

WESTSIDE SUBWAY EXTENSION

Parklands and Other Community Facilities Technical Report



August 2010



Table of Contents

| 1.0 | INT | RODUCTION | 1-1 |
|-----|-----|--|------|
| | 1.1 | Overview | 1-1 |
| | 1.2 | Methodology | 1-1 |
| 2.0 | PRC | JECT DESCRIPTION | 2-1 |
| 2.0 | 2.1 | No Build Alternative | |
| | 2.2 | TSM Alternative | |
| | 2.2 | Build Alternatives | |
| | 2.5 | 2.3.1 Alternative 1—Westwood/UCLA Extension | |
| | | 2.3.2 Alternative 2—Westwood/Veterans Administration (VA) Hospital | |
| | | Extension | 2-2 |
| | | 2.3.3 Alternative 3—Santa Monica Extension | |
| | | 2.3.4 Alternative 4—Westwood/VA Hospital Extension plus West Hollywood | |
| | | Extension | |
| | | 2.3.5 Alternative 5—Santa Monica Extension plus West Hollywood Extension | |
| | 2.4 | Stations and Segment Options | |
| | | 2.4.1 Option 1—Wilshire/Crenshaw Station Option | |
| | | 2.4.2 Option 2—Wilshire/Fairfax Station East Option | |
| | | 2.4.3 Option 3—Wilshire/La Cienega Station Option | |
| | | 2.4.4 Option 4—Century City Station and Segment Options | |
| | | 2.4.5 Option 5—Westwood/UCLA Station Options | |
| | | 2.4.6 Option 6—Westwood/VA Hospital Station Option | |
| | 2.5 | Base Stations | 2-12 |
| | 2.6 | Other Components of the Build Alternatives | 2-13 |
| | | 2.6.1 Traction Power Substations | 2-13 |
| | | 2.6.2 Emergency Generators | 2-13 |
| | | 2.6.3 Mid-Tunnel Vent Shaft | 2-13 |
| | | 2.6.4 Trackwork Options | 2-14 |
| | | 2.6.5 Rail Operations Center | 2-16 |
| | | 2.6.6 Maintenance Yards | 2-16 |
| | 2.7 | Minimum Operable Segments | 2-17 |
| | | 2.7.1 MOS 1—Fairfax Extension | 2-17 |
| | | 2.7.2 MOS 2—Century City Extension | 2-17 |
| 3.0 | RFG | ULATORY SETTING | 3-1 |
| 5.0 | 3.1 | Federal Regulations | |
| | 3.2 | State Regulations | |
| | 012 | 3.2.1 Parklands | |
| | | 3.2.2 Educational Facilities | |
| | | 3.2.3 Fire Services | |
| | 3.3 | Local Regulations | |
| | | 3.3.1 City of Los Angeles | |
| | | 3.3.2 City of Beverly Hills | |
| | | 3.3.3 City of West Hollywood | |
| | | 3.3.4 City of Santa Monica | |
| | | 3.3.5 Los Angeles County | 3-5 |

Metro

| 4.0 | AFFE | ECTED | ENVIRONMENT | 4-1 | |
|-------|------|-------------------------|---|------|--|
| | 4.1 | Parklar | nds | 4-1 | |
| | 4.2 | Police | Services | 4-2 | |
| | 4.3 | Fire Se | rvices | 4-2 | |
| | 4.4 | School | s (Public and Private, All Levels of Education including Pre-school through | | |
| | | Trade a | and College) | 4-9 | |
| | 4.5 | Librari | es | 4-9 | |
| | 4.6 | Medica | ll Facilities (hospitals and health centers) | 4-9 | |
| | 4.7 | Religious Institutions. | | | |
| | 4.8 | Cemete | eries | 4-11 | |
| | 4.9 | Social | Services (Adult Day Care, Senior Centers, Convalescent) | 4-11 | |
| 5.0 | ENVI | RONME | ENTAL IMPACTS/ENVIRONMENTAL CONSEQUENCES | 5-8 | |
| | 5.1 | | ional Impacts—Overview | | |
| | | 5.1.1 | No Build Alternative | 5-8 | |
| | | 5.1.2 | TSM Alternative | 5-8 | |
| | | 5.1.3 | Alternative 1—Westwood/UCLA Extension | 5-9 | |
| | | 5.1.4 | Alternative 2—Westwood/VA Hospital Extension | 5-10 | |
| | | 5.1.5 | Alternative 3—Santa Monica Extension | | |
| | | 5.1.6 | Alternative 4—Westwood/VA Hospital Extension plus West Hollywood | | |
| | | | Extension | 5-12 | |
| | | 5.1.7 | Alternative 5-Santa Monica Extension plus West Hollywood Extension | 5-13 | |
| | | 5.1.8 | MOS 1 | 5-13 | |
| | | 5.1.9 | MOS 2 | 5-13 | |
| | | 5.1.10 | Future Vehicle Storage and Maintenance for All Alternatives | 5-13 | |
| 6.0 | MITI | GATIO | N MEASURES | 6-1 | |
| | 6.1 | Mitigat | ion for Operational Impacts | 6-1 | |
| | 6.2 | Mitigat | ion for Construction Impacts | 6-1 | |
| | 6.3 | CEQA | Determination | 6-2 | |
| | 6.4 | Impact | s Remaining After Mitigation | 6-2 | |
| REFER | ENCE | S | | R-1 | |

List of Tables

| Table 2-1. Alternatives and Stations Considered | 2-7 |
|--|-------|
| Table 2-2. Mid-Tunnel Vent Shaft Locations | 2-14 |
| Table 2-3. Special Trackwork Locations | 2-15 |
| Table 4-1. Summary of the Number of Parklands and Community Facilities within 0.25-mile of the Westside Corridor | 1 1 1 |
| the westside Corridor | 4-11 |
| Table 4-2. Parklands and Recreation Resources within 0.25-mile of the Westside Corridor | 4-12 |
| Table 4-3. Public Services Within 0.25-mile of the Westside Corridor | 4-13 |
| Table 4-4. Other Community Facilities within 0.25-mile of the Westside Corridor | 4-0 |
| Table 5-1. Summary of Impacts to Parklands and Recreation Resources within 0.25-mile of the | |
| Alternatives | 5-11 |



| Table 5-2. Summary of Impacts to Police, Fire and Library Services Within 0.25-mile of the | |
|--|------|
| Westside Corridor | 5-14 |
| Table 5-3. Summary of Impacts to Other Community Facilities within 0.25-mile of the Westside | |
| Corridor | 5-15 |

List of Figures

| Figure 2-1. Alternative 1-Westwood/UCLA Extension | 2-3 |
|---|------|
| Figure 2-2. Alternative 2-Westwood/Veterans Administration (VA) Hospital Extension | 2-3 |
| Figure 2-3. Alternative 3—Santa Monica Extension | 2-4 |
| Figure 2-4. Alternative 4-Westwood/VA Hospital Extension plus West Hollywood Extension | 2-5 |
| Figure 2-5. Alternative 5—Santa Monica Extension plus West Hollywood Extension | 2-5 |
| Figure 2-6. Station and Alignment Options | 2-8 |
| Figure 2-7. Option 1—No Wilshire/Crenshaw Station Option | 2-9 |
| Figure 2-8. Option 2—Fairfax Station Option | 2-9 |
| Figure 2-9. Option 3—La Cienega Station Option | 2-10 |
| Figure 2-10. Century City Station Options | 2-11 |
| Figure 2-11. Option 5-Westwood/UCLA Station Options | 2-12 |
| Figure 2-12. Option 6—Westwood/VA Hospital Station North | 2-12 |
| Figure 2-13: Location of the Rail Operations Center and Maintenance Yards | |
| Figure 2-14. UP Railroad Rail Bridge | 2-17 |
| Figure 2-15. Maintenance Yard Options | 2-17 |
| Figure 4-1. Final Parklands and Other Facilities (Wilshire/Crenshaw Station to Wilshire La Brea Station) | 4-3 |
| Figure 4-2. Final Parklands and Other Facilities (Wilshire/Fairfax Station to Wilshire/Rodeo Station) | 4-4 |
| Figure 4-3. Final Parklands and Other Facilities (Century City Station to Westwood/VA Hospital Station) | 4-5 |
| Figure 4-4. Final Parklands and Other Facilities (Wilshire/Bundy Station to Wilshire/4th Station) | 4-6 |
| Figure 4-5. Final Parklands and Other Facilities (Hollywood/Highlands Station to Santa Monica/San Vicente Station) | 4-7 |



1.0 INTRODUCTION

1.1 Overview

The Westside Subway Extension (proposed project) would provide enhanced accessibility to parklands and a number of community facilities in the vicinity of each station. Along with beneficial effects of providing transit access, the same facilities may experience environmental impacts, primarily during construction, but also in some cases during operation. This technical report addresses these potential beneficial and adverse effects on parklands and other community facilities. Community facilities and services discussed in this report include police and fire protection, schools, libraries, medical facilities, churches, cemeteries, other social services (day care, senior centers), and parks.

1.2 Methodology

Potential impacts to parkland and community facilities were assessed by conducting an overview of all facilities located within 0.5-mile of either side of the project alignments, stations, and maintenance and operations facility sites, and identifying those within a 0.25-mile radius that could be directly or indirectly impacted by the proposed project. Direct impacts involve physical acquisition, displacement or relocation of parkland or a community facility, and indirect impacts involving changes to pedestrian or vehicular access.

Parklands as well as cultural and recreational facilities are also subject to guidelines established by Section 4(f) of the U.S. Department of Transportation Act (USC 1653 (f)). Use' of parkland or recreational property for the implementation of the build alternatives would be an adverse impact, requiring consultation with the U.S. Department of Transportation, U.S. Department of the Interior, State Department of Parks and Recreation, the Los Angeles City and County departments, and local agencies (City of Beverly Hills, City of Santa Monica, City of West Hollywood) that have jurisdiction over parks and recreational facilities in the corridor. An assessment of the project pursuant to Section 4(f) is provided in the report for Task 14.1.15, Section 4(f) Evaluation.

Information regarding these facilities has been gathered from the individual jurisdictions and coordinated with the land use, community and neighborhood impacts analysis and Section 4(f) Technical Report.

In addition, community facilities, parklands, and recreational facilities may be adversely affected by the noise and vibration from construction activities (refer to Task 14.1.18 Construction and Mitigation Technical Report) or from operation of the proposed project. Construction activities could also produce temporary air quality and traffic and transportation impacts at these facilities. Construction requirements for the subway tunnel and stations, structural characteristics of the community or recreational facility, and the schedule and level of activity at the facility could affect the level of impact.

¹23 CFR 774.17 defines "use" in three ways: 1) When land from a Section 4(f) resource is permanently incorporated into a transportation facility or project (actual use), 2) When there is a temporary occupancy of Section 4(f) resource that does not meet the five criteria of temporary use, and 3) When there is constructive use of the Section 4(f) resource.



Pedestrian and vehicular access analysis is discussed in the Draft Transportation Impacts Report. The results of the analysis of safety and security issues for motorists and the surrounding community is reported in the Draft Safety and Security Hazards and Threat Assessment Technical Report. Other potential indirect impacts related to air quality and noise impacts analysis are discussed in the Air Quality Technical Report and the Noise and Vibration Technical Report.



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 System 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.



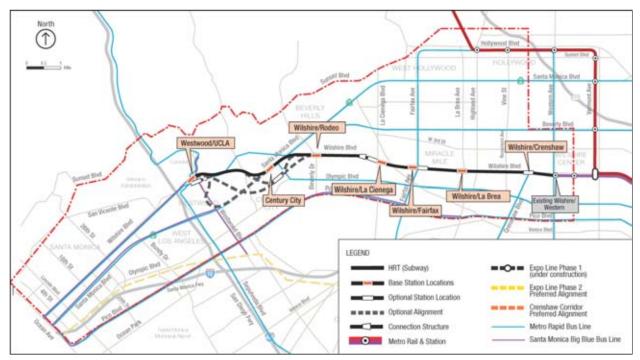


Figure 2-1. Alternative 1—Westwood/UCLA Extension

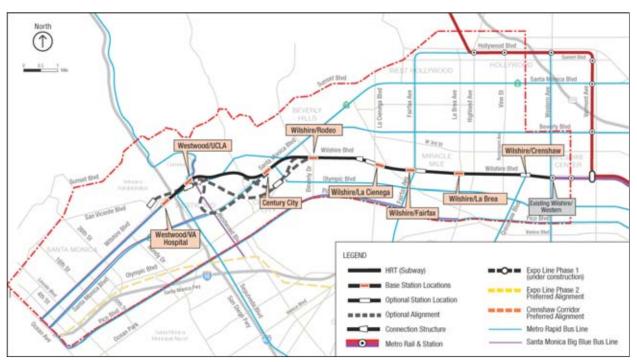


Figure 2-2. Alternative 2—Westwood/Veterans Administration (VA) Hospital Extension



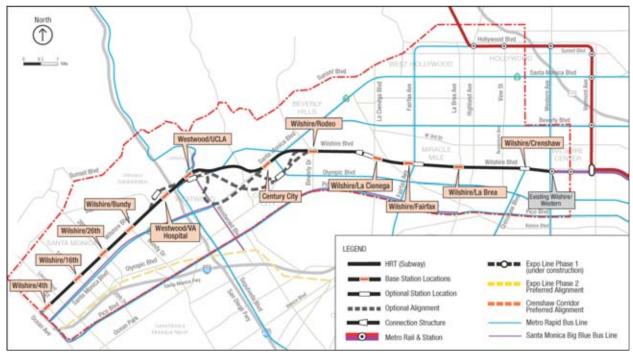


Figure 2-3. Alternative 3—Santa Monica Extension

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 10minute 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.



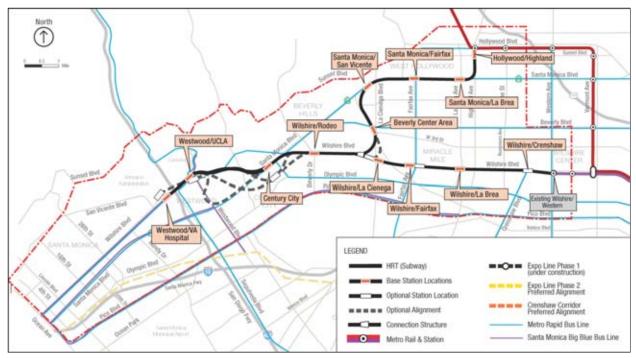


Figure 2-4. Alternative 4-Westwood/VA Hospital Extension plus West Hollywood Extension

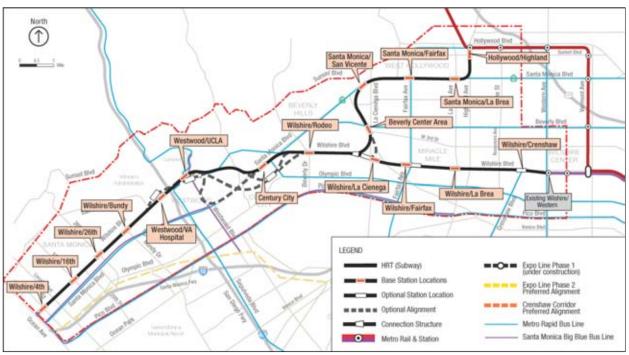


Figure 2-5. Alternative 5—Santa Monica Extension plus West Hollywood Extension



2.4 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.

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

| | Alternatives | | | | |
|--|--------------------------------|---------------------------------------|---------------------------|--|--|
| | 1 | 2 | 3 | 4 | 5 |
| Stations | 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 | | • | • | • | • |



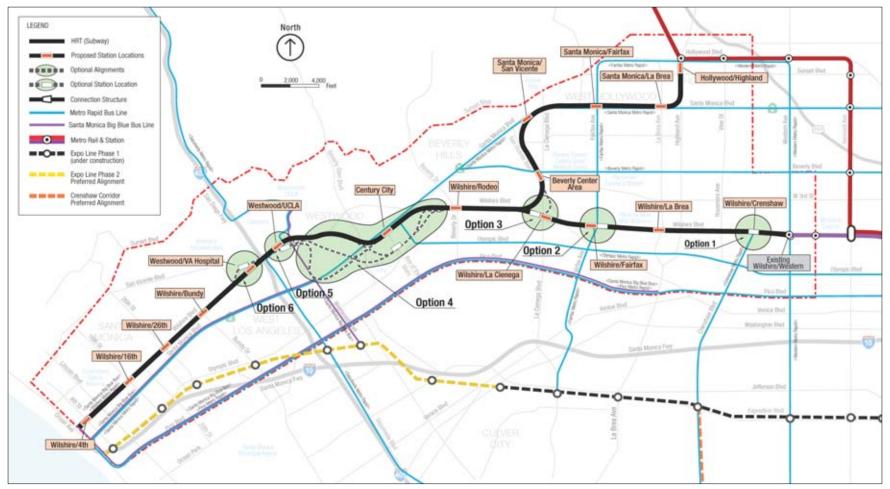


Figure 2-6. Station and Alignment Options



2.4.1 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).

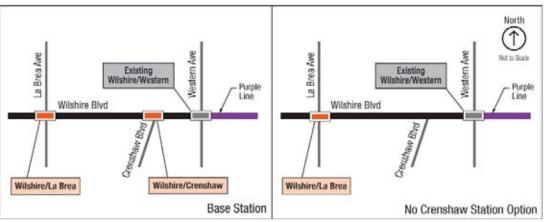


Figure 2-7. Option 1—No Wilshire/Crenshaw Station Option

2.4.2 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.

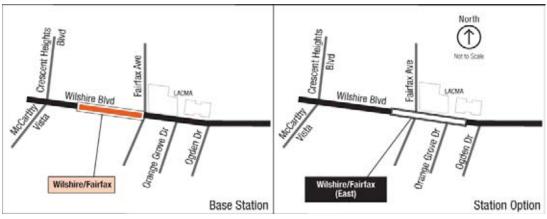


Figure 2-8. Option 2—Fairfax Station Option



2.4.3 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.

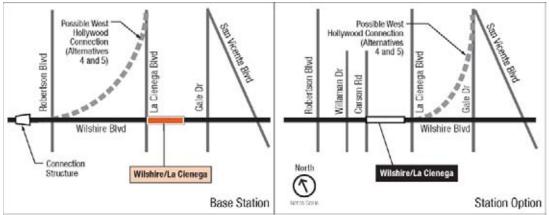


Figure 2-9. Option 3—La Cienega Station Option

2.4.4 Option 4—Century City Station and Segment Options

2.4.4.1 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.

2.4.4.2 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.



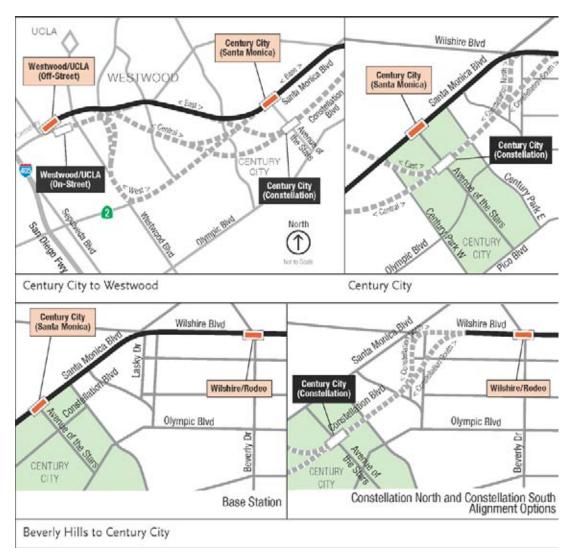


Figure 2-10. Century City Station Options

2.4.5 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).



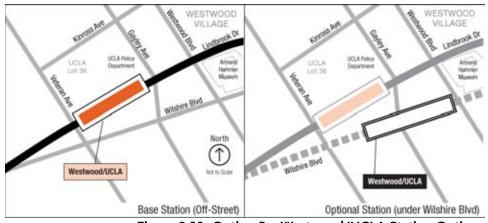


Figure 2-11. Option 5—Westwood/UCLA Station Options

2.4.6 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. (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

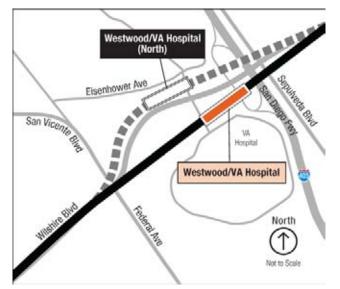


Figure 2-12. Option 6—Westwood/VA Hospital Station North

Building property, the I-405 Freeway, and under the Veterans Administration property just east of Bonsall Avenue.

2.5 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.

2.6 Other Components of the Build Alternatives

2.6.1 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.

2.6.2 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 offstreet location. All would require property acquisition, except for the one at the Wilshire/La Brea Station which uses Metro's property.

2.6.3 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.

| 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 |

 Table 2-2. Mid-Tunnel Vent Shaft Locations

2.6.4 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

| | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | |
|---|--|---|---|--|---|--|
| Station | 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 Loo | cations—Base Trackw | ork 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 | |
| Station Option 3 - Wilshire/La Cienega West | | 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 MOS 2 Only: Terminus Station with Double Crossover and tail tracks | Double Crossover <i>MOS 2 Only:</i> <i>Terminus Station</i> <i>with</i> <i>Double Crossover</i> <i>and tail tracks</i> | Double Crossover <i>MOS 2 Only:</i> <i>Terminus Station</i> <i>with</i> <i>Double Crossover</i> <i>and tail tracks</i> | Double Crossover MOS 2 Only: Terminus Station with Double Crossover and tail tracks | Double Crossover <i>MOS 2 Only:</i> <i>Terminus Station</i> <i>with</i> <i>Double Crossover</i> <i>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 Tra | ckwork Location (Opt | ional 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 | |



2.6.5 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.

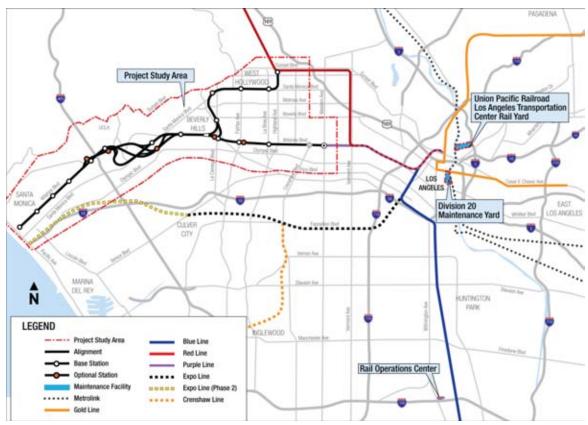


Figure 2-13: Location of the Rail Operations Center and Maintenance Yards

2.6.6 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 2-15).





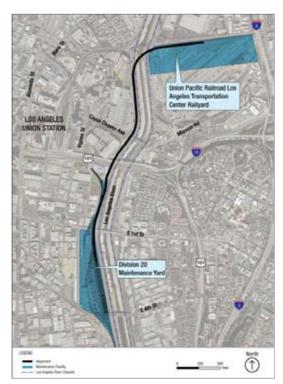


Figure 2-14. UP Railroad Rail Bridge

Figure 2-15. Maintenance Yard Options

2.7 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.

2.7.1 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.

2.7.2 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 SETTING**

This section provides a brief discussion of the federal, state, and local regulatory framework pertaining to the preservation and environmental protection of parklands and community facilities in each of the study area jurisdictions.

3.1 Federal Regulations

Section 4(f) of the USDOT Act of 1966 (recodified as amended at 49 USC Section 303) affords special protection to public recreational lands and facilities, including local parks and school facilities, that are open and available to the general public for recreational purposes, significant cultural resources, historical resources, and natural wildlife refuges. Federally-funded transportation improvement projects are prohibited from the encroachment (direct or constructive use, or a take) of Section 4(f) lands unless it can be demonstrated that no feasible and prudent alternative exists. Parks and recreational Section 4(f) lands within or adjacent to the corridor are discussed herein. A more detailed discussion of Section 4(f) properties related to historical resources, as well as parklands and recreational resources, is provided in the Draft Section 4(f) Technical Report.

Since 1966, Section 4(f) has undergone several changes. In August 2005, Section 6009(a) of the SAFETEA-LU, made the first substantive revision to Section 4(f) since the 1966 USDOT Act. Section 6009, which amended existing Section 4(f) legislation at both Title 49 USC Section 303 and Title 23 USC Section 138, simplified the process and approval of projects that have only de minimis impacts on lands impacted by Section 4(f). Under the new provisions, once the FTA determines that a transportation use of Section 4(f) property results in a de minimis impact, analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

3.2 State Regulations

3.2.1 Parklands

The California Public Preservation Act of 1971 (California Public Resources Code §5400 et seq.) requires a public agency that acquires public parkland for non-park uses to either provide compensation sufficient enough to acquire substantially equivalent replacement parkland or provide replacement parkland of comparable qualities.

3.2.2 Educational Facilities

California Education Code (CEC). Each of the state school districts is subject to the regulations of the CEC and the governance of the California State Board of Education relative to funding, school curriculum, operations, and facilities (including location considerations).

3.2.3 Fire Services

California Code of Regulations (CCR) Title 24 of the California Building Standards Code (CBSC) is a compilation of building standards. State fire regulations set forth in Section 13000 et seq. of the California Health and Safety Code; include regulations for building standards (as also set forth in the CBSC), fire protection and notification systems, fire protection devices, such as extinguishers and smoke alarms, high-rise building and



childcare facility standards, and fire suppression training. In the case where there is no local fire authority, and in all state-owned and state-occupied facilities, the California State Fire Marshall has full enforcement jurisdiction of state fire regulations.

3.3 Local Regulations

Parklands, public services (i.e., police and fire protection), libraries, and other community facilities (i.e., educational facilities) are generally regulated by local agencies. Therefore, these components and the project alternatives are regulated primarily by the policies and agencies of the Cities of Los Angeles, Beverly Hills, West Hollywood, Santa Monica, and Los Angeles County. In addition, public schools within 0.25-mile of either side of the project alignments, stations, and maintenance and operations facility sites, are within various school districts which have their own policies and procedures. Specific policies that pertain to other community facilities are regulated through land use and zoning (refer to the Draft Land Use and Development Opportunities Report). The following is a summary of many of the regulations for parklands and community facilities outlined in the County of Los Angeles General Plan, as well as in the General Plans of the following cities within the study area.

3.3.1 City of Los Angeles

Applicable policies from the City of Los Angeles General Plan² include policies from the Wilshire Community Plan³ and the Westwood Community Plan.⁴

3.3.1.1 Wilshire Community Plan

The Wilshire Community Plan sets forth planning goals, objectives, policies, and programs that pertain to the Wilshire Community. The plan area is bounded by Melrose Avenue and Rosewood Avenue to the north; 18th Street, Venice Boulevard and Pico Boulevard to the south; Hoover Street to the east; and the Cities of West Hollywood and Beverly Hills to the west. Applicable policies from the Wilshire Community Plan⁵ include:

- 2-2.2—Encourage large mixed use projects to incorporate facilities beneficial to the community such as libraries, child care facilities, community meeting rooms, senior centers, police sub-stations, and/or other appropriate human service facilities as part of the project.
- 4-1.1—Preserve and improve the existing recreational facilities and park spaces.
- 4-4—Expand and improve Neighborhood, Community, and Regional Parks, and Recreation Centers and Senior Citizen Centers throughout the Wilshire Community Plan Area on an accelerated basis, as funds and land become available.
- 7-1.1—Support construction of new libraries and rehabilitation and expansion of existing libraries.
- 8-1.1—Consult with the LAPD in the review of development projects and land use changes to determine law enforcement needs and requirements.

²http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm

^{http://cityplanning.lacity.org/complan/pdf/wilcptxt.pdf}

^{*}http://cityplanning.lacity.org/complan/pdf/wwdcptxt.pdf

⁵http://cityplanning.lacity.org/complan/pdf/wilcptxt.pdf



 9-1.1—Coordinate with the City of Los Angeles Fire Department during the review of significant development projects and General Plan amendments affecting land use to determine the impacts on service demands.

3.3.1.2 Westwood Community Plan

The Community area is generally bounded by Sunset Boulevard and the Bel Air Community on the north; the City of Beverly Hills on the east; Santa Monica Boulevard and the West Los Angeles Community on the south; and the Veterans Affairs property, the Brentwood-Pacific Palisades Community and Sepulveda Boulevard on the west. Sited within the Community's boundaries are some significant uses including the University of California at Los Angeles (UCLA), Westwood Village, the Los Angeles Country Club, and the Mormon Temple. Adjoining the Plan area is the Veterans Affairs facility located on unincorporated Los Angeles County land. The applicable policy from the Westwood Community Plan⁶ includes:

 6-1.1—Support construction of a new library at an appropriate location as needed in the Community.

3.3.2 City of Beverly Hills

Applicable policies from the City of Beverly Hills Draft General Plan⁷ include:

- LU 2.2—Public Streetscapes and Landscape—Maintain the quality and health of the "green infrastructure" that contributes to Beverly Hills identity and quality of life including its street tree canopy, landscaped parkways, parks, and open spaces, while seeking to conserve water resources.
- LU 8.5—Complete Neighborhoods—Maintain, improve, and, where necessary, expand parklands and community facilities to serve and provide easy access to Beverly Hills' neighborhoods.
- LU 17.5—Expansion of Existing Facilities—Consider opportunities for the expansion of existing and development of new parklands, recreational facilities, schools, lifelong learning, cultural, and other public and quasi-public facilities provided that such improvements are cohesively integrated with, complement, and are compatible with existing development and adjoining land uses.
- LU 17.8—Care Facilities—Encourage the development of senior daycare facilities, assisted living facilities, hospice, child care, and other care facilities in appropriate areas throughout the City.
- LU 17.9—Assembly Facilities—Encourage and support the development of assembly facilities for social, cultural, educational, and religious organizations in appropriate locations of the City.
- LU 17.10—Parks and Open Spaces—Seek to expand the City's parklands, greenways, and open spaces as vacant lands are available or existing buildings are demolished, considering alternative prototypes and standards for park development in urban areas and where limited land may be available.

⁶http://cityplanning.lacity.org/complan/pdf/wwdcptxt.pdf

⁷ http://www.beverlyhills.org/services/planning_division/plan/2008_draft_general_plan.asp



- PR 1.7—Recreational Parkland Replacement—Protect parkland from non-recreational uses that result in loss of acreage used for recreational purposes; any loss of park land shall be replaced with acreage suitable for comparable uses so that the City's current park land acreage is not decreased.
- S3—Existing and New Development—All existing and new development/ redevelopment address the provision of fire protection in a proactive and preventative manner.
- S 3.3—Fire Protection Services—Require that new development and redevelopment of structures provide adequate fire safety features such as fire sprinkler systems, when required, and responder access so as not to cause a reduction of fire protection services below acceptable, safe levels.

3.3.3 City of West Hollywood

Applicable policies from the City of West Hollywood General Plan⁸ include:

- I.7.1—Allow for the continuation of public recreational, cultural (libraries, museums, etc.), educational, institutional (governmental, sheriff, fire, etc.), and religious uses at their present locations and development of new uses where they complement and are compatible with abutting land uses.
- 1.8.1—Encourage the development of uses which provide for the social and health needs of the residents [day care centers (children, seniors, physically impaired, other), social service providers, medical facilities, etc.] throughout the city, provided that they are compatible with adjacent land uses.
- 9.1.1—Increase the amount of parklands in the City, improving the standards of park space per resident through public and private acquisitions and improvements.
- 9.1.2—Preserve existing park space and recreational facilities, especially open turfed areas and trees, while allowing for the redesign, reconfiguration, and replacement of existing spaces and facilities to increase their recreation potential and usability

3.3.4 City of Santa Monica

Applicable polices from the City of Santa Monica General Plan⁹ include:

- LU 7—Hospital Area—Support the continued vitality of the City's hospitals to meet the healthcare needs of the City and the larger region, and implement strategies to reduce vehicle trips.
- LU 17.5—Access for All Residents—Encourage access to open space for all residents through expansion of the larger open space system with the ultimate goal of providing open and recreational spaces within a ¼ mile radius of all residences in the city.
- CE1—Expand the amount, quality, diversity and inter-connectivity of parks, open spaces and recreational facilities throughout the city.

⁸City of West Hollywood. 2004. General Plan, Section 1.0 Land Use and Urban Design; Section 2.0 Public Open Space Urban Design; Section 7.0 Education and Cultural; Section 8.0 Public Safety: Police and Fire; Section 9.0 Parks and Recreation. ⁹http://www.shapethefuture2025.net/.



- CE1.2—Consider the use of City-owned lands and acquired additional properties to create new parkland throughout the City, exploring possible code modifications if necessary.
- CE1.8—Seek to improve and expand sports and recreational facilities throughout the City.
- CE1.9—Continue to maintain a diverse range of recreational facilities, offering residents of all ages affordable and safe access to high quality recreational opportunities.
- CE6.3—Encourage a range of medical uses that serve all segments of the community, including assisted living facilities, to locate in the City particularly in the Healthcare District.
- CE9.1—Support the development of high quality child care and early education facilities and small and large family child care in homes to meet the needs of those who work or live in Santa Monica.
- CE9.2—Encourage the provision of child care and early education facilities as a community benefit in new development above the base, and encourage these facilities near transit centers.
- CE11.1—Support inclusion of senior services in new development above the base throughout the City and particularly in activity centers along the boulevards and near transit.
- CE 14.1—Encourage and support efforts to increase transit ridership, walking and bicycling to educational facilities, reducing vehicle trips.
- CE16.4—Continue to improve library facilities, including the planning and development of a library in the Pico neighborhood area.
- OS 1.1—Preserve existing public open space.

3.3.5 Los Angeles County

Applicable policies from the Los Angeles County Draft General Plan¹⁰ include:

- C/OS 1.1—Promote the preservation of open space areas throughout the County.
- C/OS 1.2—Support the acquisition of new open space areas throughout the County.
- C/OS 2.1—Develop and expand regional and local parkland in the County.
- C/OS 2.2—Require new development to dedicate and improve parkland, as allowed by the Quimby Act. School grounds cannot be calculated as new park acreage.
- C/OS 3.1—Participate in a collaborative, inter-jurisdictional system that manages and preserves County open spaces.
- C/OS 3.2—Promote joint-use agreements to increase and enhance park and recreation opportunities.
- PS 7.4—All projects must comply with Los Angeles County Fire Department requirements, including access, water mains, fire flows, and hydrants.

¹⁰http://planning.lacounty.gov/generalplan#anc-download



- PS 9.1—Ensure a desired level of educational facilities through land use and facility planning.
- PS 9.2—Encourage the shared use of sites for development of schools, parks, libraries, housing, and other compatible uses.
- PS 10.1—Ensure a desired level of library service through coordinated land use and facility planning.