

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT

DRAFT ENVIRONMENTAL IMPACT STATEMENT/
DRAFT ENVIRONMENTAL IMPACT REPORT

EXECUTIVE SUMMARY



Metro



U.S. Department of
Transportation
Federal Transit Administration

ES.1 Introduction

The East San Fernando Valley Transit Corridor Project is a vital public transit infrastructure investment that would provide improved transit service along the busy Van Nuys Boulevard and San Fernando Road corridors serving the eastern San Fernando Valley. The proposed project would extend from the Sylmar/San Fernando Metrolink Station on the north to the Metro Orange Line on the south and provide area residents, businesses, and transit-dependent populations with improved mobility and access to the regional transit system. Figure ES-1 shows the regional Los Angeles County Metropolitan Transportation Authority (Metro) transit lines expected to be operational by the year 2040 and illustrates how the East San Fernando Valley Transit Corridor Project would improve access to the regional system.

In addition to mobility benefits, the East San Fernando Valley Transit Corridor Project would provide the project area with transportation, economic, land use, and environmental benefits. The analyses presented in this Draft Environmental Impact Study/Environmental Impact Report (Draft EIS/EIR) documents the impacts to the environment that could occur due to the project, as required by federal National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) regulations. It also illustrates how improved mobility to and from the project area has the potential to boost economic development and improve social justice by providing better access to employment, educational and health facilities, and activity centers. Improved transit connectivity and service would also increase transit ridership, which in turn could result in environmental benefits due to reduced vehicle trips, reductions in vehicle miles traveled, less roadway congestion, and improved air quality.

The East San Fernando Valley Transit Corridor Project is included in the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan /Sustainable Communities Strategy (RTP/SCS), adopted in April 2016. The RTP/SCS also outlines several projects in and around the project area aimed at maximizing the effectiveness, safety, and reliability of Southern California's transportation system.

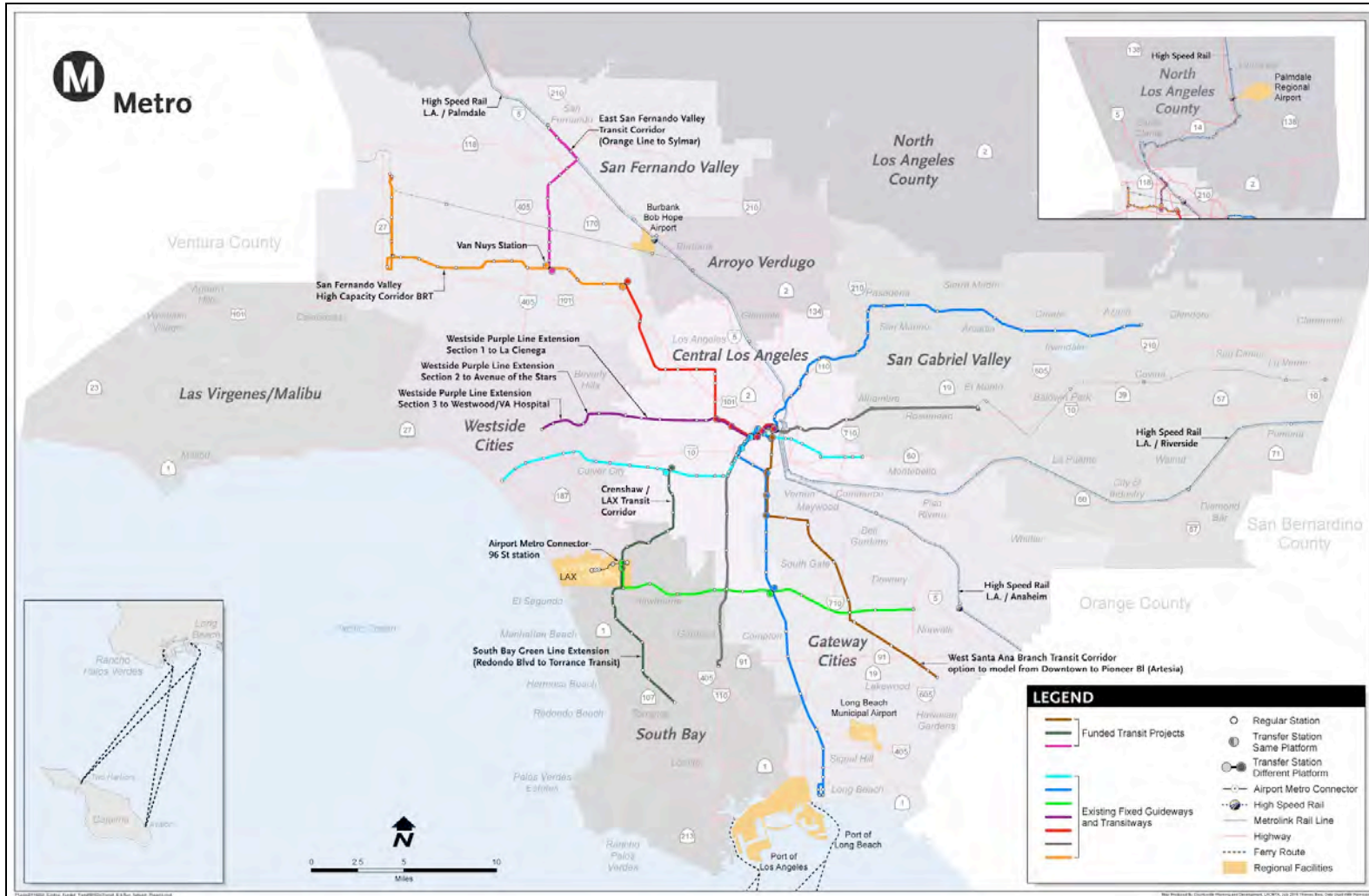
Project milestones for the East San Fernando Valley Transit Corridor Project include:

- Publication of the Draft EIS/EIR
- Public review and comment on the Draft EIS/EIR (45 days following publication)
- Publication of the Final EIS/EIR – Release of the Final EIS/EIR document is based on the condition that funding is available to allow for construction of the project within three years after issuance of the Record of Decision (ROD)
- Metro Board of Directors approves a project and adopts a Mitigation Monitoring and Reporting Program (MMRP) and CEQA Findings

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Figure ES-1: Existing and Proposed Regional BRT and Rail Lines



Source: Metro, 2016.

- California Environmental Quality Act (CEQA) Notice of Determination (NOD)
- Federal Transit Administration (FTA) approves Record of Decision (ROD). Following the Federal ROD, the proposed project can proceed to final design, construction, and operation. The schedule of these milestones will be refined as the project nears the end of the state and federal mandated environmental review process.

ES.2 Purpose and Need

Purpose

The East San Fernando Valley Transit Corridor Project would provide new service and/or infrastructure that would improve passenger mobility and connectivity to regional activity centers, increase transit service efficiency (speeds and passenger throughput), and make transit service more environmentally beneficial via reductions in greenhouse gas emissions.

The purposes of the proposed project are summarized as follows:

- Improve mobility in the eastern San Fernando Valley by introducing an improved north-south transit connection between key transit hubs/routes;
- Enhance transit accessibility/connectivity for residents within the study area to local and regional destinations;
- Provide more reliable transit service within the eastern San Fernando Valley;
- Provide additional transit options in an area with a large transit-dependent population, including the disabled, high-transit ridership; and
- Encourage modal shift to transit in the eastern San Fernando Valley, thereby improving air quality.

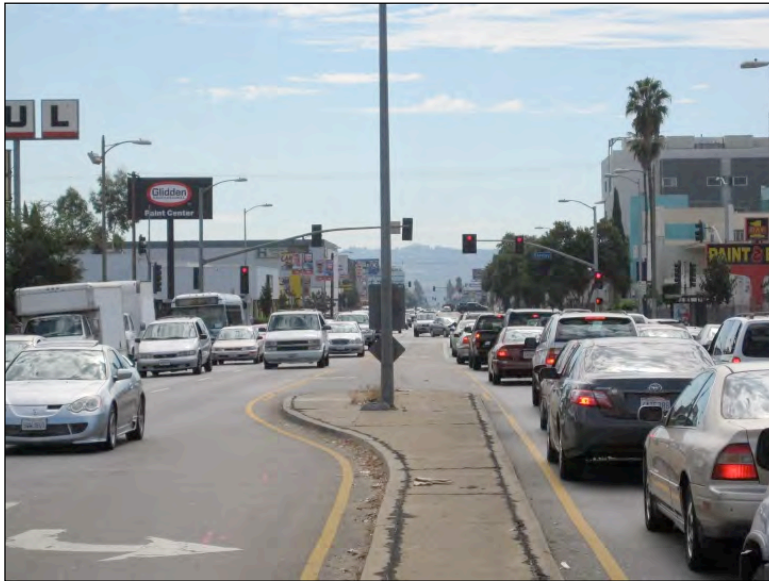
Need

The following mobility challenges within the project study area will continue to grow if no action is taken, due, in large part, to continued population growth, which increases the demand for transit service along the Van Nuys Boulevard corridor, a corridor that already has high population density and transit-dependent persons who rely on transit for daily transportation, including commuting:

- **Mobility challenges resulting from increased roadway congestion, affecting study area bus service** - Based on the Metro travel forecast model, the number of congested roadway segments (a portion of the roadway located between two intersections) in the study area is expected to increase from 126 to 162, a 29 percent increase in the AM peak hour and from 103 to 159, a 54 percent increase in the PM peak hour. Average speeds on these segments are expected to decrease by up to 12 miles per hour (mph) during the AM and PM peak hours. The increase in congested segments will result in lower vehicle speeds and increased travel delay in the study area, reducing mobility. Based on travel projections from the Metro model, the number of study intersections currently operating at LOS E or F along the Van Nuys Boulevard corridor will more than double by the year 2040.

Photo ES-1 shows typical existing congested conditions along the corridor.

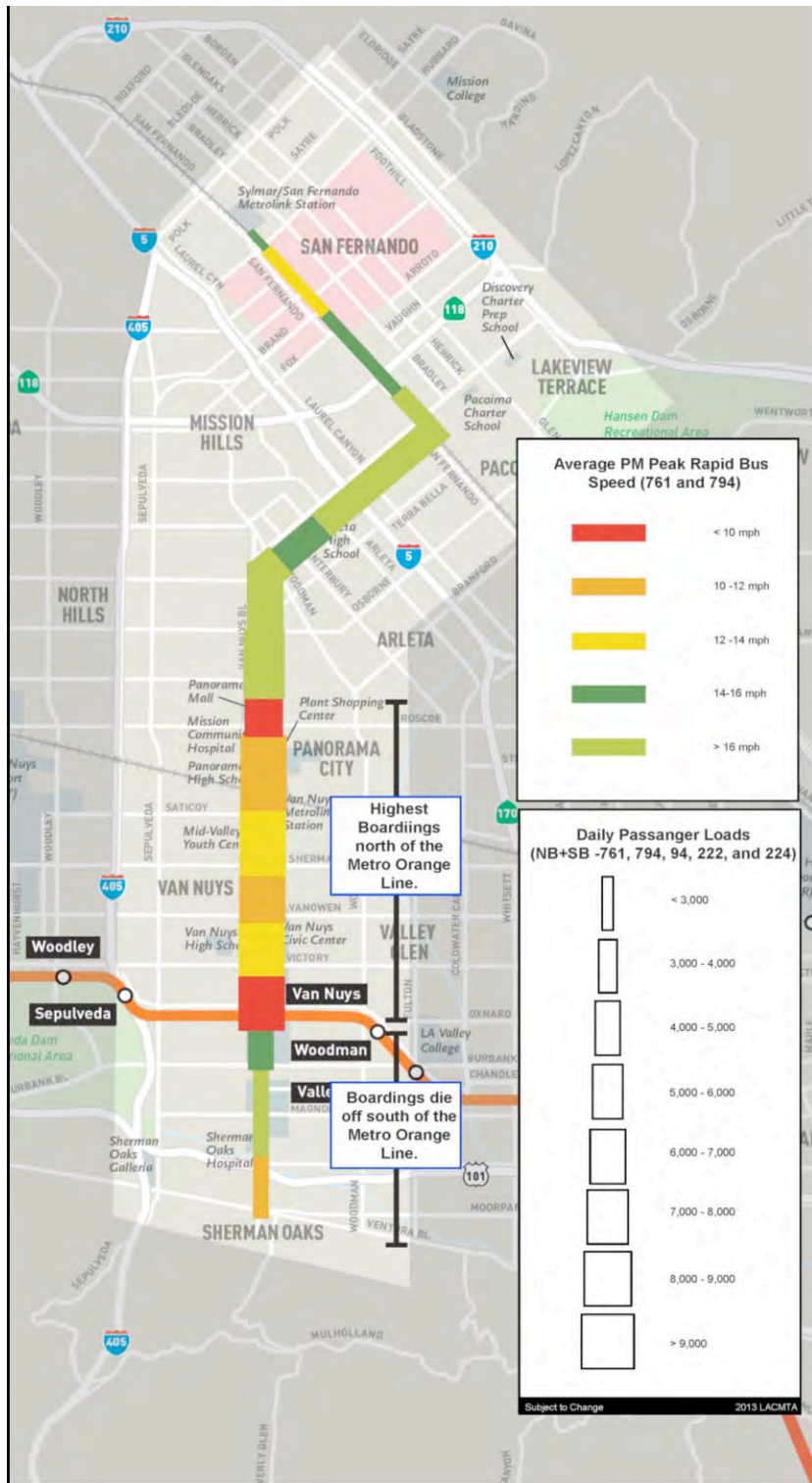
Photo ES-1: Existing Congestion on Van Nuys Boulevard Corridor



Source: Metro, 2016.

- **Increasing travel demand** - According to the Metro model, the person-trip distribution for the project study area indicates that a high number of travel trips tend to be localized to the communities within the area. Approximately 50 percent of the trips stay within the study area, with a large portion of trips occurring between the northern communities of the City of San Fernando and Pacoima and the southern communities of Mission Hills and Panorama City. These southern communities have a higher number of activity centers that include Kaiser Permanente Hospital, several high schools, and the Panorama Mall. A significant proportion of the overall study area trip distribution is to and from the Van Nuys Civic Center area, as demonstrated in Figure ES-2, constituting approximately 52 percent of all study area trips. These general trip trends are expected to remain similar in 2040 and show a high attraction of trips between the central study area and the Civic Center area. Because of the centralized trip patterns, transit accessibility and connectivity are integral to study area resident travel needs, especially to those who are transit dependent (35 percent). A total of 10 percent of households do not own a car and the average adult poverty ratio is 2.26 persons per acre compared to 1.08 per acre for Los Angeles County. These residents rely on Metro and City of Los Angeles Department of Transportation bus services for work and non-work trips within the study area and the greater Los Angeles County area. By 2040, the trip pattern is expected to remain similar, with a high number of trips (approximately 50 percent) staying within the study area. Local trips will remain a significant contributor to traffic and transit trends. Therefore, providing enhanced transit connections and accessibility to surrounding destinations is critical for residents that rely on public transit.
- **Transit service performance and reliability is decreasing due to increased congestion** - The existing bus service along the study area corridors does not meet the Metro on-time performance goal of 80 percent. This is directly correlated to levels of roadway congestion and related vehicular speeds, which together reduce the mobility of area bus riders. As congestion continues to increase, the reliability of bus service for riders will also worsen, because further congestion will further decrease bus speeds.

Figure ES-2: Existing Bus Boarding Distribution for Van Nuys Boulevard Corridor



Source: Metro, 2016.

- **Large transit-dependent population and expected growth in ridership** - The Van Nuys Boulevard corridor has the seventh highest total transit boardings on the Metro Bus system. This corridor is served by Rapid Line 761 and Local Line 233, which have combined passenger boardings that are the second highest in the San Fernando Valley, with the Metro Orange Line boardings at a slightly higher number. Sepulveda Boulevard and San Fernando Road also have some of the highest total boardings of all transit corridors in the San Fernando Valley. The demand in passenger boardings is constituted by both transit dependent and discretionary riders. The overall population density and the transit dependent population density are both more than twice as high in the study area as in the urbanized area of the County as a whole. The study area average of 0.53 zero-vehicle households per acre is 77 percent higher than the 0.30 County average. The study area average transit dependent population of 7.04 persons per acre is more than 100 percent higher than the 3.21 County average. The study area average of 2.26 adult persons below the poverty line per acre is over two times the 1.08 County average. Although population density and transit dependent population characteristics are expected to stay the same or improve slightly, study area population is expected to increase by almost 12 percent by the year 2040, and area employment will increase by approximately 15 percent. With the increase in population and employment growth, it is likely that there will be an increase in bus crowding (Photo ES-2).

Photo ES-2: Existing Bus Crowding



Source: Metro, 2016.

- **Exceeding air quality criteria pollutant standards within the study area** - Standards for many of the criteria pollutants monitored within the east San Fernando Valley have been exceeded multiple times during each of the previous three years of collected data (2010 – 2012). The traffic analysis indicates that travel speeds, vehicular delay, and congestion will worsen by 2040. This will result in increased gas consumption, and vehicle emissions in the study area. The increase in delay at the study intersections is expected to increase vehicle emissions and fuel consumption.

ES.3 Alternatives Considered

The following six alternatives include the No-Build Alternative, Transportation Systems Management (TSM) Alternative, two Bus Rapid Transit (BRT) alternatives, and two rail alternatives are evaluated in this Draft EIS/EIR:

- No-Build Alternative
- TSM Alternative
- BRT Alternatives
 - Alternative 1 – Curb-Running BRT Alternative
 - Alternative 2 – Median-Running BRT Alternative
- Rail Alternatives
 - Alternative 3 – Low-Floor Light Rail Transit (LRT)/Tram Alternative
 - Alternative 4 – LRT Alternative

All build alternatives (Alternatives 1 through 4) would operate over 9.2 miles, either in a dedicated bus lane or guideway (6.7 miles) and/or in mixed-flow traffic lanes (2.5 miles), from the Sylmar/San Fernando Metrolink station on the north to the Van Nuys Metro Orange Line station on the south, with the exception of Alternative 4, which includes a 2.5-mile segment within Metro-owned railroad right-of-way adjacent to San Fernando Road and Truman Street and a 2.5-mile underground segment beneath portions of the City of Los Angeles communities of Panorama City and Van Nuys.

No-Build Alternative

The No-Build Alternative represents projected conditions in 2040 without implementation of the project (Figure ES-1). No new transportation infrastructure would be built within the project study area, aside from projects that are currently under construction or funded for construction and operation by 2040. These projects include highway and transit projects funded by Measure R and specified in the current constrained element of the *Metro 2009 Long-Range Transportation Plan* (LRTP) and the 2016 Southern California Association of Governments (SCAG) *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). Existing infrastructure and future planned and funded projects assumed under the No-Build Alternative include:

- Existing Freeways – Interstate 5, and Interstate 405, State Route 118, and U.S. 101;
- Existing Transitway – Metro Orange Line;
- Existing Bus Service – Metro Rapid and Metro Local Service;
- Los Angeles Department of Transportation Commuter Express, and DASH;
- Existing and Planned Bicycle Projects – Bicycle facilities on Van Nuys Boulevard and connecting east/west facilities; and
- Other Planned Projects – Various freeway and arterial roadway upgrades, upgrades to the Metrolink system and the proposed California High-Speed Rail Project.

This alternative establishes a baseline for comparison to other alternatives in terms of potential environmental effects, including adverse and beneficial environmental effects.

TSM Alternative

The TSM Alternative emphasizes transportation systems upgrades, which may include relatively low-cost transit service improvements such as increased bus frequencies and minor modifications to the roadway network. Additional TSM Alternative transit improvements that may be considered include, but are not limited to traffic signalization improvements, bus stop amenities/ improvements, and bus schedule restructuring.

The TSM Alternative could include enhanced operating hours and increased bus frequencies for Rapid Line 761 and Local Line 233. Under this Alternative, the Metro Rapid Line 761 and Metro Local Line 233 bus routes would retain existing stop locations (see Figure ES-3). It would not change the existing bus operations on San Fernando Road, including those of Metro Local Line 244 and Metro Rapid Line 794. This alternative would add 20 additional buses to the existing Metro Local 233 and Metro Rapid 761 bus routes. These buses would be similar to existing Metro 60-foot articulated buses (shown in Photo ES-3), and each bus would have the capacity to serve up to 75 passengers (57 seats x 1.30 passenger loading standard). Buses would be equipped with transit signal priority equipment to allow for improved operations and on-time performance.

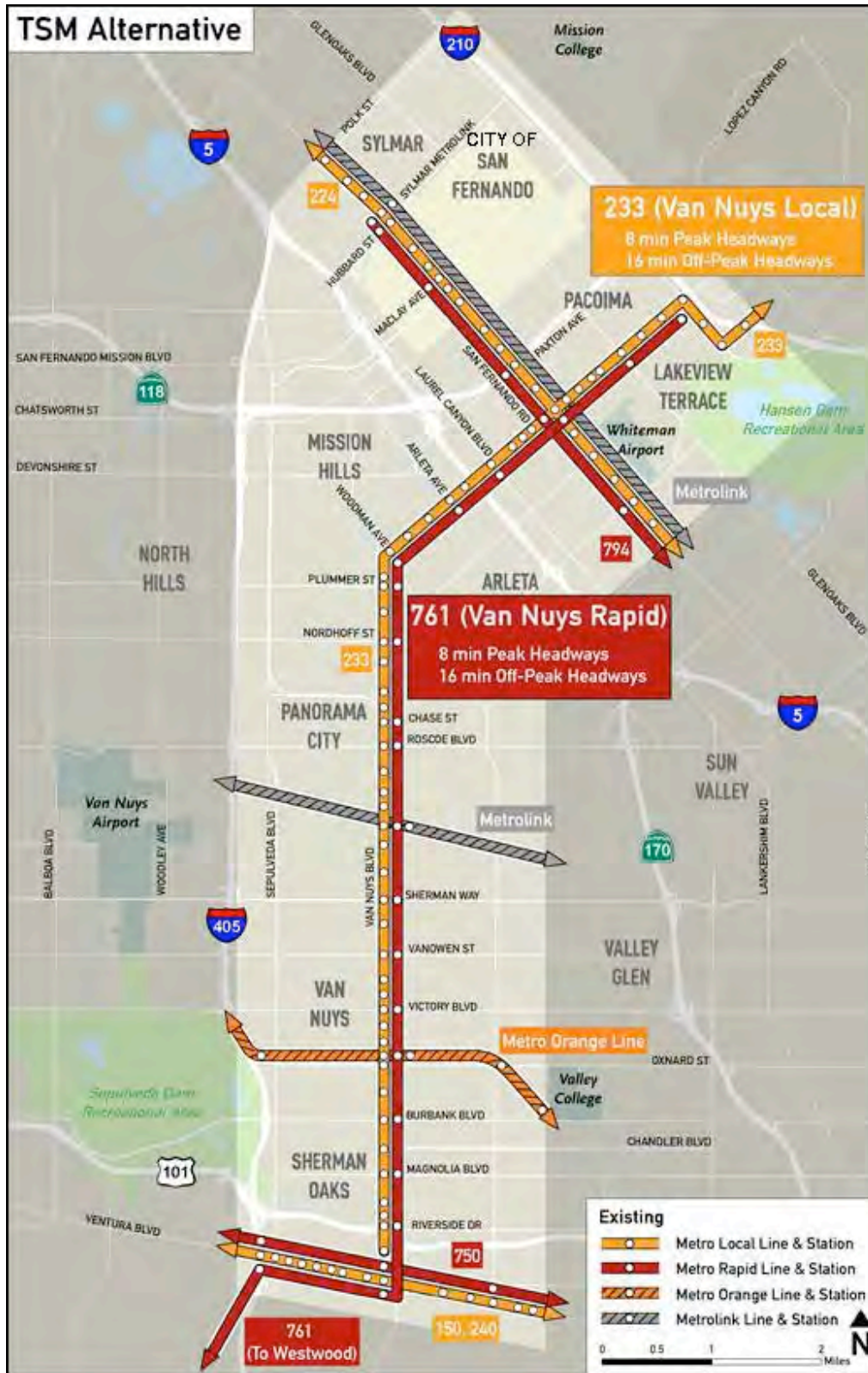
It should be noted that modifications were made in December 2014 to one of the primary Metro bus routes operating on Van Nuys Boulevard after this project analysis was already underway. Metro Rapid Line 744 was added connecting Pacoima in the east to Northridge in the west, and traveling for a large portion of the route (north-south) along Van Nuys Boulevard, and replacing the Metro Rapid Line 761. For the purposes of this study, the evaluation was based on the routes (Metro Rapid Line 761 and Metro Local Line 233) that were already in place in 2012 when the transportation modeling for this study began.

Photo ES-3: Example of Metro 60-Foot Articulated Bus



Source: Metro Transportation Library and Archives, 2015.

Figure ES-3: TSM Alternative



Source: STV, 2014.

The existing Metro Division 15 Maintenance and Storage facility (MSF) located in Sun Valley would be able to accommodate the 20 additional buses with the implementation of the TSM Alternative. Operational changes would include reduced headway (elapsed time between buses) times for Metro Rapid Line 761 and Metro Local Line 233, as follows:

- Metro Rapid Line 761 would operate with headways reduced from 10 minutes to 8 minutes during peak hours (7 a.m. to 9 a.m. and 4 p.m. to 7 p.m. on weekdays) and from 17.5 minutes to 12 minutes during off-peak hours.
- Metro Local Line 233 would operate with headways reduced from 12 minutes to 8 minutes during peak hours and from 20 minutes to 16 minutes during off-peak hours.

BRT Alternatives

Alternative 1 – Curb-Running BRT Alternative

Under the Curb-Running BRT Alternative, the BRT guideway would incorporate 6.7 miles of existing curb lanes (i.e., lanes closest to the curb) along Van Nuys Boulevard between San Fernando Road on the north and the Metro Orange Line on the south. This alternative would be similar to the Metro Wilshire BRT Project with a dedicated bus lane that could operate 24-hours a day or only during peak periods. The lanes would be dedicated curb-running bus lanes for Metro Rapid Line 761 and Metro Local Line 233, and for other transit lines that operate on short segments of Van Nuys Boulevard. In addition, this alternative would incorporate 2.5 miles of mixed-flow lanes, where buses would operate in the curb lane along San Fernando Road and Truman Street between Van Nuys Boulevard and Hubbard Avenue for Metro Line 761. Metro Line 233 would continue north on Van Nuys Boulevard to Lakeview Terrace. These improvements would result in an improved Metro Rapid Line 761 (hereafter referred to as 761X) and an improved Metro Local Line 233 (hereafter referred to as 233X). The route of the Curb-Running BRT Alternative is illustrated in Figure ES-4.

From the Sylmar/San Fernando Metrolink station:

- Metro Rapid Line 761X would operate within roadway travel lanes on Truman Street and San Fernando Road.
- At Van Nuys Boulevard, Metro Rapid Line 761X would turn southwest and travel south within a curb-running dedicated bus lane along Van Nuys Boulevard.
- The alternative would continue to be curb running along Van Nuys Boulevard until reaching the Metro Orange Line Van Nuys station where Metro Rapid Line 761X service would be integrated into mixed-flow traffic.
- Metro Line 761X would then continue south to Westwood as under existing conditions, though it should be noted that in December 2014 the Metro Rapid Line 761 was re-routed to travel from Van Nuys Boulevard to Ventura Boulevard, and then to Reseda Boulevard, while a new Metro Rapid Line 788 travels from Van Nuys Boulevard through the Sepulveda Pass to Westwood.

Metro Local Line 233X would operate similar to how it currently operates between the intersections of Van Nuys and Glenoaks Boulevards to the north and Van Nuys and Ventura Boulevards to the south. However, Metro Local Line 233X would operate with improvements over existing service because it would utilize the BRT guideway where its route overlaps with the guideway along Van Nuys Boulevard.

Figure ES-4: Alternative 1 – Curb-running BRT



Source: KOA and ICF International, 2014.

Transit service would not be confined to only the dedicated curb lanes. Buses would still have the option to operate within the remaining mixed-flow lanes to bypass right-turning vehicles, a bicyclist, or another bus at a bus stop.

The Curb-Running BRT Alternative would operate in dedicated bus lanes, sharing the lanes with bicycles and right turning vehicles. However, on San Fernando Road and Truman Street, no dedicated bus lanes would be provided. The Curb-Running BRT Alternative would include 18 bus stops.

Alternative 2 – Median-Running BRT Alternative

The Median-Running BRT Alternative consists of approximately 6.7 miles of dedicated median-running bus lanes between San Fernando Road and the Metro Orange Line, and would have operational standards similar to the Metro Orange Line. The remaining 2.5 miles would operate in mixed-flow traffic between the Sylmar/San Fernando Metrolink Station and San Fernando Road/Van Nuys Boulevard. The Median-Running BRT Alternative is illustrated in Figure ES-5.

Similar to the Curb-Running BRT Alternative, the Median-Running BRT (Metro Rapid Line 761X) would operate as follows from the Sylmar/San Fernando Metrolink station:

- Within mixed-flow lanes on Truman Street and San Fernando Road.
- At Van Nuys Boulevard, the route would turn southwest and travel south within the median of Van Nuys Boulevard in a new dedicated guideway.
- Upon reaching the Van Nuys Metro Orange Line Station, the dedicated guideway would end and the Rapid Line 761X service would then be integrated into mixed-flow traffic.
- The route would then continue south to Westwood, similar to the existing route. Similar to Alternative 1, it should be noted that in December 2014 the Metro Rapid Line 761 was re-routed to travel from Van Nuys Boulevard to Ventura Boulevard, and then to Reseda Boulevard, while a new Metro Rapid Line 788 travels from Van Nuys Boulevard through the Sepulveda Pass to Westwood.

Metro Local Line 233 would operate similar to existing conditions between the intersections of Van Nuys and Glenoaks Boulevards to the north and Van Nuys and Ventura Boulevards to the south. Rapid Bus stops that currently serve the 794 and 734 lines on the northern part of the alignment along Truman Street and San Fernando Road would be upgraded and have design enhancements that would be Americans with Disabilities Act (ADA) compliant. These stops would also serve the redirected 761X line:

1. Sylmar/San Fernando Metrolink Station
2. Hubbard Station
3. Maclay Station
4. Paxton Station
5. Van Nuys/San Fernando Station

Along the Van Nuys Boulevard segment, bus stop platforms would be constructed in the median. Seventeen median stations and four curb bus stops would be included.

Figure ES-5: Alternative 2 – Median-running BRT



Source: KOA and ICF International, 2014.

Rail Alternatives

Alternative 3 – Low-Floor LRT/Tram Alternative

The Low-Floor LRT/Tram Alternative would operate along a 9.2-mile route from the Sylmar/San Fernando Metrolink station to the north to the Van Nuys Metro Orange Line station to the south. The Low-Floor LRT/Tram Alternative would operate in a median dedicated guideway for approximately 6.7 miles along Van Nuys Boulevard between San Fernando Road and the Van Nuys Metro Orange Line station. The Low-Floor LRT/Tram Alternative would operate in mixed-flow traffic lanes on San Fernando Road between the intersection of San Fernando Road/Van Nuys Boulevard and just north of Wolfskill Street. Between Wolfskill Street and the Sylmar/San Fernando Metrolink station, the Low-Floor LRT/Tram would operate in a median dedicated guideway. It would include 28 stations. The route of the Low-Floor LRT/Tram Alternative is illustrated in Figure ES-6.

The Low-Floor LRT/Tram Alternative would operate along the following route:

- From the Sylmar/San Fernando Metrolink station, the Low-Floor LRT/Tram would operate within a median dedicated guideway on San Fernando Road.
- At Wolfskill Street, the Low-Floor LRT/Tram would operate within mixed-flow travel lanes on San Fernando Road to Van Nuys Boulevard.
- At Van Nuys Boulevard, the Low-Floor LRT/Tram would turn southwest and travel south within the median of Van Nuys Boulevard in a new dedicated guideway.
- The Low-Floor LRT/Tram would continue to operate in the median along Van Nuys Boulevard until reaching its terminus at the Van Nuys Metro Orange Line Station.

Based on Metro's *Operations Plan for the East San Fernando Valley Transit Corridor Project*, the Low-Floor LRT/Tram Alternative would assume a similar travel speed as the Median-Running BRT Alternative, with speed improvements of 18 percent during peak hours/peak direction and 15 percent during off-peak hours.

The Low-Floor LRT/Tram Alternative would operate using low-floor articulated vehicles that would be electrically powered by overhead wires, as in the example shown in Photo ES-4. This Alternative would include supporting facilities, such as an overhead contact system (OCS), traction power substations (TPSS), signaling, and a maintenance and storage facility (MSF).

Because the Low-Floor LRT/Tram Alternative would fulfill the current functions of the existing Metro Rapid Line 761 and Metro Local Line 233, these bus routes would be modified to maintain service only to areas outside of the project corridor. Thus, Metro Rapid Line 761 (referred to as 761S with reduced service) would operate only between the Metro Orange Line and Westwood, and Metro Local Line 233 (referred to as 233S with reduced service) would operate only between San Fernando Road and Glenoaks Boulevard. It is most likely that this area would continue to be served by a neighboring bus line or that the 233S route is modified, so that it is not serving such a limited geographic area. Metro Operations would make such modifications based on observation of the line's performance and feedback from the communities it serves. It should be noted that in December 2014 the Metro Rapid Line 761 was re-routed to travel from Van Nuys Boulevard to Ventura Boulevard, and then to Reseda Boulevard, while a new Metro Rapid Line 788 now travels from Van Nuys Boulevard through the Sepulveda Pass to Westwood and provides peak period freeway express service.

Figure ES-6: Alternative 3 – Low-Floor LRT/Tram



Source: KOA and ICF International, 2014.

Photo ES-4: Examples of Low-Floor LRT/Tram Vehicle Types



Portland Streetcar Tram Vehicle/Siemens S70 Low-Floor LRT Vehicle on Portland's MAX System



San Diego Trolley Siemens S70 Low-Floor LRT Vehicle/Stadler Variotram in Munich, Germany

Stations for the Low-Floor LRT/Tram Alternative would be constructed at various intervals along the entire route. There are portions of the route where stations would be closer together and other portions where they would be located further apart. With the Low-Floor LRT/Tram Alternative, 28 ADA compliant stations are proposed.

Alternative 4 – LRT Alternative

Similar to the Low-Floor LRT/Tram Alternative, the LRT would be powered by overhead electrical wires; however, it is relevant to note the onboard commuter load capacities for Alternatives 3 and 4. A low-floor and high-floor LRT vehicle have different load capacities, 100 versus 133, respectively. Using the San Diego Trolley low-floor vehicle as an example, their 90-foot low-floor vehicle has a commute/load capacity of 100 persons. Additionally, aisles are narrower and include step(s) to get to some/many seats. Additionally, seats above 'trucks' have less leg room. The low floor combined with the area dedicated to the trucks/wheels and the longer cab areas result in reduced capacity. For comparison, Metro's 90-foot high-floor model has a commute/load capacity of 133 passengers, and is the vehicle type that would likely be used for Alternative 4 (shown in Photos ES-5 and ES-6).

Photo ES-5: Example of Metro 90-Foot LRT Vehicle



Source: Metro, 2016.

Photo ES-6: Metro LRT Vehicle



Source: Metro, 2016.

Under Alternative 4, the LRT would travel in a dedicated guideway from the Sylmar/San Fernando Metrolink station adjacent to San Fernando Road south to Van Nuys Boulevard, from San Fernando Road to the Van Nuys Metro Orange Line Station, over a distance of approximately 9.2 miles (Figure ES-7). The LRT Alternative includes a segment in exclusive right-of-way through the Antelope Valley Metrolink railroad corridor, a segment with semi-exclusive right-of-way in the middle of Van Nuys Boulevard, and an underground segment beneath Van Nuys Boulevard from just north of Parthenia Street to Hart Street.

Figure ES-7: Alternative 4 – LRT



Source: KOA and ICF International, 2014.

The LRT Alternative would be similar to other street-running LRT lines that currently operate in the Los Angeles area, such as the Metro Blue Line, Metro Gold Line, and Metro Exposition Line. The LRT would travel along the median for most of the route, with a subway of approximately 2.5 miles in length between Vanowen Street and Nordhoff Street. On the surface-running segment, the LRT Alternative would operate at prevailing traffic speeds and would be controlled by standard traffic signals.

Stations would be constructed at approximately 1-mile intervals along the entire route. There would be 14 stations, three of which would be underground at locations near Sherman Way, the Van Nuys Metrolink station, and Roscoe Boulevard. Entry to the three underground stations would be provided from an entry plaza and portal. The entry portals would provide access to stairs, escalators, and elevators leading to an underground LRT station mezzanine level, which, in turn, would be connected via additional stairs, escalators, and elevators to the underground LRT station platforms

Similar to the Low-Floor LRT/Tram Alternative, the LRT Alternative would require a number of additional elements to support vehicle operations, including an OCS, TPSS, communications and signaling buildings, and a MSF.

ES.4 Comparison of Alternatives


















Physical and operating characteristics of alternatives evaluated in this Draft EIS/EIR are summarized in Figure ES-8. The environmental effects of the alternatives are summarized in Table ES-1. The selection of criteria to evaluate the alternatives is based on their effectiveness in providing transit improvements that meet the project objectives, as reflected in the project purpose and need, while taking into account each alternative's environmental impacts, including effects on project area circulation and access, safety, property acquisition, and displacement, as well as the operating performance of each alternative and cost. The criteria are listed below.

- Travel and Mobility Benefits and Impacts;
- Regional Connectivity;
- Cost-Effectiveness;
- Environmental Benefits and Impacts;
- Economic and Land Use Considerations;
- Community Input; and
- Financial Capability.

Summary of Environmental Impacts

In compliance with NEPA and CEQA guidelines, this Draft EIS/EIR studied potential environmental consequences associated with construction and operation of the Alternatives described above.

Figure ES-8: Comparison of Alternatives

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT COMPARISON OF ALTERNATIVES							
CONSIDERATIONS *		NO BUILD	TSM	CURB RUNNING BRT Alternative 1	MEDIAN RUNNING BRT Alternative 2	MEDIAN RUNNING TRAM Alternative 3	MEDIAN RUNNING LRT Alternative 4
	LEFT-TURN RESTRICTIONS AT CERTAIN INTERSECTIONS	-	-	-	✓	✓	✓
	STREET PARKING RESTRICTIONS	-	-	✓	✓	✓	✓
	FUTURE BIKE LANE RESTRICTIONS	-	-	✓	✓	✓	✓
	REDUCES CURRENT SIDEWALK WIDTHS	-	-	-	✓	✓	✓
	TRAVEL LANES IN EACH DIRECTION	3	3	2	2	2	2
	POTENTIAL REAL ESTATE ACQUISITION	-	-	-	-	✓	✓
	REQUIRES NEW RAIL MAINTENANCE STORAGE FACILITY (MSF)	-	-	-	-	✓	✓
2040 OPERATIONAL CHARACTERISTICS *							
	AVERAGE SPEED (MPH)	11.3	11.3	13.4	15.0	13.1	19.2
	TRAVEL TIME (MINUTES)	49	48	41	37	42	29
	CAPITAL COSTS IN 2014 \$ (APPROXIMATE) \$170 MILLION CURRENTLY IDENTIFIED	-	\$ 35.2 M	\$294 M	\$402 M	\$1.3 B	\$2.67 - \$2.79 B
	CAPACITY PER VEHICLE	75	75	75	75	266	400

*SUBJECT TO CHANGE

Source: Metro, 2015.

Due to the highly urbanized nature of the project area, potential environmental impacts pertain primarily to the built environment. Over 20 categories of environmental impacts were evaluated. Environmental impact categories where at least one alternative would have a substantial adverse effect or significant impact remaining after mitigation are discussed below under unavoidable substantial adverse effects/significant impacts remaining after mitigation. Table ES-1 summarizes effects/impacts, mitigation measures, and impacts remaining after mitigation associated with each alternative.

Unavoidable Substantial Adverse Effects/Significant Impacts

At least one of the alternatives (see Table ES-1) would have unavoidable adverse effects/significant impacts on the following environmental resources:

Traffic and Bicycle Facilities: The build alternatives, Alternatives 1 through 4, would result in reductions in roadway capacity due to the conversion of existing motor vehicle lanes to accommodate the BRT and rail alternatives. As a consequence, significant traffic impacts could occur at 16 to 32 study intersections, depending on the alternative. Mitigation measures such as lane configuration changes that would increase capacity of the roadways or restrictions in allowable turning movements, were considered infeasible due to right-of-way (ROW) constraints or secondary effects to upstream and downstream locations. Since no feasible mitigation measures exist that would reduce these impacts below the level of significance, impacts would be significant and unavoidable. Additionally, existing bicycle lanes on Van Nuys Boulevard would be removed and future bicycle lanes designated for implementation along Van Nuys Boulevard would not be feasible under the build alternatives, which would conflict with the City of Los Angeles Bicycle Plan. Therefore, impacts on bicyclists and bicycle facilities would remain significant.

Community and Neighborhood: The unavoidable significant adverse impacts described above due to removal of bicycle lanes would also be considered a significant adverse community and neighborhood impact. Additionally, under Alternatives 3 and 4, construction and operational impacts on social and community interactions due to business displacements, and operational visual impacts on sensitive viewers would be significant after implementation of proposed mitigation measures.

Visual and Aesthetics: Alternatives 3 and 4 would result in potentially significant impacts to the visual environment within the project corridor. The visual changes in communities along the project corridor due to the introduction of new vertical structures affecting scenic views of the surrounding mountains and foothills would result in an adverse effect under NEPA and a significant impact under CEQA after mitigation.

Air Quality: Construction of Alternatives 1 through 4 would result in localized PM10 and PM2.5 emissions during construction that would exceed local thresholds. Even with implementation of mitigation measures, emissions thresholds would be exceeded and impacts would remain significant during construction.

Safety and Security: Implementation of Alternative 1 would result in impacts, after mitigation, on bicycle safety due to the removal of existing bike lanes. In addition, Alternatives 2 through 4 would result in impacts, after mitigation, on pedestrian sidewalk safety due to narrowing of sidewalks, bicycle safety due to the removal of existing bike lanes, and potential impacts on emergency vehicle response time due to turn restrictions and the increased congestion resulting from the removal of mixed-flow travel lanes.

More information regarding the proposed project's environmental impacts is provided in Chapter 3, Transportation Impacts and Mitigation, and Chapter 4, Environmental Analysis, Consequences, and Mitigation. All impacts and mitigation measures associated with each alternative are summarized below in Table ES-1.

ES.5 Issues to Be Resolved and Areas of Controversy

Areas of Controversy

Public comments submitted during the scoping period expressed concerns regarding the issues listed below. Please note that these comments are meant to provide a synopsis of the top trending themes. A detailed description of the comments received during the scoping period is provided in Appendix CC, the Final Scoping Report.

- A strong preference by the public for LRT, despite the high cost, which is viewed as the best mode of transit, with higher carrying capacity and better mobility benefits;
- A feeling among some community members that the San Fernando Valley is not receiving its fair share of investment in rail, compared to other parts of the county;
- Concerns expressed about the effects on local businesses of removing on-street parking along Van Nuys Boulevard;
- Concerns about economic impacts on adjacent businesses during project construction;
- Concerns over the loss of traffic lanes to accommodate the project and increased congestion in the motor vehicle lanes due to the project;
- Strong opposition to extending the project limits south of the Metro Orange Line, by community members south of the Metro Orange Line;
- Concerns about the location of the maintenance facility and potential impacts on the surrounding community;
- Concerns that BRT would be slower, carry fewer people, and have limited benefits compared with LRT;
- Concerns that LRT is too expensive and BRT can provide almost the same level of benefits at a much lower cost;
- Concerns about any potential elimination of existing Metro Local and Rapid bus routes and stops;
- Strong support for inclusion of bicycle lanes as part of this project, and opposition to their removal; and
- Concerns about fare increases to pay for this project.

Issues to Be Resolved

Operating Characteristics of Alternative 3 within Downtown San Fernando

If Alternative 3, the Low-Floor LRT/Tram Alternative is selected as the preferred alternative, Metro would continue to coordinate with the City of San Fernando regarding mutually agreeable operating characteristics, such as operating the alignment within a median/dedicated guideway on San Fernando Road and developing an appropriate design that is compatible and appropriate for this multi-modal corridor. Potential operating and design issues to be considered include transit, automobile, and pedestrian access and safety issues as well as pedestrian bridge implementation, lane removal, tree removal, OCS pole installation, and tram station designs and locations.

Connection with Metro Orange Line

The Metro Orange Line intersects the southern terminus of the alignment (shown in Photo ES-7). Currently, the Metro Orange Line is a BRT that operates in a dedicated right-of-way with an average of 30,000 boardings per day. The Metro Orange Line Van Nuys Station is also a major transfer point. In planning this project, special consideration should be given to how this project intersects with the Metro Orange Line and how to best facilitate transfer to/from both services.

Photo ES-7: Existing Metro Orange Line Connection with Van Nuys Boulevard



Source: KOA, 2015.

Uncertainties and Opportunities with California High Speed Rail

California’s High-Speed Rail (CAHSR) Project is in the planning phase, and could potentially include a segment near or within the proposed project study area (Figure ES-9). If the CAHSR alignment plans progress with a preferred alignment in the vicinity of the proposed project area, coordination with the California High-Speed Rail Authority would continue to occur to ensure that the CAHSR Project does not conflict with this planned proposed project.

Figure ES-9: Possible California High Speed Rail Planned within the Study Area

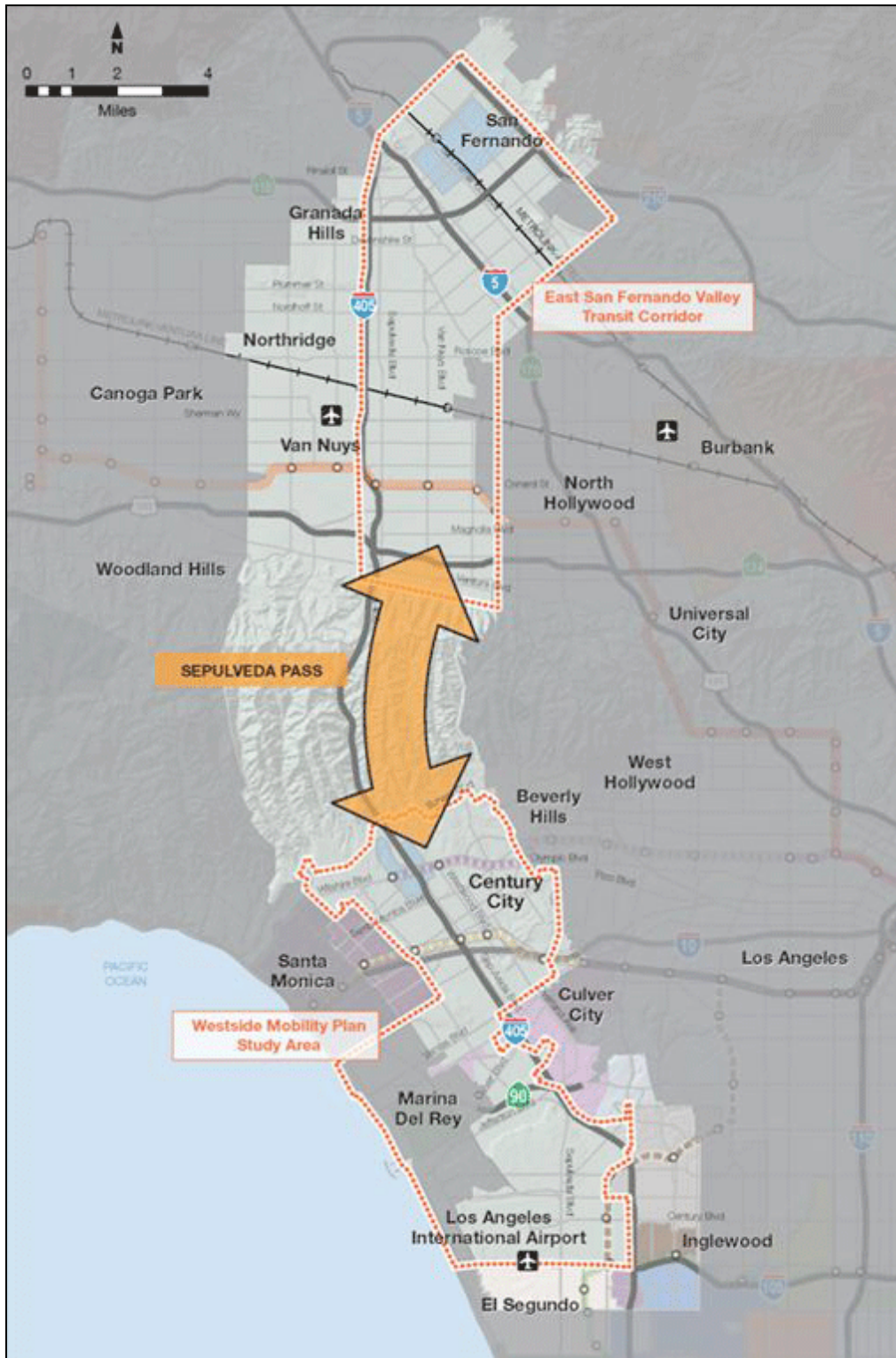


Source: State of California High Speed Rail Authority, 2016.

Uncertainties and Opportunities with Sepulveda Pass Transit Project

Along with planning for this proposed project, Metro is also studying how best to provide improved transit service through the Sepulveda Pass connecting the San Fernando Valley and the Westside (e.g. Westwood, Brentwood, West LA, Culver City). Selection of a preferred alternative for the East San Fernando Valley Transit Corridor Project will recognize the Sepulveda Pass Project and consider any potentially feasible and advantageous points for connecting the two corridors (Figure ES-10).

Figure ES-10: Sepulveda Pass Transit Connection



Source: Metro, 2016.

Bus Shelters and City Bus Shelter Advertising Contracts

Any proposed changes to the existing bus shelters (Photos ES-8) and benches as part of the proposed project would need to be coordinated and approved in consultation with the City of Los Angeles. Since the City has an exclusive contract with a bus stop advertising company and proposed project changes would have to be coordinated per the City’s contract.

Photo ES-8: Bus Shelter/Bus Shelter Advertising



Source: Google Maps, 2016.

Specific Effects on Landmark Palm Trees in the Civic Center

One of the most noticeable visual elements along the Van Nuys Boulevard corridor is the dual row of palm trees in the Van Nuys Civic Center portion of the corridor (Photo ES-9). The impact assessment for the median-running BRT and both LRT alternatives indicated that the guideway requirements would require the removal of some portion of these trees. It is Metro’s intent to hold focused community urban design and station area meetings during final design of the project to obtain input on the re-planting of the trees. The community will be informed during the meetings about drought-tolerant California native plants and trees that could be considered for sun protection/shade as part of the landscaping plan that would be developed during final design.

Photo ES-9: Landmark Palm Trees along Van Nuys Boulevard in the Van Nuys Civic Center



Source: Metro, 2016.

Specific Effects on Mature Trees in the City of San Fernando’s Downtown

One of the most noticeable visual elements along San Fernando Road through downtown San Fernando is the mature street trees on each side of the street (shown in Photo ES-10). The impact assessment for the Low-Floor LRT /Tram Alternative indicated that the guideway requirements would require the removal of some portion of these trees. It is Metro’s intent to hold focused community urban design and station area meetings to obtain input on the re-planting of the trees with final design of the project. The community will be informed during the meetings about drought-tolerant California native plants and trees that could be considered for sun protection/shade as part of the landscaping plan that would be developed during final design.

Photo ES-10: Mature Trees along San Fernando Boulevard in Downtown San Fernando



Source: Metro, 2016.

Pedestrian Safety Improvements at Nearby Schools

A number of private and public schools are either adjacent to or near Van Nuys Boulevard and the San Fernando Road corridors (Photos ES-11 through ES-13). The Metro Board will need to consider whether additional pedestrian safety measures are warranted, beyond Metro’s current pedestrian safety program.

Photo ES-11: San Fernando Middle School Photo ES-12: Arleta High School



Source: Google Maps, 2016.



Source: Google Maps, 2016.

Photo ES-13: Panorama High School



Source: Google Maps, 2016.

Specific Effects of Project on Left Turns into Businesses

Alternatives 2, 3, and 4 would eliminate some mid-block, or outside of intersection left-turns into properties on Van Nuys Boulevard. There are businesses throughout the corridor where delivery trucks access the business via a left turn (Photo ES-14). A formal outreach effort would be established to work with the businesses on a new access plan that would continue to provide access while being compatible with the operation of a median-running alternative, should one be the selected alternative.

Photo ES-14: Truck Making a Left Turn along Van Nuys Corridor



Source: Metro, 2016.

Project Funding

Capital Funding Sources

Metro's approved 2009 LRTP reserved \$170.1 million for the project, which is the present worth in 2014 dollars, escalated to the year of expenditure. The following combination of federal, state, and local revenue sources are eligible sources of funding for the East San Fernando Valley Transit Corridor Project:

- **Federal Sources**
 - o Congestion Management and Air Quality (CMAQ)
 - o Regional Surface Transportation Program (RSTP)
 - o Other future FTA funding
- **State Sources**
 - o Regional Improvement Program (RIP)
 - o Traffic Congestion Relief Program (TCRP)
 - o Cap and Trade
- **Local Sources**
 - o Measure R Sales Tax
 - o Local Agency Funds
 - o Proposition A Sales Tax
 - o Proposition C Sales Tax

2016 Transportation Sales Tax Ballot Measure

Los Angeles County is expected to grow by 2.4 million people by 2057. Metro is updating its Long Range Transportation Plan (LRTP) to enhance mobility and quality of life for Los Angeles County to position the region for future growth and meet transportation needs. The foundation for the updated LRTP is a transportation sales tax ballot measure which provides a vision, through nine categories of funding for the variety of transit related infrastructure and programs needed to build and operate a balanced multi-modal transportation system. Specifically, the potential ballot measure identifies major highway and transit projects evaluated and sequenced based on performance metrics approved by the Metro Board of Directors at its December 2015 meeting. The potential ballot measure also includes projects identified by staff that are necessary to improve and enhance system connectivity; promote bicycling and walking; support Americans with Disabilities Act (ADA)/paratransit services for the disabled; discounts for students and seniors; investments to fund bus and rail operations; ongoing system maintenance and repair, including repair of bridges and tunnels; and funds for repair and enhancement of local streets and roads. To fund these projects and programs, the Metro Board agreed, at its June 2016 meeting, to place a measure on the ballot in November 2016 that would augment Measure R with a new half-cent sales tax, and extend the current Measure R tax rate to 2057.

In March 2016, the Metro Board released the draft Potential Ballot Measure Expenditure Plan for public review. The draft Plan anticipates approximately \$120+ billion (year of expenditure (YOE)) over a 40+ year period. It relies on the following funding assumptions: a ½ cent sales tax augmentation to begin in FY18; an extension of an existing ½ cent sales tax rate beyond the current expiration of Measure R in 2039; with a combined one cent sales tax sunset in the year 2057 and a partial extension for ongoing repairs, operations, and debt service. The draft Expenditure Plan currently identifies the East San Fernando Valley Transit Corridor Project for a total of \$1.33 billion in funding, including \$810 million of potential ballot measure revenues and \$520 million of funding from other LRTP revenues. The project as defined in the draft Expenditure Plan would be a high-capacity transit project, mode to be determined, that connects the Orange Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station with a minimum of 14 stations over 9.2 miles.

L RTP Priority Projects

In order to accelerate a project in the LRTP, the funds must be available and the Metro Board must approve an amendment to the 2009 LRTP. Metro is currently working to update the LRTP, which will include the approval of the East San Fernando Valley Transit Corridor Project, its new schedule and its new funding. When this occurs and the new dates of construction are known, if warranted, a supplemental environmental analysis will be conducted.

ES.6 Next Steps

- Draft EIS/EIR Comment Period – A 45-day comment period will begin with publication of the Notice of Availability of the Draft EIS/EIR.
- Metro Board adopts the Locally Preferred Alternative – The Metro Board of Directors may choose to select a Locally Preferred Alternative (LPA) in the spring of 2017.
- Upon adoption of the LPA, the Metro Board may initiate the Final EIR. FTA’s approval to initiate the Final EIS may be contingent upon having funding in place. The Metro Board must obtain funds to allow the initiation of a Final EIS as described above in Issues to be Resolved.

ES.7 Summary of Environmental Consequences and Mitigation Measures

Metro is committed to satisfying applicable federal, state, and local environmental regulations and to applying reasonable mitigation measures to reduce adverse effects and significant impacts. Measures to mitigate potential effects and impacts for the project alternatives are identified in this Draft EIS/EIR. Metro Board of Directors authorizes the completion of the Final EIR when they approve a project alternative, the Board will also adopt a Mitigation Monitoring and Reporting Program (MMRP), which lists all of the committed mitigation measures and CEQA Findings. Upon approval of the proposed project, these mitigation measures will become part of the proposed project, and will be considered binding under CEQA.

Table ES-1, below, provides a summary of all the impacts and mitigation measures associated with each alternative.