9. Option 3—La Cienega Station Option

2.3.10 Option 4—Century City Station and Segment Options

Century City Station and Beverly Hills to Century City Segment Options

- **Base Station: Century City (Santa Monica) Station**—The base station would be under Santa Monica Boulevard, centered on Avenue of the Stars.
- **Station Option: Century City (Constellation) Station**—With Option 4, the Century City Station has a location option on Constellation Boulevard (Figure 2-10), straddling Avenue of the Stars and extending westward to east of MGM Drive.
- **Segment Options:** Three route options are proposed to connect the Wilshire/Rodeo Station to Century City (Constellation) Station: Constellation North and Constellation South. As shown in Figure 2-10, the base segment to the base Century City (Santa Monica) Station is shown in the solid black line and the segment options to Century City (Constellation) Station are shown in the dashed grey lines.

Century City to Westwood Segment Options

Three route options considered for connecting the Century City and Westwood stations include: East, Central, and West. As shown in Figure 2-10, each of these three segments would be accessed from both Century City Stations and both Westwood/UCLA Stations. The



base segment is shown in the solid black line and the options are shown in the dashed grey lines.

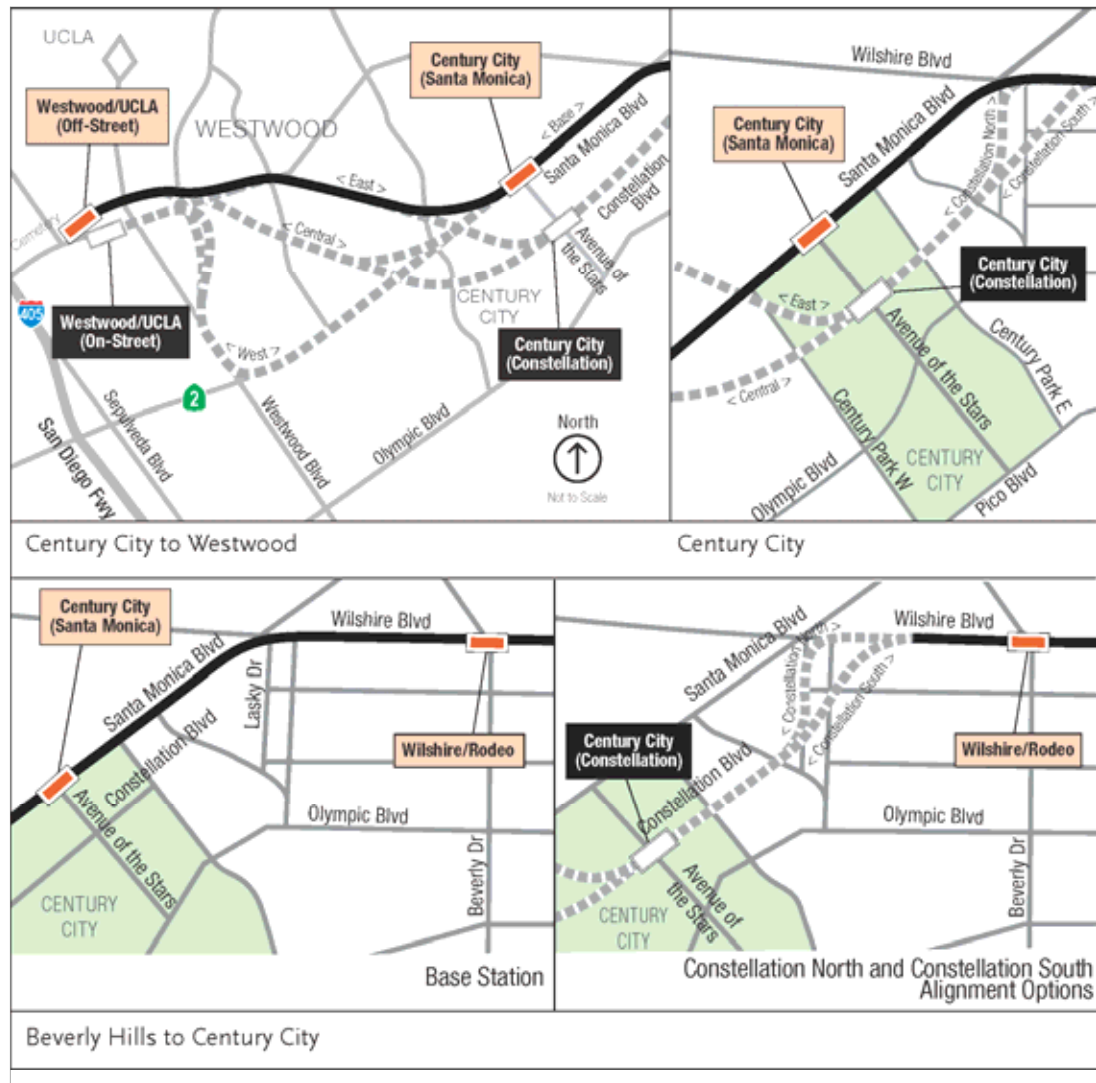


Figure 2-10. Century City Station Options

2.3.11 Option 5—Westwood/UCLA Station Options

- **Base Station: Westwood/UCLA Station Off-Street Station Option**—The base station is located under the UCLA Lot 36 on the north side of Wilshire Boulevard between Gayley and Veteran Avenues.
- **Station Option: Westwood/UCLA On-Street Station Option**—This station option would be located under the center of Wilshire Boulevard, immediately west of Westwood Boulevard (Figure 2-11).

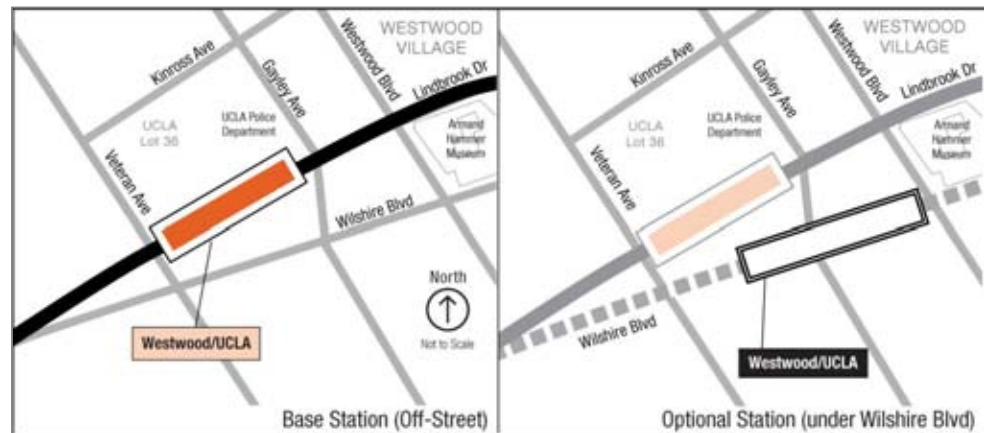


Figure 2-11. Option 5—Westwood/UCLA Station Options

2.3.12 Option 6—Westwood/VA Hospital Station Option

- **Base Station: Westwood/VA Hospital**—The base station would be below the VA Hospital parking lot on the south side of Wilshire Boulevard in between the I-405 exit ramp and Bonsall Avenue.
- **Station Option: Westwood/VA Hospital North Station**—This station option would locate the Westwood/VA Hospital Station on the north side of Wilshire Boulevard between Bonsall Avenue and Wadsworth Theater. (Shown in Figure 2-12). To access the Westwood/VA Hospital Station North, the alignment would extend westerly from the Westwood/UCLA Station under Veteran Avenue, the Federal Building property, the I-405 Freeway, and under the Veterans Administration property just east of Bonsall Avenue.

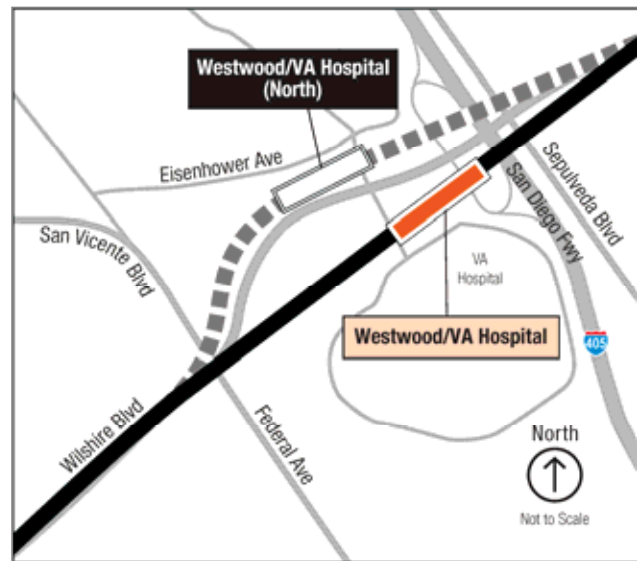


Figure 2-12. Option 6—Westwood/VA Hospital Station North

2.4 Base Stations

The remaining stations (those without options) are described below.

- **Wilshire/La Brea Station**—This station would be located between La Brea and Cloverdale Avenues.
- **Wilshire/Rodeo Station**—This station would be under the center of Wilshire Boulevard, beginning just west of South Canon Drive and extending to El Camino Drive.



- Wilshire/Bundy Station—This station would be under Wilshire Boulevard, east of Bundy Drive, extending just east of Saltair Avenue.
- Wilshire/26th Station—This station would be under Wilshire Boulevard, with the eastern end east of 26th Street and the western end west of 25th Street, midway between 25th Street and Chelsea Avenue.
- Wilshire/16th Station—This station would be under Wilshire Boulevard with the eastern end just west of 16th Street and the western end west of 15th Street.
- Wilshire/4th Station—This station would be under Wilshire Boulevard and 4th Street in Santa Monica.
- Hollywood/Highland Station—This station would be located under Highland Avenue and would provide a transfer option to the existing Metro Red Line Hollywood/Highland Station under Hollywood Boulevard.
- Santa Monica/La Brea Station—This station would be under Santa Monica Boulevard, just west of La Brea Avenue, and would extend westward to the center of the Santa Monica Boulevard/Formosa Avenue.
- Santa Monica/Fairfax Station—This station is under Santa Monica Boulevard and would extend from just east of Fairfax Avenue to just east of Ogden Drive.
- Santa Monica/San Vicente Station—This station would be under Santa Monica Boulevard and would extend from just west of Hancock Avenue on the west to just east of Westmount Drive on the east.
- Beverly Center Area Station—This station would be under San Vicente Boulevard, extending from just south of Gracie Allen Drive to south of 3rd Street.

2.5 Other Components of the Build Alternatives

2.5.1 Traction Power Substations

Traction power substations (TPSS) are required to provide traction power for the HRT system. Substations would be located in the station box or in a box located with the crossover tracks and would be located in a room that is about 50 feet by 100 feet in a below grade structure.

2.5.2 Emergency Generators

Stations at which the emergency generators would be located are Wilshire/La Brea, Wilshire/La Cienega, Westwood/UCLA, Westwood/VA Hospital, Wilshire/26th, Highland/Hollywood, Santa Monica/La Brea, and Santa Monica/San Vicente. The emergency generators would require approximately 50 feet by 100 feet of property in an off-street location. All would require property acquisition, except for the one at the Wilshire/La Brea Station which uses Metro's property.

2.5.3 Mid-Tunnel Vent Shaft

Each alternative would require mid-tunnel ventilation shafts. The vent shafts are emergency ventilation shafts with dampers, fans, and sound attenuators generally placed at both ends of a station box to exhaust smoke. In addition, emergency vent shafts could be used for station cooling and gas mitigation. The vent shafts are also required in tunnel segments with more than 6,000 feet between stations to meet fire/life safety requirements. There would be a connecting corridor between the two tunnels (one for each direction of train movement) to provide emergency egress and fire-fighting ingress. A vent shaft is approximately 150 square



feet; with the opening of the shaft located in a sidewalk and covered with a grate about 200 square feet.

Table 2-2. Mid-Tunnel Vent Shaft Locations

Alternative/Option	Location
Alternatives 1 through 5, MOS 2	Part of the connection structure on Wilshire Boulevard, west of Robertson Boulevard
Alternatives 2 through 5	West of the Westwood/VA Hospital Station on Army Reserve property at Federal Avenue and Wilshire Boulevard
Option 4 via East route	At Wilshire Boulevard/Manning Avenue intersection
Option 4 to Westwood/UCLA Off-Street Station via Central route	On Santa Monica Boulevard just west of Beverly Glen Boulevard
Option 4 to Westwood/UCLA On-Street Station via Central route	At Santa Monica Boulevard/Beverly Glen Boulevard intersection
Options 4 via West route	At Santa Monica Boulevard/Glendon Avenue intersection
Options 4 from Constellation Station via Central route	On Santa Monica Boulevard between Thayer and Pandora Avenues
Option from Constellation Station via West route	On Santa Monica Boulevard just east of Glendon Avenue

2.5.4 Trackwork Options

Each Build Alternative requires special trackwork for operational efficiency and safety (Table 2-3):

- Tail tracks—a track, or tracks, that extends beyond a terminal station (the last station on a line)
- Pocket tracks—an additional track, or tracks, adjacent to the mainline tracks generally at terminal stations
- Crossovers—a pair of turnouts that connect two parallel rail tracks, allowing a train on one track to cross over to the other
- Double crossovers—when two sets of crossovers are installed with a diamond allowing trains to cross over to another track

Table 2-3. Special Trackwork Locations

Station	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
	Westwood/ UCLA Extension	Westwood/ VA Hospital Extension	Santa Monica Extension	Westwood/VA Hospital Extension Plus West Hollywood Extension	Santa Monica Extension Plus West Hollywood Extension
Special Trackwork Locations—Base Trackwork Alternatives					
Wilshire/Crenshaw	None	None	None	None	None
Wilshire/La Brea	Double Crossover	Double Crossover	Double Crossover	Double Crossover	Double Crossover
Wilshire/Fairfax	None <i>MOS 1 Only; Terminus Station with Tail tracks</i>	None <i>MOS 1 Only; Terminus Station with Tail tracks</i>	None <i>MOS 1 Only; Terminus Station with Tail tracks</i>	None <i>MOS 1 Only; Terminus Station with Tail tracks</i>	None <i>MOS 1 Only; Terminus Station with Tail tracks</i>
Wilshire/La Cienega	None	None	None	None	None
<i>Station Option 3 - Wilshire/La Cienega West</i>	Turnouts	Turnouts	Turnouts		
Wilshire/Robertson Connection Structure	Equilateral Turnouts—for future West Hollywood connection	Equilateral Turnouts—for future West Hollywood connection	Equilateral Turnouts—for future West Hollywood connection	Equilateral Turnouts	Equilateral Turnouts
Wilshire/Rodeo	None	None	None	None	None
Century City	Double Crossover <i>MOS2 Only; Terminus Station with Double Crossover and tail tracks</i>	Double Crossover <i>MOS2 Only; Terminus Station with Double Crossover and tail tracks</i>	Double Crossover <i>MOS2 Only; Terminus Station with Double Crossover and tail tracks</i>	Double Crossover <i>MOS2 Only; Terminus Station with Double Crossover and tail tracks</i>	Double Crossover <i>MOS2 Only; Terminus Station with Double Crossover and tail tracks</i>
Westwood/UCLA	End Terminal with Double Crossover and tail tracks	Double Crossover	Double Crossover	Double Crossover	Double Crossover
Westwood/VA Hospital	N/A	End Terminal with Turnouts and tail tracks	Turnouts	End Terminal with Turnouts and tail tracks	Turnouts
Wilshire/Bundy	N/A	N/A	None	N/A	None
Wilshire/26th	N/A	N/A	None	N/A	None
Wilshire/16th	N/A	N/A	None	N/A	None
Wilshire/4th	N/A	N/A	End Terminal with Double Crossover, Pocket Track with Double Crossover, Equilateral Turnouts and tail tracks	N/A	End Terminal with Double Crossover, Pocket Track with Double Crossover, Equilateral Turnouts and tail tracks
Hollywood/ Highland	N/A	N/A	N/A	Double Crossover and tail tracks	Double Crossover and tail tracks
Santa Monica/La Brea	N/A	N/A	N/A	None	None
Santa Monica/Fairfax	N/A	N/A	N/A	None	None
Santa Monica/ San Vicente	N/A	N/A	N/A	Double Crossover	Double Crossover
Beverly Center	N/A	N/A	N/A	None	None
Additional Special Trackwork Location (Optional Trackwork)					
Wilshire/Fairfax	Double Crossover	Double Crossover	Double Crossover	Double Crossover	Double Crossover
Wilshire/La Cienega	Double Crossover	Double Crossover	Double Crossover	Double Crossover	Double Crossover
Wilshire/ Rodeo	Pocket Track	Pocket Track	Pocket Track	Pocket Track	Pocket Track
Wilshire/26th	N/A	N/A	Double Crossover	N/A	Double Crossover

2.6 Rail Operations Center

The existing Rail Operations Center (ROC), shown on the figure below, located in Los Angeles near the intersection of Imperial Highway and the Metro Blue Line does not have sufficient room to accommodate the new transit corridors and line extensions in Metro’s expansion program. The Build Alternatives assume an expanded ROC at this location.

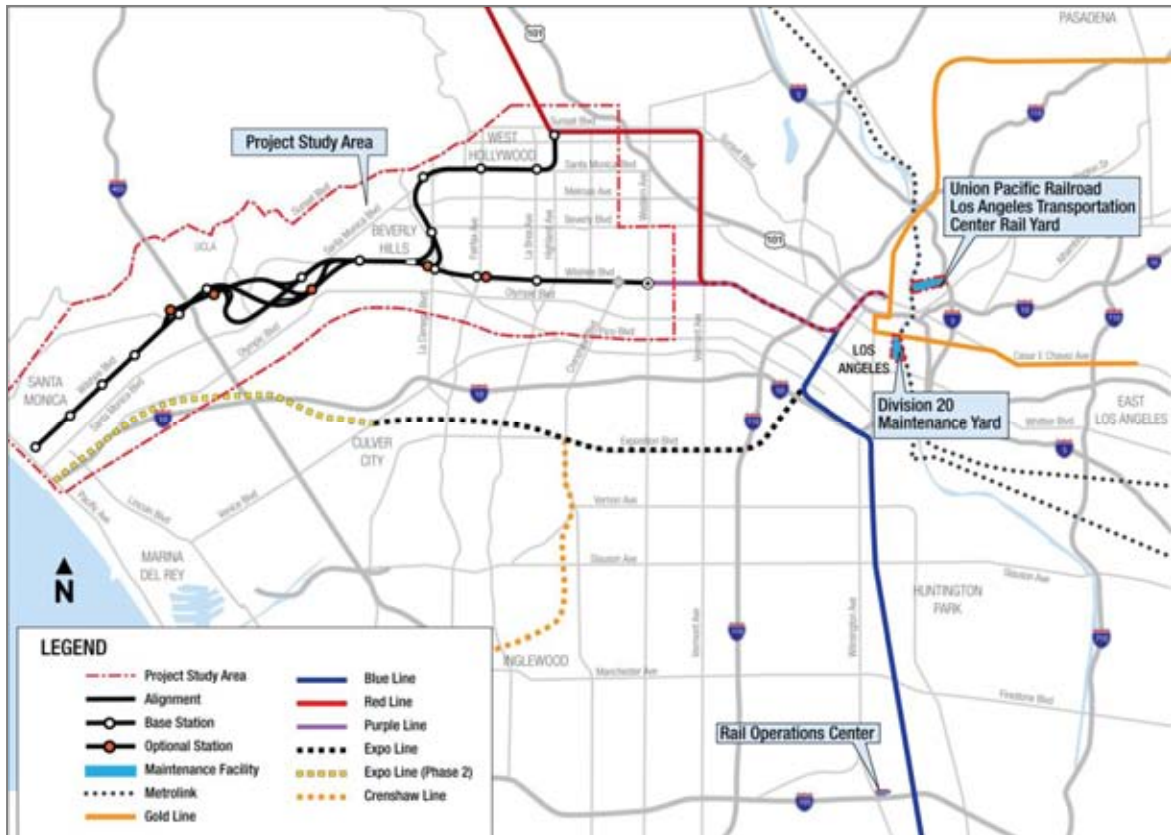


Figure -2-13: Location of the Rail Operations Center and Maintenance Yards

2.7 Maintenance Yards

If any of the Build Alternatives are chosen, additional storage capacity would be needed. Two options for providing this expanded capacity are as follows:

- The first option requires purchasing 3.9 acres of vacant private property abutting the southern boundary of the Division 20 Maintenance and Storage Facility, which is located between the 4th and 6th Street Bridges. Additional maintenance and storage tracks would accommodate up to 102 vehicles, sufficient for Alternatives 1 and 2.
- The second option is a satellite facility at the Union Pacific (UP) Los Angeles Transportation Center Rail Yard. This site would be sufficient to accommodate the vehicle fleet for all five Build Alternatives. An additional 1.3 miles of yard lead tracks from the Division 20 Maintenance and Storage Facility and a new bridge over the Los Angeles River would be constructed to reach this yard (Figure 2-14).



Figure 2-14. UP Railroad Rail Bridge



Figure 2-15. Maintenance Yard Options

2.8 Minimum Operable Segments

Due to funding constraints, it may be necessary to construct the Westside Subway Extension in shorter segments. A Minimum Operable Segment (MOS) is a phasing option that could be applied to any of the Build Alternatives.

2.8.1 MOS 1—Fairfax Extension

MOS 1 follows the same alignment as Alternative 1, but terminates at the Wilshire/Fairfax Station rather than extending to a Westwood/UCLA Station. A double crossover for MOS 1 is located on the west end of the Wilshire/La Brea Station box, west of Cloverdale Avenue. The alignment is 3.10 miles in length.

2.8.2 MOS 2—Century City Extension

MOS 2 follows the same alignment as Alternative 1, but terminates at a Century City Station rather than extending to a Westwood/UCLA Station. The alignment is 6.61 miles from the Wilshire/Western Station.



3.0 REGULATORY FRAMEWORK

3.1 NEPA Guidelines

3.1.1 Federal

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (USEO 1994) was signed by President Clinton on February 11, 1994. This Executive Order directs Federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of their projects on the health or environment of minority and low-income population to the greatest extent practicable and permitted by law. The order directs Federal actions, including transportation projects, to use existing law to avoid discrimination on the basis of race, color, or national origin, and to avoid disproportionately high and adverse impacts on minority and low-income populations. These are often referred to as environmental justice (EJ) populations.

There are three fundamental Environmental Justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations

A “disproportionately high and adverse effect” is defined as follows:

- Disproportionately High and Adverse Effect on Minority and Low-Income Populations mean an adverse effect that:
 - ▶ is predominately borne by a minority population and/or low-income populations; or
 - ▶ will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

The principles of EJ are rooted in Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving Federal financial assistance. Additional laws, statutes, guidelines, and regulation that relate to EJ issues include the following:

- Title 49 of the United States Code (USC) Section 5332, Nondiscrimination
- Title 49 of the Code of Federal Regulations (CFR) Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations



- Environmental Justice Guidance Under the National Environmental Policy Act
- USDOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations
- FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency
- Americans with Disabilities Act of 1990

3.1.2 State

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, the OPR must now incorporate environmental justice considerations into local government planning decisions. California law requires the OPR to coordinate with federal agencies regarding environmental justice based on Executive Order 12898.

3.1.3 Local

Metro includes guidelines and planning policies regarding environmental justice issues in its 2008 Long Range Transportation Plan (LRTP). Metro's 2008 LRTP evaluates how much additional transit service would be provided in areas with high transit dependency and minority and low-income populations. The 2008 LRTP includes extensive transit investments and includes policies about placement of these investments in proximity to areas with minority and lower-income populations and to job opportunities that support those areas.³ Metro files a Title VI compliance report every year.

3.2 CEQA Guidelines

Neither the California Environmental Quality Act (CEQA) statute nor its implementing guidelines refer specifically to the topic of environmental justice. CEQA is primarily focused on identifying and disclosing potential significant impacts to the physical environment, and socioeconomic effects are of secondary importance. CEQA does, however, place major emphasis on the disclosure of environmental changes to all potentially affected communities regardless of socioeconomic status. As an element of the physical environment, CEQA does recognize in its guidelines that the displacement of a substantial number of affordable housing units, necessitating construction of replacement would constitute a significant environmental impact.

³Los Angeles County Metropolitan Transportation Authority. Draft 2008 Long Range Transportation Plan, 2008.



4.0 METHODOLOGY

The analysis identifies potential effects on minority and low-income populations that reside within the Study Area and determines whether these effects are disproportionate in comparison to the effects on the surrounding community. Other communities of concern include linguistically isolated households and elderly populations. The effects of the project were analyzed as follows:

- How well the project would serve the transportation needs of the identified EJ populations and communities of concern in comparison to all other population groups within the Study Area
- Whether the effects of the Project (e.g., construction, visual, noise) would have disproportionately high and adverse effects on the social, cultural, health, and well-being of the identified EJ populations and communities of concern as compared to other population groups within the Study Area

4.1 Definition of Environmental Justice Areas

Environmental Justice (EJ) populations are communities in which there is a higher proportion of minority and/or low-income populations in comparison to the surrounding community. For the purposes of this analysis, minority and low income information from communities within the City of Los Angeles are compared the demographics for the entire City of Los Angeles. The portions of Beverly Hills, Santa Monica and West Hollywood within the Study Area are compared to the demographics for the entirety of each of those cities, respectively. The VA Hospital in unincorporated Los Angeles County is compared to the demographics for the whole of Los Angeles County.

4.1.1 Minority Populations

USDOT Order 5610.2 and subsequent agency guidance define the term “minority” to include any individual who is Black, Hispanic, Asian-American (Asian), American Indian and Alaskan Native, and Native Hawaiian and Other Pacific Islander.

The USDOT uses the following definition given in Title IV of the Civil Rights Act of 1964 to define “minority”:

- Black—a person having origins in any of the black racial groups of Africa
- Hispanic—a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race
- Asian—a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent
- American Indian—a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition
- Native Hawaiian or other Pacific Islander—a person having origins in any of the original peoples of Hawaii, Guam Samoa, or other Pacific Islands



Based on guidance from the Federal Council on Environmental Quality (CEQ), “minority populations should be identified where either: a) the minority population of the affected area exceeds 50 percent or b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis” (CEQ 1997).

4.1.2 Low-Income Populations

The term “low-income,” in accordance with USDOT Order 5610.2 and agency guidance, is defined as a person with a household income at or below the U.S. Department of Health and Human Services (USHHS) poverty guidelines. These poverty guidelines are a simplified version of the Federal poverty thresholds used for administrative purposes. The U.S. Census Bureau has developed poverty thresholds, which are used for calculating all official poverty population statistics. The Census Bureau applies these poverty thresholds to a family’s income to determine poverty status.

The HHS poverty guidelines are simplifications of the poverty thresholds as established annually by the U.S. Census Bureau that are used for administrative purposes. The U.S. Census Bureau poverty thresholds are used primarily in statistical analyses and will be used in this environmental justice analysis as the basis for determining low-income and poverty characteristics. The U.S. Census poverty thresholds are shown in Table 4-1.

Table 4-1: 2008 U.S. Census Poverty Thresholds

Household Size	Income Threshold
One-Person	\$10,991
Two-Person	\$14,051
Three-Person	\$17,163
Four-Person	\$22,025
Five-Person	\$26,049
Six-Person	\$29,456
Seven-Person	\$33,529
Eight-Person	\$37,220
Nine-Persons or More	\$44,346

Source: U.S. Census Bureau, *Housing and Household Economic Statistics Division, 2009.*

4.2 Definition of Communities of Concern

In addition to minority and income status, other data were used as additional indicators of communities of concern, including linguistically isolated and elderly populations. Persons counted as linguistically isolated are those over the age of 5 who speak a non-English language at home and fall into the Census English speaking ability categories of “Speak English Not Well” or “Speak English Not At All.” These persons are considered to have Limited English Proficiency (LEP). Elderly populations are those over the age of 65. As with EJ populations, communities of concern were determined by comparing these indicators for community populations to the surrounding community population. Data on communities of concern also serve to direct public outreach efforts.



4.3 Identification of Environmental Justice Areas and Communities of Concern

In order to analyze demographic and socioeconomic characteristics, the Study Area was divided into 21 communities and neighborhoods, which are illustrated in Figure 5-5 and described in the *Westside Subway Extension Communities and Neighborhoods Technical Report*. Table 5-3 provides an overview of the demographic and socioeconomic characteristics of each of these communities within the Study Area and data for the entirety of Los Angeles County, and the Cities of Los Angeles, Beverly Hills, Santa Monica, and West Hollywood. Data was drawn from the 2000 U.S. Census, the American Communities Survey (2006-2008), and Bureau of Labor Statistics.

Data from the 2006 to 2008 American Community Survey (ACS) by the Census Bureau was used for population and housing estimates and for socioeconomic and demographic information for the County of Los Angeles and the Cities of Los Angeles, West Hollywood, Beverly Hills, and Santa Monica. Data from the 2000 United States (U.S.) Census was used for most of the population, housing, demographic, and socioeconomic data for the Study Area and the station areas. Although this data is almost ten years old, it is the most comprehensive data available for this level of analysis.

Of the 21 communities and neighborhoods in the Study Area, eight were identified as environmental justice populations because of higher proportions of their population are below the poverty level or identify as a minority race/ethnicity in comparison to surrounding community. The eight EJ populations that were identified in the Study Area are

- Olympic Park (92% minority in comparison to 71% minority in City of Los Angeles and 23% below poverty in comparison to 19% in the City of Los Angeles)
- Pico District (76% minority in comparison to 71% minority in City of Los Angeles and 14% below poverty in comparison to 19% in the City of Los Angeles)
- Wilshire Center/Koreatown (92% minority in comparison to 71% minority in City of Los Angeles and 30% below poverty in comparison to 19% in the City of Los Angeles)
- Wilshire Park (84% minority in comparison to 71% minority in City of Los Angeles and 20% below poverty in comparison to 19% in the City of Los Angeles)
- Westwood (35% minority in comparison to 71% minority in City of Los Angeles and 22% below poverty in comparison to 19% in the City of Los Angeles)
- Pico District, Santa Monica (63% minority in comparison to 15% minority in City of Santa Monica and 18% below poverty in comparison to 6% in the City of Santa Monica)
- County of Los Angeles—Veteran’s Administration Westwood Campus (54% minority in comparison to 71% minority in the County of Los Angeles and 54% below poverty in comparison to 15% in the County of Los Angeles)
- Hollywood (50% minority in comparison to 71% minority in City of Los Angeles and 22% below poverty in comparison to 19% in the City of Los Angeles)

Many of these EJ populations were also identified as communities of concern because they are comprised of linguistically-isolated populations and/or elderly (older than 65) in



comparison to surrounding community. In addition to the communities that were already identified as EJ populations, Century City was identified as a community of concern due to the higher proportion of elderly residents in comparison to the surrounding community (40% elderly in comparison to 10% elderly in the City of Los Angeles)



5.0 AFFECTED ENVIRONMENT

The proposed project would include alternative alignments that would traverse various cities and communities in Los Angeles County (County). From east to west, the proposed project alternatives would traverse the Cities of Los Angeles, West Hollywood, Beverly Hills, and Santa Monica, as well as parts of unincorporated County.

5.1 Areas of Potential Impact

5.1.1 County of Los Angeles

The proposed project would include alternatives that would traverse the unincorporated portion of the County of Los Angeles that includes the Veteran’s Administration Hospital and grounds. This area is characterized by primarily institutional buildings and parking lots. The characteristics of the entire County are summarized in Table 5-1.

Table 5-1: Summary of Characteristics for Los Angeles County and the Cities of Los Angeles, West Hollywood, Beverly Hills, and Santa Monica

Characteristic	County of Los Angeles	City of Los Angeles	City of West Hollywood	City of Beverly Hills	City of Santa Monica
Total Population (persons) (2008) ¹	9,862,049	3,833,995	36,005	34,445	87,664
Population Density (Persons/ Square Mile) ²	2,075	7,694	18,950	6,043	5,513
Total Housing Units(2008) ¹	3,372,376	1,361,786	23,941	16,052	49,566
Percent population below poverty level (2008) ¹	15%	19%	12%	6%	11%
Median Household income (2008) ¹	\$55,192	\$48,610	\$53,122	\$88,014	\$67,581
Percent Minority (2008) ¹	71%	71%	24%	15%	28%
Percent Limited English Proficiency, Age ≥ 5 (2008) ¹	27%	31%	19%	17%	10%
Percent of Population over 65 years of Age (2008) ¹	11%	10%	17%	17%	15%
Unemployment Rate (2009) ³	11.5%	12.7%	9.8%	8%	9.5%

Source: U.S. Census Bureau, 2000 and 2006-2008; Bureau of Labor Statistics, 2009.

¹ From the 2006-2008 ACS.

² The population density was calculated for each jurisdiction using the 2008 population and the following areas: County of Los Angeles, 4,752 square miles (sq. mi.); City of Los Angeles, 498.3 sq. mi.; City of West Hollywood, 1.9 sq. mi.; City of Beverly Hills, 5.7 sq. mi.; City of Santa Monica, 15.9 sq. mi.

³ From Bureau of Labor Statistics; Average through September 2009.

As of 2008, there were approximately 9.86 million persons and 3.37 million housing units in the County. With an area of 4,752 square miles, the population density of the County is 2,075 persons per square mile. Approximately 15 percent of households in the County live below the poverty level (which is based on income thresholds set forth by the U.S. Census Bureau (refer to Section 0), and the average household income in 2008 dollars was \$55,192. Approximately 70 percent of the County population is characterized as minority, with the largest minority population being Hispanic (approximately 47 percent of the total population). The percentage of LEP persons over the age of five for the County is 27 percent (and, of this percentage, 71 percent speak only Spanish). The percentage of elderly (age 65 and older) in the County is 11 percent of the total population. As of February 2010, the County had an unemployment rate of 12.3 percent (U.S. Bureau of Labor Statistics, February 2010).



5.1.2 City of Los Angeles

The proposed project would include alternatives that would traverse several communities and districts of the City of Los Angeles. These include Wilshire Center/Koreatown, Hancock Park, Miracle Mile, Westwood, and Hollywood. Along Wilshire Boulevard, the area is characterized by medium- to high-rise buildings and high-density, with mostly low-rise residential but still high-density development north and south of the corridor. The characteristics of the City of Los Angeles are shown in Table 5-1. As of 2008, the City of Los Angeles had a population of approximately 3.8 million persons and approximately 1.4 million housing units. With an area of 498.3 square miles, the population density of the City of Los Angeles is 7,694 persons per square mile. Approximately 19 percent of the households in the City of Los Angeles live below the poverty level and the median household income in 2008 dollars was \$48,610, which is lower than the County average. Approximately 70 percent of the City of Los Angeles' population is characterized as minority, with the largest minority population being Hispanic (approximately 48 percent of the total population). The percentage of LEP persons over the age of five in the City of Los Angeles is 31 percent (and, of this percentage, 76 percent speak only Spanish). The percentage of elderly (age 65 and older) in the City of Los Angeles is 10 percent of the total population. As of February 2010, the City of Los Angeles had an unemployment rate of 13.6 percent, one of the highest in the County (U.S. Bureau of Labor Statistics, February 2010).

5.1.3 City of West Hollywood

The characteristics of the City of West Hollywood are shown in Table 5-1. As of 2008, the City of West Hollywood had a population of approximately 36,000 persons and approximately 24,000 housing units. With an area of 1.9 square miles, the population density of the City of West Hollywood is 18,950 persons per square mile, the highest in Los Angeles County. Approximately 12 percent of the households in the City of West Hollywood live below the poverty level and the median household income in 2008 dollars was \$53,122, which is slightly below the County average. Approximately 24 percent of the City of West Hollywood's population is characterized as minority, with the largest minority population being Hispanic (approximately 9 percent of the total population). The percentage of LEP persons over the age of five in the City of West Hollywood is 19 percent. Russian-speakers make up a substantial percentage (17 percent in 2000⁴) of the LEP population in the City of West Hollywood. Persons of Russian-descent represent 12 percent of the population of the City of West Hollywood.⁵ The percentage of elderly (age 65 and older) in the City of West Hollywood is 17 percent of the total population, which is higher than the County. As of February 2010, the City of West Hollywood had an unemployment rate of 10.3 percent (U.S. Bureau of Labor Statistics, February 2010).

5.1.4 City of Beverly Hills

The characteristics of the City of Beverly Hills are shown in Table 5-1. As of 2008, the City of Beverly Hills had a population of approximately 34,500 persons and approximately 16,000 housing units. With an area of 5.7 square miles, the population density of the City of Beverly Hills is 6,043 persons per square mile. Approximately 6 percent of the households in the City of Beverly Hills live below the poverty level and the median household income in

⁴U.S. 2000 Census is used for this statistic as it is the most recent data set that provides this level of detail.

⁵City of West Hollywood website, www.weho.org, accessed November 2009.



2008 dollars was \$88,014. Approximately 15 percent of the City of Beverly Hills' population is characterized as minority, with the largest minority population being Asian (approximately 8 percent of the total population). The percentage of LEP persons over the age of five in the City of Beverly Hills is 17 percent. Farsi-speakers make up a substantial percentage (19 percent in 2000⁶) of the LEP population in the City of Beverly Hills. The percentage of elderly (age 65 and older) in the City of Beverly Hills is 17 percent of the total population, which is higher than the County. The City of Beverly Hills had an unemployment rate of 8.6 percent as of February 2010 (U.S. Bureau of Labor Statistics, February 2010).

5.1.5 City of Santa Monica

The characteristics of the City of Santa Monica are shown in Table 5-1. As of 2008, the City of Santa Monica has a population of approximately 87,700 persons and approximately 49,600 housing units. With an area of 15.9 square miles, the population density of the City of Santa Monica is 5,513 persons per square mile. Approximately 11 percent of the households in the City of Santa Monica live below the poverty level and the median household income in 2008 dollars was \$67,581. Approximately 28 percent of the City of Santa Monica's population is characterized as minority, with the largest minority population being Hispanic (approximately 12 percent of the total population). The percentage of LEP persons over the age of five in the City of Santa Monica is 10 percent (and, of this percentage, 34 percent speak only Spanish). The percentage of elderly (age 65 and older) in the City of Santa Monica is 15 percent of the total population. The City of Santa Monica had an unemployment rate of 10.2 percent as of February 2010 (U.S. Bureau of Labor Statistics, February 2010).

5.1.6 Study Area

Figure 5-1 through Figure 5-4 show the distribution of minority, low-income, elderly, and LEP populations within the Study Area. The characteristics of the Study Area communities are shown in Table 5-2. As of 2000, the Study Area had a population of approximately 475,396 persons. Approximately 38 percent of the Study Area population is characterized as minority. According to the 2000 U.S. Census, approximately 17 percent of households live below the poverty level and the median household income was \$56,849. The percentage of transit dependent households is 15 percent. The percentage of LEP persons over the age of five in the Study Area is 12 percent. The percentage of elderly (age 65 and older) in the Study Area is 13 percent of the total population.

⁶U.S. 2000 Census is used for this statistic as it is the most recent data set that provides this level of detail.

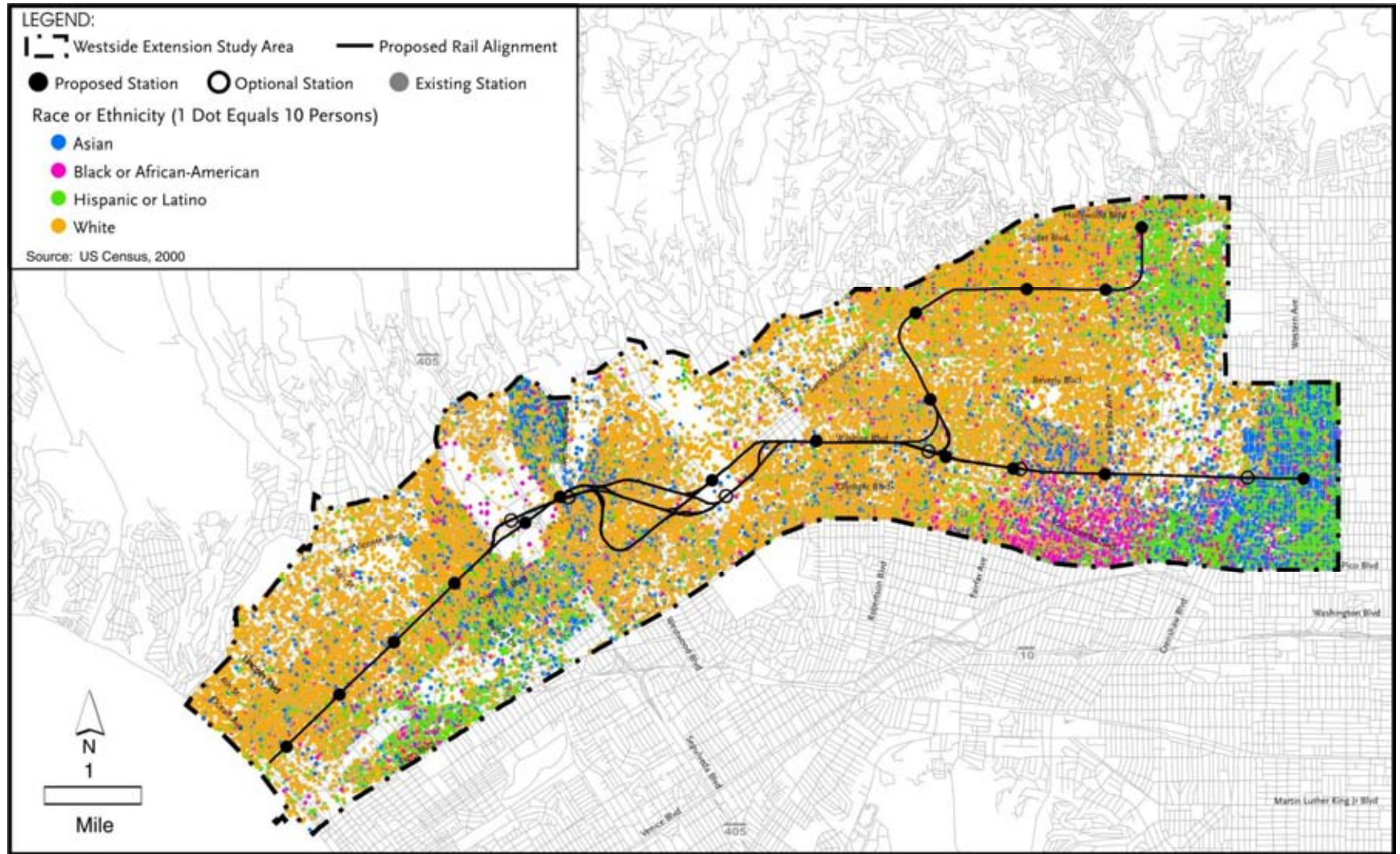


Figure 5-1: Minority Population Distribution

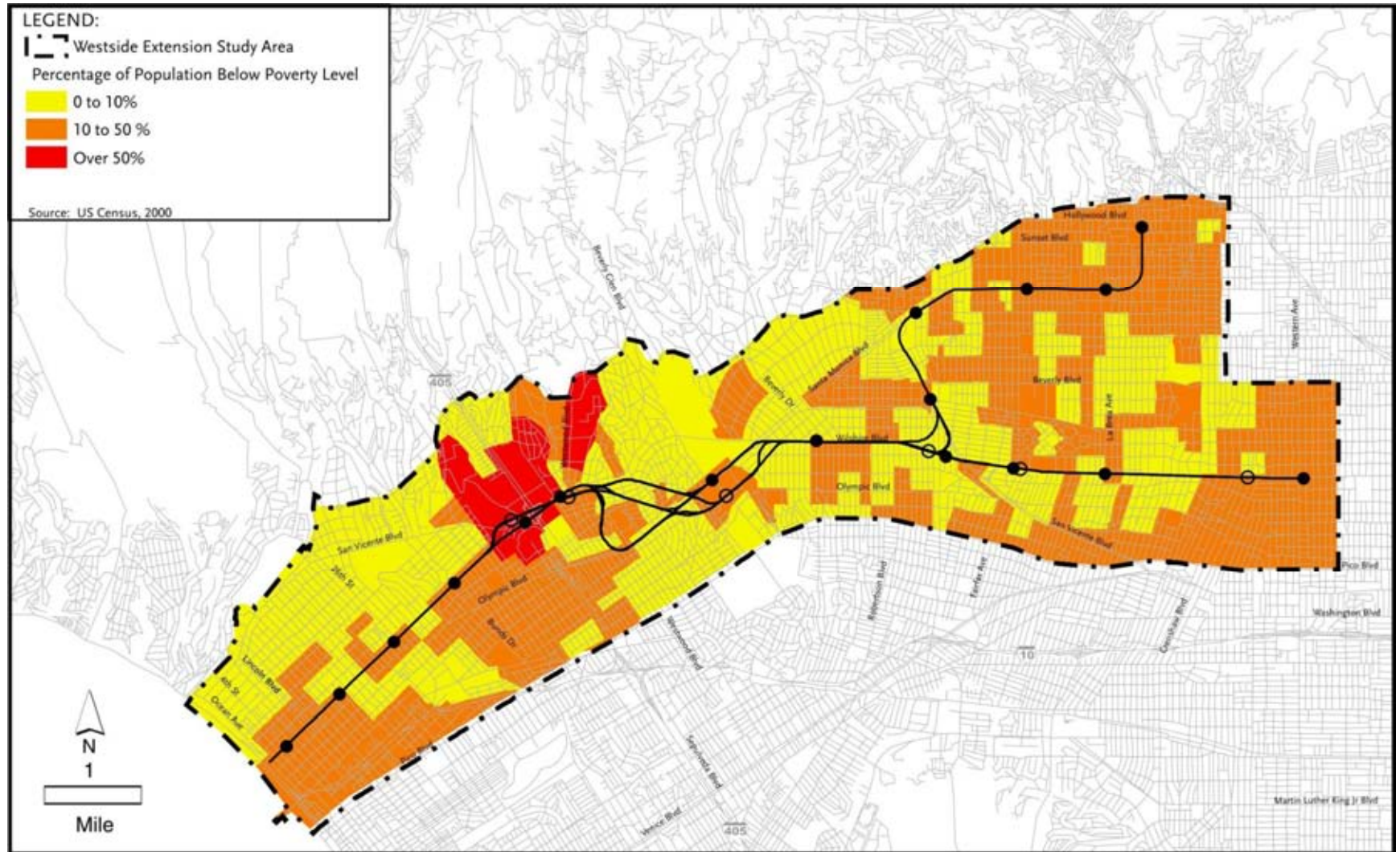


Figure 5-2: Distribution of Poverty Populations

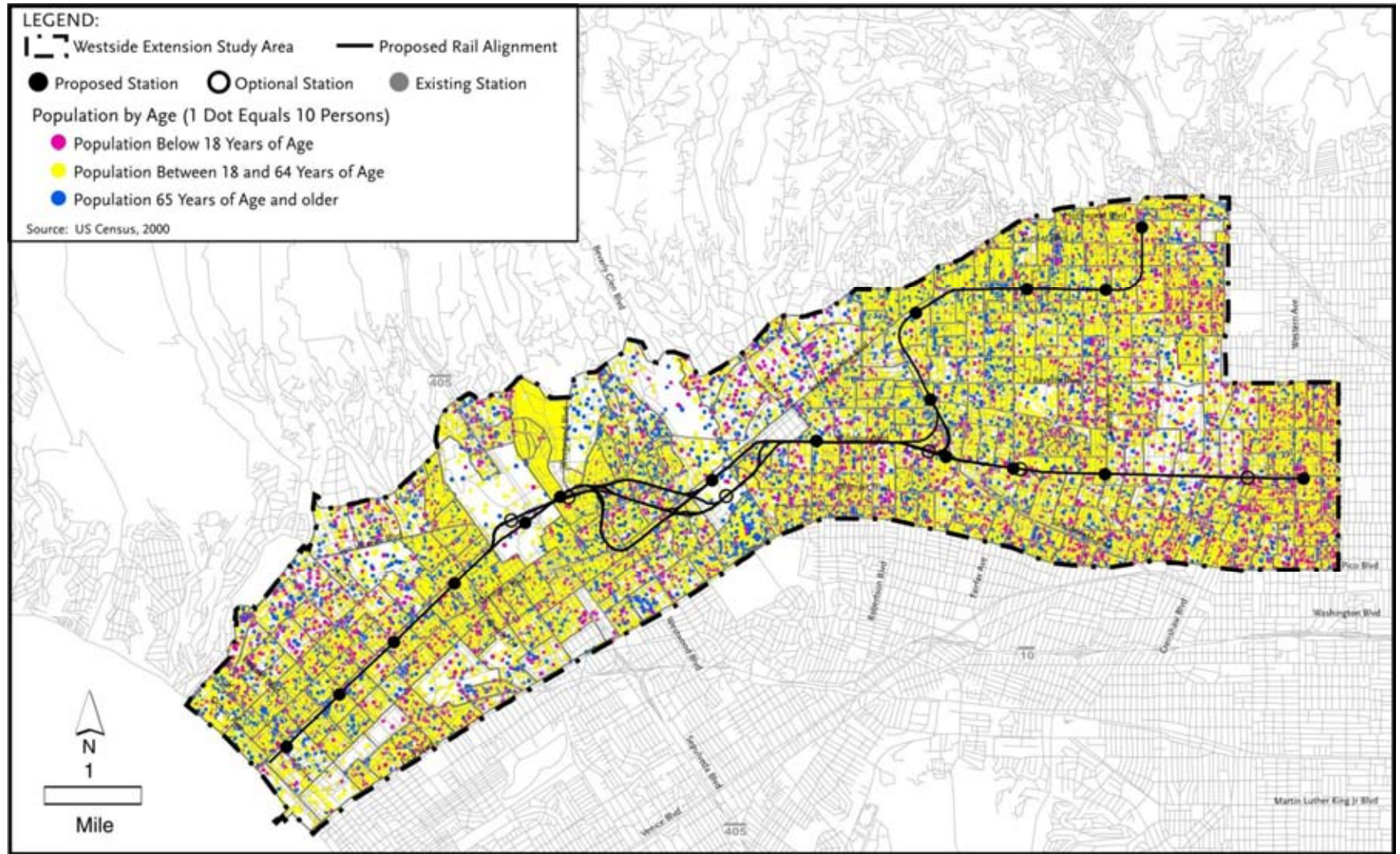


Figure 5-3: Population Distribution by Age

WESTSIDE SUBWAY EXTENSION



Table 5-2: Summary of Demographic and Socioeconomic Characteristics for of the Project Study Area

Characteristic	Project Area
Total Population (persons)	475,396
Percent Minority	38%
Percent population below poverty level	17%
Median Household income	\$56,849
Percent Transit-Dependent Households	15%
Percent Limited English Proficiency, Age 5 and above	12%
Percent of Population over 65 years of Age	13%

Source: U.S. Census Bureau, 2000

5.1.6.1 Study Area Communities

The 21 communities and neighborhoods within the Study Area are illustrated in Figure 5-5. A detailed description of each community and neighborhood can be found in the *Westside Subway Extension Community and Neighborhood Technical Report*. The characteristics of each community and neighborhood are shown in Table 5-3. Table 5-3. shows data only for the portions (Census Block Groups) of the Cities of Los Angeles, Beverly Hills, Santa Monica, and West Hollywood, and the County of Los Angeles within the boundaries of the Study Area. The communities of Olympic Park and Wilshire Center/Koreatown have the largest minority population in the project area (92 percent each), relative to the City of Los Angeles or County minority populations (71 percent each). The third largest minority population is located in the Wilshire Park community (84 percent). The Century City community has the largest proportion of elderly population (40 percent), substantially higher than the City of Los Angeles and County elderly populations (10 and 11 percents, respectively). The Rancho Park community has the second largest elderly population (28 percent).

The portion of the County located in the Study Area, which includes the Veteran’s Hospital Area, has the highest population living below poverty level (53 percent), which is substantially higher than the population living below poverty level Countywide (15 percent). The Wilshire Center/Koreatown has the second largest population living below poverty at 30 percent. Wilshire Center/Koreatown has the largest number of households that are linguistically isolated (36 percent), higher than the percentage of LEP populations for the City of Los Angeles and County (31 and 27 percents, respectively).

Table 5-3: Summary Demographic and Socioeconomic Characteristics of Communities Within the Study Area Boundaries

Community	Percent Minority	Median Household Income ¹	Percent Population Living Below Poverty Level ²	Percent Linguistically Isolated Population Over 5 Years Old ³	Percent Elderly Population of Total Population (Ages 65 and Over)
City of Los Angeles	71%	\$48,610	19%	31%	10%
Brentwood District	15.7%	\$88,263	6.5%	1.9%	14.4%
Carthay District	37.9%	\$54,112	12.4%	7.8%	13.2%
<i>Century City District+</i>	14.8%	\$93,353	8.7%	2.3%	40.4%
Hancock Park District	26.2%	\$90,246	7%	4.6%	14.1%
<i>Hollywood District*</i>	50.2%	\$26,699	22.4%	18.1%	9.9%
Larchmont District	57.3%	\$86,442	3.2%	4.7%	13.5%
Mid City West/Fairfax District	24.9%	\$49,726	11.5%	6.0%	16.2%
Miracle Mile District	50.8%	\$46,538	8.4%	4.9%	12.1%
<i>Olympic Park*</i>	92.4%	\$33,306	23.3%	28.5%	10.8%
<i>Pico District*</i>	76.0%	\$41,816	13.7%	3.6%	12.2%
Rancho Park District	19.4%	\$74,859	7.1%	2.4%	27.6%
South Robertson District	22.9%	\$49,294	12.8%	8.5%	18.5%
West Los Angeles District	50.1%	\$40,748	18.2%	12.0%	10.0%
<i>Westwood District*</i>	34.9%	\$66,356	22.4%	3.6%	12.4%
<i>Wilshire Center/Koreatown*</i>	92.3%	\$25,603	29.9%	36.8%	6.5%
<i>Wilshire Park*</i>	84.0%	\$44,647	20.2%	24.4%	12.4%
Windsor Square District	54%	\$73,954	8%	15%	11%
City of Beverly Hills	15%	\$88,014	6%	17%	17%
City of Beverly Hills within Study Area	18.7%	\$97,726	9.5%	5.9%	17.4%
City of Santa Monica	28%	\$67,581	11%	10%	15%
City of Santa Monica within Study Area	29.3%	\$67,540	11.2%	4.9%	15.3%
<i>Pico District, Santa Monica*</i>	63.1%	\$36,728	17.8%	10.6%	10.5%
City of West Hollywood	24%	\$53,122	12%	19%	17%
City of West Hollywood within Study Area	18.8%	\$41,550	11.5%	10.5%	16.9%
County of Los Angeles	71%	\$55,192	15%	27%	11%
<i>County of Los Angeles—Veteran's Administration Westwood Campus*</i>	54.4%	\$42,391	53.7%	0.8%	18.5%
Overall Study Area	38%	\$56,849	17%	12%	13%

Source: U.S. Census Bureau, 2000, 2000 U.S. Census Summary File 3, Tables P7, P8, P20, and P87

*Environmental Justice Population

+ Community of Concern

¹ Median income was determined by averaging the median income of Census Block Groups that were one-quarter mile away from each station area.

² Poverty status is based upon 2008 U.S. Census Poverty Thresholds² Poverty status is based upon 2008 U.S. Census Poverty Thresholds

³ A person that is linguistically isolated would have some difficulty speaking English. Persons counted as linguistically isolated are those over the age of 5 who speak a non-English language at home and falls into the Census English speaking ability categories of "Speak English Not Well" or "Speak English Not At All."



Figure 5-5. Study Area Communities and Neighborhoods



Brentwood District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Brentwood District of the City of Los Angeles are shown in Table 5-3. Brentwood has a population of approximately 19,500 persons. With an area of 2.1 square miles, the population density of Brentwood is 9,287 persons per square mile. Approximately 7 percent of the households in Brentwood live below the poverty level and approximately 16 percent of Brentwood's population is characterized as minority, with the largest minority population being Asian (approximately 6 percent of the total population). The LEP population in Brentwood is 2 percent and the percentage of elderly is 14 percent of the total population. Because Brentwood does not contain higher proportion of minorities, low-income, LEP, and elderly population in comparison to the surrounding community minority, it would not be considered an EJ population or a community of concern.

Carthay District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Carthay District of the City of Los Angeles are shown in Table 5-3. Carthay has a population of approximately 5,300 persons. With an area of 2.9 square miles, the population density of Carthay is 1,829 persons per square mile. Approximately 12 percent of the households in Carthay live below the poverty level and approximately 38 percent of Carthay's population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 18 percent of the total population). The percentage of LEP population in Carthay is 8 percent and the percentage of elderly is 13 percent of the total population. Because Carthay does not contain higher proportion of minorities, low-income, LEP, and elderly population in comparison to the surrounding community minority, it would not be considered an EJ population or a community of concern.

Century City District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Century City District of the City of Los Angeles are shown in Table 5-3. Century City has a population of approximately 3,550 persons. With an area of 0.4 square miles, the population density of Century City is 8,870 persons per square mile. Approximately 9 percent of the households in Century City live below the poverty level and approximately 15 percent of Century City's population is characterized as minority, with the largest minority population being Asian (approximately 8 percent of the total population). The percentage of LEP population in Century City is 2 percent and the percentage of elderly is 40 percent of the total population. Because Century City contains a higher proportion of elderly population in comparison to the surrounding community, it would be considered community of concern.

City of Beverly Hills. Approximately two-thirds of the City of Beverly Hills is located within the Study Area. The demographic and socioeconomic characteristics of the City of Beverly Hills are detailed in Section 4.1.4. The City of Beverly Hills does not contain a higher proportion of minority (19 percent), low-income (10 percent), LEP (6 percent), and elderly (17 percent) than the surrounding community, and therefore, it would not be considered an EJ population or a community of concern.

City of Santa Monica. Approximately two-thirds of the City of Santa Monica is located within the Study Area. The demographic and socioeconomic characteristics of the portion of the City of Santa Monica that is within the Study Area are shown in Table 5-3. Santa Monica has a population of approximately 58,949 persons. With an area of 5.7 square miles, the population density of Santa Monica is 10,342 persons per square mile. Approximately 11



percent of the households in this part of Santa Monica live below the poverty level and approximately 29 percent is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 14 percent of the total population). The percentage of LEP is 5 percent and the percentage of elderly is 15 percent of the total population. The City of Santa Monica does not contain a higher proportion of low-income, LEP, and elderly populations in comparison to the surrounding communities. However, one district, the Pico District (described below) has a higher proportion of minorities than the surrounding community. Therefore, only this portion of the City of Santa Monica in the Study Area would be considered an EJ population or a community of concern.

City of West Hollywood. The majority of the City of West Hollywood is located within the Study Area. The demographic and socioeconomic characteristics of the City of West Hollywood are detailed in Section 4.1.3. The City of West Hollywood does not contain a higher proportion of minority (19 percent), low-income (12 percent), LEP (11 percent), and elderly (17 percent) populations in comparison to the surrounding community and, therefore, it would not be considered an EJ population or a community of concern.

County of Los Angeles (VA Hospital). A summary of the demographic and socioeconomic characteristics of the County of Los Angeles VA Hospital Area are shown in Table 5-3. VA Hospital had a population of approximately 670 persons. With an area of 0.9 square miles, the population density of VA Hospital is 740 persons per square mile. Approximately 54 percent of the households in VA Hospital live below the poverty level and approximately 54 percent of VA Hospital's population is characterized as minority, with the largest minority population being African American (approximately 44 percent of the total population). The percentage of LEP persons in VA Hospital is 1 percent and the percentage of elderly is 19 percent of the total population. VA Hospital contains a higher proportion of minority and low-income populations in comparison to the surrounding community and, therefore, it would be considered an EJ population.

Hancock Park District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Hancock Park District of the City of Los Angeles are shown in Table 5-3. Hancock Park has a population of approximately 11,350 persons. With an area of 1.5 square miles, the population density of Hancock Park is 7,568 persons per square mile. Approximately 7 percent of the households in Hancock Park live below the poverty level and approximately 26 percent of Hancock Park's population is characterized as minority, with the largest minority population being Asian (approximately 11 percent of the total population). The percentage of LEP population in Hancock Park is 5 percent and the percentage of elderly is 14 percent of the total population. Hancock Park does not contain significant higher proportion of minority, low-income, LEP, and elderly populations in comparison to the surrounding community and, therefore, it would not be considered an EJ population or a community of concern.

Hollywood District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Hollywood District of the City of Los Angeles are shown in Table 5-3. Hollywood has a population of approximately 51,190 persons. With an area of 2.4 square miles, the population density of Hollywood is 21,328 persons per square mile. Approximately 22 percent of the households in Hollywood live below the poverty level and approximately 50 percent of Hollywood's population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 34 percent of the total



population). The percentage of LEP population in Hollywood is 18 percent and the percentage of elderly is 10 percent of the total population. According to the 2000 U.S. Census data, Hollywood contains a higher proportion of a low-income population relative to the surrounding community. Therefore, it would be considered an EJ population

Larchmont District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Larchmont District of the City of Los Angeles are shown in Table 5-3. Larchmont has a population of approximately 470 persons. With an area of 0.1 square miles, the population density of Larchmont is 4,660 persons per square mile. Approximately 3 percent of the households Larchmont live below the poverty level and approximately 57 percent of Larchmont's population is characterized as minority, with the largest minority population being Asian (approximately 37 percent of the total population). The percentage of LEP population in Larchmont is 5 percent and the percentage of elderly is 14 percent of the total population. Larchmont does not contain significant higher proportion of minority, low-income, LEP, and elderly populations in comparison to the surrounding community and, therefore, it would not be considered an EJ population or a community of concern.

Mid City West/Fairfax District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Mid City West/Fairfax District of the City of Los Angeles are shown in Table 5-3. Mid City West/Fairfax has a population of approximately 47,630 persons. With an area of 3.4 square miles, the population density of Mid City West/Fairfax is 14,009 persons per square mile. Approximately 12 percent of the households in Mid City West/Fairfax live below the poverty level and approximately 25 percent of Mid City West/Fairfax's population is characterized as minority, with the largest minority population being Asian (approximately 10 percent of the total population). The percentage of LEP population in Mid City West/Fairfax is 6 percent and the percentage of elderly is 16 percent of the total population. Mid City West/Fairfax does not contain a higher proportion of minority, low-income, LEP, and elderly populations in comparison to the surrounding community and, therefore, it would not be considered an EJ population or a community of concern.

Miracle Mile District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Miracle Mile District of the City of Los Angeles are shown in Table 5-3. Miracle Mile has a population of approximately 6,415 persons. With an area of 0.4 square miles, the population density of Miracle Mile is 16,040 persons per square mile. Approximately 8 percent of the households in Miracle Mile live below the poverty level and approximately 51 percent of Miracle Mile's population is characterized as minority, with the largest minority population being African American (approximately 18 percent of the total population). The percentage of LEP persons in Miracle Mile is 5 percent and the percentage of elderly is 12 percent of the total population. Miracle Mile does not contain a higher proportion of minority, low-income, LEP, and elderly population in comparison to the surrounding community, and, therefore, it would not be considered an EJ population or a community of concern.

Olympic Park District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Olympic Park District of the City of Los Angeles are shown in Table 5-3. Olympic Park has a population of approximately 26,565 persons. With an area of 1.2 square miles, the population density of Olympic Park is 22,137 persons per square mile. Approximately 23 percent of the households in Olympic Park live below the



poverty level and approximately 92 percent of Olympic Park’s population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 48 percent of the total population). The percentage of LEP persons in Olympic Park is 29 percent and the percentage of elderly is 11 percent of the total population. Olympic Park contains higher proportions of minority, low-income, and LEP populations in comparison to the surrounding community, and, therefore, it would be considered an EJ population and a community of concern.

Pico District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Pico District of the City of Los Angeles are shown in Table 5-3. The Los Angeles Pico District has a population of approximately 12,547 persons. With an area of 3.5 square miles, the population density of the Los Angeles Pico District is 3,585 persons per square mile. Approximately 14 percent of the households in this district live below the poverty level and approximately 76 percent of Pico’s population is characterized as minority, with the largest minority population being African American (approximately 48 percent of the total population). The percentage of LEP persons in the Los Angeles Pico District is 4 percent and the percentage of elderly is 12 percent of the total population. The Los Angeles Pico District contains a higher proportion of minority population in comparison to the surrounding community, and, therefore, it would be considered an EJ population.

Pico District, City of Santa Monica. A summary of the demographic and socioeconomic characteristics of the Pico District of the City of Santa Monica are shown in Table 5-3. The Santa Monica Pico District has a population of approximately 13,270 persons. With an area of 1.5 square miles, the population density of the Santa Monica Pico District is 8,846 persons per square mile. Approximately 18 percent of the households in the Santa Monica Pico District live below the poverty level and approximately 63 percent of this district’s population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 39 percent of the total population). The percentage of LEP persons in the Santa Monica Pico District is 11 percent and the percentage of elderly is 11 percent of the total population. The Santa Monica Pico District contains a higher proportion of minority population in comparison to the surrounding community, and, therefore, it would be considered an EJ population.

Rancho Park District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Rancho Park District of the City of Los Angeles are shown in Table 5-3. Rancho Park has a population of approximately 7,220 persons. With an area of 0.6 square miles, the population density of Rancho Park is 12,032 persons per square mile. Approximately 7 percent of the households in Rancho Park live below the poverty level and approximately 19 percent of Rancho Park’s population is characterized as minority, with the largest minority population being Asian (approximately 9 percent of the total population). The percentage of LEP persons in Rancho Park is 2 percent and the percentage of elderly is 28 percent of the total population. Rancho Park does not contain a higher proportion of minority, low-income, LEP, and elderly populations in comparison to the surrounding community, and, therefore, it would not be considered an EJ population or a community of concern.

South Robertson District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the South Robertson District of the City of Los Angeles are shown in Table 5-3. South Robertson has a population of approximately 12,560 persons.



With an area of 0.5 square miles, the population density of South Robertson is 25,116 persons per square mile. Approximately 13 percent of the households in South Robertson live below the poverty level and approximately 23 percent of South Robertson's population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 6 percent of the total population). The percentage of LEP persons in South Robertson is 9 percent and the percentage of elderly is 19 percent of the total population. South Robertson does not contain higher proportions of minority, low-income, LEP, and elderly populations in comparison to the surrounding community, and, therefore, it would not be considered an EJ population or a community of concern.

West Los Angeles District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the West Los Angeles District of the City of Los Angeles are shown in Table 5-3. West Los Angeles has a population of approximately 28,475 persons. With an area of 1.9 square miles, the population density of West Los Angeles is 14,986 persons per square mile. Approximately 18 percent of the households in West Los Angeles live below the poverty level and approximately 50 percent of West Los Angeles's population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 22 percent of the total population). The percentage of LEP persons in West Los Angeles is 12 percent and the percentage of elderly is 10 percent of the total population. West Los Angeles does not contain higher proportions of minority, low-income, LEP, and elderly populations in comparison to the surrounding community, and, therefore, it would not be considered an EJ population or a community of concern.

Westwood District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of the Westwood District of the City of Los Angeles are shown in Table 5-3. Westwood has a population of approximately 58,745 persons. With an area of 4.6 square miles, the population density of Westwood is 12,771 persons per square mile. Approximately 22 percent of the households in Westwood live below the poverty level and approximately 35 percent of Westwood's population is characterized as minority, with the largest minority population being Asian (approximately 21 percent of the total population). The percentage of LEP persons in Westwood is 4 percent and the percentage of elderly is 12 percent of the total population. Westwood does contain a higher proportion of low-income populations in comparison to the surrounding community, and, therefore, it would be considered an EJ population.

Wilshire Center/Koreatown District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of Wilshire Center/Koreatown District of the City of Los Angeles are shown in Table 5-3. Wilshire Center/Koreatown has a population of approximately 55,115 persons. With an area of 1.2 square miles, the population density of Wilshire Center/Koreatown is 45,930 persons per square mile. Approximately 30 percent of the households in Wilshire Center/Koreatown live below the poverty level and approximately 92 percent of Wilshire Center/Koreatown's population is characterized as minority, with the largest minority population being Hispanic or Latino (approximately 44 percent of the total population). The percentage of LEP persons in Wilshire Center/Koreatown is 37 percent and the percentage of elderly is 7 percent of the total population. Wilshire Center/Koreatown contains a higher proportion of minority, low-income, and LEP populations in comparison to the surrounding community, and, therefore, it would be considered an EJ population and a community of concern.



Wilshire Park District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of Wilshire Park District of the City of Los Angeles are shown in Table 5-3. Wilshire Park has a population of approximately 15,272 persons. With an area of 4.55 square miles, the population density of Wilshire Park is 3,356 persons per square mile. Approximately 20 percent of the households in Wilshire Park live below the poverty level and approximately 84 percent of Wilshire Park’s population is characterized as minority, with the largest minority population being Asian (approximately 40 percent of the total population). The percentage of LEP persons in Wilshire Park is 24 percent and the percentage of elderly is 12 percent of the total population. Wilshire Park contains a higher proportion of minority population in comparison to the surrounding community, and, therefore, it would be considered an EJ population.

Windsor Square District, City of Los Angeles. A summary of the demographic and socioeconomic characteristics of Windsor Square District of the City of Los Angeles are shown in Table 5-3. Windsor Square has a population of approximately 4,704 persons. With an area of 3.4 square miles, the population density of Windsor Square is 1,384 persons per square mile. Approximately 8 percent of the households in Windsor Square live below the poverty level and approximately 54 percent of Windsor Square’s population is characterized as minority, with the largest minority population being Asian. The percentage of LEP in Windsor Square is 15 percent and the percentage of elderly is 11 percent of the total population. Windsor Square does not contain higher proportions of minority, low-income, elderly, and LEP populations in comparison to the surrounding community, and, therefore, it would not be considered an EJ population or a community of concern.

5.1.7 Environmental Justice Populations

The following eight communities have been identified as Environmental Justice populations because of their high proportions of minority and/or low-income populations in comparison to the surrounding community:

- Olympic Park (92% minority in comparison to 71% minority in City of Los Angeles and 23% below poverty in comparison to 19% in the City of Los Angeles)
- Pico District (76% minority in comparison to 71% minority in City of Los Angeles and 14% below poverty in comparison to 19% in the City of Los Angeles)
- Wilshire Center/Koreatown (92% minority in comparison to 71% minority in City of Los Angeles and 30% below poverty in comparison to 19% in the City of Los Angeles)
- Wilshire Park (84% minority in comparison to 71% minority in City of Los Angeles and 20% below poverty in comparison to 19% in the City of Los Angeles)
- Westwood (35% minority in comparison to 71% minority in City of Los Angeles and 22% below poverty in comparison to 19% in the City of Los Angeles)
- Pico District, Santa Monica (63% minority in comparison to 15% minority in City of Santa Monica and 18% below poverty in comparison to 6% in the City of Santa Monica)
- County of Los Angeles—Veteran’s Administration Westwood Campus (54% minority in comparison to 71% minority in the County of Los Angeles and 54% below poverty in comparison to 15% in the County of Los Angeles)



- Hollywood (50% minority in comparison to 71% minority in City of Los Angeles and 22% below poverty in comparison to 19% in the City of Los Angeles)

Many of these EJ populations were also identified as communities of concern due to higher proportions of linguistically-isolated populations and/or elderly (older than 65) in comparison to the surrounding community. In addition to the communities that were already identified as EJ populations, Century City was identified as a community of concern due to the higher proportion of elderly residents in comparison to the surrounding community.

The Wilshire Center/Koreatown and Olympic Park communities are considered EJ populations because of the higher proportions of both minority and low-income populations in comparison to the surrounding community. The Wilshire Park, Pico, and Santa Monica Pico communities are considered to be EJ populations due to higher proportions of minority populations in comparison to the surrounding community. The County of Los Angeles—Veteran’s Administration Westwood Campus, Hollywood, and Westwood communities are considered EJ populations due to a higher proportion of low-income population in comparison to the surrounding community.

Wilshire Center/Koreatown and Olympic Park are also considered a community of concern due to a substantial Limited English Population (LEP) population. Because Century City contains a higher proportion of elderly population in comparison to the surrounding community, it would be considered a community of concern.

Based on demographic and socioeconomic information, Windsor Square, Larchmont, Hancock Park, Miracle Mile, Mid City West/Fairfax, Carthay, South Robertson, Rancho Park, Westwood, West Los Angeles, and Hollywood are not considered to be EJ populations or Communities of Concern. Although Westwood contains a significant proportion of low-income households, it is not considered an EJ population because this data is skewed by the presence of college students.

5.2 Racial and Ethnic Characteristics for EJ Populations and Communities of Concern

According to the preliminary analysis under Section 5.1.6.1, the five communities within the Study Area that were identified as EJ populations due to substantially higher minority in comparison to the surrounding community are:

- City of Los Angeles
 - ▶ Olympic Park
 - ▶ Pico
 - ▶ Wilshire Center/Koreatown
 - ▶ Wilshire Park
- City of Santa Monica
 - ▶ Pico District



The detailed demographic characteristics of all identified EJ populations and communities of concern are shown in Table 5-4.

Table 5-4: Racial and Ethnic Character of the Communities of EJ Populations and Communities of Concern within Study Area

EJ Population or Community of Concern	Population by Race/Ethnicity (Persons)					Percent Minority
	White	Black or African American	Asian	Hispanic or Latino	Other Races ¹	
City of Los Angeles						
Century City	3,024	81	296	87	60	14.8%
Hollywood	25,509	3,034	3,333	17,181	2,131	50%
Olympic Park	2,007	4,060	7,170	12,738	589	92.4%
Pico	3,009	6,006	726	2,160	646	76.0%
Westwood	38,401	1,238	12,207	3,994	2,905	35%
Wilshire Center/Koreatown	4,254	2,924	22,110	24,497	1,331	92.3%
Wilshire Park	2,439	1,522	6,092	4,893	326	84.0%
City of Santa Monica						
Pico District	4,898	1,466	1,027	5,139	739	63.1%
County of LA/VA Hospital	304	293	0	46	26	54.4%

Source: U.S. Census Bureau, 2000, 2000 U.S. Census Summary File 3, Table P7.

¹The "Other Races" category includes American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, Some Other Race, and Two or more Races Census Categories.

5.2.1 Century City

According to the 2000 U.S. Census, 15 percent of the Century City population is minority (Table 5-4), substantially less than the City of Los Angeles's and Los Angeles County's minority population of 71 percent (including Hispanics of all races and all non-Hispanics except for White). The Asian population represents the largest minority group in the Century City community (8 percent).

5.2.2 Hollywood

According to the 2000 U.S. Census, 50 percent of the Hollywood population is minority (Table 4-4), substantially less than the City of Los Angeles's and Los Angeles County's minority population of 71 percent (including Hispanics of all races and all non-Hispanics except for White). The Hispanic population represents the largest minority group in the Hollywood community (34 percent).

5.2.3 Olympic Park

According to the 2000 U.S. Census, 92 percent of the Olympic Park population is minority (Table 5-4), substantially higher than the City of Los Angeles's and Los Angeles County's minority population of 71 percent. The minority groups with the largest representation in the Olympic Park community are Hispanics or Latinos (48 percent), Asians (27 percent), and Blacks or African Americans (15 percent).



5.2.4 Pico District, City of Los Angeles

According to the 2000 U.S. Census, 76 percent of the Pico population is minority (Table 5-4), consistent with the City of Los Angeles's and Los Angeles County's minority population of 71 percent. The minority groups with the largest representation in the Pico community are Blacks or African Americans (48 percent), and Hispanics or Latinos (17 percent).

5.2.5 Westwood

According to the 2000 U.S. Census, 35 percent of the Westwood population is minority (Table 4-4), substantially less than the City of Los Angeles's and Los Angeles County's minority population of 71 percent (including Hispanics of all races and all non-Hispanics except for White). The Asian population represents the largest minority group in the Hollywood community (21 percent).

5.2.6 Wilshire Center/Koreatown

According to the 2000 U.S. Census, 92 percent of the Wilshire Center/Koreatown population is minority (Table 5-4), substantially higher than the City of Los Angeles's and Los Angeles County's minority population of 71 percent. The minority groups with the largest representation in the Wilshire Center/Koreatown community are Hispanics or Latinos (44 percent), and Asians (40 percent).

5.2.7 Wilshire Park

According to the 2000 U.S. Census, 84 percent of the Wilshire Park population is minority (Table 5-4), substantially higher than the City of Los Angeles's and Los Angeles County's minority population of 71 percent. The minority groups with the largest representation in the Wilshire Park community are Asians (40 percent), Hispanics or Latinos (32 percent), and Blacks or African Americans (10 percent).

5.2.8 Pico District, City of Santa Monica

According to the 2000 U.S. Census, 63 percent of the Pico District population is minority (Table 5-4), less than Los Angeles County's minority population of 71 percent, but still a large proportion compared to other communities in Santa Monica and the Westside of Los Angeles. The Hispanic or Latino population represents the largest minority group in the Pico District community (39 percent).

5.2.9 County of Los Angeles, VA Hospital.

According to the 2000 U.S. Census, 54 percent of the portion of the County of Los Angeles located in the Study Area, which includes the Veteran's Hospital, is minority (Table 5-4), less than Los Angeles County's minority population of 71 percent. The Black or African American population represents the largest minority group in this area (44 percent).

5.3 Economic Characteristics of the EJ Populations and Communities of Concern

As shown in Table 5-5, the Wilshire Center/Koreatown community had the lowest median household income of the EJ populations or communities of concern (\$25,603). The median incomes for the City of Los Angeles and Los Angeles County are substantially higher,



\$48,610 and \$55,192, respectively. The portion of the County of Los Angeles located in the Study Area, which includes the VA Hospital, has the highest portion of its population living below poverty level (53 percent), substantially higher than the population living below poverty level for the County (15 percent). The second largest population living below poverty is located in Wilshire Center/Koreatown. Additionally, the Wilshire Center/Koreatown has the greatest number of transit dependent households of the communities of EJ populations or communities of concern (28 percent).

5.3.1 Century City

In 2000, the median household income in the Century City community was approximately \$93,353 (Table 5-5), substantially higher than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Century City community, 9 percent of the population is living below poverty level, lower than the population living below poverty level for the County (15 percent). Additionally, approximately 8 percent of households are transit dependent.

5.3.2 Hollywood

In 2000, the median household income in the Hollywood community was approximately \$26,699 (Table 5-5), substantially lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Hollywood community, 22.4 percent of the population is living below poverty level, higher than the population living below poverty level for the County (15 percent). Additionally, approximately 26 percent of households are transit dependent.

5.3.3 Olympic Park

In 2000, the median household income in the Olympic Park community was approximately \$33,306 (Table 5-5); lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Olympic Park community, 23 percent of the population is living below poverty level, which is higher than Los Angeles County (15 percent). Additionally, 24 percent of households are transit dependent.

5.3.4 Pico, City of Los Angeles

In 2000, the median household income in the Pico community was approximately \$41,816 (Table 5-5); lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Pico community, 14 percent of the population is living below poverty level, which is slightly lower than Los Angeles County (15 percent). Additionally, approximately 12 percent of households are transit dependent.

5.3.5 Westwood

In 2000, the median household income in the Westwood community was approximately \$25,603 (Table 5-5), substantially lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Westwood community, 22.4 percent of the population is living below poverty level, higher than the population living below poverty level for Los Angeles County (15 percent). Although Westwood is generally known to be a high-income area, the high level of poverty is attributed to the high number of students at UCLA. The median household income for student housing is very low, and as a result the percent living at the poverty level is high.



Although students are transitional residents in this community, they continue to comprise a substantial part of it. . As such, their income level contribution is recognized. Additionally, approximately eight percent of households are transit dependent, another likely factor of the large student population.

5.3.6 Wilshire Center/Koreatown

In 2000, the median household income in the Wilshire Center/Koreatown community was approximately \$25,603 (Table 5-5), which is lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Wilshire Center/Koreatown community, 30 percent of the population is living below poverty level, which is double the population living below poverty level for Los Angeles County (15 percent). Additionally, approximately 27 percent of households are transit dependent.

5.3.7 Wilshire Park

In 2000, the median household income in the Wilshire Park community was approximately \$44,647 (Table 5-5); lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Wilshire Park community, 20 percent of the population is living below poverty level, which is higher than Los Angeles County (15 percent). Additionally, approximately 19 percent of households are transit dependent.

5.3.8 Pico District, City of Santa Monica

In 2000, the median household income in the Pico District community was approximately \$36,728 (Table 5-5); lower than the City of Los Angeles's median income of \$48,610 and Los Angeles County's median income of \$55,192. In the Pico District community, 18 percent of the population is living below poverty level, which is higher than Los Angeles County (15 percent). Additionally, approximately 18 percent of households are transit dependent.

5.3.9 County of Los Angeles, VA Hospital

In 2000, the median household income in the portion of the County of Los Angeles located in the Study Area was approximately \$42,391; lower than Los Angeles County's median income of \$55,192. In this area, 54 percent of the population is living below poverty level, which is substantially higher than the overall County (15 percent). None of the households are transit dependent because there are no official households. The population is considered to be in group quarters.



Table 5-5: Economic Character of the EJ Populations and Communities of Concern within Study Area

EJ Population or Community of Concern	Median Household Income 1	Percent Population Living Below Poverty Level 2	Percent of Transit-Dependent Population
City of Los Angeles			
Century City	\$93,353	8.7%	7.6%
Hollywood	\$26,699	22.4%	25.6%
Olympic Park	\$33,306	23.3%	23.5%
Pico	\$41,816	13.7%	12.1%
Westwood	\$25,603	22.4%	7.8%
Wilshire Center/Koreatown	\$25,603	29.9%	27.6%
Wilshire Park	\$44,647	20.2%	19.3%
City of Santa Monica			
Pico District	\$36,728	17.8%	18.3%
County of LA/VA Hospital	\$42,391	53.7%	0.0%

Source: U.S. Census Bureau, 2000.

¹ The Median Income was determined by averaging the median income of Census Block Groups that were one-quarter mile away from each station area.

² Poverty Status is based upon threshold as shown in Table 4-1.

5.4 Limited English Proficiency (LEP) of the EJ Populations and Communities of Concern

As shown in , the Wilshire Center/Koreatown community has the largest Limited English Proficiency (LEP) population of the EJ populations or communities of concern (37 percent), substantially higher than Los Angeles County's LEP population of 27 percent, and the City's LEP population of 31 percent.

5.4.1 Century City

According to the 2000 U.S. Census, 2 percent of the households in the Century City community are linguistically isolated (Table 5-6), lower than Los Angeles County's LEP population of 27 percent, and the City of Los Angeles's LEP population of 31 percent. The language spoken by the largest percentage of LEP households in this community is Other Languages (49 percent).

5.4.2 Hollywood

According to the 2000 U.S. Census, 18 percent of the households in the Hollywood community are linguistically isolated (Table 5-6), lower than Los Angeles County's LEP population of 27 percent, and the City of Los Angeles's LEP population of 31 percent. The language spoken by the largest percentage of LEP households in this community is Spanish (55 percent).

5.4.3 Olympic Park

According to the 2000 U.S. Census, 29 percent of the households in the Olympic Park community are linguistically isolated (Table 5-6), higher than Los Angeles County's LEP population of 27 percent, and lower than the City of Los Angeles's LEP population of 31



percent. The languages spoken by the largest percentages of LEP households in this community are Spanish (66 percent) and an Asian or Pacific Language (33 percent).

5.4.4 Pico, City of Los Angeles

According to the 2000 U.S. Census, 4 percent of the households in the Pico community are linguistically isolated (Table 5-6), substantially lower than Los Angeles County's LEP population of 27 percent, and the City's LEP population of 31 percent. The language spoken by the largest percentage of LEP households in this community is Spanish (76 percent).

5.4.5 Westwood

According to the 2000 U.S. Census, 4 percent of the households in the Westwood community are linguistically isolated (Table 5-6), lower than Los Angeles County's LEP population of 27 percent, and the City of Los Angeles's LEP population of 31 percent. The language spoken by the largest percentage of LEP households in this community is Other Languages (52 percent). The Westwood community includes a large population that speaks Farsi.

5.4.6 Wilshire Center/Koreatown

According to the 2000 U.S. Census, 37 percent of the households in the Wilshire Center/Koreatown community are linguistically isolated (Table 5-6), higher than Los Angeles County's LEP population of 27 percent, and the City of Los Angeles's LEP population of 31 percent. The languages spoken by the largest percentages of LEP households in this community are Spanish (55 percent) and an Asian or Pacific Language (43 percent).

5.4.7 Wilshire Park

According to the 2000 U.S. Census, 24 percent of the households in the Wilshire Park community are linguistically isolated (Table 5-6), lower than Los Angeles County's LEP population of 27 percent, and the City of Los Angeles's LEP population of 31 percent. The languages spoken by the largest percentages of LEP households in this community are an Asian or Pacific Language (53 percent) and Spanish (46 percent).

5.4.8 Pico District, City of Santa Monica

According to the 2000 U.S. Census, 11 percent of the households in the Pico District community are linguistically isolated (Table 5-6), which a lower percentage than Los Angeles County's LEP population of 27 percent. The language spoken by the largest percentage of LEP households in this community is Spanish (81 percent).

5.4.9 County of Los Angeles, VA Hospital

According to the 2000 U.S. Census, less than one percent of the households in the portion of the County of Los Angeles located in the Study Area are linguistically isolated (Table 5-6), substantially less than Los Angeles County's LEP population of 27 percent. The language spoken by the one percentage of the LEP households in this community is Spanish (100 percent).

Table 5-6: Linguistic Isolation in the EJ Populations and Communities of Concern within Study Area

Station Area	Linguistically Isolated Population Over 5 Years Old 1					Percent Not Linguistically Isolated 2
	Spanish	Asian or Pacific Language	Other Languages	Total Population of Linguistically Isolated Persons	Percent of Total Population	
City of Los Angeles						
Century City	7	34	40	81	2.3%	97.7%
Hollywood	4,899	674	3,266	8,839	18.2%	81.9%
Olympic Park	4,670	2,310	50	7,030	28.5%	71.5%
Pico	335	43	54	432	3.6%	96.4%
Westwood	352	624	1,076	2,052	3.6%	96.4%
Wilshire Center/Koreatown	10,284	8,077	358	18,719	36.8%	63.2%
Wilshire Park	1,615	1,849	40	3,504	24.4%	75.6%
City of Santa Monica						
Pico District	1,084	138	119	1,341	10.6%	89.4%
County of Los Angeles, VA Hospital	5	--	--	5	0.8%	99.2%

Source: U.S. Census Bureau, 2000.

1 A person that is linguistically isolated would have some difficulty speaking English. Persons counted as linguistically isolated are those over the age of 5 years old, who speak a non-English language at home, and falls into the Census English speaking ability categories of "Speak English Not Well" or "Speak English Not At All".

2 Persons that are not linguistically isolated would not have difficulty speaking English. Persons counted as not linguistically isolated are those over the age of 5 who speak English or speak a non-English language at home and falls into the Census English speaking ability Categories of "Speak English Well" or "Speak English Very Well".

5.5 Age Characteristics of the EJ Populations and Communities of Concern

As shown in Table 5-7, the Century City community has the largest percentage of elderly population of the EJ populations and communities of concern. 1,433 (40 percent) of Century City residents are over the age of 65, substantially greater than Los Angeles County's elderly population of 10 percent, and the City of Los Angeles's elderly population of 11 percent.

Table 5-7: Age Characteristics of the EJ Populations and Communities of Concern within Study Area

Station Area	Population			Percent Elderly Population of Total Population
	Ages 18 and Under	Ages 18 to 64	Ages 65 and Over	
City of Los Angeles				
Century City	280	1,835	1,433	40.4%
Hollywood	8,009	38,136	5,053	9.9%
Olympic Park	6,405	17,286	2,873	10.8%
Pico	2,228	8,792	1,527	12.2%
Westwood	4,771	46,674	7,300	12.4%
Wilshire Center/Koreatown	13,244	38,305	3,567	6.5%
Wilshire Park	3,306	10,072	1,894	12.4%
City of Santa Monica				
Pico District	2,435	9,445	1,389	10.5%
County of Los Angeles/VA Hospital	53	490	123	18.5%

Source: U.S. Census Bureau, 2000.

5.6 Public Participation

Executive Order 12898 requires the “meaningful” participation of the public in the project development process. 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 addition, Executive Order 13166 requires that LEP persons be allowed to have meaningful access to the project development process by providing materials and information in other languages as needed.

5.6.1.1 Alternatives Analysis and Draft EIS/EIR Outreach

Metro has provided opportunities for the public to provide input from the beginning of the project development process. As described in detail in the Final Alternatives Analysis Report for the proposed project, during the Alternatives Analysis (AA) phase of the project, Metro held six formal early scoping meetings:

- April 13, 2009 – Los Angeles County Museum of Art, Los Angeles
- April 14, 2009 – Plummer Park, West Hollywood.
- April 16, 2009 – Beverly Hills Public Library, Beverly Hills
- April 20, 2009 – Westwood Presbyterian Church, Los Angeles
- April 22, 2009 – Wilshire United Methodist Church, Los Angeles
- April 23, 2009 – Santa Monica Public Library, Santa Monica



Metro notified stakeholders about the six public scoping meetings via emails to approximately 1,080 individuals and via postal mail to approximately 470 individuals. In addition, meeting notifications were posted to the Westside Subway Extension Facebook Group with approximately 1,657 members. These meetings were publicized via direct mail notices to the study database, emails to the project database, postings on Metro’s website, display advertisements in multi-lingual publications (English, Spanish, and Korean), and notices placed on Metro buses and trains serving the project area. A media release was distributed to 83 local, regional, ethnic and multi-lingual publications as well as broadcast media, blogs and other online news and information outlets. Noticing was conducted in English, Spanish, and Korean.

The scoping meetings began with an open house format to provide attendees with an opportunity to preview the project information prior to the start of the presentation and subsequent comment period. Project team members were present at the project display boards to answer questions related to the technical aspects of the project. Spanish and Korean language translators were made available, as appropriate. One attendee required Korean translation. In addition, close captioning was provided at two meetings for one hearing-impaired attendee.

Following the open house period, a visual presentation was made to provide attendees with information regarding the purpose of “scoping” and other information involving the project background, Study Area, project goals, alternatives, and alignment modes and/or issues. Emphasis was placed on the importance of the community to provide comments to Metro about what they would like to be studied in the Draft EIS/EIR before the comment deadline, through public meetings or via email, fax, postal mail, or telephone.

Following the presentation, attendees who completed speaker cards provided their public comment, which was recorded by a court reporter/transcriber. After the public comment portion of the meeting, the project team again was available at the informational display boards to answer technical questions. A total of 342 persons attended these meetings and Metro received 269 public comments as a result of these meetings.

In August 2009, Metro held community update meetings on the project, with nearly 250 stakeholders participating. The purpose of the updates is for community members to learn about Metro's continued progress with this project. Metro staff presented a summary of what was heard during the scoping meetings held in April 2009, informed the community about the ongoing refinement of alternatives, and provided detailed information to illustrate sequencing of construction activity, identify potential impacts and address possible mitigations. The communities within the Study Area were presented with five station information meetings on the following dates:

- August 4, 2009 – Wilshire United Methodist Church, Los Angeles
- August 5, 2009 – Plummer Park, West Hollywood
- August 6, 2009 Santa Monica Library, Santa Monica
- August 11, 2009 – Beverly Hills Library, Beverly Hills
- August 12, 2009 – Westwood Presbyterian, Los Angeles



The meeting series featured a 15-minute open house, 45-minute formal presentation and 60-minute public comment period.

As the project development process was updated, the communities within the Study Area were presented with five station information meetings on the following dates:

- October 22, 2009 – Santa Monica Public Library, Santa Monica
- October 26, 2009 – Los Angeles County Museum of Art, Los Angeles
- November 3, 2009 – Pacific Design Center, West Hollywood
- November 4, 2009 – Beverly Hills City Hall, Beverly Hills
- November 5, 2009 – Wadsworth Theatre, Los Angeles

A third and fourth round of five community update meetings were held in April and June 2010.

“Eblasts” were sent to members of the Westside database; canvassing including hand drops to local libraries, parks, and malls; take ones were placed on bus and existing Metro Red/Purple Lines servicing the Corridor; 91,000 postcards were mailed to residents within a ¼-mile of proposed station locations; and press releases were placed in print and digital media for 22 media sources. A total of 524 persons attended the Fall 2009 meetings. Unlike previous community updates, which utilized a more formal meeting format, the Station Area Information series of meetings encouraged stakeholders to “roll-up their sleeves” and actively engage with the program. The meeting began with a 45-minute open house, followed by a 45-minute presentation culminating with a 60-minute station breakout session. Stakeholders were encouraged to participate in discussions at as many stations as they desired.

In addition to the scoping meetings, community updates, and station information meetings, additional stakeholder meetings were held throughout the AA phase.

5.6.1.2 Public Comments Related to Environmental Justice

Of the 269 comments received by Metro during the six scoping meetings, five were directly related to the topic of environmental justice. Two of the five comments focused on the need to provide transit dependent populations access to employment within the Corridor. One comment expressed concern regarding transit equity among communities within the Corridor. This concern stated that Santa Monica could potentially receive two rail lines and West Hollywood would receive none. Another comment cited concern for access to elderly populations. The final comment identified a concern that not enough time was given between the notification of meetings and the dates of the meetings.



6.0 ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

6.1 No Build Alternative

The No Build Alternative consists of existing and planned highway and transit services, including the projects planned under the RTP and Metro LRTP. The No-Build Alternative would maintain the transportation system in the Study Area and, as a result, would not address the transportation deficiencies experienced by Study Area residents and persons traveling to the Study Area. The No Build would not result in direct disproportionate adverse impacts to EJ populations since transportation deficiencies would be experienced throughout the Study Area.

Under the No Build Alternative, no major construction activities would occur within the Study Area along the proposed project alternative alignments and station areas. Therefore, no disproportionate adverse impacts to minorities and low-income communities are anticipated for the following environmental topics:

- Displacement and Relocation
- Community and Neighborhoods
- Visual Resources and Aesthetics
- Noise and Vibration
- Geology and Soils
- Hazardous Materials
- Water Quality
- Historic, Archaeological, and Paleontological Resources
- Parklands, Community Facilities, and Other Section 4(f) Properties
- Safety and Security
- Construction Impacts

The impacts on the remaining environmental topics under the No Build Alternative are discussed below.

6.1.1 Transit Service Benefits

Under the No Build Alternative, the Westside Subway would not be built. Other currently planned projects would be built, including the Metro Exposition Light Rail Phase 2. The Metro Exposition Line Phase 2 would provide communities in West Los Angeles and the Pico District in Santa Monica better regional access. However, faster and more convenient access to jobs and service may not be available to the low-income and minority population of the Study Area to the same extent that would be with the Westside Subway Extension Project. It is also important to those predominately low-income and minority communities outside and to the east and south of the Study Area and who utilize the Wilshire Boulevard corridor for accessing jobs and goods. These effects would occur throughout the corridor



and affect all communities, regardless of their demographic and socioeconomic character. Therefore, no disproportionate adverse effects to minority or low-income communities related to transit benefits would occur under the No Build Alternative.

6.1.2 Traffic Circulation and Parking

Continued growth in Los Angeles County traffic congestion and delay will increase on a regional level. All communities, regardless of socioeconomic or minority status would be affected. The Westside of Los Angeles specifically, as part of a major regional activity center, would continue to attract vehicular trips. Fifty-three of the 192 analyzed intersections (28 percent) are currently operating at an acceptable Level of Service (LOS) D or better in the morning and afternoon peak hours. The remaining 139 intersections (72 percent) operate at LOS E or F (deficient LOS) during one or both analyzed peak hours. By 2035, the majority of study intersections will operate under congested conditions during peak hours without the project.

Metro's Travel Demand Model predicts that the majority of analyzed intersections along Wilshire and Santa Monica Boulevards will operate under deficient LOS in the future, resulting in significant delays for motorists traveling along east-west corridors in the Westside. These impacts would occur throughout the corridor and would not be considered a disproportionate effect on identified communities of environmental justice concern. No disproportionate adverse impacts to minorities and low-income communities are anticipated for traffic circulation.

On-street parking conditions are not anticipated to change substantially under the No Build Alternative. Therefore, no disproportionate adverse impacts to minorities and low-income communities associated with parking are anticipated.

6.1.3 Air Quality

The No Build Alternative includes transit projects that would reduce regional criteria pollutant emissions. However, under the No Build Alternative, vehicle miles traveled (VMT) would increase resulting in an increase in emissions compared to existing conditions. These emissions and associated impacts would be spread over the entire air basin to all communities, regardless if they are minority or low-income. Therefore, no disproportionate adverse impacts to minorities and low-income communities are anticipated for air quality.

6.1.4 Energy

Under the No Build Alternative, only those transit projects in the 2009 Metro LRTP would be constructed. Although increased VMT would result in increased automobile fuel consumption throughout the region, including the Study Area because only one transit project, Exposition Line Phase 2, would be constructed in its vicinity. Thus, this would be an adverse impact for the entire region, and it would not disproportionately affect those communities of environmental justice concern. Therefore no disproportionate adverse impacts to minorities and low-income communities are anticipated for energy.



6.1.5 Climate Change

Under the No Build Alternative, only those transit projects in the 2009 Metro LRTP would be constructed. The No Build Alternative would result in an increase of VMT from existing conditions because most of these projects would occur outside the Study Area, and not substantially increase transit connectivity in the Study Area. This VMT increase, however, would be a regional effect and would not disproportionately impact minority and low-income communities. Therefore, no disproportionate adverse impacts to minorities and low-income communities are anticipated for climate change.

6.1.6 Economic Vitality and Employment Opportunities

Under the No Build Alternative, those projects currently included in the 2009 LRTP would be constructed; however their contribution to improvements within the Study Area would be limited. Given the built-out nature of the communities along the project corridor, and in particular in Wilshire Center/Koreatown and Wilshire Park, economic vitality may change according to existing and future economic trends. As such, no disproportionate adverse impacts to minorities and low-income communities are anticipated for economic vitality and employment opportunities.

6.2 Transportation Systems Management (TSM) Alternative

Under the TSM Alternative, additional bus service would be available to residents in the Study Area, regardless of demographic or socioeconomic character. The additional bus service would benefit transit-dependent and low-income populations specifically because it would improve access to goods and services, as well as job opportunities. The additional employment generated by the additional bus service would be a benefit to low-income communities.

Although the TSM Alternative would add buses, it would not result in a substantial change in vehicle miles traveled (VMT) in comparison with the No Build Alternative. As a result, emissions at the regional or corridor level would not be reduced. Congestion in the Study Area and along Wilshire Boulevard would continue to be a problem for many communities and would not be limited to the identified EJ populations or communities of concern. Therefore, the TSM Alternative would not result in direct disproportionate adverse impacts to minorities or low-income communities.

Under the TSM Alternative, no disproportionate adverse impacts to minorities and low-income communities are anticipated for the following environmental topics:

- Displacement and Relocation
- Community and Neighborhoods
- Visual Resources and Aesthetics
- Noise and Vibration
- Geology and Soils
- Hazardous Materials
- Water Quality



- Historic, Archaeological, and Paleontological Resources
- Parklands, Community Facilities, and Other Section 4(f) Properties
- Safety and Security
- Construction Impacts

The impacts on the remaining environmental topics under the TSM Alternative are discussed below.

6.2.1 Transit Service Benefits

Under the TSM Alternative, additional bus service would be available to residents in the Study Area, regardless of demographic or socioeconomic character. The additional bus service would benefit transit-dependent and low-income populations specifically because it would improve access to goods and services, as well as job opportunities. Therefore, the TSM Alternative would not result in disproportionate adverse impacts to minorities and low-income communities related to transit service benefits.

6.2.2 Traffic Circulation and Parking

The TSM Alternative would not result in a substantial change in VMT in comparison with the No Build Alternative in the Study Area. Congestion in the Study Area and along Wilshire Boulevard would continue to be a problem for many communities and would not be limited to the identified communities of environmental justice concern. No disproportionate adverse impacts to minorities and low-income communities are anticipated for traffic congestion.

Under the TSM Alternative, no on- or off-street parking loss would occur. The new Rapid route planned as part of the TSM alternative would utilize the existing street system. Minimal neighborhood spillover parking would be expected above the No Build Alternative because this alternative would not change the mode-of-access for most riders — those that walk, bike, or are dropped off at bus stops would not be expected change their mode-of-access.

6.2.3 Air Quality

The TSM Alternative would create an enhanced bus service on several lines throughout the project corridor. Based on the information included in the Air Quality Technical Memo, these changes in service would not reduce daily VMT. As a result, emissions at the regional or corridor level would not be reduced. However, air quality impacts associated with vehicles miles traveled are not specific to a community, but rather would affect all project corridor communities, regardless if they are minority or low-income. Therefore, no disproportionate impacts to minorities and low-income communities are anticipated for air quality.

6.2.4 Energy

The TSM Alternative would increase automobile, rail, and bus VMT. Mobile source British Thermal Unit (BTU) consumption would increase by approximately 29 trillion BTU per year under the TSM Alternative. The TSM Alternative would result in more energy consumption than the No Build Alternative because of increased system-wide passenger-miles travelled. Although the increase in energy use would be an adverse impact, it would not be specific to



any particular community and would affect the entire region. Therefore, no disproportionate adverse impacts to minorities or low-income communities are anticipated for energy.

6.2.5 Climate Change

Under the TSM Alternative limited transit improvements would occur. The TSM Alternative would result in an increase of VMT from the No Build Alternative; however this increase would be a regional effect and would not be specific to any particular area or identified communities of environmental justice concern. Therefore, no disproportionate adverse impacts to minorities or low-income communities are anticipated for climate change.

6.2.6 Economic Vitality and Employment Opportunities

The TSM Alternative would not result in the acquisition of any properties that would reduce the economic viability of a particular area or identified communities of environmental justice concern. The additional employment generated by the additional bus service would be a benefit to low-income communities. No disproportionate adverse impacts to minorities or low-income communities are anticipated for economic vitality and employment opportunities.

6.3 Alternative 1 – Westwood/UCLA Extension

Alternative 1 is anticipated to provide beneficial direct impacts for minority and low income communities.

For most issues, impacts would likely be concentrated around proposed station locations. Of the seven proposed stations, three (43 percent) are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA) and one is located in a community of concern (Century City in Century City). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.

Under Alternative 1, no disproportionate adverse impacts to minorities and low-income communities are anticipated for the following environmental topics:

- Geology and soils
- Hazardous Materials
- Water Quality
- Historic, Archaeological, and Paleontological Resources
- Parklands, Community Facilities, and Other Section 4(f) Properties
- Safety and Security

The following resources and issues for the EJ analysis for Alternative 1 are discussed below.

- Transit Service Benefits
- Traffic, Circulation and Parking
- Displacement and Relocation



- Community and Neighborhoods
- Visual Resources and Aesthetics
- Air Quality and Climate Change
- Noise and Vibration
- Energy
- Economic Vitality and Employment Opportunities

6.3.1 Transit Service Benefits

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are seven stations proposed for Alternative 1, with three located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

Alternative 1 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. Alternative 1 would not result in disproportionate impacts to EJ populations.

Table 6-1 shows the estimated corridor-specific travel times during the peak and off-peak periods for Alternative 1. This table shows that traveling westbound by bus from Wilshire/Western to Wilshire/Westwood would take approximately 45 minutes under No Build or TSM Alternatives, but only about one-third of that time under Alternative 1. Even by car, driving the same distance would only be 15 minutes faster.

During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Wilshire/Western to Wilshire/Westwood under the No Build or TSM Alternative would take approximately 40 minutes by bus, but only 18 minutes by subway under the project's Alternative 1. Traffic congestion is lower during the off-peak, but even with improved auto times, the subway Alternative 1 is still slightly faster than car travel.



Table 6-1: Alternative 1—Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Wilshire/Westwood	14.2	45.7	44.9	33.8
EB/Peak	Wilshire/Westwood	Wilshire/Western	14.2	31.8	28.5	20.9
WB/Off-Peak	Wilshire/Western	Wilshire/Westwood	17.6	38.7	38.7	19.4
EB/Off-Peak	Wilshire/Westwood	Wilshire/Western	17.6	38.3	38.3	19.1

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

Using regional performance measures, ridership, mode of access, and travel time, it is possible to assess the transportation benefits of each Build Alternative (including MOS – minimum operable segments).

As the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway. Therefore, Alternative 1 would benefit users with more linked daily trips.

Generally, user benefits would occur throughout the project corridor and no disproportionate effects would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Beneficial direct impacts associated with transit equity are anticipated.

Although users within the corridor would benefit from the proposed project, it is also important to determine if impacts would occur to users outside of the project corridor who would typically access the area. Figure 6-1 shows the user benefits for census tracts throughout the region. As shown, the vast majority of users would experience improved travel times which would be a benefit. No disproportionate adverse impacts are anticipated for minorities or low-income communities in the periphery of the Study Area.

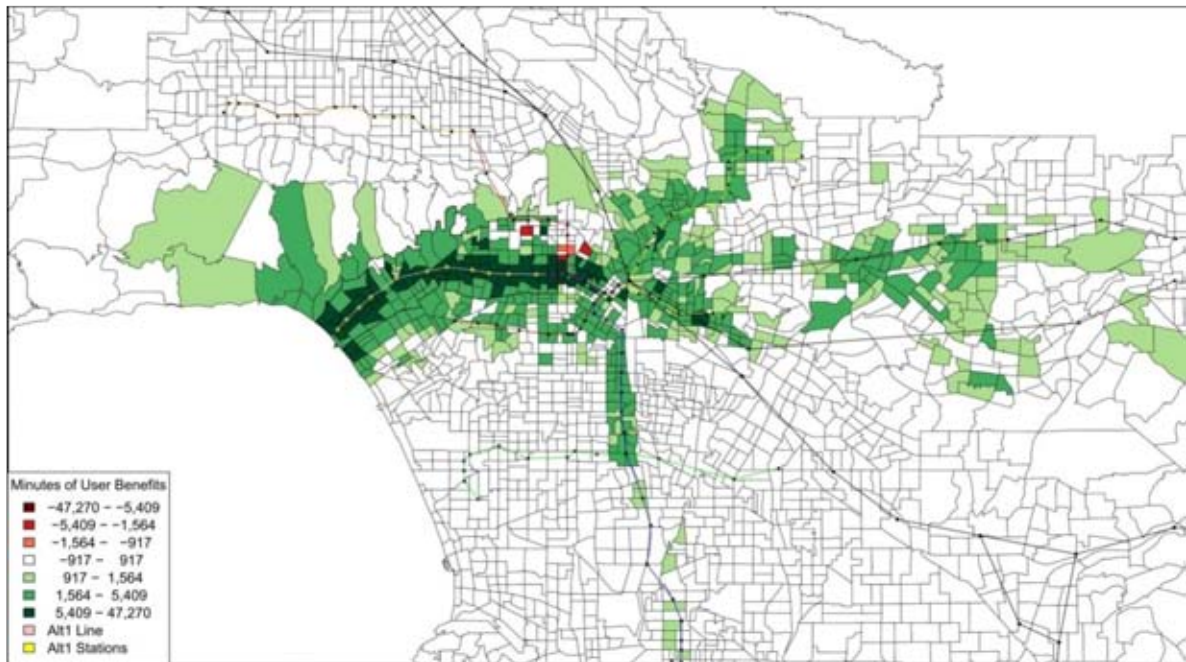


Figure 6-1: Westside User Benefits TSM vs. Alternative 1

6.3.2 Traffic Circulation and Parking

Level of Service (LOS) at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the Alternative 1 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant adverse traffic impacts under Alternative 1. Therefore, no disproportionate impacts associated with traffic congestion are anticipated.

As seen in Table 6-2, parking impacts would occur throughout the project corridor and would not be limited to EJ populations. Alternative 1 is anticipated to result in parking impacts at six of the proposed seven station locations. Of these six potentially impacted station areas, three are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea and Westwood/UCLA).

The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro shall conduct outreach meetings for the affected communities to determine the interest for restricted parking. Although adverse impacts associated with parking are anticipated, they would not disproportionately impact minorities or low-income communities.



Table 6-2: Parking Impact Summary for Alternative 1

Station	Alternative 1
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax (Optional Station)	Impacted
Wilshire/La Cienega Station	Impacted
Wilshire/La Cienega (Optional Station)	Impacted
Wilshire/Rodeo Station	None
Century City Santa Monica Blvd Station	Impacted
Century City Constellation Blvd (Optional Station)	None
Westwood/UCLA Off-Street Station	Impacted
Westwood/UCLA On-Street (Optional Station)	Impacted
Total Impacted Station Areas (with Preferred Station Locations)	6
Total Impacted Station Areas (with Optional Station Locations)	5

Source: Fehr & Peers, 2010

6.3.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. Alternative 1 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. Alternative 1 would result in the full or partial acquisition of 45 properties. Of these 45 acquisitions, 14 (31 percent) would be located in EJ populations. Eight would be located in Wilshire Center/Koreatown, four would be located in Wilshire Park, one would be located in Westwood, and one would be located at the Veteran’s Administration Westwood Campus.

Residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32–unit apartment building and is located in Carthay, which is not an EJ population.

6.3.4 Community and Neighborhoods

Many of the neighborhoods along the alignment are characterized by retail and commercial uses on Wilshire Boulevard, with primarily single-family residential uses located behind commercial uses and beyond Wilshire Boulevard to the north and south. An increase in traffic as a result of construction activities could affect the residential character of some neighborhoods, and street closures are expected to temporarily impact mobility and access to the community facilities described previously, as much of the construction activity would be centered on Wilshire Boulevard which is a central point of access for the neighborhoods. As a result, it could be more difficult to access some community resources, such as churches



and museums located along Wilshire and Santa Monica Boulevards. In addition, construction activities could also reduce on-street and off-street parking. This could affect the existing businesses as customers may choose to avoid ongoing construction.

Pedestrian and vehicle mobility between communities and neighborhoods along Alternative 1 would be reduced during construction due to temporary road and sidewalk closures and traffic detours; however, these impacts would end with the completion of construction. This would be a temporary adverse impact. Moreover, these impacts would affect all neighborhoods along the alignment, regardless of demographic or socioeconomic character. Therefore, no disproportionate adverse impacts to minorities or low-income communities are anticipated.

Most businesses along the proposed alignment would be expected to benefit from operation of Alternative 1 as mobility would be increased throughout the Westside and greater Los Angeles area resulting in an increase in pedestrian activity around the stations, and a beneficial increase in potential customers. Operational effects would be beneficial.

The new stations and increased mobility would result in regional connection to the rest of the transit network and would result in a potential beneficial impact by increasing local access and mobility.

Several community assets (described in detail in the *Westside Subway Extension Project Community and Neighborhoods Technical Report*) are located north and south of Wilshire Boulevard. Once construction of the project is complete, access to these sites would not be restricted and would likely be improved as several stations that will include pedestrian improvements. This would increase community cohesion and would be a beneficial impact.

6.3.5 Visual Resources and Aesthetics

Based on the urban design analysis conducted for the project, the stations may contribute to enhancing the visual quality of the neighborhood where they would be located. These guidelines include, but are not limited to, the following: (1) preserve and enhance the unique cultural identity of each station area and its surrounding community by implementing art and landscaping; and (2) promote a sense of place, safety, and walkability by providing street trees, walkways or sidewalks, lighting, awnings, public areas, and /or street furniture.

Construction impacts common to all Build Alternatives include temporary changes in views of and from the construction area. Construction activities may introduce considerable heavy equipment such as cranes, bulldozers, graders, scrapers, and trucks, and other equipment and vehicles into the view corridor of public streets, sidewalks, and properties where construction would occur. Viewers of and within the construction areas may experience adverse effects due to the presence of this equipment, as well as dust and stockpiled construction-related materials. Some mature vegetation, including trees, would be removed in some areas.

The current estimate is that construction of a typical station would take 34 to 42 months using cut-and-cover construction methods. The primary visual impact to the local neighborhood would be associated with the time it takes to install piles and decking for the station box support system. For stations that would be built under existing streets, the top of



the roadway would be removed and decking would be installed. This process would be visible for a three- to four-month period. Construction of the station would continue while traffic travels on the decking, so visual impacts during this period would be reduced. Staging areas would be necessary for construction of station box excavations, station entrances, crossover boxes, pocket tracks, and ventilation shaft locations. These areas are located primarily in commercial areas and are not specific to communities of environmental justice concern. Therefore, no disproportionate adverse visual impacts to minorities or low-income communities are anticipated.

6.3.6 Air Quality

Each of the Build Alternatives would result in reductions in VMT, with Alternative 4 resulting in the greatest decrease (Air Quality Technical Memo), with corresponding reductions in exhaust emissions. A beneficial effect with respect to reducing regional criteria pollutant emissions is anticipated. No disproportionate adverse air quality impacts to minorities or low-income communities are anticipated.

6.3.7 Noise and Vibration

6.3.7.1 Noise

The noise-generating project components are common to all of the proposed Build Alternatives. Noise impacts to the environment from the introduction of transit system noise generally results from at-grade and elevated operations of the transit system. The Westside Subway Extension Project is an HRT deep subway. Noise from rail transit operations, including the interaction of wheels on track, motive power, signaling and warning systems will be well below ground, and noise from these components of the proposed project will be inaudible at ground level and above. Thus, there would be no noise impact from these components of the project as described below.

The non-train noise associated with subway transit operations typically occurs at station locations where increased street-grade activity, such as parking lot use, may generate noise locally. The project does not propose to incorporate any station-related parking facilities, thus this source of transit-related noise will not be present and would not cause a noise impact.

The existing road and sidewalk network will be utilized for passenger access to the underground stations. The impact analysis found that while noise could be generated in the above-ground portion of stations from pedestrians, bicyclists, and passenger drop off activities, these activities are not significant noise generators. Any such noise would be brief and minimal, and would not result in long-term noise impact. Each of these components would be typical of all stations and communities and would not result in disproportionate adverse noise impacts to minorities or low-income communities.

6.3.7.2 Vibration

The vibration analyses conducted for the project indicates the no adverse ground-borne vibration impacts would occur with any of the Build Alternatives. As no vibration effects would occur, no disproportionate adverse operational vibration impacts to minorities or low-income communities are anticipated.



6.3.8 Energy

Energy required for train travel would be the primary source of energy use for the proposed project. Alternative 1 would increase rail VMT and decrease automobile and bus VMT. Mobile source BTU consumption would decrease by approximately 51 trillion BTU per year due to decreased system-wide passenger-miles travelled

Alternative 1 would also consume energy to operate seven stations. This energy would be used to provide lighting and to power equipment. Each of the stations would use approximately 175 million BTUs per year during operational activity.

Alternative 1 would result in less energy consumption in comparison with No Build Alternative and would result in a beneficial energy impact. Therefore, no disproportionate adverse energy impacts to minorities or low-income communities are anticipated.

6.3.9 Climate Change

Combining the emissions reductions from reduced roadway VMT with the emissions increases due to power usage, most project alternatives are predicted to have no measurable impact on overall greenhouse gases (GHG), including CO₂ emissions. Alternative 4 shows the biggest percent change (a decrease of 1.2%) in daily CO₂ emissions, when compared to No Build Alternative. MOS 1 shows a smaller change (a decrease of 0.1%) in daily CO₂ emissions when compared to the No Build Alternative. All Build Alternatives would represent a decrease in GHG emissions in comparison with the No Build Alternative. This would be a beneficial impact for all communities and the region. Therefore, no disproportionate adverse climate change impacts to minorities or low-income communities are anticipated.

6.3.10 Economic Vitality and Employment Opportunities

The *Westside Subway Extension Project Economic and Fiscal Report* identifies several properties that would be acquired as part of the proposed project. These parcels would be utilized for construction staging, below grade tunneling, station locations, generator locations, and vent locations. Some station plans have multiple entrance options, though not all of them would be constructed. Acquisitions and easements would occur at all station areas under all Alternatives and would affect all communities. Metro is required to comply with the Uniform Relocation Act in the event that any businesses or residences will be displaced as part of the project. Currently, it is anticipated that several businesses will be replaced throughout the corridor and, some permanent loss of employment would occur. However, the permanent job loss would not be concentrated in one community; rather these losses will occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. In addition, Alternative 1 would also significantly contribute to the general economic vitality, including employment opportunities within the Study Area and the entire SCAG region. It would directly and indirectly generate approximately 60,000 new construction-related jobs and more than 15,000 long-term jobs during the subway operation. No disproportionate adverse economic vitality and employment opportunities impacts to minorities and low-income communities are anticipated.



6.3.11 Construction Impacts

In general, construction impacts would be temporary. For this type of project, adverse noise and traffic impacts are typically anticipated. These impacts would occur throughout the corridor, but mostly would be expected to occur in and around station areas. The types and levels of noise associated with tunneling and construction activities in the known gassy or potentially gassy areas would be generally the same as those associated with tunneling in the non-gas zones. In both zones, construction activities that generate noise include demolition, station construction, worker travel, hauling of soils and debris for disposal, deliveries of materials, and other related tasks. These impacts are site-specific and are not biased by the demographic or socioeconomic character of the location.

Because a Slurry-Face TBM will likely be used for tunneling in the known gassy or potentially gassy areas, the slurry treatment plant would be an additional component of the construction activities and associated noise. The entrance point of the TBMs and the plant could be located either at the eastern or western end of the alignment. The specific location would be determined by engineering and logistical issues, and not by demographic or socioeconomic character of the location. Construction activities will occur throughout the Study Area will affect both EJ and non-EJ populations alike. Therefore, no disproportionate construction impacts to minorities and low-income communities are anticipated.

6.3.12 Mitigation Measures

No disproportionate adverse impacts to minorities or low-income communities are anticipated under Alternative 1. No environmental justice mitigation measures are required for Alternative 1.

6.4 Alternative 2 – Westwood/Veterans Administration (VA) Hospital Extension

Alternative 2 – Westwood/VA Hospital Extension would follow the same alignment as Alternative 1 but would include one additional station at the VA Hospital.

Alternative 2 extends the alignment to include a station at VA Hospital which is an EJ population. The demographic profile of this community was presented above. This additional station at VA Hospital would not result in adverse disproportionate impacts to the minorities and low-income communities for generally the same reasons as described under Alternative 1 for displacement, community and neighborhood effects, noise and vibration and energy. The inclusion of this one additional station would not subject minorities or low-income communities to disproportionate adverse impacts. Refer to Section 6.3 for the detailed analysis. Additional analysis related specifically to Alternative 2 is presented below.

For most issues, impacts would likely be concentrated around proposed station locations. Of the eight proposed stations in Alternative 2, four (50 percent) are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA, Westwood/VA Hospital) and one is located in a community of concern (Century City in Century City). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.



6.4.1 Transit Service Benefits

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are eight stations proposed for Alternative 2, with four located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

Alternative 2 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. Alternative 2 would not result in disproportionate impacts to EJ populations.

Table 6-3 shows the estimated corridor-specific travel times during the peak and off-peak periods for Alternative 2. For example, traveling westbound by bus from Wilshire/Western to Wilshire/VA Hospital would take approximately 53 minutes under No Build or TSM, compared to 15 minutes under Alternative 2. Even by car, driving the same distance would be only 15 minutes faster than No Build or TSM, but 25 minutes slower than Alternative 2.

During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Wilshire/Western to Wilshire/VA Hospital under No Build or TSM would take approximately 50 minutes by bus, but only 19 minutes by subway under Alternative 2. Traffic congestion is lower during the off-peak, but even with improved auto times, the subway is still faster than driving for Alternative 2.



Table 6-3: Alternative 2 Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Wilshire/VA Hospital	15.5	53.5	52.7	39.8
EB/Peak	Wilshire/VA Hospital	Wilshire/Western	15.5	40.9	37.6	28.4
WB/Off-Peak	Wilshire/Western	Wilshire/VA Hospital	18.9	50.1	50.1	23.5
EB/Off-Peak	Wilshire/VA Hospital	Wilshire/Western	18.9	50.2	50.2	23.5

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

Alternative 2 would benefit users with more linked daily trips because as the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway.

Generally, user benefits would occur throughout the project corridor and no disproportionate adverse impacts to minorities or low-income communities would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Transit benefits associated with Alternative 2 are anticipated across the Study Area.

6.4.2 Traffic Circulation and Parking

LOS at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the Alternative 2 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant/adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant/adverse traffic impacts under Alternative 2. Therefore, no disproportionate adverse traffic congestion impacts to minorities or low-income communities are anticipated.

As seen in Table 6-4, parking impacts would occur throughout the project corridor and would not be limited to environmental justice identified communities under Alternative 2. Alternative 2 is anticipated to result in parking impacts at seven of the proposed eight station locations. Of these seven potentially impacted station areas, four are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA and Westwood/VA Hospital). Therefore, parking impacts would not be disproportionate to EJ populations.

The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro will conduct outreach meetings for the affected communities to determine the interest for restricted parking. Although an



adverse impact associated with parking is anticipated, it would not be disproportionate to minorities or low-income communities.

Table 6-4: Parking Impact Summary for Alternative 2

Station	Alternative 2
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax Optional Station	Impacted
Wilshire/La Cienega Station	Impacted
Wilshire/La Cienega Optional Station	Impacted
Wilshire/Rodeo Station	None
Century City Santa Monica Blvd Station	Impacted
Century City Constellation Blvd Optional Station	None
Westwood/UCLA Off-Street Station	Impacted
Westwood/UCLA On-Street Optional Station	Impacted
Westwood/VA Hospital Station	Impacted
Westwood/VA Hospital North of Wilshire Blvd Optional Station	Impacted
Total Impacted Station Areas (with Preferred Station Locations)	7
Total Impacted Station Areas (with Optional Station Locations)	6

Source: Fehr & Peers, 2010.

6.4.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. Alternative 2 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. Alternative 2 would result in the full or partial acquisition of 45 properties. Of these 45 acquisitions, 14 (31 percent) would be located in EJ populations. Eight would be located in Wilshire Center/Koreatown, four would be located in Wilshire Park, one would be located in Westwood, and one would be located at the Veteran’s Administration Westwood Campus.

As with Alternative 1, residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32–unit apartment building and is located in Carthay, which is not an EJ population.

6.5 Alternative 3 – Santa Monica Extension

Alternative 3 – Santa Monica Extension would follow the same alignment and have the same stations as Alternative 2, but would also extend the alignment into the City of Santa Monica



and add four additional stations. From the Wilshire/VA Hospital Station, the alignment would be under Wilshire Boulevard until the end of the line at Ocean Avenue.

The impacts on the EJ populations and communities of concern under Alternative 3 are the same as those discussed under Alternatives 1 and 2. Even though one additional EJ population (Pico District of the City of Santa Monica) would be included in this alignment, the overall impacts would not be disproportionate for the reasons described under Alternative 1. Refer to Section 6.3 for the detailed analysis. Additional analysis related to transit equity, traffic and displacements is provided below.

For most issues, impacts would likely be concentrated around proposed station locations. Of the twelve proposed stations in Alternative 3, four (33 percent) are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA, Westwood/VA Hospital) and one is located in a community of concern (Century City in Century City). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.

6.5.1 Transit Service Benefits

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are twelve stations proposed for Alternative 3, with four located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

Alternative 3 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. Alternative 3 would not result in disproportionate impacts to EJ populations.

Table 6-5 shows the estimated corridor-specific travel times during the peak and off-peak periods for Alternative 3. For example, traveling westbound by bus from Wilshire/Western to Wilshire/4th Street would take more than an hour under No Build or TSM, compared to 21 minutes under Alternative 3. Even by car, driving the same distance would be less than No Build or TSM, but 28 minutes slower than Alternative 3.



During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Wilshire/Western to Wilshire/4th Street under No Build or TSM alternatives would take approximately 62 minutes by bus, but only 24 minutes by subway under Alternative 3. Traffic congestion is lower during the off-peak, but even with improved auto times, the subway is still faster than driving for Alternative 3.

Table 6-5: Alternative 3 Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Wilshire/4th	21.1	64.2	63.4	48.8
EB/Peak	Wilshire/4th	Wilshire/Western	21.1	49.6	46.3	35.5
WB/Off-Peak	Wilshire/Western	Wilshire/4th	24.5	61.9	61.9	30.5
EB/Off-Peak	Wilshire/4th	Wilshire/Western	24.5	61.9	61.9	30.4

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

Alternative 3 would benefit users with more linked daily trips because as the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway.

Generally, user benefits would occur throughout the project corridor and no disproportionate adverse impacts to minorities or low-income communities would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Transit benefits associated with Alternative 3 are anticipated across the Study Area.

6.5.2 Traffic Circulation and Parking

LOS at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the Alternative 3 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant/adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant/adverse traffic impacts under Alternative 3. Therefore, no disproportionate adverse traffic congestion impacts to minorities or low-income communities are anticipated.

As seen in Table 6-6, parking impacts would occur throughout the project corridor and would not be limited to environmental justice identified communities under Alternative 3. Although adverse impacts associated with parking would occur, they would not be disproportionate to minorities or low-income communities. Alternative 3 is anticipated to result in parking impacts at 11 of the proposed 12 station locations. Of these 11 potentially impacted station areas, four are located in EJ populations (Wilshire/Crenshaw, Wilshire/La



Brea, Westwood/UCLA and Westwood/VA Hospital). Therefore, parking impacts would not be disproportionate to EJ populations.

The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro will conduct outreach meetings for the affected communities to determine the interest for restricted parking. Although an adverse impact associated with parking is anticipated, it would not be disproportionate to minorities or low-income communities.

Table 6-6: Parking Impact Summary for Alternative 3

Station	Alternative 3
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax Optional Station	Impacted
Wilshire/La Cienega Station	Impacted
Wilshire/La Cienega Optional Station	Impacted
Wilshire/Rodeo Station	None
Century City Santa Monica Blvd Station	Impacted
Century City Constellation Blvd Optional Station	None
Westwood/UCLA Off-Street Station	Impacted
Westwood/UCLA On-Street Optional Station	Impacted
Westwood/VA Hospital Station	Impacted
Westwood/VA Hospital North of Wilshire Blvd Optional Station	Impacted
Wilshire/Bundy Station	Impacted
Wilshire/26th Station	Impacted
Wilshire/16th Station	Impacted
Wilshire/4th Station	Impacted
Total Impacted Station Areas (with Preferred Station Locations)	11
Total Impacted Station Areas (with Optional Station Locations)	10

Source: Fehr & Peers, 2010

6.5.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. Alternative 3 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. Alternative 3 would result in the full or partial acquisition of 64 properties. Of these 64 acquisitions, 14 (22 percent) would be located in EJ populations. Eight would be located in Wilshire



Center/Koreatown, four would be located in Wilshire Park, one would be located in Westwood, and one would be located at the Veteran’s Administration Westwood Campus.

As with Alternatives 1 and 2, residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement at Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32–unit apartment building and is located in Carthay, which is not an EJ population.

6.6 Alternative 4 – Westwood/VA Hospital Extension Plus West Hollywood Extension

Alternative 4 – Westwood/VA Hospital Extension plus West Hollywood Extension would follow the same alignment and have the same stations as Alternative 1 – Westwood/UCLA Extension. In addition, this alternative includes the West Hollywood Extension, which extends from the existing Metro Red Line Highland/Hollywood Station. From a new station in this location, this alignment extends southerly, centered under Highland Avenue, and continues south under Highland Avenue to just north of Lexington Avenue where it curves to Santa Monica Boulevard. The alignment continues westerly under the center of Santa Monica Boulevard until just east of the Santa Monica/San Vicente Boulevard intersection where the alignment curves south and is centered under San Vicente Boulevard. From San Vicente Boulevard, the alignment curves south and then southwesterly to cross under La Cienega Boulevard to the Wilshire/La Cienega Station.

The impacts on the EJ populations and communities of concern under Alternative 4 are the same as those discussed under Alternatives 1 and 2. In addition to the EJ populations in these alternatives, the Hollywood community would be affected under Alternative 4. Refer to Section 6.3 for the detailed analysis of Alternatives 1 and 2. No environmental justice mitigation measures are required for Alternative 4.

For most issues, impacts would likely be concentrated around proposed station locations. Of the thirteen proposed stations in Alternative 4, five (38percent) are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA, Westwood/VA Hospital and Hollywood/Highland) and one is located in a community of concern (Century City in Century City). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.

6.6.1 Transit Service Benefits

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are thirteen stations proposed for Alternative 4, with five located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and



construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

Alternative 4 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. Alternative 4 would not result in disproportionate impacts to EJ populations.

shows the estimated corridor-specific travel times during the peak and off-peak periods for Alternative 4. For example, traveling westbound by bus from Hollywood/Highland to Wilshire/VA Hospital would take over an hour under No Build or TSM Alternatives, compared to 20 minutes under Alternative 4. Even by car, driving the same distance would be less than No Build or TSM, but 20 minutes slower than Alternative 4.

During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Hollywood/Highland to Wilshire/VA Hospital under No Build or TSM would take approximately 64 minutes by bus, but only 22 minutes by subway under Alternative 4. Traffic congestion is lower during the off-peak, and with improved auto times, the subway is as fast as driving for Alternative 4. As the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway. Therefore, Alternative 4 would benefit users with more linked daily trips.

Table 6-7: Alternative 4 Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Wilshire/VA Hospital	15.5	53.5	52.7	39.8
	Hollywood/Highland	Wilshire/VA Hospital	19.5	65.1	64.3	40.1
EB/Peak	Wilshire/VA Hospital	Wilshire/Western	15.5	40.9	37.6	28.4
	Wilshire/VA Hospital	Hollywood/Highland	19.5	47.8	44.5	27.6
WB/Off Peak	Wilshire/Western	Wilshire/VA Hospital	18.9	50.1	50.1	23.5
	Hollywood/Highland	Wilshire/VA Hospital	22.0	64.4	64.4	23.1
EB/Off Peak	Wilshire/VA Hospital	Wilshire/Western	18.9	50.2	50.2	23.5
	Wilshire/VA Hospital	Hollywood/Highland	22.0	65.0	65.0	23.3

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

Alternative 4 would benefit users with more linked daily trips because as the number of subway stations increases, the number of auto trips declines and the number of transit trips



increases. With more stations, there are more opportunities for people to begin or end new trips on the subway.

Generally, user benefits would occur throughout the project corridor and no disproportionate adverse impacts to minorities or low-income communities would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Transit benefits associated with Alternative 4 are anticipated across the Study Area.

6.6.2 Traffic Circulation and Parking

LOS at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the Alternative 4 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant/adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant/adverse traffic impacts under Alternative 4. Therefore, no disproportionate adverse traffic congestion impacts to minorities or low-income communities are anticipated.

As seen in Table 6-8, parking impacts would occur throughout the project corridor and would not be limited to environmental justice identified communities under Alternative 4. Although adverse impacts associated with parking would occur, they would not be disproportionate to minorities or low-income communities. Alternative 4 is anticipated to result in parking impacts at 12 of the proposed 13 station locations. Of these 12 potentially impacted station areas, five are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA, Westwood/VA Hospital and Hollywood/Highland). Therefore, parking impacts would not be disproportionate to EJ populations.

The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro will conduct outreach meetings for the affected communities to determine the interest for restricted parking. Although an adverse impact associated with parking is anticipated, it would not be disproportionate to minorities or low-income communities.



Table 6-8: Parking Impact Summary for Alternative 4

Station	Alternative 4
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax (Optional Station)	Impacted
Wilshire/La Cienega Station	Impacted
Wilshire/La Cienega (Optional Station)	Impacted
Wilshire/Rodeo Station	None
Century City Santa Monica Blvd Station	Impacted
Century City Constellation Blvd (Optional Station)	None
Westwood/UCLA Off-Street Station	Impacted
Westwood/UCLA On-Street (Optional Station)	Impacted
Westwood/VA Hospital Station	Impacted
Westwood/VA Hospital North of Wilshire Blvd (Optional Station)	Impacted
Hollywood/Highland Station	Impacted
Santa Monica/La Brea Station	Impacted
Santa Monica/Fairfax Station	Impacted
Santa Monica/San Vicente Station	Impacted
Beverly Center Area Station	Impacted
Total Impacted Station Areas (with Preferred Station Locations)	12
Total Impacted Station Areas (with Optional Station Locations)	11

Source: Fehr & Peers, 2010

6.6.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. Alternative 4 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. Alternative 4 would result in the full or partial acquisition of 70 properties. Of these 70 acquisitions, 23 (33 percent) would be located in EJ populations. Eight would be located in Wilshire Center/Koreatown, four would be located in Wilshire Park, one would be located in Westwood, one would be located at the Veteran’s Administration Westwood Campus, and nine would be located in Hollywood.

As with Alternatives 1, 2 and 3, residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement at Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32–unit apartment building and is located in Carthay, which is not an EJ population.



6.7 Alternative 5 – Santa Monica Extension Plus West Hollywood Extension

Alternative 5 – Santa Monica Extension plus West Hollywood Extension would follow the same alignment and have the same stations as Alternatives 3 and 4.

The impacts on the EJ populations and communities of concern under Alternative 5 are the same as those discussed under Alternative 1. No additional EJ populations or Communities of Concern would be impacted under Alternative 5 that have not been discussed in Alternative 1, 2, 3 or 4. Refer to Section 6.3 for the detailed analysis. No environmental justice mitigation measures are required for Alternative 5.

For most issues, impacts would likely be concentrated around proposed station locations. Of the seventeen proposed stations in Alternative 5, five (29 percent) are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA, Westwood/VA Hospital, Hollywood/Highland) and one is located in a community of concern (Century City in Century City). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.

6.7.1 Transit Service Equity

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are seventeen stations proposed for Alternative 5, with five located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

Alternative 5 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. Alternative 5 would not result in disproportionate impacts to EJ populations.

shows the estimated corridor-specific travel times during the peak and off-peak periods for Alternative 5. For example, traveling westbound by bus from Hollywood/Highland to Wilshire/4th Street would take approximately 76 minutes under No Build or TSM, compared to 25 minutes under Alternative 5. Even by car, driving the same distance would be less than under No Build or TSM, but approximately 25 minutes slower than with Alternative 5.



During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Hollywood/Highland to Wilshire/4th Street under No Build or TSM would take approximately 76 minutes by bus, but only 28 minutes by subway under Alternative 5. Traffic congestion is lower during the off-peak, and with improved auto times, the subway is slightly faster than driving for Alternative 5. When comparing all project Alternatives, Alternative 5 would benefit users with more linked daily trips.

Table 6-9: Alternative 5 Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Wilshire/4th	21.1	64.2	63.4	48.8
	Hollywood/Highland	Wilshire/4th	25.1	75.8	75.0	49.0
EB/Peak	Wilshire/4th	Wilshire/Western	21.1	49.6	46.3	35.5
	Wilshire/4th	Hollywood/Highland	25.1	56.5	53.2	34.7
WB/Off Peak	Wilshire/Western	Wilshire/4th	24.5	61.9	61.9	30.5
	Hollywood/Highland	Wilshire/4th	27.6	76.2	76.2	30.0
EB/Off Peak	Wilshire/4th	Wilshire/Western	24.5	61.9	61.9	30.4
	Wilshire/4th	Hollywood/Highland	27.6	76.7	76.7	30.2

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

Alternative 5 would benefit users with more linked daily trips because as the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway.

Generally, user benefits would occur throughout the project corridor and no disproportionate adverse impacts to minorities or low-income communities would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Transit benefits associated with Alternative 5 are anticipated across the Study Area.



6.7.2 Traffic Circulation and Parking

LOS at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the Alternative 5 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant/adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant/adverse traffic impacts under Alternative 5. Therefore, no disproportionate adverse traffic congestion impacts to minorities or low-income communities are anticipated.

As seen in Table 6-10, parking impacts would occur throughout the project corridor and would not be limited to environmental justice identified communities under Alternative 5. Although adverse impacts associated with parking would occur, they would not be disproportionate to minorities or low-income communities. Alternative 5 is anticipated to result in parking impacts at 16 of the proposed 17 station locations. Of these 16 potentially impacted station areas, five are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea, Westwood/UCLA, Westwood/VA Hospital and Hollywood/Highland). Therefore, parking impacts would not be disproportionate to EJ populations.

The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro will conduct outreach meetings for the affected communities to determine the interest for restricted parking. Although an adverse impact associated with parking is anticipated, it would not be disproportionate to minorities or low-income communities.



Table 6-10: Parking Impact Summary for Alternative 5

Station	Alternative 5
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax (Optional Station)	Impacted
Wilshire/La Cienega Station	Impacted
Wilshire/La Cienega (Optional Station)	Impacted
Wilshire/Rodeo Station	None
Century City Santa Monica Blvd Station	Impacted
Century City Constellation Blvd (Optional Station)	None
Westwood/UCLA Off-Street Station	Impacted
Westwood/UCLA On-Street (Optional Station)	Impacted
Westwood/VA Hospital Station	Impacted
Westwood/VA Hospital North of Wilshire Blvd (Optional Station)	Impacted
Wilshire/Bundy Station	Impacted
Wilshire/26th Station	Impacted
Wilshire/16th Station	Impacted
Wilshire/4th Station	Impacted
Hollywood/Highland Station	Impacted
Santa Monica/La Brea Station	Impacted
Santa Monica/Fairfax Station	Impacted
Santa Monica/San Vicente Station	Impacted
Beverly Center Area Station	Impacted
Total Impacted Station Areas (with Preferred Station Locations)	16
Total Impacted Station Areas (with Optional Station Locations)	15

Source: Fehr & Peers, 2010

6.7.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. Alternative 5 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. Alternative 5 would result in the full or partial acquisition of 89 properties. Of these 89 acquisitions, 23 (26 percent) would be located in EJ populations. Eight would be located in Wilshire Center/Koreatown, four would be located in Wilshire Park, one would be located in Westwood, one would be located at the Veteran’s Administration Westwood Campus, and nine would be located in Hollywood.

As with Alternatives 1, 2, 3 and 4, residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement



Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32-unit apartment building and is located in Carthay, which is not an EJ population.

6.8 MOS 1 – Fairfax Extension

The Minimum Operable Segment (MOS) 1 – Fairfax Extension Alternative would follow the same alignment as Alternative 1 and terminate at the Wilshire/Fairfax station.

The impacts on the EJ populations and communities of concern under MOS 1 are the same as those discussed under Alternative 1, though to a lesser extent due to the reduced length of the alignment (refer to Section 6.3 for analysis). No environmental justice mitigation measures are required for MOS 1.

For most issues, impacts would likely be concentrated around proposed station locations. Of the three proposed stations in MOS-1, two (66 percent) are located in EJ populations (Wilshire/Crenshaw and Wilshire/La Brea). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.

6.8.1 Transit Service Benefits

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are three stations proposed for MSO-1, with two located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

MOS-1 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. MOS-1 would not result in disproportionate impacts to EJ populations.

shows the estimated corridor-specific travel times during the peak and off-peak periods for MOS 1. For example, traveling westbound by bus from Wilshire/Western to Wilshire/Fairfax would take approximately 16-17 minutes under No Build or TSM, compared to 7 minutes under MOS 1. Even by car, driving the same distance would be less than No Build or TSM, but approximately 6 minutes slower than MOS 1.



During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Wilshire/Western to Wilshire/Fairfax under No Build or TSM would take approximately 16 minutes by bus, but only 10 minutes by subway under MOS 1. Traffic congestion is lower during the off-peak, and with improved auto times, the subway is slightly faster than driving for MOS 1.

Table 6-11: MOS 1 Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Wilshire/Fairfax	6.6	16.7	15.9	12.6
EB/Peak	Wilshire/Fairfax	Wilshire/Western	6.6	14.0	10.7	7.7
WB/Off-Peak	Wilshire/Western	Wilshire/Fairfax	9.9	16.2	16.2	7.3
EB/Off-Peak	Wilshire/Fairfax	Wilshire/Western	9.9	16.4	16.4	7.2

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

MOS-1 would benefit users with more linked daily trips because as the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway.

Generally, user benefits would occur throughout the project corridor and no disproportionate adverse impacts to minorities or low-income communities would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Transit benefits associated with MOS-1 are anticipated across the Study Area.

6.8.2 Traffic Circulation and Parking

LOS at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the MOS-1 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant/adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant/adverse traffic impacts under MOS-1. Therefore, no disproportionate adverse traffic congestion impacts to minorities or low-income communities are anticipated.

As seen in Table 6-12, parking impacts would occur throughout the project corridor and would not be limited to environmental justice identified communities under MOS 1. Although adverse impacts associated with parking would occur, they would not be disproportionate to minorities or low-income communities. MOS-1 is anticipated to result in parking impacts at all three of the proposed three station locations. Of these three potentially impacted station areas, two are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea). Therefore, parking impacts would not be disproportionate to EJ populations.



The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro shall conduct outreach meetings for the affected communities to determine the interest for restricted parking. Although adverse impacts associated with parking would occur, those impacts would not be disproportionate to minorities or low-income communities.

Table 6-12: Parking Impact Summary for MOS 1

Station	MOS 1
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax Optional Station	Impacted
Total Impacted Station Areas (with Preferred Station Locations)	3
Total Impacted Station Areas (with Optional Station Locations)	3

Source: *Fehr & Peers, 2010*

6.8.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. MOS-1 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. MOS-1 would result in the full or partial acquisition of 33 properties. Of these 33 acquisitions, 12 (36 percent) would be located in EJ populations. Eight would be located in Wilshire Center/Koreatown and four would be located in Wilshire Park.

As with the Alternatives, residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32-unit apartment building and is located in Carthay, which is not an EJ population.

6.9 MOS 2 – Century City Extension

The MOS 2 – Century City Extension would follow the same alignment as and have all but one of the stations of Alternative 1.

The impacts on the EJ populations and Communities of Concern under MOS 2 are the same as those discussed under Alternative 1 (refer to Section 6.3 for analysis). No environmental justice mitigation measures are required for MOS 2.

For most issues, impacts would likely be concentrated around proposed station locations. Of the six proposed stations in MOS-2, two (33 percent) are located in EJ populations



(Wilshire/Crenshaw and Wilshire/La Brea). In addition, there may be some impacts at the existing Wilshire/Western Station, which is located in Wilshire Center/Koreatown, for construction staging.

6.9.1 Transit Service Equity

Effects of the Project will result in benefits to transit users. These benefits include increased transit options, improved mobility, proximity to transit links, and access to employment and activity centers. Traffic and transit performance will improve within the Study Area, and these benefits can be realized by all populations. There are three stations proposed for MOS-1, with two located in, or adjacent to EJ populations. Therefore, people living in EJ populations will have the same opportunity to access the transit and mobility improvements.

Transit service is meant to serve where the demand is greatest, and these areas are often within neighborhoods that have EJ populations and communities of concern. Although populations adjacent to the alignment will be affected the most by operational and construction-related impacts, these groups include EJ and non-EJ populations, and they will also receive improved transit access. Effects will be the same for all population groups and will not represent a high or disproportionate impact to residents in EJ populations or communities of concern.

MOS-2 would benefit users with improved travel times and more linked daily trips. Relative to the No Build Alternative, bus service on the Metro 720 and 20 would be reduced in all Build Alternatives. However, these bus lines would be replaced with enhanced grade-separated transit service that would better serve the same communities that were served by the 720 and 20. The travel time savings relative to the No Build or TSM Alternatives for each alternative would be the same in EJ populations and non-EJ populations. MOS-2 would not result in disproportionate impacts to EJ populations.

Table 6-13 shows the estimated corridor-specific travel times during the peak and off-peak periods for MOS 2. For example, traveling westbound by bus from Wilshire/Western to Century City would take approximately 34 minutes under No Build or TSM, compared to 12 minutes under MOS 2. Even by car, driving the same distance would be less than No Build or TSM, but approximately 14 minutes slower than MOS 2.

During the off-peak period, the subway provides a greater improvement over bus service because bus wait times are greater during the off-peak period than during the peak period. Traveling from Wilshire/Western to Century City under No Build or TSM would take approximately 29 minutes by bus, but only 15 minutes by subway under MOS 2. Traffic congestion is lower during the off-peak, and with improved auto times, the subway is slightly faster than driving for MOS 2.



Table 6-13: MOS 2 Travel Time Comparison

Direction/ Time	From	To	Subway Time (min)	No Build Bus Time (min)	TSM Bus Time (min)	Auto Time (min)
WB/Peak	Wilshire/Western	Century City	11.9	34.4	33.6	25.2
EB/Peak	Century City	Wilshire/Western	11.9	24.7	21.4	15.3
WB/Off-Peak	Wilshire/Western	Century City	15.3	29.2	29.2	14.3
EB/Off-Peak	Century City	Wilshire/Western	15.3	29.4	29.4	14.3

Source: Metro Travel Demand Mode, 2010.

WB = Westbound; EB = Eastbound.

Transit times include wait times equal to half of headways.

MOS-2 would benefit users with more linked daily trips because as the number of subway stations increases, the number of auto trips declines and the number of transit trips increases. With more stations, there are more opportunities for people to begin or end new trips on the subway.

Generally, user benefits would occur throughout the project corridor and no disproportionate adverse impacts to minorities or low-income communities would occur. The increased connectivity would also reduce the number of transfers which would have a beneficial economic impact to elderly and low-income communities. The project would also allow easier access to major employment centers. Transit benefits associated with MOS-1 are anticipated across the Study Area.

6.9.2 Traffic Circulation and Parking

LOS at several study intersection was evaluated to determine the baseline operating conditions. These levels of service were compared to the MOS-2 intersection levels of service to identify the potential impacts of the proposed project on the surrounding street system. The traffic impact analysis found that no study intersection exceeded the threshold for a significant/adverse traffic impact as compared to the Future Year 2035 No Build Scenario. Therefore, the proposed project would not result in significant/adverse traffic impacts under MOS-2. Therefore, no disproportionate adverse traffic congestion impacts to minorities or low-income communities are anticipated.

As seen in Table 6-14, parking impacts would occur throughout the project corridor and would not be limited to environmental justice identified communities under MOS 2. Although adverse impacts associated with parking would occur, they would not be disproportionate to minorities or low-income communities. MOS-2 is anticipated to result in parking impacts at five of the proposed six station locations. Of these three potentially impacted station areas, two are located in EJ populations (Wilshire/Crenshaw, Wilshire/La Brea). Therefore, parking impacts would not be disproportionate to EJ populations.

The *Westside Subway Extension Project Parking Policy Plan Technical Report* includes mitigation measures such as monitoring the on-street parking activity prior to the opening of service to determine available monthly parking, and establishing restricted parking districts for impacted neighborhoods. In addition, Metro shall conduct outreach meetings



for the affected communities to determine the interest for restricted parking. Although adverse impacts associated with parking would occur, those impacts would not be disproportionate to minorities or low-income communities.

Table 6-14: Parking Impact Summary for MOS 2

Station	MOS 2
Wilshire/Crenshaw Station	Impacted
Wilshire/La Brea Station	Impacted
Wilshire/Fairfax Station	Impacted
Wilshire/Fairfax (Optional Station)	Impacted
Wilshire/La Cienega Station	Impacted
Wilshire/La Cienega (Optional Station)	Impacted
Wilshire/Rodeo Station	None
Century City Santa Monica Blvd Station	Impacted
Century City Constellation Blvd (Optional Station)	None
Total Impacted Station Areas (with Preferred Station Locations)	5
Total Impacted Station Areas (with Optional Station Locations)	4

Source: Fehr & Peers, 2010

6.9.3 Displacement and Relocation

Acquisitions and permanent and construction easements would occur at each station area and are discussed in the *Westside Subway Extension Project Real Estate and Acquisitions Technical Report*. Permanent easements would not be concentrated in one community; rather such losses would occur throughout the proposed alignment and would affect many communities, regardless of demographic or socioeconomic character. MOS-2 would not result in disproportionate impacts to EJ populations.

The number of property acquisitions at the stations located in EJ populations would be similar to the number of acquisitions at other stations along the alignment. MOS-2 would result in the full or partial acquisition of 42 properties. Of these 42 acquisitions, 12 (29 percent) would be located in EJ populations. Eight would be located in Wilshire Center/Koreatown and four would be located in Wilshire Park.

As with the Alternatives, residential displacements would occur at the Wilshire/Crenshaw Station and the Wilshire/Fairfax Station. The residential displacement Wilshire/Crenshaw Station is a single family residence and is located in the Wilshire Park neighborhood, which is an EJ population. The residential displacement at Wilshire/Fairfax is a 32-unit apartment building and is located in Carthay, which is not an EJ population.

6.10 Station Options

Station options generally include slight changes to the configuration of a station, such as the creation of an on-street versus an off-street station and would not have an effect on determination related to environmental justice discussed above. The impacts on the EJ populations or communities of concern for any of the station options (Options 1 through 6) would not change depending on the station option chosen. As such, no new disproportionate impacts to minorities or low-income communities would occur as a result



of implementation of station options 1 through 6. No environmental justice mitigation measures are required for the station options.

6.11 Alignment Options

Alignment options for the proposed project include several different routes through the Westwood and Century City area. The impacts on the EJ populations or Communities of Concern for any of the alignment options would not change depending on the alignment options chosen, in part because no EJ populations are located in the area where the alignment options are being evaluated. As such, no disproportionate impacts would occur as a result of implementation of the proposed alignment options. No environmental justice mitigation measures are required for the alignment options.



7.0 CEQA DETERMINATION

Neither the California Environmental Quality Act (CEQA) statute nor its implementing guidelines refer specifically to the topic of environmental justice. CEQA is primarily focused on identifying and disclosing potential significant impacts to the physical environment, and socioeconomic effects are of secondary importance. CEQA does, however, place major emphasis on the disclosure of environmental changes to all potentially affected communities regardless of socioeconomic status. As an element of the physical environment, CEQA does recognize in its guidelines that the displacement of a substantial number of affordable housing units, necessitating construction of replacements would constitute a significant environmental impact.

7.1 No Build Alternative

The No Build Alternative includes all existing highway and transit services and facilities, and the committed highway and transit projects in the 2009 Metro LRTP and the 2008 SCAG RTP.

The No Build Alternative would not displace affordable housing. No significant impacts are anticipated under CEQA.

7.2 TSM Alternative

The TSM Alternative enhances the No-Build Alternative by expanding the Metro Rapid bus services operating in the Westside Transit Corridor.

The TSM Alternative would not displace affordable housing. No significant impacts are anticipated under CEQA.

7.3 Alternative 1 – Westwood/UCLA Extension

Alternative 1 would not displace affordable housing. No significant impacts are anticipated under CEQA.

7.4 Alternative 2 – Westwood/VA Hospital Extension

Alternative 2 would not displace affordable housing. No significant impacts are anticipated under CEQA.

7.5 Alternative 3 – Santa Monica Extension

Alternative 3 would not displace affordable housing. No significant impacts are anticipated under CEQA.

7.6 Alternative 4 – Westwood/VA Hospital Extension Plus West Hollywood Extension

Alternative 4 would not displace affordable housing. No significant impacts are anticipated under CEQA.



- 7.7 **Alternative 5 – Santa Monica Extension Plus West Hollywood Extension**
Alternative 5 would not displace affordable housing. No significant impacts are anticipated under CEQA.
- 7.8 **MOS 1 – Fairfax Extension**
MOS 1 would not displace affordable housing. No significant impacts are anticipated under CEQA.
- 7.9 **MOS 2 – Century City Extension**
MOS 2 would not displace affordable housing. No significant impacts are anticipated under CEQA.
- 7.10 **Station Options**
None of the station options would displace affordable housing. No significant impacts are anticipated under CEQA.
- 7.11 **Alignment Options**
None of the alignment options would displace affordable housing. No significant impacts are anticipated under CEQA.