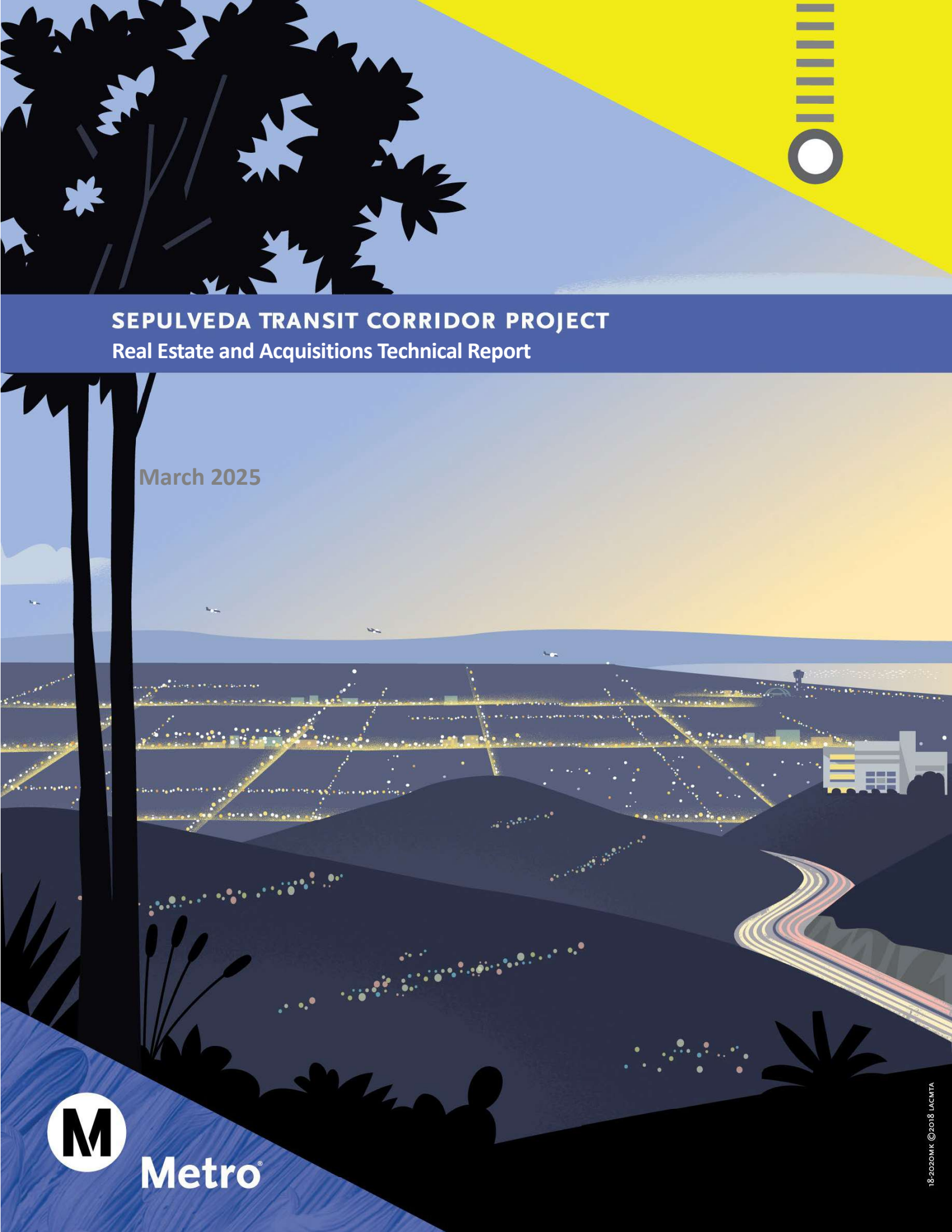
Appendix Q. Real Estate and Acquisitions Technical Report

SEPULVEDA TRANSIT CORRIDOR PROJECT

Real Estate and Acquisitions Technical Report

March 2025



Metro

SEPULVEDA TRANSIT CORRIDOR PROJECT

Contract No. AE67085000

Real Estate and Acquisitions Technical Report

Task 5.24.11

Prepared for:

Metro

Los Angeles County
Metropolitan Transportation Authority

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March 2025

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Abbreviations and Acronyms

ADA	Americans with Disabilities Act
APM	automated people mover
BRT	bus rapid transit
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIDH	cast-in-drilled-hole
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
HRT	heavy rail transit
HTA	HTA Partners
I-10	Interstate 10
I-405	Interstate 405
LADWP	City of Los Angeles Department of Water and Power
LASRE	LA SkyRail Express
LAX	Los Angeles International Airport
LOSSAN	Los Angeles-San Diego-San Luis Obispo
LPA	Locally Preferred Alternative
LRT	light rail transit
Metro	Los Angeles County Metropolitan Transportation Authority
MOW	maintenance-of-way
MRT	monorail transit
MSF	maintenance and storage facility
NEPA	National Environmental Policy Act
NOP	Notice of Preparation
PDA	Pre-Development Agreement
Project	Sepulveda Transit Corridor Project
RAMP	Real Estate Acquisition Management Plan
ROW	right-of-way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
SCORE	Southern California Optimized Rail Expansion
STCP	Sepulveda Transit Corridor Partners

TAZ	Transportation Analysis Zone
TBM	tunnel boring machine
TCE	temporary construction easement
TPSS	traction power substation
UCLA	University of California, Los Angeles
US-101	U.S. Highway 101
U.S.C.	United States Code
Valley	San Fernando Valley
VSM	vertical shaft sinking machine

1 INTRODUCTION

1.1 Project Background

The Sepulveda Transit Corridor Project (Project) is intended to provide a high-capacity rail transit alternative to serve the large and growing travel market and transit needs currently channeled through the Sepulveda Pass and nearby canyon roads between the San Fernando Valley (Valley) and the Westside of Los Angeles. The Project would have a northern terminus with a connection to the Van Nuys Metrolink/Amtrak Station and a southern terminus with a connection to the Los Angeles County Metropolitan Transportation Authority's (Metro) E Line. In addition to providing local and regional connections to the existing and future Metro rail and bus network, the Project is anticipated to improve access to major employment, educational, and cultural centers in the greater Los Angeles area.

In 2019, Metro completed the Sepulveda Transit Corridor Feasibility Study and released the Project's Final Feasibility Report (Metro, 2019), which documented the transportation conditions and travel patterns in the Sepulveda corridor; identified mobility problems affecting travel between the Valley and the Westside; and defined the Purpose and Need, goals, and objectives of the Project. Using an iterative evaluation process, the Feasibility Study identified feasible transit solutions that met the Purpose and Need, goals, and objectives of the Project. The Feasibility Study determined that a reliable, high-capacity, fixed guideway transit system connecting the Valley to the Westside could be constructed along several different alignments. Such a transit system, operated as either heavy rail transit (HRT) or monorail transit (MRT), would serve the major travel markets in the Sepulveda Transit corridor and would provide travel times competitive with the automobile.

1.2 Project Alternatives

In November 2021, Metro released a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act, for the Project that included six alternatives (Metro, 2021). Alternatives 1 through 5 included a southern terminus station at the Metro E Line Expo/Sepulveda Station, and Alternative 6 included a southern terminus station at the Metro E Line Expo/Bundy Station. The alternatives were described in the NOP as follows:

- Alternative 1: Monorail with aerial alignment in the Interstate 405 (I-405) corridor and an electric bus connection to the University of California, Los Angeles (UCLA)
- Alternative 2: Monorail with aerial alignment in the I-405 corridor and an aerial automated people mover connection to UCLA
- Alternative 3: Monorail with aerial alignment in the I-405 corridor and underground alignment between the Getty Center and Wilshire Boulevard
- Alternative 4: Heavy rail with underground alignment south of Ventura Boulevard and aerial alignment generally along Sepulveda Boulevard in the San Fernando Valley
- Alternative 5: Heavy rail with underground alignment including along Sepulveda Boulevard in the San Fernando Valley
- Alternative 6: Heavy rail with underground alignment including along Van Nuys Boulevard in the San Fernando Valley and a southern terminus station on Bundy Drive

The NOP also stated that Metro is considering a No Project Alternative that would not include constructing a fixed guideway line. Metro established a public comment period of 74 days, extending from November 30, 2021 through February 11, 2022. Following the public comment period, refinements to the alternatives were made to address comments received. Further refinements to optimize the designs and address technical challenges of the alternatives were made in 2023 following two rounds of community open houses.

In July 2024, following community meetings held in May 2024, Alternative 2 was removed from further consideration in the environmental process because it did not provide advantages over the other alternatives, and the remaining alternatives represent a sufficient range of alternatives for environmental review, inclusive of modes and routes (Metro, 2024). Detailed descriptions of the No Project Alternative and the five remaining "build" alternatives are presented in Sections 5 through 10.

1.3 Project Study Area

Figure 1-1 shows the Project Study Area. It generally includes Transportation Analysis Zones from Metro's travel demand model that are within 1 mile of the alignments of the four "Valley-Westside" alternatives from the Sepulveda Transit Corridor Project Final Feasibility Report (Metro, 2019). The Project Study Area represents the area in which the transit concepts and ancillary facilities are expected to be located. The analysis of potential impacts encompasses all areas that could potentially be affected by the Project, and the EIR will disclose all potential impacts related to the Project.

1.4 Purpose of this Report and Structure

This technical report examines the environmental impacts of the Project as it relates to real estate and acquisitions. It describes existing real estate and acquisitions conditions in the Project Study Area, the regulatory setting, methodology for impact evaluation, and potential impacts from operation and construction of the project alternatives, including maintenance and storage facility (MSF) site options.

The report is organized according to the following sections:

- Section 1 Introduction
- Section 2 Regulatory and Policy Framework
- Section 3 Methodology
- Section 4 Future Background Projects
- Section 5 No Project Alternative
- Section 6 Alternative 1
- Section 7 Alternative 3
- Section 8 Alternative 4
- Section 9 Alternative 5
- Section 10 Alternative 6
- Section 11 Preparers of the Technical Report
- Section 12 References

Figure 1-1. Sepulveda Transit Corridor Project Study Area

Source: HTA, 2024

2 REGULATORY AND POLICY FRAMEWORK

2.1 Federal

2.1.1 Uniform Relocation Assistance and Real Property Acquisition Policies Act

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) mandates that certain relocation services and payments be made available to eligible residents, businesses, and non-profit organizations displaced as a direct result of projects undertaken by a federal agency or with federal financial assistance. The Uniform Act provides for uniform and equitable treatment of persons displaced from their homes and businesses and establishes uniform and equitable land acquisition policies.[1] Owners and holders of real estate interests of private property have federal constitutional guarantees that their property will not be acquired, taken, or damaged for public use unless they first receive an offer of just compensation.

A just compensation amount is measured by the "fair market value" of the real estate property interests and rights acquired, where fair market value is considered to be the "highest price on the date of valuation that would be agreed to by a seller, being willing to sell, but under no particular or urgent necessity for so doing, nor obliged to sell; and a buyer, being ready, willing and able to buy but under no particular necessity for so doing, each dealing with the other with the full knowledge of all the uses and purposes for which the property is reasonably adaptable and available" (Code of Civil Procedure Section 1263.320a). The establishment of fair market value of a property is determined by an independent appraisal opinion of value of a property's worth that is just and equitable on the open market and approved by a review appraisal. The Federal Transit Administration (FTA) brochure, General Acquisition and Relocation Information (FTA, 2015), provides a description of the process by which private property is acquired for transit projects. The Uniform Act is also codified in 49, Code of Federal Regulations (CFR) Part 24. All real estate acquisition and relocation assistance undertaken with FTA federal assistance must comply with Uniform Act and its implementing regulations at 49 CFR Part 24. The regulations have been amended and became effective on June 3, 2024.

2.1.2 Real Estate Acquisition Management Plan and Relocation Plan

For all major capital projects under 49 CFR Section 633.25 and FTA's Grant Management Requirements Circular 5010.1D (FTA, 2012), a Real Estate Acquisition Management Plan (RAMP) and relocation plan are required. A RAMP is a top-level and project-wide document that describes the property acquisition, relocation, and management functions for a project. The RAMP follows the project's life cycle through preliminary engineering, final design, the application for a Full-Funding Grant Agreement, and construction and service phases.

2.1.3 Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA) (42 U.S.C. Section 12101 – 12213) is a civil rights law that prohibits discrimination based on disability in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. This law ensures

[1] The term "displaced person" means any person who moves from real property or moves his personal property from real property. The term "business" means any lawful activity, excepting a farm operation, conducted primarily for the purchase, sale, lease and rental of personal and real property, and for the manufacture, processing, or marketing of products, commodities, or any other personal property; for the sale of services to the public; by a nonprofit organization; or for assisting in the purchase, sale, resale, manufacture, processing, or marketing of products, commodities, personal property, or services by the erection and maintenance of an outdoor advertising display or displays, whether or not such display or displays are located on the premises on which any of the above activities are conducted (42 U.S.C. Ch. 61, Section 4601).

people with disabilities have the same rights and opportunities as everyone else and provides civil rights protections to individuals with disabilities similar to those provided to individuals based on race, color, sex, national origin, age, and religion. ADA also guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications.

2.2 State

2.2.1 California Relocation Act

The California Relocation Act (Government Code Section 7260 et seq.) establishes uniform policies to provide for the fair and equitable treatment of people displaced from their homes or businesses as a direct result of state and/or local government projects or programs. This act requires that comparable replacement housing[2] be made available to displaced persons within a reasonable period of time prior to the displacement. Provisions of the California Relocation Act apply if a public entity undertakes a project for which federal funds are not present, and in this case, the public entity must provide relocation assistance and benefits. The California Relocation Act, consistent with the intent and guidelines of the Uniform Act, seeks to achieve the following:

- Ensure the consistent and fair treatment of owners and occupants of real property
- Encourage and expedite acquisition by agreement to avoid litigation and relieve congestion in the courts
- Promote confidence in the public land acquisitions

Under federal regulations, owners of private property have similar state constitutional guarantees regarding property acquisitions, damages, and just compensation.

2.2.2 Relocation Assistance and Real Property Acquisition Guidelines

The Relocation Assistance and Real Property Acquisition Guidelines (California Code of Regulations [CCR], Title 25 Section 6000 et seq.) assists public entities in developing regulations and procedures to implement the California Relocation Act. The guidelines are designed to implement the policies of the California Relocation Act by:

- Ensuring that uniform, fair, and equitable treatment is afforded to persons displaced from their home, business, or farm as a result of the actions of a public entity such that persons do not suffer disproportionate injury as a result of action taken for the benefit of the public as a whole
- Ensuring consistent and fair treatment for owners of real property to be acquired by a public entity, encouraging and expediting acquisition by agreement with owners of such property in order to avoid litigation and relieve congestion in courts, and promoting confidence in public land acquisition

[2] California Government Code Section 7260 defines comparable replacement housing as any dwelling that is all of the following: 1) decent, safe, and sanitary; 2) adequate in size to accommodate the occupants; 3) in the case of a displaced person who is a renter, within the financial means of the displaced person (i.e., the monthly rental cost of the dwelling, including estimated average monthly utility costs, minus any replacement housing payment available to the person, does not exceed 30 percent of the person's average monthly income); 4) comparable with respect to the number of rooms, habitable space, and type and quality of construction; 5) in an area not subject to unreasonable adverse environmental conditions; and 6) in a location generally not less desirable than the location of the displaced person's dwelling with respect to public utilities, facilities, services, and the displaced person's place of employment.

2.2.3 California Code of Civil Procedure

The California Code of Civil Procedure (Title 7, Section 1245.330 et seq.) describes California's Eminent Domain Law. Eminent Domain is the power of local, state, or federal government agencies to take private property for public use, so long as the government provides just compensation to the property owner. Eminent domain applies to public use projects. If a public agency determines that all or a portion of a property may be necessary for a public use project, the agency will begin the appraisal process by retaining an independent, accredited appraiser familiar with local property values to determine the property's fair market value. Once the property's fair market value is established, an offer of just compensation will be made to the property owner and if a portion of the property is taken, an offer of just compensate will be made for any loss in value to the remaining property that is not offset by the benefits conferred by the public use project. The public agency will seek a negotiated agreement with a property owner. If a negotiated agreement cannot be reached, the public agency may exercise its power of eminent domain to acquire the property. Eminent domain undertaken in support of a selected action alternative would be undertaken in accordance with the California Code of Civil Procedure.

2.3 Regional

2.3.1 Connect SoCal – The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

Adopted in April 2024, the Southern California Association of Governments (SCAG) Connect SoCal 2024 – The 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (SCAG, 2024a) is a long-range regional transportation plan and a sustainable communities strategy to achieve greenhouse gas reduction targets set by the California Air Resources Board. The 2025-2050 RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2025-2050 RTP/SCS vision includes the following:

- Improving public health by focusing on cleaner transportation and land use planning that concentrate on reducing sprawl, preserving open spaces, increasing access to important resources and enhancing resilience to climate change impacts
- Fostering an inclusive and resilient economy by improving access to employment centers and stimulate regional economic growth and opportunity in historically underserved areas; prioritizing workforce development initiatives, entrepreneurship and innovation to create diverse job opportunities across industries; and advancing the transition to clean transportation technologies
- Increasing transportation accessibility and reducing congestion and emissions
- Connecting communities

The 2025-2050 RTP/SCS is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements. The plan also strives to achieve broader regional objectives, such as increasing housing production, improving equity and resilience, preserving natural lands, improving public health, increasing roadway safety, supporting the region's vital goods movement industries, and using resources more efficiently. Regional planning policies in the 2025-2050 RTP/SCS include prioritizing

communities that are vulnerable to displacement pressures by supporting community stabilization and increasing access to housing that meets the needs of the region.

2.3.2 Los Angeles County General Plan 2035

The Los Angeles County General Plan 2035 (LA County Planning, 2015) provides the policy framework and establishes a long-range vision for how and where the unincorporated areas of Los Angeles County will grow. Within the Project Study Area, the unincorporated West Los Angeles (Sawtelle VA) community is subject to the County's General Plan. The Housing Element of the General Plan establishes goals and policies to address housing needs and to accommodate the unincorporated County's share of the regional housing needs. It includes goals and policies to increase housing availability, housing affordability, and housing supply. Applicable goals and policies in the Housing Element include ensuring no net loss of affordable housing when new development occurs (Policy 6.2) and protection against residential displacement (Goal 7).

2.3.3 Los Angeles County OurCounty Sustainability Plan

The Los Angeles County's OurCounty Sustainability Plan is a regional sustainability plan for the Los Angeles County. It outlines what local governments and stakeholders can do to enhance the well-being of every community in the County while reducing damage to the natural environment and adapting to the changing climate, particularly focusing on those communities that have been disproportionately burdened by environmental pollution. The Sustainability Plan is organized around 12 goals that describe the County's vision for a sustainable Los Angeles County. Goal 1 of the Sustainability Plan is "resilient and healthy community environments where residents thrive in place." For this goal, the County will protect low-income communities and communities of color from pollution, reduce health and economic inequalities, and support more resilient and inclusive communities. One of the strategies to achieve this goal is to increase housing affordability.

2.4 Local

2.4.1 City of Los Angeles General Plan

The City of Los Angeles General Plan establishes the long-term vision for how the City of Los Angeles will evolve and prescribes policy goals and objectives to shape the physical development of the city.

The Framework Element, adopted in December 1996 and amended in August 2001, was intended to guide the City of Los Angeles' long-range growth and development through the year 2010 (City of Los Angeles, 2001). The Framework Element's "smart growth" strategy generally seeks to accommodate growth near transit and other existing infrastructure to assure a sustainable, economically viable future for the City of Los Angeles. Although the horizon year of 2010 has passed, the population for which the Framework Element was designed to accommodate has not been reached.

The 2021-2029 Housing Element adopted in November 2021, addresses the City of Los Angeles' housing priorities, which include the following:

- Increasing the production of new housing, particularly affordable housing
- Advancing racial equity and access to housing opportunity
- Protecting residents, especially persons of color and the disabled, from direct and indirect displacement, and ensure stability of existing vulnerable communities

- Promoting sustainability, resilience, and environmental justice through housing (City of Los Angeles, 2021)

The Land Use Element includes 35 community plans that describe the land use designations, policies, and implementation programs for each community plan area. Each community plan discusses goals, objectives, and policies for preserving, improving, and developing housing. Many of these plans encourage planned residential developments to be located near transportation services adequate to accommodate the anticipated population growth and enhance quality of housing.

The Sepulveda Transit Corridor Project (Project) is located within the Palms-Mar Vista-Del Rey, West Los Angeles, Westwood, Brentwood-Pacific Palisades, Bel Air-Beverly Crest, Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, Encino-Tarzana, Reseda-Van Nuys, Van Nuys-North Sherman Oaks, and Mission Hills-Panorama City-North Hills Community Plan areas.

Table 2-1 lists and summarizes the relevant general and community plan policies related to housing, acquisition, displacement, and relocation.

Table 2-1. Relevant Policies Related to Housing, Acquisition, Displacement or Relocation

Plan	Objectives/Policies
City of Los Angeles 2021-2029 Housing Element	**Policy 1.1.4:** Plan for and provide sufficient services and amenities to support the existing and planned population.
City of Los Angeles 2021-2029 Housing Element	**Policy 1.3.1:** Prioritize housing capacity, resources, policies, and incentives to include affordable housing in residential development, particularly near transit, jobs, and in higher opportunity areas.
City of Los Angeles 2021-2029 Housing Element	**Policy 2.1.1:** Incentivize and/or require the preservation and replacement of affordable housing, so demolitions and conversions do not result in the net loss of the city's stock of accessible, safe, healthy, and affordable housing.
City of Los Angeles 2021-2029 Housing Element	**Policy 3.1.2:** Promote new development that furthers citywide housing priorities in balance with the existing architectural and cultural context.
City of Los Angeles 2021-2029 Housing Element	**Policy 3.2.1:** Promote the integration of housing with other compatible land uses at both the building and neighborhood level.
City of Los Angeles 2021-2029 Housing Element	**Policy 3.2.2:** Promote new multi-family housing, particularly affordable and mixed-income housing, in areas near transit, jobs and higher opportunity areas, in order to facilitate a better jobs-housing balance, help shorten commutes, and reduce greenhouse gas emissions.

Plan	Objectives/Policies
Palms-Mar Vista-Del Rey Community Plan, West Los Angeles Community Plan, Westwood Community Plan, Encino-Tarzana Community Plan, Brentwood-Pacific Palisades Community Plan, Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan, Van Nuys-North Sherman Oaks Community Plan, Mission Hills-Panorama City-North Hills Community Plan, Reseda-Van Nuys Community Plan	**Objective 1-3, Objective 1-2 (Reseda-Van Nuys):** Preserve and enhance the varied and distinct residential character and integrity of existing residential neighborhoods.
Palms-Mar Vista-Del Rey Community Plan, West Los Angeles Community Plan	**Policy 1-3.2:** Proposals for change to planned residential density should consider factors of neighborhood character and identity, compatibility of land uses, impacts on livability, public services, and facilities and on traffic levels.
Brentwood-Pacific Palisades Community Plan	**Objective 1-1:** Provide for the preservation of existing housing and for the development of new housing to meet the diverse economic and physical needs of the existing residents and projected population of the plan area to the year 2010.
Brentwood-Pacific Palisades Community Plan, Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan, Encino-Tarzana Community Plan, Van Nuys-North Sherman Oaks Community Plan, Mission Hills-Panorama City-North Hills Community Plan, Reseda-Van Nuys Community Plan	**Policy 1-3.2, Policy 1-2.2 (Reseda-Van Nuys)** **Policy 1-3.3 (Brentwood-Pacific Palisades):** Consider factors such as neighborhood character and identity, compatibility of land uses, impacts on livability, impacts on services and public facilities, and impacts on traffic levels when changes in residential densities are proposed.

Source: HTA, 2024

Note: Reference information for plans cited in this table is provided in Section 12 of this report.

2.5 Relocation Resources

Any person, household, business, farm, or nonprofit organization displaced by a public project may be entitled to relocation benefits if they are in occupancy of the property being acquired at the time of the initiation of negotiations. Persons and entities displaced by a project and determined to be eligible for benefits are classified as a “displaced person” or “displacee.” The term, “displaced person” or “displacee” means any person who moves from the real property or moves his or her personal property from the real property as the direct result of:

- A written notice of intent to acquire, the initiation of negotiations for, or the acquisition of, such real property in whole or in part for a project; or
- A written notice of intent to acquire, or the acquisition, rehabilitation, or demolition of, in whole or in part, other real property on which the person conducts a business or farm operation, for a project

In accordance with the Uniform Act (49 CFR Part 24), California Relocation Act (California Government Code Section 7260 et seq.), and the Relocation Assistance and Real Property Acquisition Guidelines (CCR Title 25 Section 6000 et seq.), in the event business or residential displacement occurs as a result of property acquisitions, the Los Angeles County Metropolitan Transportation Authority (Metro) would provide relocation resources to the displaced person who meets the requirements of the guidelines for a displaced person. In some instances, only personal property may require relocation. The information

presented in Chapter 10 of the California Department of Transportation Right-of-Way Manual (Caltrans, 2025) has traditionally been the source for guidance regarding relocation of displaced persons resulting from federally funded projects. The guidance presented in the Caltrans manual is consistent with Metro's procedures for implementing the Uniform Act, California Relocation Act, and the Relocation Assistance and Real Property Acquisition Guidelines.

2.5.1 Residential Property Resources

Available areas with the capacity to absorb residential relocations is an important relocation resource. Residential properties and other residential relocation resources are available for people requiring relocation. These include the following:

- Relocation assistance and counseling for those who would need to relocate
- Direct financial assistance for those who would need to relocate
- Sufficient government funding to administer all relocation processes and forms of assistance

2.5.1.1 Relocation Assistance and Counseling

The Uniform Act requires the displacing agency to establish a relocation assistance advisory program that satisfies the requirements of Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.), Title VIII of the Civil Rights Act of 1968 (42 U.S.C. 3601 et seq.), and Executive Order 11063 (27 CFR 11527, November 24, 1962). The Uniform Act offers to assist in relocating displaced persons to "decent, safe, and sanitary" housing that meets their needs and is within their financial means.

Relocation assistance emphasizes that for comparable replacement properties in areas of minority concentration, minority persons displaced shall be given reasonable opportunity to relocate to replacement properties outside of minority concentrated areas. Eligible displaced persons would be assigned a relocation advisor who would be responsible for providing current and continuing information throughout the relocation process, including the following:

- Explanation of eligible requirements for relocation payments and the appeal process
- Translation services to explain the relocation program to persons with limited English proficiency
- Information on the availability, purchase prices, rental costs, and financing terms of comparable replacement dwellings and/or nonresidential sites
- Assurance that no one would be required to move unless at least one comparable replacement dwelling is made available
- Explanation of the eviction policies to be pursued in carrying out the Project
- Address information, in writing, of the specific comparable replacement dwelling used to establish the maximum replacement housing payment
- Inspection of the replacement property to ensure it meets decent, safe, and sanitary standards
- Transportation to inspect housing to which displaced persons are referred
- Assistance in locating and obtaining replacement property, including assistance in completing required applications and other forms
- Assistance in completing the agency's claim forms, and if necessary, a request for a relocation assistance appeal

- Counseling advice as to other sources of benefits that may be available, such as information on federal and state housing programs, disaster loans, and other programs (e.g., Small Business Administration, U.S. Federal Housing Administration, U.S. Department of Housing and Urban Development)
- Other advisory assistance, as needed, to minimize hardship

The goal of relocation assistance and counseling is to minimize the hardship people might experience in adjusting to their relocation. For projects requiring a significant number of displacements, the establishment of a relocation office in a convenient location for displaced persons is encouraged if the district office is not easily accessible to those displaced.

2.5.1.2 Direct Financial Assistance

The residential Uniform Relocation Assistance Program (42 U.S. Code [U.S.C.] Chapter 61) would help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary or incidental to the purchase or rental of the replacement dwellings and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of 50 miles are the responsibility of the displaced person, unless a greater radius is approved by the displacing agency. The following information summarizes the residential Uniform Relocation Assistance Program:

- **Moving Costs**. Any displaced person who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, would be eligible for reimbursement of moving costs. The displaced person would receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles (unless a greater radius is approved by the displacing agency) or a fixed payment based on a fixed moving cost schedule, prepared by the Federal Highway Administration.
- **Purchase Supplement**. Eligible homeowners may be entitled to payments for increased costs of replacement housing. Homeowners who have owned and occupied their property for 90 days or more prior to the date of the first written offer to purchase the property may qualify to receive a purchase price differential payment and receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. A mortgage differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. In the event that the total amount of these benefits would exceed established state maximum payment amounts, consideration would need to be given to the Last Resort Housing Program (49 CFR 24).
- **Rent Differential**. A 90-day occupant or non-tenured occupant (owner or tenant) may be entitled to a rent differential payment. This payment is made when the implementing agencies determine that the cost of rent and average utilities of a comparable decent, safe, and sanitary replacement dwelling would be more than the present rent and average utilities costs of the displacement dwelling. If a household is considered low income according to HUD regulations, household income may factor into the rent differential calculation. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to limitations. If the total entitlement for rental supplement exceeds established maximums, last resort housing would need to be considered.

- **Down Payment**. The down payment option is designed to help eligible displaced persons purchase and relocate to decent, safe, and sanitary comparable housing. Eligible displaced persons may be entitled to receive the full amount of the rental supplement if it is applied toward the down payment for the purchase of the replacement property, even if this results in a 100 percent purchase. Any remaining rental supplement can be applied to the incidental expenses related to the purchase, including non-recurring items paid in escrow. An eligible 90-day occupant (tenant or owner), or non-tenured occupant who purchases a decent, safe, and sanitary replacement dwelling may convert the rental supplement to a down payment. If the total entitlement for rental supplement exceeds zero, an eligible 90-day occupant or non-tenured occupant is entitled to a minimum down payment if they meet the "spend-to-get" requirement. The "spend-to-get" requirement allows a property owner/tenant to receive the full amount of the price differential (i.e., the amount by which the cost of a replacement dwelling exceeds the acquisition cost of the displacement dwelling) if the property owner/tenant to purchases/rents a decent, safe and sanitary dwelling and spends at least the amount calculated by the agency to be the cost/rental rate of a comparable replacement property. If the rent differential is converted to a down payment option, there is no "spend-to-get" requirement.
- **Last Resort Housing**. Federal regulation (49 CFR 24) provides policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last resort housing benefits are the same as those benefits for standard residential relocation, as explained above, with the exception for the amounts of payments and the methods in making them. Last resort housing covers situations where a displaced person cannot be relocated because of lack of available comparable replacement housing or when the anticipated replacement housing payments exceed the limits of the standard relocation procedure because the displaced person either lacks the financial ability or has other valid circumstances. In certain exceptional situations, last resort housing may be used for tenants of fewer than 90 days. After the implementing agency makes the first written offer to acquire the property, the agency would directly contact the displaced person to gather important information. The implementing agency would make contact within an agreed upon reasonable length of time.

The information gathered would include the following:

- Preferences in area of relocation
- Number of people to be displaced and the distribution of adults and children according to age and sex
- Location of schools and employment
- Specific arrangements needed to accommodate any family member(s) with special needs
- Financial ability to relocate into a comparable replacement dwelling that would adequately house all members of the family

2.5.1.3 Sufficient Government Funding for Relocation

Metro intends to finance the Project with federal, state, and local funding, as well as public and private partnerships, provided through Measure M. The Project is listed in the Measure M Expenditure Plan (Metro, 2016a).

2.5.2 Programs and Policies for Non-Residential Relocation

The non-residential Relocation Advisory Assistance Program aids businesses, farms, and non-profit organizations in locating suitable replacement properties and reimbursement for certain relocation costs. The non-residential Relocation Advisory Assistance Program would provide current lists of properties offered for sale or rent, suitable for a particular business' specific relocation needs. The types of payments available to eligible businesses, farms, and nonprofit organizations are searching and moving expenses and possibly re-establishment expenses or a fixed in-lieu payment instead of any moving, searching and reestablishment expenses. summarized as follows:

2.5.2.1 Moving Expenses

Moving expenses that qualify for financial assistance include transportation of personal property, disconnecting and dismantling machinery and equipment, utility connection or transfer, temporary storage, moving and storage insurance, transfer fees for licenses or permits, costs to sell property or belongings that cannot be moved, salvage value for those items that cannot be sold or moved, and the costs of searches for suitable replacement properties. Business owners have the option to self-move or to hire movers. Small businesses, in particular, may choose either in-lieu fixed payment (i.e., a lump sum payment) or reimbursement for actual costs. An in-lieu fixed payment compensates the displaced business that chooses not to reestablish after displacement. Instead of receiving payments for actual moving and reestablishment expenses, the business can opt for a lump sum payment.

2.5.2.2 Re-establishment Expenses

Re-establishment payments for qualifying expenses may be made available to displaced business owners. These benefits must be actual, reasonable, and necessary. They include, but are not limited to, repairs or modifications to the new property to make it suitable, construction and installation costs of signage, lot and structure repaving or redecorating, expenses to advertise the new location, increased operating costs from rent or insurance premium changes (for up to 2 years), and increased personal or real-property taxes.

2.5.2.3 Fixed In-Lieu Payment

A fixed payment in-lieu of moving and searching payments and re-establishment payment may be available to businesses that meet certain eligibility requirements.

2.6 Potential Permits

Some residences and businesses may need to be acquired and displaced to construct and operate the Project. No permits are required for the acquisition of properties and relocation of businesses and residents. Metro is required to comply with federal and state regulations pertaining to real estate acquisition and relocation assistance, as described in Sections 2.1 and 2.2. Relocation assistance is summarized in Section 2.5.

The decision whether to acquire property for a project is decided during the environmental planning process in accordance with the California Environmental Quality Act and/or National Environmental Policy Act. During this process, various alternatives are evaluated, and property that might be needed for a project is identified. The list of affected properties is typically refined and narrowed throughout the planning process and cannot be finalized or used for property acquisition purposes before the Project is approved by the Metro Board of Directors.

Metro is required to provide just compensation to property owners for the purchase or use of their property. Metro will first obtain an appraisal of the property to determine the fair market value of the property interests required for the project. Once the property's fair market value is established, an offer of just compensation will be made to the property owner. The property owner may obtain their own appraisal. Metro will seek a negotiated agreement with the property owner. If the negotiated agreement cannot be reached, Metro may exercise its power of eminent domain to acquire the property. Initiating eminent domain procedures requires approval by Metro Board of Directors.

3 METHODOLOGY

3.1 CEQA Threshold of Significance

For the purposes of the Environmental Impact Report, impacts are considered significant if the Project would:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

This impact threshold is discussed in Chapters 5 through 10 and has been assigned the impact code POP-2 consistent with the impact code order used for the Draft Environmental Impact Report. Please see the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025j) for discussion of Impact POP-1. The CEQA Guidelines do not have specific thresholds for business and employment growth or displacement.

3.1.1 Acquisition Impact Analysis

Acquisition is the process of acquiring real property and can consist of full property acquisitions or partial property acquisition. Full and partial property acquisition may be required to implement the Sepulveda Transit Corridor Project (Project) alternatives to develop the alignment, stations, traction power substations (TPSS), ancillary facilities, and maintenance and storage facility (MSF), as well as for construction staging and laydown. Partial property acquisition may also be required for street improvements (such as street widening).

An easement is the right to use all or part of the property of another owner for a specific purpose. Easements can be permanent or temporary. Permanent easements for the project alternatives may be required for the subsurface, at-grade, and aerial alignments, and to provide access to a property. Each of the project alternatives may require temporary easements for construction activities, such as temporary construction easements (TCE) and tieback easements. TCEs would allow for construction access, staging, and/or laydown for the Project. TCEs may also be used for cut-and-cover and tunneling activities. Tieback easements would be required to install tiebacks under properties to support the subsurface alignment.

3.1.2 Property Displacement Analysis

A “displacement” occurs when a parcel, or portion thereof, that is occupied by a business or residence is acquired for a project alternative. “Replacement” refers to the movement (or relocation) of affected businesses and residences into suitable replacement sites (Title 49 Code of Federal Regulations 24.2 (a)(9)).

The real estate and acquisitions impact analysis determines how the project alternatives would affect existing properties and result in property acquisitions and displacements that would typically cause either a permanent or temporary partial or full acquisition of a parcel. The analysis also discusses compliance with the Uniform Act (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.) for compensation.

Property displacements for each project alternative is determined by evaluating the extent to which construction and operations of the project alternatives would affect existing properties and identifying those properties where the current use would not be possible if one of the project alternatives were constructed.

Conceptual engineering drawings for the Project's alignments, stations, ancillary facilities, TPSSs, and MSFs were reviewed to assess the potential residential and non-residential properties that may be acquired as a result of the project alternatives. Properties that have the potential to be affected by the project alternatives were identified. The number and types of property acquisitions, as well as the number of businesses and dwelling units that may be displaced, were identified using a combination of aerial photography and Los Angeles County Assessor's parcel maps and records.

The number of persons displaced was based on the 2021 American Community Survey Data 5-year estimates from the United States Census Bureau (US Census, 2021). Based on this data, the average household size of owner-occupied units in the City of Los Angeles was 3.0 persons per household, and the average household size of renter-occupied units was 2.7 persons per household.

3.1.3 Parcel Analysis

The Los Angeles County Assessor's parcel data, which includes the assessor's parcel number, current owner's name, and property use type, were used in analyzing parcels. Aerial maps and street views from Google Maps dated between 2023 to 2024 were also used in the analysis to verify the land use types that would be affected by the project alternatives and to ensure consistency of data within and across each alternative.

The type of acquisition required for each project alternative and the specific land or rights required for each property will be identified in coordination with the Los Angeles County Metropolitan Transportation Authority's Real Estate Department. Based on the nature of effects, full fee simple acquisitions, partial fee simple acquisitions, permanent easements, temporary easements, or some combination of these may be required for each project alternative. Based on the type of property acquisition, the displacements of some or all of the occupants will be determined and quantified. The parcels that would potentially be acquired and the businesses and residences that would be displaced are identified in the appendices of this technical report, which is available for public review. The Metro Board of Directors will consider the number of properties that would be acquired and the number of businesses and occupants that would be displaced when identifying the locally preferred alternative.

4 FUTURE BACKGROUND PROJECTS

This section describes planned improvements to highway, transit, and regional rail facilities within the Project Study Area and the region that would occur whether or not the Project is constructed. These improvements are relevant to the analysis of the No Project Alternative and the project alternatives because they are part of the future regional transportation network within which the Project would be incorporated. These improvements would not be considered reasonably foreseeable consequences of not approving the Project as they would occur whether or not the Project is constructed.

The future background projects include all existing and under-construction highway and transit services and facilities, as well as the transit and highway projects scheduled to be operational by 2045 according to the *Measure R Expenditure Plan* (Metro, 2008), the *Measure M Expenditure Plan* (Metro, 2016), the Southern California Association of Governments (SCAG) *Connect SoCal, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS) (SCAG, 2020a, 2020b), and the Federal Transportation Improvement Program (FTIP), with the exception of the Sepulveda Transit Corridor Project (Project). The year 2045 was selected as the analysis year for the Project because it was the horizon year of SCAG's adopted RTP/SCS at the time Metro released the NOP for the Project.

4.1 Highway Improvements

The only major highway improvement in the Project Study Area included in the future background projects is the Interstate 405 (I-405) Sepulveda Pass ExpressLanes project (ExpressLanes project). This would include the ExpressLanes project as defined in the *2021 FTIP Technical Appendix, Volume II of III* (SCAG, 2021a), which is expected to provide for the addition of one travel lane in each direction on I-405 between U.S. Highway 101 (US-101) and Interstate 10 (I-10). Metro is currently studying several operational and physical configurations of the ExpressLanes project, which may also be used by commuter or rapid bus services, as are other ExpressLanes in Los Angeles County.

4.2 Transit Improvements

Table 4-1 lists the transit improvements that would be included in the future background projects. This list includes projects scheduled to be operational by 2045 as listed in the *Measure R and Measure M Expenditure Plans* (with the exception of the Project) as well as the Inglewood Transit Connector and LAX APM. In consultation with the Federal Transit Administration, Metro selected 2045 as the analysis year to provide consistency across studies for Measure M transit corridor projects. The Inglewood Transit Connector, a planned automated people mover (APM), which was added to the FTIP with *Consistency Amendment #21-05* in 2021, would also be included in the future background projects (SCAG, 2021b). These projects would also include the Los Angeles International Airport (LAX) APM, currently under construction by Los Angeles World Airports. The APM will extend from a new Consolidated Rent-A-Car Center to the Central Terminal Area of LAX and will include four intermediate stations. In addition, the new Airport Metro Connector Transit Station at Aviation Boulevard and 96th Street will also serve as a direct connection from the Metro K Line and Metro C Line to LAX by connecting with one of the APM stations.

During peak hours, heavy rail transit (HRT) services would generally operate at 4-minute headways (i.e., the time interval between trains traveling in the same direction), and light rail transit (LRT) services would operate at 5- to 6-minute headways. During off-peak hours, HRT services would generally operate at 8-minute headways and LRT services at 10- to 12-minute headways. Bus rapid transit (BRT) services would generally operate at peak headways between 5 and 10 minutes and off-peak headways between

10 and 14 minutes. The Inglewood Transit Connector would operate at a headway of 6 minutes, with more frequent service during major events. The LAX APM would operate at 2-minute headways during peak and off-peak periods.

Table 4-1. Fixed Guideway Transit System in 2045

Transit Line	Mode	Alignment Description[a]
Metro A Line	LRT	Claremont to downtown Long Beach via downtown Los Angeles
Metro B Line	HRT	Union Station to North Hollywood Station
Metro C Line	LRT	Norwalk to Torrance
Metro D Line	HRT	Union Station to Westwood/VA Hospital Station
Metro E Line	LRT	Downtown Santa Monica Station to Lambert Station (Whittier) via downtown Los Angeles
Metro G Line	BRT	Pasadena to Chatsworth[b]
Metro K Line	LRT	Norwalk to Expo/Crenshaw Station
East San Fernando Valley Light Rail Transit Line	LRT	Metrolink Sylmar/San Fernando Station to Metro G Line Van Nuys Station
Southeast Gateway Line	LRT	Union Station to Artesia
North San Fernando Valley Bus Rapid Transit Network Improvements	BRT	North Hollywood to Chatsworth[c]
Vermont Transit Corridor	BRT	Hollywood Boulevard to 120th Street
Inglewood Transit Connector	APM	Market Street/Florence Avenue to Prairie Avenue/Hardy Street
Los Angeles International Airport APM	APM	Aviation Boulevard/96th Street to LAX Central Terminal Area

Source: HTA, 2024

[a]Alignment descriptions reflect the project definition as of the date of the Project's Notice of Preparation (Metro, 2021).

[b]As defined in Metro Board actions of July 2018 and May 2021, the Metro G Line will have an eastern terminus near Pasadena City College and will include aerial stations at Sepulveda Boulevard and Van Nuys Boulevard.

[c]The North San Fernando Valley network improvements are assumed to be as approved by the Metro Board in December 2022.

4.3 Regional Rail Projects

The future background projects would include the Southern California Optimized Rail Expansion (SCORE) program, which is Metrolink's Capital Improvement Program that will upgrade the regional rail system (including grade crossings, stations, and signals) and add tracks as necessary to be ready in time for the 2028 Olympic and Paralympic Games. The SCORE program will also help Metrolink to move toward a zero emissions future. The following SCORE projects planned at Chatsworth and Burbank Stations will upgrade station facilities and allow 30-minute all-day service in each direction by 2045 on the Metrolink Ventura County Line:

1. Chatsworth Station: This SCORE project will include replacing an at-grade crossing and adding a new pedestrian bridge and several track improvements to enable more frequent and reliable service.
2. Burbank Station: This SCORE project will include replacing tracks, adding a new pedestrian crossing, and realigning tracks to achieve more frequency, efficiency, and shorter headways.

In addition, the Link Union Station project will provide improvements to Los Angeles Union Station that will transform the operations of the station by allowing trains to arrive and depart in both directions, rather than having to reverse direction to depart the station. Link Union Station will also prepare Union Station for the arrival of California High-Speed Rail, which will connect Union Station to other regional multimodal transportation hubs such as Hollywood Burbank Airport and the Anaheim Regional Transportation Intermodal Center.

5 NO PROJECT ALTERNATIVE

The only reasonably foreseeable transportation project under the No Project Alternative would be improvements to Metro Line 761, which would continue to serve as the primary transit option through the Sepulveda Pass with peak-period headways of 10 minutes in the peak direction and 15 minutes in the other direction. Metro Line 761 would operate between the Metro E Line Expo/Sepulveda Station and the Metro G Line Van Nuys Station, in coordination with the opening of the East San Fernando Valley Light Rail Transit Line, rather than to its current northern terminus at the Sylmar Metrolink Station.

5.1 Existing Conditions

5.1.1 General Corridor-wide Land Use

The Project Study Area is approximately 68 square miles and consists of a variety of urban land uses, including commercial uses (offices and retail), industrial uses (e.g., warehouses, home improvement, parking lots, automotive repair, suppliers, and distributors), residential uses (single- and multi-family), parks and recreational facilities, institutional facilities, and public facilities. The Project corridor also has several vacant parcels in the commercial and residential areas, as well as undeveloped open space areas. Undeveloped open space areas are generally located in the Brentwood, Bel Air, and Beverly Crest communities, as well as in the southern portions of the Sherman Oaks and Encino communities.

Land use at the northern end of the Project corridor (along the existing Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way (ROW) is primarily industrial. A mix of large-, medium-, and small-scale industrial uses are located in this area. From the rail ROW to the Valley Vista Boulevard, land uses consist of either industrial, commercial (mostly retail with some offices and other commercial-related uses), and single-family and multi-family residential uses. A few public facilities and institutional uses are also located in this area. Sepulveda Basin is located west of the Project corridor (west of I-405). Between Valley Vista Boulevard and Sunset Boulevard, land uses consist of primarily single-family residential uses and undeveloped hillsides. Some institutional uses are also located in this area. Stone Canyon Reservoir is located east of I-405. From Sunset Boulevard to the southern end of the Project corridor, land uses include a mix of single-family and multi-family residential uses, commercial uses (offices and retail), small-scale industrial uses, institutional uses (such as the University of California Los Angeles [UCLA], the Veterans Affairs campus, the Los Angeles National Cemetery, and medical facilities), and recreational facilities.

5.1.2 Typical Types of Property Acquisitions and Displacements

The Project would affect existing properties and result in property acquisitions and displacements. The parcels acquired for the Project would involve either a full or partial acquisition. Full acquisition for the Project would involve fee simple acquisitions, which consist of a complete transfer of ownership rights. In a fee simple acquisition, the buyer has full and irrevocable ownership of land and any buildings on it. Partial acquisition for the Project would involve either fee simple acquisitions or easements. Property acquisitions may be phased over time depending on Project funding and construction phasing, methods, and schedule. Table 5-1 summarizes typical causes of property acquisitions and displacement that could occur as a result of the No Project Alternative.

Table 5-1. Typical Causes of Property Acquisition and Displacement

Source of Acquisition	Type of Acquisition	Cause/Process
Horizontal Alignment	Full/Partial Fee Simple	Insufficient existing ROW for construction and operation.
Subsurface/At-Grade/Aerial Alignment	Permanent Easement	A condition for a non-exclusive access agreement or easement (either permanent or temporary) for underground, at-grade, or aerial alignments to allow access to a property or facility.
Vertical Circulation (e.g., stairs)	Partial Fee Simple	Area needed to bring passengers from the ground level to a station platform at an aerial (elevated) structure or to an underground station.
Property Encroachment	Full/Partial Fee Simple	Unauthorized use of public or private property. Resolution through boundary survey and potential relocation of use.
Access to a Residential or Non-Residential Use (driveway or road)	Full Fee Simple/Permanent Easement	Permanent easement would be needed to provide residential units or non-residential uses access to a road; full acquisition may be required if reduced or restricted access would disrupt residences or non-residential uses.
Street/Intersection Improvements; Grade Crossing/Separation; Drainage and Utility Improvements	Partial/Full Fee Simple	Additional area/lanes required to maintain traffic volumes, turn lanes and sidewalk widths; additional area required to upgrade drainage facilities or to improve utility.
Station Entrance	Full Fee Simple/Partial Fee Simple/Permanent Easement	Area needed to provide passenger access to a subsurface, at-grade, or aerial station.
At-Grade Station Construction and Operation	Full Fee Simple	Area required for station amenities, such as platforms, ticketing areas, and transit stops.
Parking Facility	Partial/Full Fee Simple	Area required for station parking.
Operations Maintenance and Storage Facility	Partial/Full Fee Simple	Area required to perform maintenance activities.
Ancillary and TPSS Facilities	Partial/Full Fee Simple	Area required for ancillary facilities and TPSS.
Construction Activities	Temporary Construction Easements	Area used for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; property would be returned at the end of construction.
Construction Access, Staging and Laydown	Partial/Full Fee Simple	Area required for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; may be used for station parking or other permanent use after construction has been completed.

Source: HTA, 2024

ROW = right-of-way

5.1.3 Full Acquisition

Full acquisition would require the use of an entire property. Full property acquisition would result in the purchase of an entire property by Metro for the Project. Metro would purchase a "fee simple interest" of the property and become the owner of the property. Full acquisition would occur in instances where the Project would require the use of a significant portion of the property, including the physical structure or structures identified as the property's principal dwelling or business facility, permanently or for an extended period during construction. Full acquisition would also occur in cases where a property's physical structure or structures were not affected but another component critical to a property's intended use would be affected (such as a severe loss of parking or access that would reduce the useful operation of the property). The projects associated with the No Project Alternative may require full acquisition for the following reasons:

- To construct and operate station areas
- To provide utility and drainage improvements
- To provide improvements to I-405
- To construct and operate stations, ancillary facilities, traction power substation (TPSS), and maintenance and storage facility (MSF)
- To allow for the transition of an aerial alignment to a subsurface alignment
- To accommodate construction access, staging, and laydown areas

5.1.4 Partial Acquisition

Partial acquisition would occur if a portion of a given property would be used by a project but would not require the entirety of the property. Partial property acquisition means that only a portion of the property would be acquired, and the owner would retain the remaining portion of the property. Types of partial acquisition include partial "fee simple" acquisitions and various types of permanent and temporary easements. For a "fee simple" acquisition, Metro would purchase a "fee simple interest" for the portion of the property and would become owner for that portion of the property. A partial acquisition is also considered if the area required for the Project is not critical to the property's primary function as a residence or business, or if the remaining portion of the property could be reconfigured to continue serving its purpose without significant disruption to occupants. Partial property acquisitions may be required for the following reasons:

- To provide adequate ROW for the alignment
- To widen streets or intersections or other street improvements due to inadequate ROW widths
- To provide utility improvements
- To improve the I-405 to accommodate the projects associated with the No Project Alternative
- To construct and operate stations, ancillary facilities, TPSS, and MSF
- To provide adequate space required for the projects associated with the No Project Alternative to transition from an aerial alignment to a subsurface alignment
- To provide construction access, staging, and laydown areas

5.1.5 Easement

An easement provides one party the right to use another party's property for a stated purpose. That property may be owned by a private person, business entity, or a group of owners and can involve a general or specific portion of the property. An easement can be at the surface, underground/subsurface (beneath a property), or aboveground (aerial) level and can be characterized as temporary (typically during construction) or permanent. Temporary construction easements (TCE) may be necessary if temporary rights may be required from property owners for material storage, construction activities, or access. Depending on the size and location of the TCEs, they may or may not require the demolition of existing structures. If TCEs do not require demolition of existing structures, TCEs typically would not affect the primary function of the property. In these circumstances, the area may revert to its former use after construction activities have been completed. If TCEs require demolition of existing structures, the primary function of the property could be affected or may cause undue disruption to the occupants.

Underground/subsurface easements would be required during construction for tunneling and all underground facilities, including underground utilities and TPSS. The easement would be permanent since it would be required for the operations of an underground transit line once construction is completed. Permanent aerial easements would be used for the operation of an elevated transit line. An easement is considered a partial property acquisition from the property owner. The purchase of an easement is accomplished through a one-time payment and the recording of an easement deed.

5.2 Impacts Evaluation

5.2.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

5.2.1.1 Permanent Impacts

Under the No Project Alternative, the Project would not be developed, so the displacements caused by the Project would not occur. Changes to Metro Line 761 operations would have no potential to displace people or housing as any physical improvements would be placed within the public ROW and would not require acquisition of any property. The No Project Alternative includes forecasted regional population, housing, and growth estimates, which are calculated based growth-related policies and strategies, transportation and highway projects identified in the SCAG 2020-2045 RTP/SCS (SCAG, 2020a, 2020b), Metro's 2020 LRTP (Metro, 2020b), the 2023 FTIP (SCAG, 2022), and Measure M (Metro, 2016), as well as residential, commercial, and other infrastructure projects. Projects included in the SCAG 2020-2045 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, and Measure M could result in residential displacements, but the No Project Alternative would also include anticipated construction of new housing units consistent with SCAG projections. Therefore, the No Project Alternative would result in less than significant impacts related to the displacement of people or housing.

Therefore, impacts related to the displacement of people or housing would be less than significant for the No Project Alternative.

5.2.1.2 Temporary (Construction) Activities

Under the No Project Alternative, the Project would not be constructed. Projects included in the SCAG 2020-2045 RTP/SCS (SCAG, 2020a, 2020b), Metro's 2020 LRTP (Metro, 2020b), the 2023 FTIP (SCAG, 2023), and Measure M (Metro, 2016) would result in residential displacements as well as construction of new or replacement housing. Changes to Metro Line 761 operations would have no potential to displace

people or housing as any physical improvements would be constructed within the public ROW. Therefore, the No Project Alternative would result in less than significant impacts related to the displacement of people or housing.

5.3 Mitigation Measures

5.3.1 Permanent Impacts

No mitigation measures are required.

5.3.2 Temporary (Construction) Impacts

No mitigation measures are required.

5.3.3 Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

6 ALTERNATIVE 1

6.1 Alternative Description

Alternative 1 is an entirely aerial monorail alignment that would run along the Interstate 405 (I-405) corridor and would include eight aerial monorail transit (MRT) stations and a new electric bus route from the Los Angeles County Metropolitan Transportation Authority's (Metro) D Line Westwood/VA Hospital Station to the University of California, Los Angeles (UCLA) Gateway Plaza via Wilshire Boulevard and Westwood Boulevard. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Metro E, Metro D, and Metro G Lines, the East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 15.1 miles. The length of the bus route would be 1.5 miles.

The eight aerial MRT stations and three bus stops would be as follows:

1. Metro E Line Expo/Sepulveda Station (aerial)
2. Santa Monica Boulevard Station (aerial)
3. Wilshire Boulevard/Metro D Line Station (aerial)
    a. Wilshire Boulevard/VA Medical Center bus stop
    b. Westwood Village bus stop
    c. UCLA Gateway Plaza bus stop
4. Getty Center Station (aerial)
5. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
6. Metro G Line Sepulveda Station (aerial)
7. Sherman Way Station (aerial)
8. Van Nuys Metrolink Station (aerial)

6.1.1 Operating Characteristics

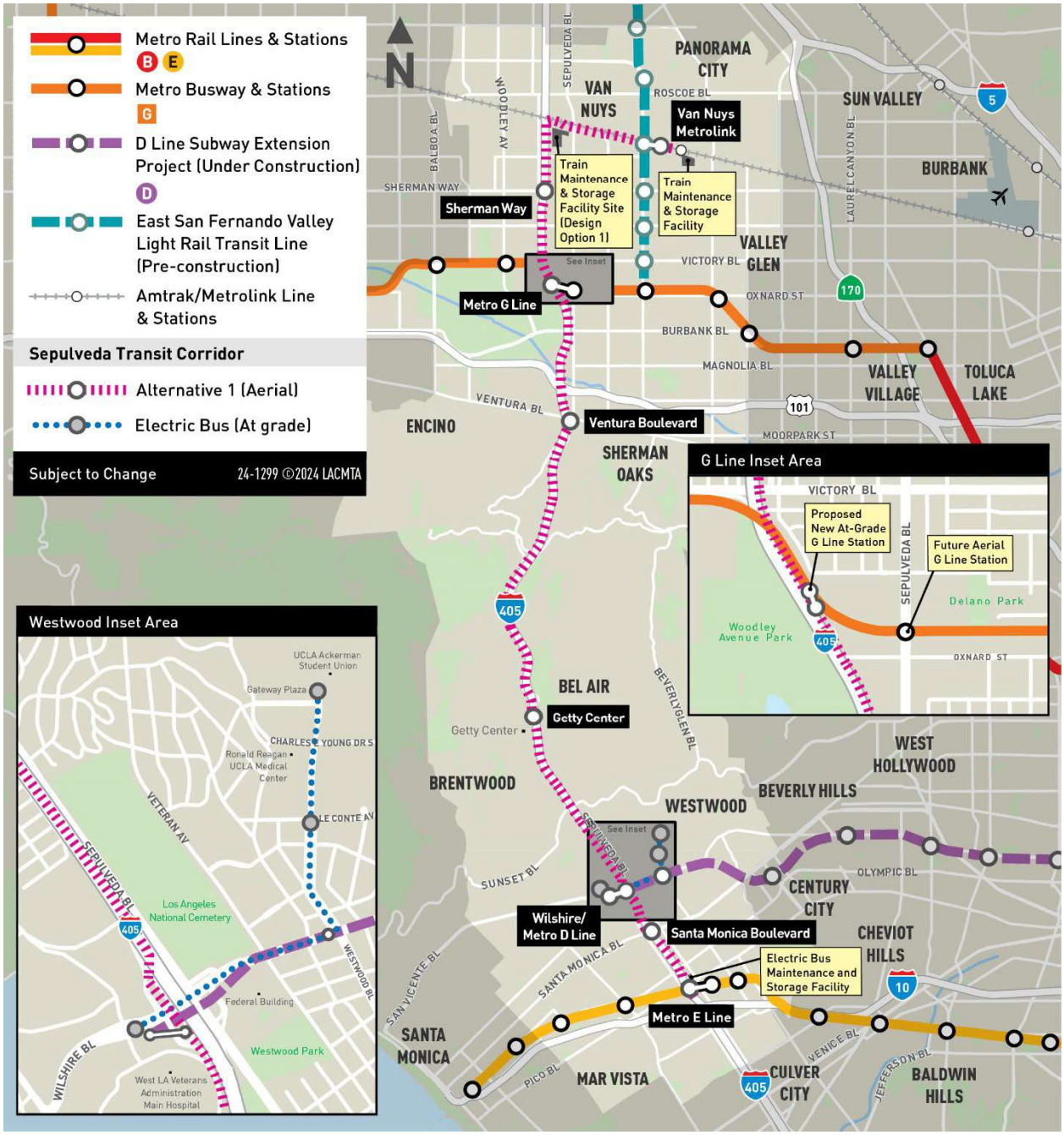
6.1.1.1 Alignment

As shown on Figure 6-1, from its southern terminus at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 1 would generally follow I-405 to the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor near the alignment's northern terminus at the Van Nuys Metrolink Station. At several points, the alignment would transition from one side of the freeway to the other or to the median. North of U.S. Highway 101 (US-101), the alignment would be on the east side of the I-405 right-of-way and would then curve eastward along the south side of the LOSSAN rail corridor to Van Nuys Boulevard.

The proposed southern terminus station would be located west of the existing Metro E Line Expo/Sepulveda Station and east of I-405 between Pico Boulevard and Exposition Boulevard. Tail tracks would extend just south of the station adjacent to the eastbound Interstate 10 to northbound I-405 connector over Exposition Boulevard. North of the Metro E Line Expo/Sepulveda Station, a storage track would be located off the main alignment north of Pico Boulevard between I-405 and Cotner Avenue. The alignment would continue north along the east side of I-405 until just south of Santa Monica Boulevard, where a proposed station would be located between the I-405 northbound travel lanes and Cotner Avenue. The alignment would cross over the northbound and southbound freeway lanes north of Santa Monica Boulevard and travel along the west side of I-405, before reaching a proposed station within the

I-405 southbound-to-eastbound loop off-ramp to Wilshire Boulevard, near the Metro D Line Westwood/VA Hospital Station.

Figure 6-1. Alternative 1: Alignment



Source: LASRE, 2024; HTA, 2024

An electric bus would serve as a shuttle between the Wilshire Boulevard/Metro D Line Station and UCLA Gateway Plaza. From the Wilshire Boulevard/Metro D Line Station, the bus would travel east on Wilshire Boulevard and turn north on Westwood Boulevard to UCLA Gateway Plaza and make an intermediate stop in Westwood Village near the intersection of Le Conte Avenue and Westwood Boulevard.

North of Wilshire Boulevard, the monorail alignment would transition over the southbound I-405 freeway lanes to the freeway median, where it would continue north over the Sunset Boulevard overcrossing. The alignment would remain in the median to Getty Center Drive, where it would cross over the southbound freeway lanes to the west side of I-405, just north of the Getty Center Drive undercrossing, to the proposed Getty Center Station located north of the Getty Center tram station. The alignment would return to the median for a short distance before curving back to the west side of I-405, south of the Sepulveda Boulevard undercrossing north of the Getty Center Drive interchange. After crossing over Bel Air Crest Road and Skirball Center Drive, the alignment would return to the median and run under the Mulholland Drive Bridge, then continue north within the I-405 median to descend into the San Fernando Valley (Valley).

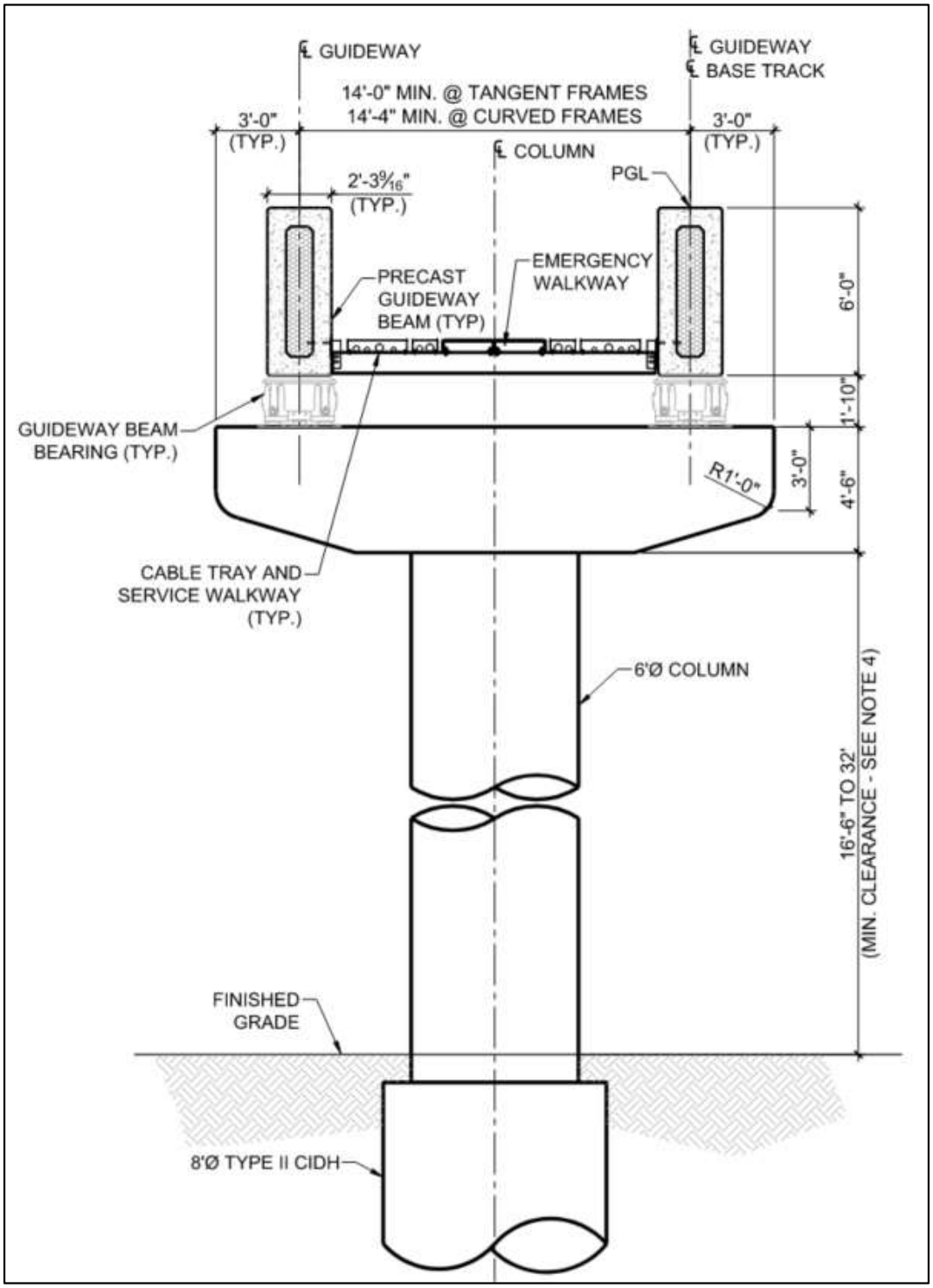
Near Greenleaf Street, the alignment would cross over the northbound freeway lanes and northbound on-ramps toward the proposed Ventura Boulevard Station on the east side of I-405. This station would be located above a transit plaza and would replace an existing segment of Dickens Street adjacent to I-405, just south of Ventura Boulevard. Immediately north of the Ventura Boulevard Station, the alignment would cross over northbound I-405 to the US-101 connector and continue north between the connector and the I-405 northbound travel lanes. The alignment would continue north along the east side of I-405—crossing over US-101 and the Los Angeles River—to a proposed station on the east side of I-405 near the Metro G Line Busway. A new at-grade station on the Metro G Line would be constructed for Alternative 1 adjacent to the proposed monorail station. These proposed stations are shown on the Metro G Line inset area on Figure 6-1.

The alignment would then continue north along the east side of I-405 to the proposed Sherman Way Station. The station would be located inside the I-405 northbound loop off-ramp to Sherman Way. North of the station, the alignment would continue along the eastern edge of I-405, then curve to the southeast parallel to the LOSSAN rail corridor. The alignment would remain aerial along Raymer Street east of Sepulveda Boulevard and cross over Van Nuys Boulevard to the proposed terminus station adjacent to the Van Nuys Metrolink/Amtrak Station. Overhead utilities along Raymer Street would be undergrounded where they would conflict with the guideway or its supporting columns. Tail tracks would be located southeast of this terminus station.

6.1.1.2 Guideway Characteristics

The monorail alignment of Alternative 1 would be entirely aerial, utilizing straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Northbound and southbound trains would travel on parallel beams supported by either a single-column or a straddle-bent structure. Figure 6-2 shows a typical cross-section of the aerial monorail guideway.

Figure 6-2. Typical Monorail Guideway Cross-Section

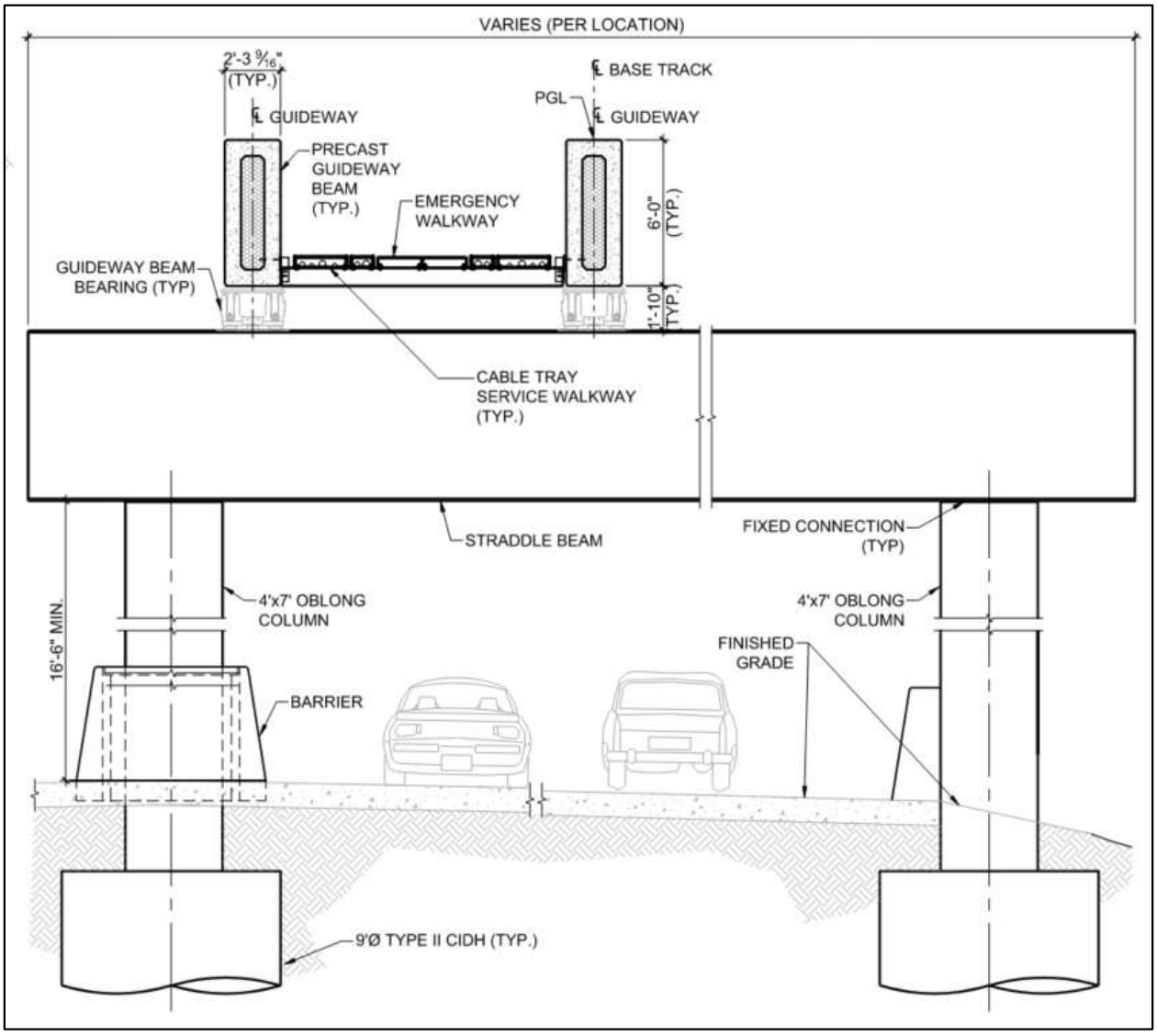


Source: LASRE, 2024

On a typical guideway section (i.e., not at a station), guide beams would rest on 20-foot-wide column caps (i.e., the structure connecting the columns and the guide beams), with typical spans (i.e., the distance between columns) ranging from 70 to 190 feet. The bottom of the column caps would typically be between 16.5 feet and 32 feet above ground level.

Over certain segments of roadway and freeway facilities, a straddle-bent configuration, as shown on Figure 6-3, consisting of two concrete columns constructed outside of the underlying roadway would be used to support the guide beams and column cap. Typical spans for these structures would range between 65 and 70 feet. A minimum 16.5-foot clearance would be maintained between the underlying roadway and the bottom of the column caps.

Figure 6-3. Typical Monorail Straddle-Bent Cross-Section



Source: LASRE, 2024

Structural support columns would vary in size and arrangement by alignment location. Columns would be 6 feet in diameter along main alignment segments adjacent to I-405 and be 4 feet wide by 6 feet long in the I-405 median. Straddle-bent columns would be 4 feet wide by 7 feet long. At stations, six rows of dual 5-foot by- 8-foot columns would support the aerial guideway. Beam switch locations and long-span structures would also utilize different sized columns, with dual 5-foot columns supporting switch locations and 9-foot- or 10-foot-diameter columns supporting long-span structures. Crash protection barriers would be used to protect the columns. Columns would have a cast-in-drilled-hole (CIDH) pile foundation extending 1 foot in diameter beyond the column width with varying depths for appropriate geotechnical considerations and structural support.

6.1.1.3 Vehicle Technology

Alternative 1 would utilize straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Rubber tires would sit both atop and on each side of the guide beam to provide traction and guide the train. Trains would be automated and powered by power rails mounted to the guide beam, with planned peak-period headways of 166 seconds and off-peak-period headways of 5 minutes. Monorail trains could consist of up to eight cars. Alternative 1 would have a maximum operating speed of 56 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations.

Monorail train cars would be 10.5 feet wide, with two double doors on each side. End cars would be 46.1 feet long with a design capacity of 97 passengers, and intermediate cars would be 35.8 feet long and have a design capacity of 90 passengers.

The electric bus connecting the Wilshire Boulevard/Metro D Line Station, Westwood Village, and UCLA Gateway Plaza would be a battery electric, low-floor transit bus, either 40 or 60 feet in length. The buses would run with headways of 2 minutes during peak periods. The electric bus service would operate in existing mixed-flow travel lanes.

6.1.1.4 Stations

Alternative 1 would include eight aerial MRT stations with platforms approximately 320 feet long, elevated 50 feet to 75 feet above the existing ground level. The Metro E Line Expo/Sepulveda, Santa Monica Boulevard, Ventura Boulevard/Sepulveda Boulevard, Sherman Way, and Van Nuys Metrolink Stations would be center-platform stations where passengers would travel up to a shared platform that would serve both directions of travel. The Wilshire Boulevard/Metro D Line, Getty Center, and Metro G Line Sepulveda Stations would be side-platform stations where passengers would select and travel up to one of two station platforms, depending on their direction of travel. Each station, regardless of whether it has side or center platforms, would include a concourse level prior to reaching the train platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from ground level to the concourse.

Station platforms would be approximately 320 feet long and would be supported by six rows of dual 5-foot by 8-foot columns. Station platforms would be covered, but not enclosed. Side-platform stations would be 61.5 feet wide to accommodate two 13-foot-wide station platforms with a 35.5-foot-wide intermediate gap for side-by-side trains. Center-platform stations would be 49 feet wide, with a 25-foot-wide center platform.

Monorail stations would include automatic, bi-parting fixed doors along the edges of station platforms. These doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This aerial station would be located near the existing Metro E Line Expo/Sepulveda Station, just east of I-405 between Pico Boulevard and Exposition Boulevard.
- A transit plaza and station entrance would be located on the east side of the station.
- An off-street passenger pick-up/drop-off loop would be located south of Pico Boulevard west of Cotner Avenue.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the Metro E Line Expo/Sepulveda Station within the fare paid zone.
- Passengers would be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces. No additional automobile parking would be provided at the proposed station.

Santa Monica Boulevard Station

- This aerial station would be located just south of Santa Monica Boulevard, between the I-405 northbound travel lanes and Cotner Avenue.
- Station entrances would be located on the southeast and southwest corners of Santa Monica Boulevard and Cotner Avenue. The entrance on the southeast corner of the intersection would be connected to the station concourse level via an elevated pedestrian walkway spanning Cotner Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This aerial station would be located west of I-405 and south of Wilshire Boulevard within the southbound I-405 loop off-ramp to eastbound Wilshire Boulevard.
- An elevated pedestrian walkway spanning the adjacent I-405 ramps would connect the concourse level of the proposed station to a station plaza adjacent to the Metro D Line Westwood/VA Hospital Station within the fare paid zone. The station plaza would be the only entrance to the proposed station.
- The station plaza would include an electric bus stop and provide access to the Metro D Line Station via a new station entrance and concourse constructed using a knock-out panel provided in the Metro D Line Station.
- The passenger pick-up/drop-off facility at the Metro D Line Station would be reconfigured, maintaining the original capacity.
- No dedicated station parking would be provided at this station.

Getty Center Station

- This aerial station would be located on the west side of I-405 near the Getty Center, approximately 1,000 feet north of the Getty Center tram station.

- An elevated pedestrian walkway would connect the concourse level of the proposed station to the Getty Center tram station. The proposed connection would occur outside the fare paid zone.
- The pedestrian walkway would provide the only entrance to the proposed station.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This aerial station would be located east of I-405, just south of Ventura Boulevard.
- A transit plaza, including two station entrances, would be located on the east side of the station. The plaza would require the closure of a 0.1-mile segment of Dickens Street between Sepulveda Boulevard and Ventura Boulevard, with a passenger pick-up/drop-off loop and bus stops provided south of the station, off Sepulveda Boulevard.
- No dedicated station parking would be provided at this station.

Metro G Line Sepulveda Station

- This aerial station would be located near the Metro G Line Sepulveda Station, between I-405 and the Metro G Line Busway.
- Entrances to the MRT station would be located on both sides of a proposed new Metro G Line bus rapid transit (BRT) station.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the proposed new Metro G Line BRT station outside of the fare paid zone.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are used for transit parking. No additional automobile parking would be provided at the proposed station.

Sherman Way Station

- This aerial station would be located inside the I-405 northbound loop off-ramp to Sherman Way.
- A station entrance would be located on the north side of Sherman Way.
- An on-street passenger pick-up/drop-off area would be provided on the north side of Sherman Way west of Firmament Avenue.
- No dedicated station parking would be provided at this station.

Van Nuys Metrolink Station

- This aerial station would be located on the east side of Van Nuys Boulevard, just south of the LOSSAN rail corridor, incorporating the site of the current Amtrak ticket office.
- A station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A second entrance would be located north of the LOSSAN rail corridor with an elevated pedestrian walkway connecting to both the concourse level of the proposed station and the platform of the Van Nuys Metrolink/Amtrak Station.
- Existing Metrolink station parking would be reconfigured, maintaining approximately the same number of spaces, but 180 parking spaces would be relocated north of the LOSSAN rail corridor. Metrolink parking would not be available to Metro transit riders.

6.1.1.5 Station-to-Station Travel Times

Table 6-1 presents the station-to-station distance and travel times for Alternative 1. The travel times include both run time and dwell time. Dwell time is 30 seconds per station. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 6-1. Alternative 1: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	122	98	—
Santa Monica Boulevard Station					*30*
Santa Monica Boulevard	Wilshire/Metro D Line	0.7	99	104	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	Getty Center	2.9	263	266	—
Getty Center Station					*30*
Getty Center	Ventura Boulevard	4.7	419	418	—
Ventura Boulevard Station					*30*
Ventura Boulevard	Metro G Line	2.0	177	184	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.5	135	134	—
Sherman Way Station					*30*
Sherman Way	Van Nuys Metrolink	2.4	284	284	—
Van Nuys Metrolink Station					*30*

Source: LASRE, 2024

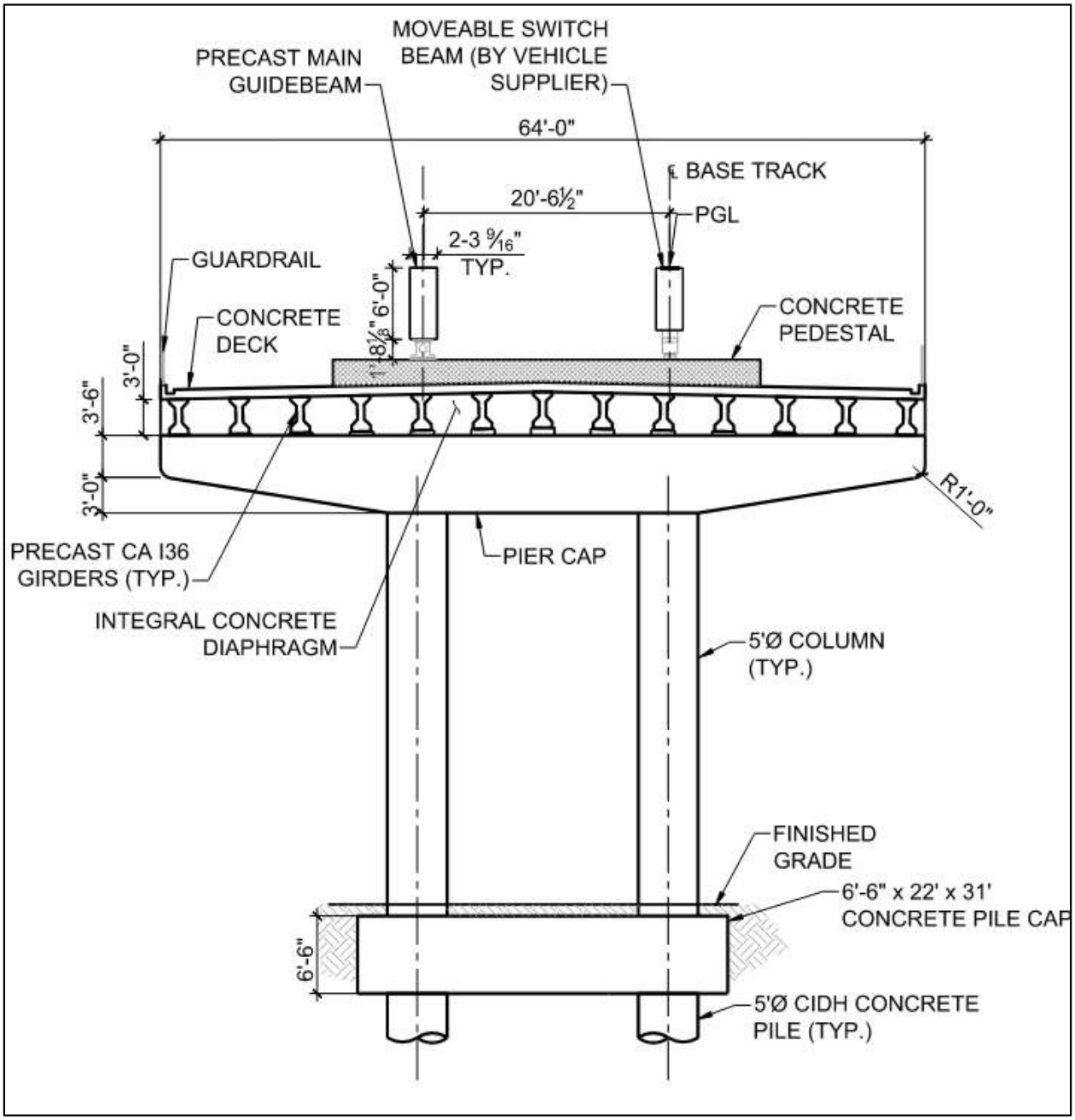
— = no data

6.1.1.6 Special Trackwork

Alternative 1 would include five pairs of beam switches to enable trains to cross over to the opposite beam. From south to north, the first pair of beam switches would be located just north of the Metro E Line Expo/Sepulveda Station. The second pair of beam switches would be located near the Wilshire Boulevard/Metro D Line Station on the north side of Wilshire Boulevard, within the Wilshire Boulevard westbound to I-405 southbound loop on-ramp. A third pair of beam switches would be located in the Sepulveda Pass just south of Mountaingate Drive and Sepulveda Boulevard. A fourth pair of beam switches would be located south of the Metro G Line Station between the I-405 northbound lanes and the Metro G Line Busway. The final pair would be located near the Van Nuys Metrolink Station.

At beam switch locations, the typical cross-section of the guideway would increase in column and column cap width. The column cap at these locations would be 64 feet wide, with dual 5-foot-diameter columns. Underground pile caps for additional structural support would also be required at beam switch locations. Figure 6-4 shows a typical cross-section of the monorail beam switch.

Figure 6-4. Typical Monorail Beam Switch Cross-Section



Source: LASRE, 2024

6.1.1.7 Monorail Maintenance and Storage Facility

MSF Base Design

In the maintenance and storage facility (MSF) Base Design for Alternative 1, the MSF would be located on City of Los Angeles Department of Water and Power (LADWP) property east of the Van Nuys Metrolink Station. The MSF Base Design site would be approximately 18 acres and would be designed to accommodate a fleet of 208 monorail vehicles. The site would be bounded by the LOSSAN rail corridor

to the north, Saticoy Street to the south, and property lines extending north of Tyrone and Hazeltine Avenues to the east and west, respectively.

Monorail trains would access the site from the main alignment's northern tail tracks at the northwest corner of the site. Trains would travel parallel to the LOSSAN rail corridor before curving southeast to maintenance facilities and storage tracks. The guideway would remain in an aerial configuration within the MSF Base Design, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, an operations control center, and a maintenance shop and office
- Train car wash building
- Emergency generator
- Traction power substation (TPSS)
- Maintenance-of-way (MOW) building
- Parking area for employees

MSF Design Option 1

In the MSF Design Option 1, the MSF would be located on industrial property, abutting Orion Avenue, south of the LOSSAN rail corridor. The MSF Design Option 1 site would be approximately 26 acres and would be designed to accommodate a fleet of 224 monorail vehicles. The site would be bounded by I-405 to the west, Stagg Street to the south, the LOSSAN rail corridor to the north, and Orion Avenue and Raymer Street to the east. The monorail guideway would travel along the northern edge of the site.

Monorail trains would access the site from the monorail guideway east of Sepulveda Boulevard, requiring additional property east of Sepulveda Boulevard and north of Raymer Street. From the northeast corner of the site, trains would travel parallel to the LOSSAN rail corridor before turning south to maintenance facilities and storage tracks parallel to I-405. The guideway would remain in an aerial configuration within the MSF Design Option 1, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, an operations control center, and a maintenance shop and office
- Train car wash building
- Emergency generator
- TPSS
- MOW building
- Parking area for employees

Figure 6-5 shows the locations of the MSF Base Design and MSF Design Option 1 for Alternative 1.

Figure 6-5. Alternative 1: Maintenance and Storage Facility Options

Source: LASRE, 2024; HTA, 2024

6.1.1.8 Electric Bus Maintenance and Storage Facility

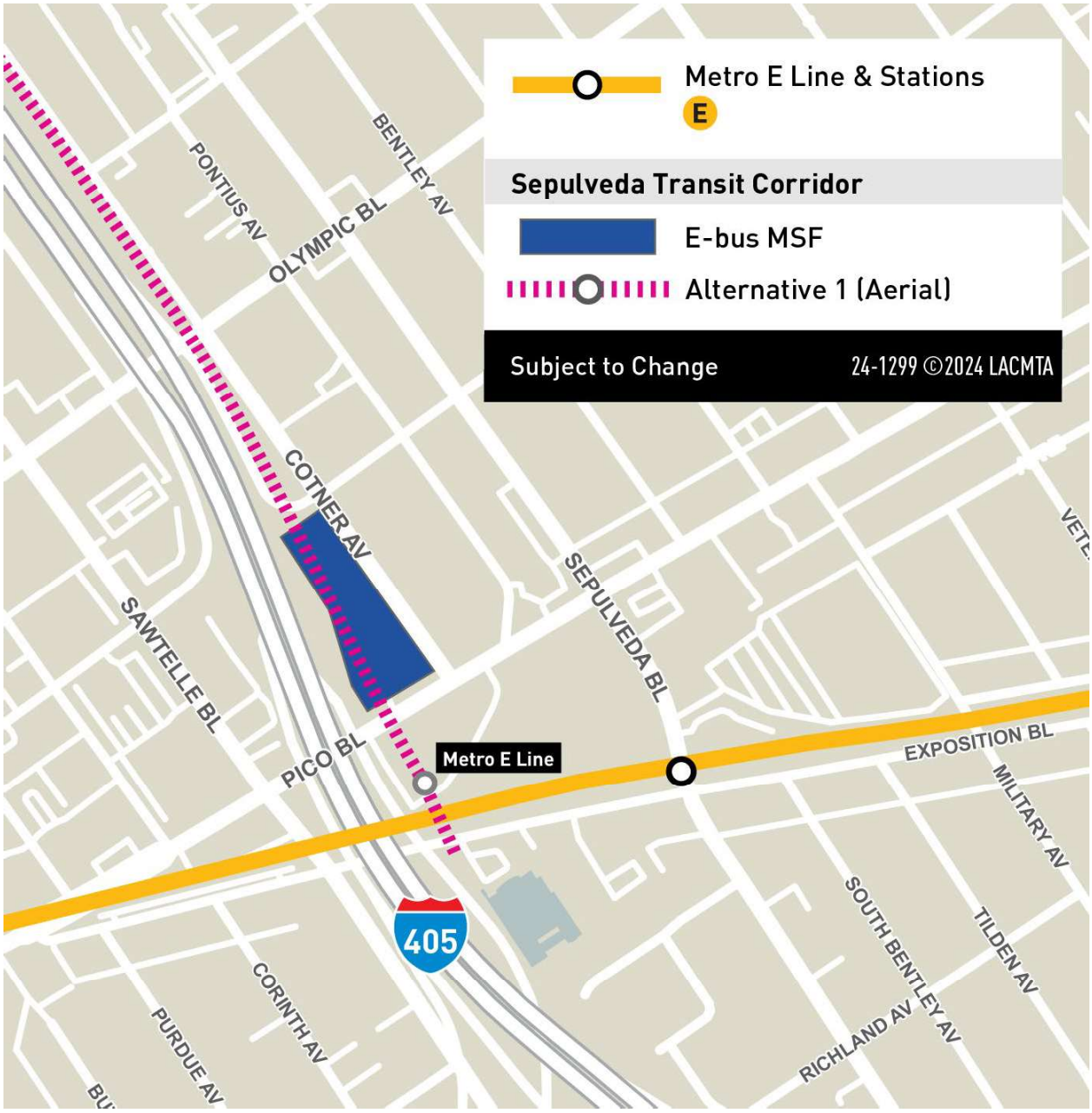
An electric bus MSF would be located on the northwest corner of Pico Boulevard and Cotner Avenue and would be designed to accommodate 14 electric buses. The site would be approximately 2 acres and would comprise six parcels bounded by Cotner Avenue to the east, I-405 to the west, Pico Boulevard to the south, and the I-405 northbound on-ramp to the north.

The site would include approximately 45,000 square feet of buildings and include the following facilities:

- Maintenance shop and bay
- Maintenance office
- Operations center
- Bus charging equipment
- Parts storeroom with service areas
- Parking area for employees

Figure 6-6 shows the location of the proposed electric bus MSF.

Figure 6-6. Alternative 1: Electric Bus Maintenance and Storage Facility



Source: LASRE, 2024; HTA, 2024

6.1.1.9 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. A TPSS on a site of approximately 8,000 square feet would be located approximately every 1 mile along the alignment. Table 6-2 lists the TPSS locations proposed for Alternative 1.

Figure 6-7 shows the TPSS locations along the Alternative 1 alignment.

Table 6-2. Alternative 1: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1	TPSS 1 would be located east of I-405, just south of Exposition Boulevard and the monorail guideway tail tracks.	At-grade
2	TPSS 2 would be located west of I-405, just north of Wilshire Boulevard, inside the Westbound Wilshire Boulevard to I-405 Southbound Loop On-Ramp.	At-grade
3	TPSS 3 would be located west of I-405, just north of Sunset Boulevard, inside the Church Lane to I-405 Southbound Loop On-Ramp.	At-grade
4	TPSS 4 would be located east of I-405 and Sepulveda Boulevard, just north of the Getty Center Station.	At-grade
5	TPSS 5 would be located west of I-405, just east of the intersection between Promontory Road and Sepulveda Boulevard.	At-grade
6	TPSS 6 would be located between I-405 and Sepulveda Boulevard, just north of the Skirball Center Drive Overpass.	At-grade
7	TPSS 7 would be located east of I-405, just south of Ventura Boulevard Station, between Sepulveda Boulevard and Dickens Street.	At-grade
8	TPSS 8 would be located east of I-405, just south of the Metro G Line Sepulveda Station.	At-grade
9	TPSS 9 would be located east of I-405, just east of the Sherman Way Station, inside the I-405 Northbound Loop Off-Ramp to Sherman Way westbound.	At-grade
10	TPSS 10 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade
11	TPSS 11 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade (within MSF Design Option)
12	TPSS 12 would be located between Van Nuys Boulevard and Raymer Street, south of the LOSSAN rail corridor.	At-grade
13	TPSS 13 would be located south of the LOSSAN rail corridor, between Tyrone Avenue and Hazeltine Avenue.	At-grade (within MSF Base Design)

Source: LASRE, 2024; HTA, 2024

Figure 6-7. Alternative 1: Traction Power Substation Locations

Source: LASRE, 2024; HTA, 2024

6.1.1.10 Roadway Configuration Changes

Table 6-3 lists the roadway changes necessary to accommodate the guideway of Alternative 1. Figure 6-8 shows the location of these roadway changes in the Sepulveda Transit Corridor Project (Project) Study Area, except for I-405 configuration changes, which would occur throughout the corridor.

Table 6-3. Alternative 1: Roadway Changes

Location	From	To	Description of Change
Cotner Avenue	Nebraska Avenue	Santa Monica Boulevard	Roadway realignment to accommodate aerial guideway columns and station access
Beloit Avenue	Massachusetts Avenue	Ohio Avenue	Roadway narrowing to accommodate aerial guideway columns
I-405 Southbound On-Ramp, Southbound Off-Ramp, and Northbound On-Ramp at Wilshire Boulevard	Wilshire Boulevard	I-405	Ramp realignment to accommodate aerial guideway columns and I-405 widening
Sunset Boulevard	Gunston Drive	I-405 Northbound Off-Ramp at Sunset Boulevard	Removal of direct eastbound to southbound on-ramp to accommodate aerial guideway columns and I-405 widening. Widening of Sunset Boulevard bridge with additional westbound lane
I-405 Southbound On-Ramp and Off-Ramp at Sunset Boulevard and North Church Lane	Sunset Boulevard	Not Applicable	Ramp realignment to accommodate aerial guideway columns and I-405 widening
I-405 Northbound On-Ramp and Off-Ramp at Sepulveda Boulevard near I-405 Exit 59	Sepulveda Boulevard near I-405 Northbound Exit 59	Sepulveda Boulevard / I-405 Undercrossing (near Getty Center)	Ramp realignment to accommodate aerial guideway columns and I-405 widening
Sepulveda Boulevard	I-405 Southbound Skirball Center Drive Ramps (north of Mountaingate Drive)	Skirball Center Drive	Roadway realignment into existing hillside to accommodate aerial guideway columns and I-405 widening
I-405 Northbound On-Ramp at Mulholland Drive	Mulholland Drive	Not Applicable	Roadway realignment into the existing hillside between the Mulholland Drive Bridge pier and abutment to accommodate aerial guideway columns and I-405 widening
Dickens Street	Sepulveda Boulevard	Ventura Boulevard	Vacation and permanent removal of street for Ventura Boulevard Station construction. Pick-up/drop-off area would be provided along Sepulveda Boulevard at the truncated Dickens Street
Sherman Way	Haskell Avenue	Firmament Avenue	Median improvements, passenger drop-off and pick-up areas, and bus pads within existing travel lanes
Raymer Street	Sepulveda Boulevard	Van Nuys Boulevard	Curb extensions and narrowing of roadway width to accommodate aerial guideway columns
I-405	Sunset Boulevard	Bel Terrace	I-405 widening to accommodate aerial guideway columns in the median

Location	From	To	Description of Change
I-405	Sepulveda Boulevard Northbound Off-Ramp (Getty Center Drive interchange)	Sepulveda Boulevard Northbound On-Ramp (Getty Center Drive interchange)	I-405 widening to accommodate aerial guideway columns in the median
I-405	Skirball Center Drive	I-405 Northbound On-Ramp at Mulholland Drive	I-405 widening to accommodate aerial guideway columns in the median

Source: LASRE, 2024; HTA, 2024

Figure 6-8. Alternative 1: Roadway Changes

Source: LASRE, 2024; HTA, 2024

In addition to the changes made to accommodate the guideway, as listed in Table 6-3, roadways and sidewalks near stations would be reconstructed, which would result in modifications to curb ramps and driveways.

6.1.1.11 Fire/Life Safety – Emergency Egress

Continuous emergency evacuation walkways would be provided along the guideway. The walkways would typically consist of structural steel frames anchored to the guideway beams to support non-slip walkway panels. The walkways would be located between the two guideway beams for most of the alignment; however, where the beams split apart, such as entering center-platform stations, short portions of the walkway would be located on the outside of the beams.

6.1.2 Construction Activities

Construction activities for Alternative 1 would include constructing the aerial guideway and stations, widening I-405, and constructing ancillary facilities. Construction of the transit through substantial completion is expected to have a duration of 6½ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

Aerial guideway construction would begin at the southern and northern ends of the alignment and connect in the middle. Constructing the guideway would require a combination of freeway and local street lane closures throughout the work limits to provide sufficient work area. The first stage of I-405 widening would include a narrowing of adjacent freeway lanes to a minimum width of 11 feet (which would eliminate shoulders) and placing K-rail on the outside edge of the travel lanes to create outside work areas. Within these outside work zones, retaining walls, drainage infrastructure, and outer pavement widenings would be constructed to allow for I-405 widening. The reconstruction of on- and off-ramps would be the final stage of I-405 widening.

A median work zone along I-405 for the length of the alignment would be required for erection of the guideway structure. In the median work zone, demolition of the existing median and drainage infrastructure would be followed by the installation of new K-rail and installation of guideway structural components, which would include full directional freeway closures when guideway beams must be transported into the median work areas during late-night hours. Additional night and weekend directional closures would be required for installation of long-span structures over I-405 travel lanes where the guideway would transition from the median.

Aerial station construction is anticipated to last the duration of construction activities for Alternative 1 and would include the following general sequence of construction:

- Site clearing
- Utility relocation
- Construction fencing and rough grading
- CIDH pile drilling and installation
- Elevator pit excavation
- Soil and material removal
- Pile cap and pier column construction
- Concourse level and platform level falsework for cast-in-place structural concrete
- Guideway beam installation
- Elevator and escalator installation
- Completion of remaining concrete elements such as pedestrian bridges
- Architectural finishes and mechanical, electrical, and plumbing installation

Alternative 1 would require construction of a concrete casting facility for columns and beams associated with the elevated guideway. A specific site has not been identified; however, it is expected that the

facility would be located on industrially zoned land adjacent to a truck route in either the Antelope Valley or Riverside County. When a site is identified, the contractor would obtain all permits and approvals necessary from the relevant jurisdiction, the appropriate air quality management entity, and other regulatory entities.

TPSS construction would require additional lane closures. Large equipment including transformers, rectifiers, and switchgears would be delivered and installed through prefabricated modules where possible in at-grade TPSSs. The installation of transformers would require temporary lane closures on Exposition Boulevard, Beloit Avenue, Sepulveda Boulevard just north of Cashmere Street, and the I-405 northbound on-ramp at Burbank Boulevard.

Table 6-4 and Figure 6-9 show the potential construction staging areas for Alternative 1. Staging areas would provide the necessary space for the following activities:

- Contractors' equipment
- Receiving deliveries
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

Table 6-4. Alternative 1: Construction Staging Locations

No.	Location Description
1	Public Storage between Pico Boulevard and Exposition Boulevard, east of I-405
2	South of Dowlen Drive and east of Greater LA Fisher House
3	At 1400 N Sepulveda Boulevard
4	At 1760 N Sepulveda Boulevard
5	East of I-405 and north of Mulholland Drive Bridge
6	Inside of I-405 Northbound to US-101 Northbound Loop Connector, south of US-101
7	ElectroRent Building south of Metro G Line Busway, east of I-405
8	Inside the I-405 Northbound Loop Off-Ramp at Victory Boulevard
9	Along Cabrito Road east of Van Nuys Boulevard

Source: LASRE, 2024; HTA, 2024

Figure 6-9. Alternative 1: Construction Staging Locations

Source: LASRE, 2024; HTA, 2024

6.2 Existing Conditions

The Project Study Area is approximately 68 square miles and consists of a variety of urban land uses, including commercial uses (e.g., offices, retail, and restaurants), industrial uses (e.g., warehouses, distributers, wholesalers, manufacturing, open storage, building materials, automotive repair shops, and storage facilities), residential uses (single- and multi-family), parks and recreational facilities, institutional facilities (e.g., religious facilities, museums, and schools), and public facilities (e.g., government facilities). The Project Study Area also has several vacant parcels in the commercial and residential areas, as well as undeveloped open space areas. Undeveloped open space areas are generally located in the Brentwood and Bel Air communities, as well as in the southern portions of the Sherman Oaks and Encino communities.

Land use adjacent to Alternative 1 at the northern end of the alignment (from the northern terminus at the proposed MSF at Hazeltine Avenue to I-405) is primarily industrial. A mix of large-, medium-, and small-scale industrial uses are located in this area. Freight tracks and the Metrolink Ventura County Line within the LOSSAN rail corridor ROW parallel the alignment of Alternative 1 between the northern terminus and I-405. From the rail ROW to the southern terminus, Alternative 1 is located either along the side or the median of I-405. An institutional use (church) is located just north of Saticoy Street. Between Saticoy Street and Erwin Street, land uses adjacent to Alternative 1 are primarily single-family residential with some multi-family residential uses. Between Erwin Street and Valley Vista Boulevard, land uses include a mix of commercial (small, mid-size, and big-box retail; restaurants, and office buildings), industrial, and residential uses. The residential uses in this area are primarily multi-family residences with a few public facilities. Sepulveda Basin is located west of I-405. From Valley Vista Boulevard to Sunset Boulevard, the area adjacent to Alternative 1 has less development. This area consists of mostly a mix of low density single-family residential uses and undeveloped hillsides, as well as a few institutional (e.g., Skirball Cultural Center, The Getty Museum, and a temple) and commercial uses. From Sunset Boulevard to Ohio Avenue, adjacent land uses include a mix of multi-family and single-family residential uses, the Veterans Affairs campus (which includes medical facilities adjacent to Alternative 1), the Los Angeles National Cemetery, and recreational facilities. From Ohio Street to the southern terminus, adjacent land uses consist of small-scale industrial, residential, and commercial (office buildings, and small and mid-size retail) uses.

6.2.1 Typical Types of Property Acquisitions and Displacements

The Project would affect existing properties and result in property acquisitions and displacements. The parcels acquired for the Project would involve either full or partial acquisition. Full acquisition for the Project would involve fee simple acquisitions, which consist of a complete transfer of ownership rights. In a fee simple acquisition, the buyer has full and irrevocable ownership of land and any buildings on it. Partial acquisition for the Project would involve either fee simple acquisitions or easements. Property acquisitions may be phased over time depending on Project funding and construction phasing, methods, and schedule. Table 6-5 summarizes typical causes of property acquisitions and displacement that could occur as a result of Alternative 1.

Table 6-5. Alternative 1: Typical Causes of Property Acquisition and Displacement

Source of Acquisition	Type of Acquisition	Cause/Process
Horizontal Alignment	Full/Partial Fee Simple	Insufficient existing ROW for construction and operation.
Aerial Alignment	Permanent Easement	A condition for a non-exclusive access agreement or easement (either permanent or temporary) for aerial alignments to allow access to a property or facility.
Vertical Circulation (e.g., stairs)	Partial Fee Simple	Area needed to bring passengers from the ground level to a station platform at an aerial (elevated) structure.
Property Encroachment	Full/Partial Fee Simple	Unauthorized use of private property. Resolution through boundary survey and potential relocation of use.
Access to a Residential or Non-Residential Use (driveway or road)	Full Fee Simple/Permanent Easement	Permanent easement would be needed to provide residential units or non-residential uses access to a road; full acquisition may be required if reduced or restricted access would disrupt use of residences or non-residential uses.
Street/Intersection Improvements; Grade Crossing/Separation; Drainage and Utility Improvements	Partial/Full Fee Simple	Additional area/lanes required to maintain traffic volumes, turn lanes and sidewalk widths; additional area required to upgrade drainage facilities or to improve utility.
Station Entrance	Full Fee Simple /Partial Fee Simple/Permanent Easement	Area needed to provide passenger access to an at-grade or aerial station.
Parking Facility	Partial/Full Fee Simple	Area required for station parking.
Operations Maintenance and Storage Facility	Partial/Full Fee Simple	Area required to perform maintenance activities.
TPSS and Ancillary Facilities	Partial/Full Fee Simple	Area required for TPSS sites and ancillary facilities.
Construction Activities	Temporary Construction Easements	Area used for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; property would be returned at the end of construction.
Construction Access, Staging and Laydown	Partial/Full Fee Simple	Area required for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; would be used for station parking or other permanent use after construction has been completed.

Source: HTA, 2024

ROW = right-of-way

6.2.2 Full Acquisition

Full acquisition would require the use of an entire property. Full property acquisition would result in the purchase of an entire property by Metro for the Project. Metro would purchase a “fee simple interest” of the property and become the owner of the property. Full acquisition would occur in instances where the Project would require the use of a significant portion of the property, including the physical structure or structures identified as the property’s principal dwelling or business facility, permanently or for an extended period during construction. Full acquisition would be required for Alternative 1 in cases where a property’s physical structure or structures were not affected but another component critical to

a property's intended use would be affected (such as a severe loss of parking or access that would reduce the useful operation of the property). Full property acquisition for Alternative 1 would be required for the following reasons:

- To construct and operate station areas
- To provide utility and drainage improvements
- To provide improvements to I-405
- To construct and operate ancillary facilities and TPSS
- To construct and operate the MSF
- To accommodate construction access, staging, and laydown areas

6.2.3 Partial Acquisition

Partial acquisition would occur if the Project would use a portion of a given property but would not require the entirety of the property. Partial property acquisition means that only a portion of the property would be acquired, and the owner would retain the remaining portion of the property. Types of partial acquisition include partial "fee simple" acquisitions and various types of permanent and temporary easements. For a "fee simple" acquisition, Metro would purchase a "fee simple interest" for the portion of the property and would become owner for that portion of the property. A partial acquisition is also considered if the area required for the Project is not critical to the property's primary function as a residence or business, or if the remaining portion of the property could be reconfigured to continue serving its purpose without significant disruption to occupants. Partial property acquisitions would be required for Alternative 1 for the following reasons:

- To provide adequate ROW for the alignment
- To widen streets or intersections or to provide other street improvements due to inadequate ROW widths
- To provide utility improvements
- To provide improvements to I-405 for the alignment
- To construct and operate stations, ancillary facilities, TPSS, and MSF
- To accommodate construction access, staging, and laydown areas

6.2.4 Easement

An easement provides one party the right to use another party's property for a stated purpose. That property may be owned by a private person, business entity, or a group of owners and can involve a general or specific portion of the property. An easement can be at the surface, underground/subsurface (beneath a property), or aboveground (aerial) level and can be characterized as temporary (typically during construction) or permanent. Temporary construction easements (TCE) may be necessary if temporary rights may be required from property owners for material storage, construction activities, or access. Depending on the size and location of the TCEs, they may or may not require the demolition of existing structures. If TCEs do not require demolition of existing structures, TCEs typically would not affect the primary function of the property. In these circumstances, the area may revert to its former use after construction activities have been completed. If TCEs require demolition of existing structures, the primary function of the property could be affected or may cause undue disruption to the occupants.

Underground/subsurface easements would be required during construction for tunneling and all underground facilities, including underground utilities and TPSS. The easement would be permanent since it would be required for the operations of an underground transit line once construction is completed. Permanent aerial easements would be used for the operation of an elevated transit line. Permanent foundation easements would be required for the construction and maintenance of the foundations, footings, and support systems associated with the aerial structure. An easement is considered a partial property acquisition from the property owner. The purchase of an easement is accomplished through a one-time payment and the recording of an easement deed.

6.3 Impacts Evaluation

6.3.1 Permanent Acquisition and Displacement

6.3.1.1 Direct Impacts

The following project components located outside of the public ROW would require property acquisitions:

- MRT alignment
- Station areas
- At-grade TPSS facilities that are outside of station areas
- I-405, local street, utility, and drainage improvements
- Electric Bus MSF
- MSF Base Design
- MSF Design Option 1

Partial acquisitions in the form of permanent aerial easements would be required to accommodate the aerial guideway beams and straddle bents. Partial acquisitions in the form of permanent foundation easements would be required to support the aerial alignment. Partial fee simple acquisitions would be required for local street improvements that occur outside of the public ROW. Both full and partial fee simple acquisitions would be required for stations; MSF; TPSS and ancillary facilities; I-405 improvements; utility and drainage improvements; and construction access, staging, and laydown areas.

Table 6-6 summarizes the number of affected parcels by permanent acquisitions. It should be noted that some properties may contain multiple parcels. Appendix A of this report presents parcel-specific data, and Appendix B provides figures that identify the parcels that would potentially be acquired along the alignment of Alternative 1. The mainline, stations, and associated facilities of Alternative 1 would require the permanent acquisition of approximately 85 parcels, of which 20 parcels would involve full fee simple acquisition, 28 parcels would involve partial fee simple acquisition, 43 parcels would have aerial easements, and 15 parcels would have foundation easements. Some parcels would involve multiple acquisition types (e.g., partial fee simple acquisition and aerial easement; partial fee simple acquisition and foundation easement; aerial easement and foundation easement; or partial fee simple acquisition, aerial easement, and foundation easement). Although Alternative 1 would acquire aerial easements over portions of the LOSSAN rail corridor ROW, the freight tracks and the Metrolink Ventura County Line in the rail ROW are active and would remain active during operations of Alternative 1. Property acquisition would primarily affect commercial and industrial properties.

Table 6-6. Alternative 1: Permanent Property Acquisition

Land Use	Full Fee Simple Acquisition (No. of Parcels)	Partial Fee Simple Acquisition (No. of Parcels)	Aerial Easement (No. of Parcels)	Foundation Easement (No. of Parcels)
Mainline, Stations, and Associated Facilities except MSF				
Commercial	9	7	3	1
Industrial	8	4	13	5
Institutional/Public Facilities	0	4	7	4
Parks/Recreation	0	1	1	0
Transportation-Related (Busway, Railroad, Freeway On-/Off-Ramp)	0	1	7	1
Vacant/Undeveloped Open Space	2	5	5	3
Multi-Family Residential	0	5	6	1
Single-Family Residential	1	1	1	0
Subtotal	**20**	**28**	**43**	**15**
MSF Base Design				
Institutional/Public Facilities	1	0	0	0
Subtotal	**1**	**0**	**0**	**0**
MSF Design Option 1				
Industrial	3	0	0	0
Subtotal	**3**	**0**	**0**	**0**
Electric Bus MSF				
Commercial	5	0	0	0
Industrial	2	0	0	0
Subtotal	**7**	**0**	**0**	**0**
Total - Alternative 1 with MSF Base Design and Electric Bus MSF	**28**	**28**	**43**	**15**
Total - Alternative 1 with MSF Design Option 1 and Electric Bus MSF	**30**	**28**	**43**	**15**

Source: LASRE, 2024

The MSF Base Design for Alternative 1 would require the permanent full fee simple acquisition of one public facility (LADWP-owned storage yard). The MSF Design Option 1 would require the permanent full fee simple acquisition of three industrial parcels, and the Electric Bus MSF would require the permanent full fee simple acquisition of five commercial parcels and two industrial parcels.

Overall, Alternative 1 with the MSF Base Design and Electric Bus MSF would result in 28 parcels with full fee simple acquisitions, 28 parcels with partial fee simple acquisitions, 43 parcels with aerial easements, and 15 parcels with foundation easements. Alternative 1 with MSF Design Option 1 and Electric Bus MSF would result in 30 parcels with full fee simple acquisitions, 28 parcels with partial fee simple acquisitions, 43 parcels with aerial easements, and 15 parcels with foundation easements.

Non-residential and residential displacements would occur to accommodate project components. Property displacements are determined by evaluating the extent to which Alternative 1 would affect existing properties and identifying those properties where the current use would not be possible if Alternative 1 is constructed. Elements associated with Alternative 1 that were evaluated include direct effects on structures, assessment of property-specific elements (i.e., available parking, access to and

traffic circulation within the property, and other aspects specific to the type of business and residential unit affected), and components that may disrupt a business' ability to conduct its primary function after implementation of Alternative 1.

Permanent jobs may be lost as a result of the relocation. Metro will work with specialty businesses (e.g., businesses that cater to the local community or need a particular location to operate) to understand their specific relocation needs and provide them with information on available replacement sites, financial assistance, and other advisory assistance. Metro would work with these businesses as early in the process as possible to allow them additional lead time.

Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions would not be required to relocate. However, these affected residents may make a case that the remaining property is no longer compatible with their intended use and may choose to relocate, which may result in the need to relocate some residents.

Metro would compensate owners at fair market value to purchase the required property and would also need to compensate owners for damage to the remainder property. Metro would provide displaced businesses and residents relocation assistance and benefits for which the displacee is eligible.

Table 6-7 summarizes the number of potential non-residential uses and residences that would be permanently displaced as a result of Alternative 1. The mainline, stations, and associated facilities (without the MSF) for Alternative 1 would permanently displace 18 commercial and industrial businesses, one institutional/public facility, and one single-family residential unit. Overall, Alternative 1 with the MSF Base Design and Electric Bus MSF would permanently displace a total of approximately 23 commercial and industrial businesses, 2 institutional/public facility, and 1 single-family residential unit. Alternative 1 with the MSF Design Option 1 and Electric Bus MSF would displace a total of approximately 29 commercial and industrial businesses, 1 institutional/public facility, and 1 single-family residential unit. The alignment would require specialty relocation for one parcel (surface parking lot for the Van Nuys Amtrack and Metrolink Station), and the MSF Design Option 1 would displace one specialty business (an aerospace office campus with offices and industrial manufacturing/parts handling facilities). Based on the City's average household size of 3.0 persons per household for owner-occupied units (US Census, 2021), approximately three people are estimated to be permanently displaced as a result of Alternative 1.

Table 6-7. Alternative 1: Non-Residential and Residential Unit Displacement

Land Use	Number of Non-Residential/ Residential Units Displaced
Mainline, Stations, and Associated Facilities except MSF	
Commercial	11
Industrial	7
Institutional/Public Facilities	1
Single-Family Residential	1
Subtotal	**20**
MSF Base Design	
Institutional/Public Facilities	1
Subtotal	**1**
MSF Design Option 1	
Industrial	6
Subtotal	**6**

Land Use	Number of Non-Residential/ Residential Units Displaced
Electric Bus MSF	
Commercial	3
Industrial	2
Subtotal	**5**
Total - Alternative 1 with MSF Base Design and Electric Bus MSF	**26**
Total - Alternative 1 with MSF Design Option 1 and Electric Bus MSF	**31**

Source: LASRE, 2024

Where acquisition and relocation are unavoidable, Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Real property acquired by Metro would be appraised to determine its fair market value. Just compensation, which shall not be less than the amount determined by an approved appraisal, would be offered by Metro. Each homeowner, renter, business, or nonprofit organization displaced as a result of Alternative 1 would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property.

The Project Study Area is urbanized with a number of existing buildings for sale or lease. According to CBRE Research, as of the 4th quarter of 2024 there was approximately 2.5 million square feet of industrial space (building square footage ranging from 10,000 to 100,000 square feet) available in the East San Fernando Valley market with an overall vacancy rate of 2.1 percent (CBRE, 2025a). Retail space availability in the 3rd quarter of 2024 was approximately 8.7 percent for the Westside market and 4.7 percent for the San Fernando Valley market (CBRE, 2024). Office space vacancy and availability is high throughout Los Angeles County which had a 24.4 percent vacancy rate as of the 4th quarter of 2024 (CBRE, 2025b). Given the availability of existing buildings/structures and non-residential properties, it is expected that most of the non-residential uses that would be displaced as a result of Alternative 1 would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. It is expected that displaced residents would relocate to existing residential units in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, or residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse impacts related to permanent acquisitions and displacements are not anticipated for Alternative 1.

6.3.1.2 Indirect Impacts

Alternative 1 would introduce new visual elements, generate long-term localized pollutant emissions, and increase noise levels in the Resource Study Area for visual, air quality, and noise that could potentially disrupt businesses or residents. Alternative 1 also would potentially alter access and circulation in the Resource Study Area for transportation through sidewalk and roadway modifications. The environmental impacts associated with visual, air quality, noise, and transportation are discussed in the respective technical reports for those disciplines prepared for the Sepulveda Transit Corridor Project and described in the DEIR. Changes resulting from Alternative 1 that may influence voluntary relocation by businesses or residents would not cause any physical changes in the environment and do not require any mitigation beyond those identified for each environmental discipline and described in the DEIR for the Sepulveda Transit Corridor Project.

6.3.2 Temporary Acquisition for Construction

6.3.2.1 Direct Impacts

Constructing Alternative 1 would involve the following:

- Site preparation and demolition of structures
- Utility relocation
- Construction of the MRT alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities
- Street widening
- Street and sidewalk reconstruction

Some parcels that would be permanently acquired for the operations of Alternative 1 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Depending on the location and size of the TCEs, existing structures on parcels could either remain in place or be demolished. For parcels where structures would be demolished, existing non-residential uses and residents would be relocated. For parcels where structures would not be demolished, non-residential use could temporarily be displaced during construction, but no permanent displacement would occur. These parcels would be returned to pre-construction conditions once construction is completed. Generally, parcels that would be used for construction access, staging, and laydown would be permanently acquired and, thus, these parcels would not be returned to pre-construction conditions once construction is completed. Although Alternative 1 would require the temporary use of two residential parcels for construction, only a portion of the residential parcels would be affected. No structures on these residential parcels would be demolished and the function of these residential parcels would not change. Construction of Alternative 1 would not result in the displacement of any residential units.

Table 6-8 summarizes the types of parcels that would be affected by construction of Alternative 1. A total of 44 parcels would be used for construction purposes. Of the 44 parcels, 38 parcels would be permanently acquired as partial fee simple acquisition and/or easements, and 6 parcels would only be used as TCEs (with no permanent fee simple acquisition and/or easement). The six parcels that would be temporarily acquired would be returned to the owner once construction is completed. Section 6.3.1 discusses how Alternative 1 would affect the 38 parcels that would be permanently acquired.

Parcels that would be temporarily acquired (e.g., for TCEs) and permanently acquired (e.g., a parcel that would be used for construction purposes and would also be used for the alignment or a station during operations) would be appraised to determine the fair market value of the portion that would be used temporarily during construction, and just compensation not less than the amount recommended/determined by an approved appraisal would be made to each property owner.

Table 6-8. Alternative 1: Parcels to be Used During Construction

Land Use	Permanent Acquisition (Fee Simple and/or Easement)[a]	Temporary Construction Easement[b]
Commercial	4	3
Industrial	12	0
Institutional/Public Facilities	9	0
Parks/Recreation	0	0
Transportation-Related (Busway, Railroad, Freeway On-/Off-Ramp)	3	1
Vacant/Undeveloped Open Space	6	0
Multi-Family Residential	3	2
Single-Family Residential	1	0
Total	**38**	**6**

Source: LASRE, 2024

[a]Parcels that would be permanently acquired for the operation of Alternative 1 and also be used during construction, such as for access, staging, and/or laydown.

[b]Parcels from which the acquisition of TCEs may be required.

TCEs associated with Alternative 1 would not result in the displacement of any non-residential uses or residential dwelling units. Therefore, Alternative 1 would not result in adverse construction impacts related to acquisitions and displacements.

6.3.2.2 Indirect Impacts

Construction of Alternative 1 would temporarily change the visual quality and character, generate localized pollutant emissions, increase noise and vibration levels, and alter pedestrian and vehicular access in the Resource Study Area for visual, air quality, and noise and vibration; however, these changes are not expected to require additional residential or business displacements beyond those identified in the preceding section. Construction related disruptions would be temporary and measures would be implemented to reduce the effects of construction activities on nearby businesses and residents.

6.3.3 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

6.3.3.1 Permanent Impacts

Property acquisitions would occur prior to the construction and operations of Alternative 1. Alternative 1 would result in permanent acquisition (i.e., full fee simple acquisition, partial fee simple acquisition, aerial easement and/or foundation easement) of three single-family residential parcels and 11 multi-family residential parcels. Approximately one single-family residential unit would be permanently displaced. No multi-family residential units would be displaced. Based on an average household size of 3.0 persons per household for owner-occupied units in the City of Los Angeles, approximately three people would be permanently displaced as a result of Alternative 1. Metro would compensate owners at fair market value to purchase the required property. In the case of partial acquisitions, Metro would compensate owners if damages are incurred to the remainder property. Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions may make a case that the remainder property is no longer compatible with their intended use.

Metro would provide relocation assistance and compensation for displaced residents as required by the Uniform Act and California Relocation Act. Where acquisitions and relocation are unavoidable, Metro would follow the provisions of both Acts, as amended. As discussed in the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* (Metro, 2025d), current developments in the Project Study Area are anticipated to construct over 23,100 new housing units. Furthermore, various State, regional, and local policies and programs such as the 2024 Legislative Housing Package and the City's 2021-2029 Housing Element are aimed at increasing available housing stock to address the State's housing shortage. Working towards the RHNA target of 456,643 new housing units, the City of Los Angeles anticipates construction of 310,000 new housing units between 2021 and 2029. As such, given current and projected future housing availability, it is anticipated that the approximately three displaced residents would have adequate and comparable replacement housing available to them if they proceed with Metro relocation assistance. The 2025 wildfires may affect the short-term availability of replacement housing as it is anticipated that there will be increased demand for housing in the region while homes in the affected areas are rebuilt. Despite this increase in demand, there would still be adequate and comparable replacement housing available to displaced residents considering that the right of way acquisitions for the Project would take place over multiple years of project development. Properties acquired by Metro for Alternative 1 would be appraised to determine its fair market value, and just compensation for properties acquired by Metro for Alternative 1 would not be less than the approved appraisal, and each residence displaced as a result of Alternative 1 would be given advance written notice and would be informed of their eligibility for relocation assistance and payments. As Metro would comply with the Uniform Act and California Relocation Act, the displacement and relocation of three residents are not expected to necessitate the construction of replacement housing elsewhere. Therefore, in full compliance with the Uniform Act and the California Relocation Act, impacts related to the displacement of residential units and its occupants that would necessitate the construction of replacement units would be less than significant.

6.3.3.2 Temporary (Construction) Impacts

Construction of Alternative 1 would involve site preparation and demolition of structures; utility relocation; construction of the MRT alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 1 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Construction activities associated with Alternative 1 would not result in the temporary displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

6.3.3.3 Maintenance and Storage Facilities

MSF Base Design

As listed in Table 6-6, the MSF Base Design would not require the acquisition or displacement of any residential property. Therefore, the MSF Base Design would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Base Design would have no impact.

MSF Design Option 1

As listed in Table 6-6, the MSF Design Option 1 would not require the acquisition or displacement of any residential property. Therefore, the MSF Design Option 1 would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Design Option 1 would have no impact.

Electric Bus MSF

As listed in Table 6-6, the Electric Bus MSF would not require the acquisition or displacement of any residential property. Therefore, the Electric Bus MSF would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The Electric Bus MSF would have no impact.

6.4 Mitigation Measures

6.4.1 Permanent Impacts

No mitigation measures are required.

6.4.2 Temporary (Construction) Impacts

No mitigation measures are required.

6.4.3 Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

7 ALTERNATIVE 3

7.1 Alternative Description

Alternative 3 is an aerial monorail alignment that would run along the I-405 corridor and would include seven aerial monorail transit (MRT) stations and an underground tunnel alignment between the Getty Center and Wilshire Boulevard with two underground stations. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, the East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 16.1 miles, with 12.5 miles of aerial guideway and 3.6 miles of underground configuration.

The seven aerial and two underground MRT stations would be as follows:

1. Metro E Line Expo/Sepulveda Station (aerial)
2. Santa Monica Boulevard Station (aerial)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Getty Center Station (aerial)
6. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
7. Metro G Line Sepulveda Station (aerial)
8. Sherman Way Station (aerial)
9. Van Nuys Metrolink Station (aerial)

7.1.1 Operating Characteristics

7.1.1.1 Alignment

As shown on Figure 7-1, from its southern terminus at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 3 would generally follow I-405 to the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor, except for an underground segment between Wilshire Boulevard and the Getty Center.

The proposed southern terminus station would be located west of the existing Metro E Line Expo/Sepulveda Station, east of I-405 between Pico Boulevard and Exposition Boulevard. Tail tracks would extend just south of the station adjacent to the eastbound Interstate 10 to northbound I-405 connector over Exposition Boulevard. North of the Metro E Line Expo/Sepulveda Station, a storage track would be located off of the main alignment north of Pico Boulevard between I-405 and Cotner Avenue. The alignment would continue north along the east side of I-405 until just south of Santa Monica Boulevard, where a proposed station would be located between the I-405 northbound travel lanes and Cotner Avenue. The alignment would cross over the northbound and southbound freeway lanes north of Santa Monica Boulevard and travel along the west side of I-405. Once adjacent to the U.S. Department of Veterans Affairs (VA) Hospital site, the alignment would cross back over the I-405 lanes and Sepulveda Boulevard, before entering an underground tunnel south of the Federal Building parking lot.

Figure 7-1. Alternative 3: Alignment

Source: LASRE, 2024; HTA, 2024

The alignment would proceed east underground and turn north under Veteran Avenue toward the proposed Wilshire Boulevard/Metro D Line Station located under the University of California, Los Angeles (UCLA) Lot 36 on the east side of Veteran Avenue north of Wilshire Boulevard. North of this station, the underground alignment would curve northeast parallel to Weyburn Avenue before curving north and traveling underneath Westwood Plaza at Le Conte Avenue. The alignment would follow Westwood Plaza until the underground UCLA Gateway Plaza Station in front of the Luskin Conference

Center. The alignment would then continue north under the UCLA campus until Sunset Boulevard, where the tunnel would curve northwest for approximately 2 miles to rejoin I-405.

The Alternative 3 alignment would transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal located at the northern end of the Leo Baeck Temple parking lot. The alignment would cross over Sepulveda Boulevard and the I-405 lanes to the proposed Getty Center Station on the west side of I-405, just north of the Getty Center tram station. The alignment would return to the median for a short distance before curving back to the west side of I-405 south of the Sepulveda Boulevard undercrossing north of the Getty Center Drive interchange. After crossing over Bel Air Crest Road and Skirball Center Drive, the alignment would again return to the median and run under the Mulholland Drive Bridge, then continue north within the I-405 median to descend into the San Fernando Valley (Valley).

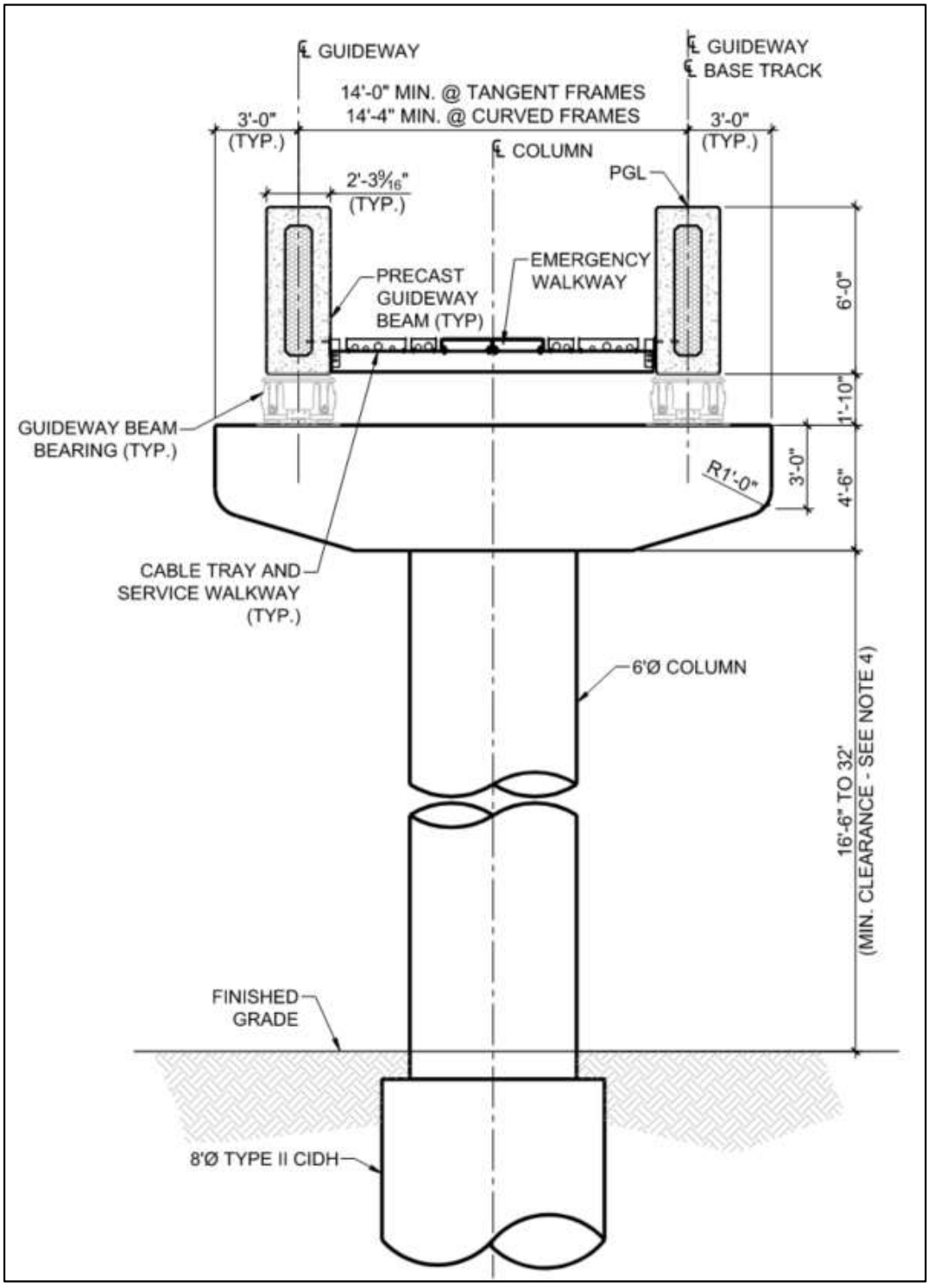
Near Greenleaf Street, the alignment would cross over the northbound freeway lanes and on-ramps toward the proposed Ventura Boulevard Station on the east side of I-405. This station would be located above a transit plaza and replace an existing segment of Dickens Street adjacent to I-405, just south of Ventura Boulevard. Immediately north of the Ventura Boulevard Station, the alignment would cross over the northbound I-405 to U.S. Highway 101 (US-101) connector and continue north between the connector and the I-405 northbound travel lanes. The alignment would continue north along the east side of I-405—crossing over US-101 and the Los Angeles River—to a proposed station on the east side of I-405 near the Metro G Line Busway. A new at-grade station on the Metro G Line would be constructed for Alternative 3 adjacent to the proposed station. These proposed stations are shown on the Metro G Line inset area on Figure 7-1.

The alignment would then continue north along the east side of I-405 to the proposed Sherman Way Station. The station would be located inside the I-405 northbound loop off-ramp to Sherman Way. North of the station, the alignment would continue along the eastern edge of I-405, then curve to the southeast parallel to the LOSSAN rail corridor. The alignment would run elevated along Raymer Street east of Sepulveda Boulevard and cross over Van Nuys Boulevard to the proposed terminus station adjacent to the Van Nuys Metrolink/Amtrak Station. Overhead utilities along Raymer Street would be undergrounded where they would conflict with the guideway or its supporting columns. Tail tracks would be located southeast of this terminus station.

7.1.1.2 Guideway Characteristics

Alternative 3 would utilize straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Alternative 3 would operate on aerial and underground guideways with dual-beam configurations. Northbound and southbound trains would travel on parallel beams either in the same tunnel or supported by a single-column or straddle-bent aerial structure. Figure 7-2 shows a typical cross-section of the aerial monorail guideway.

Figure 7-2. Typical Aerial Monorail Guideway Cross-Section



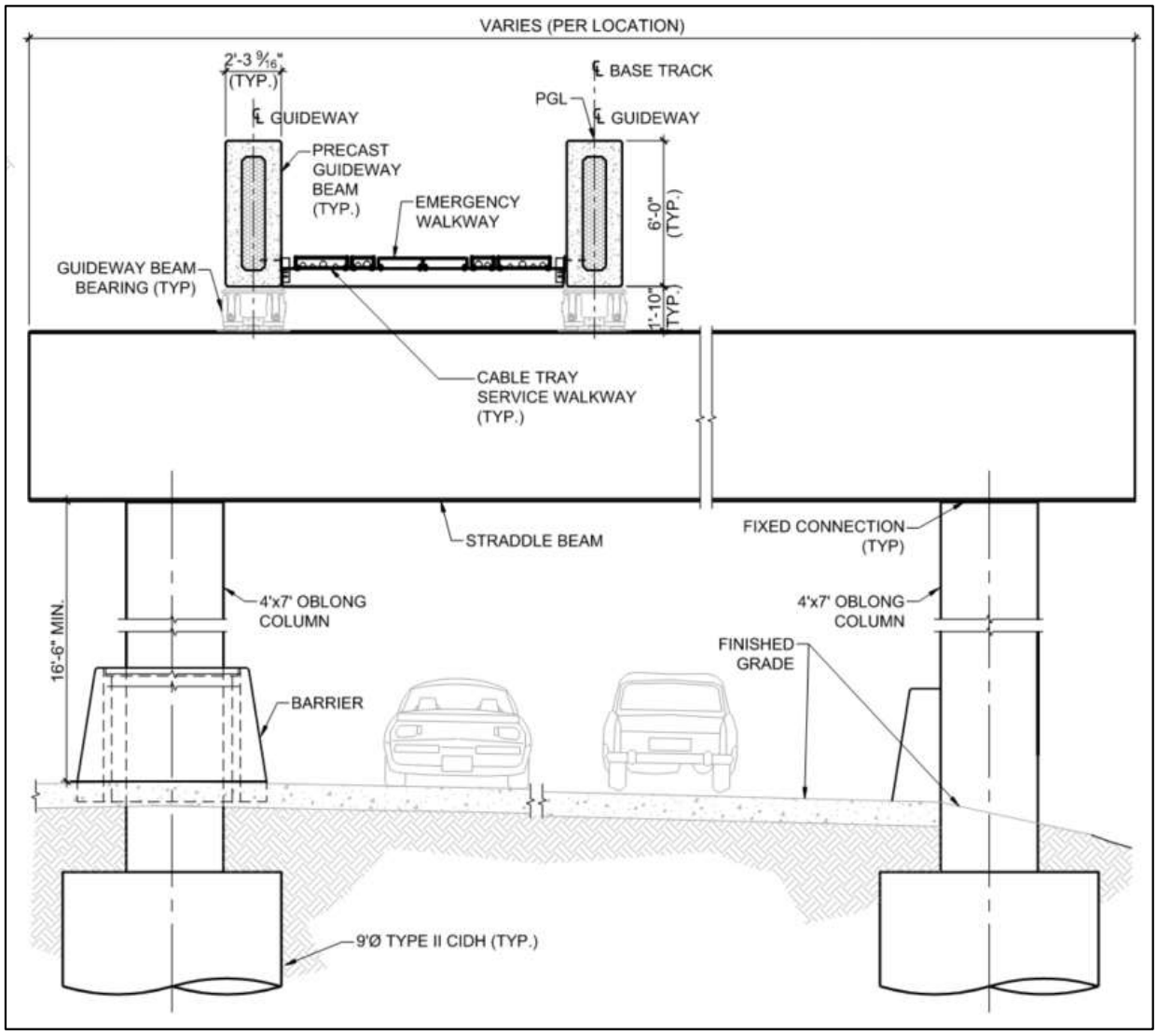
Source: LASRE, 2024

On a typical guideway section (i.e., not at a station), guide beams would rest on 20-foot-wide column caps (i.e., the structure connecting the columns and the guide beams), with typical spans (i.e., the

distance between columns) ranging from 70 to 190 feet. The bottom of the column caps would typically be between 16.5 feet and 32 feet above ground level.

Over certain segments of roadway and freeway facilities, a straddle-bent configuration, as shown on Figure 7-3, consisting of two concrete columns constructed outside of the underlying roadway would be used to support the guide beams and column cap. Typical spans for these structures would range between 65 and 70 feet. A minimum 16.5-foot clearance would be maintained between the underlying roadway and the bottom of the column caps.

Figure 7-3. Typical Monorail Straddle-Bent Cross-Section



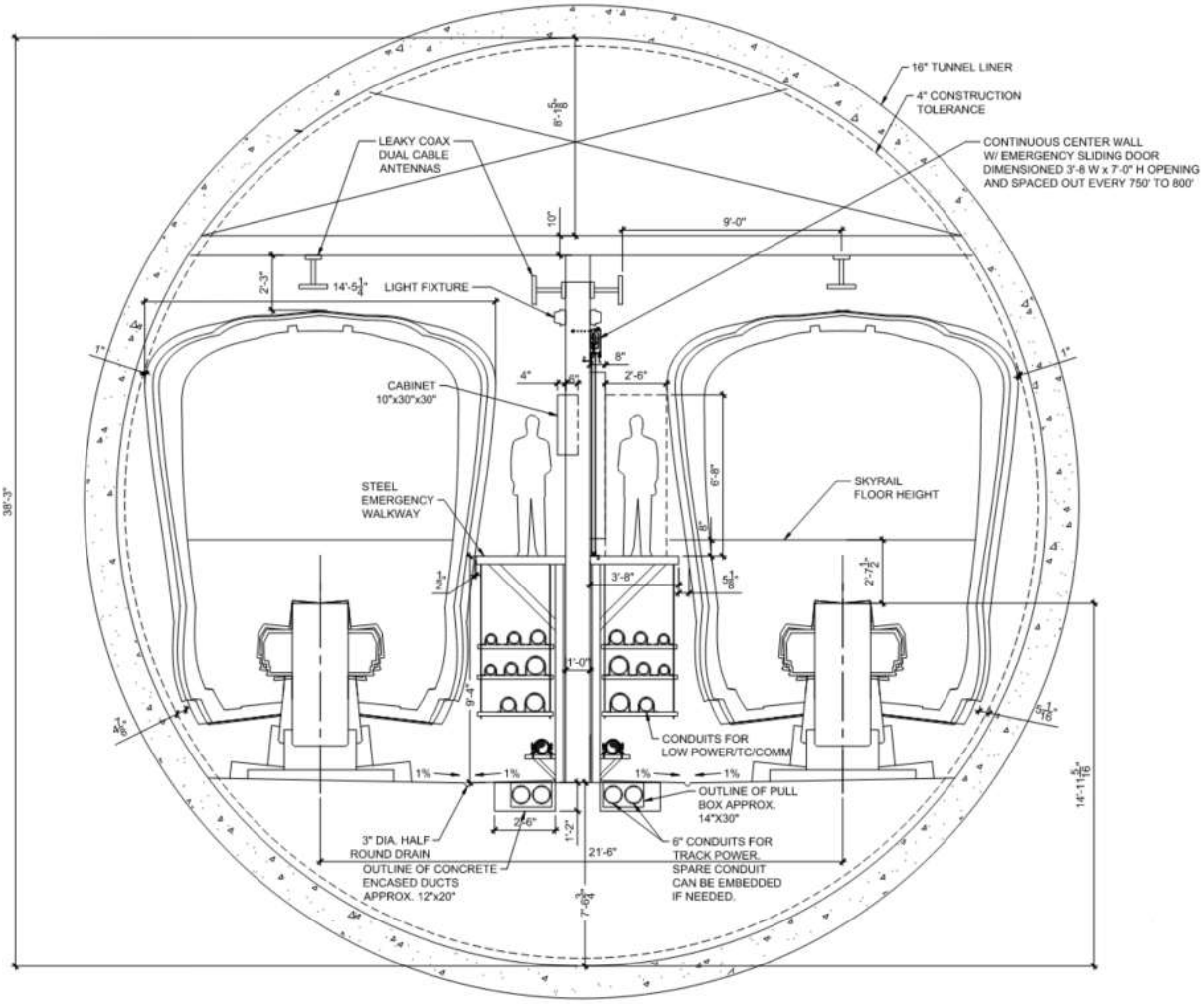
Source: LASRE, 2024

Structural support columns would vary in size and arrangement by alignment location. Columns would be 6 feet in diameter along main alignment segments adjacent to I-405 and be 4 feet wide by 6 feet long in the I-405 median. Straddle-bent columns would be 4 feet wide by 7 feet long. At stations, six rows of dual 5-foot by-8-foot columns would support the aerial guideway. Beam switch locations and long-span structures would also utilize different sized columns, with dual 5-foot columns supporting switch

locations and either 9-foot or 10-foot-diameter columns supporting long-span structures. Crash protection barriers would be used to protect the columns. All columns would have a cast-in-drilled-hole (CIDH) pile foundation extending 1 foot in diameter beyond the column width with varying depths for appropriate geotechnical considerations and structural support.

For underground sections, a single 40-foot-diameter tunnel would be needed to accommodate dual-beam configuration. The tunnel would be divided by a 1-foot-thick center wall dividing two compartments with a 14.5-foot-wide space for trains and a 4-foot-wide emergency evacuation walkway. The center wall would include emergency sliding doors placed every 750 to 800 feet. A plenum within the crown of the tunnel, measuring 8 feet tall from the top of the tunnel, would allow for air circulation and ventilation. Figure 7-4 illustrates these components at a typical cross-section of the underground monorail guideway.

Figure 7-4. Typical Underground Monorail Guideway Cross-Section



Source: LASRE, 2024

7.1.1.3 Vehicle Technology

Alternative 3 would utilize straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Rubber tires would sit both atop and

on each side of the guide beam to provide traction and guide the train. Trains would be automated and powered by power rails mounted to the guide beam, with planned peak-period headways of 166 seconds and off-peak-period headways of 5 minutes. Monorail trains could consist of up to eight cars. Alternative 3 would have a maximum operating speed of 56 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations.

Monorail train cars would be 10.5 feet wide, with two double doors on each side. End cars would be 46.1 feet long with a design capacity of 97 passengers, and intermediate cars would be 35.8 feet long and have a design capacity of 90 passengers.

7.1.1.4 Stations

Alternative 3 would include seven aerial and two underground MRT stations with platforms approximately 320 feet long. Aerial stations would be elevated 50 feet to 75 feet above the ground level, and underground stations would be 80 feet to 110 feet underneath the existing ground level. The Metro E Line Expo/Sepulveda, Santa Monica Boulevard, Ventura Boulevard/Sepulveda Boulevard, Sherman Way, and Van Nuys Metrolink Stations would be center-platform stations where passengers would travel up to a shared platform that would serve both directions of travel. The Wilshire Boulevard/Metro D Line, UCLA Gateway Plaza, Getty Center, and Metro G Line Sepulveda Stations would be side-platform stations where passengers would select and travel up or down to station platforms depending on their direction of travel. Each station, regardless of whether it has side or center platforms, would include a concourse level prior to reaching the train platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from ground level to the concourse.

Aerial station platforms would be approximately 320 feet long and would be supported by six rows of dual 5-foot by- 8-foot columns. The platforms would be covered, but not enclosed. Side-platform stations would be 61.5 feet wide to accommodate two 13-foot-wide station platforms with a 35.5-foot-wide intermediate gap for side-by-side trains. Center-platform stations would be 49 feet wide, with a 25-foot-wide center platform.

Underground side platforms would be 320 feet long and 26 feet wide, separated by a distance of 31.5 feet for side-by-side trains.

Monorail stations would include automatic, bi-parting fixed doors along the edges of station platforms. These doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This aerial station would be located near the existing Metro E Line Expo/Sepulveda Station, just east of I-405 between Pico Boulevard and Exposition Boulevard.
- A transit plaza and station entrance would be located on the east side of the station.
- An off-street passenger pick-up/drop-off loop would be located south of Pico Boulevard west of Cotner Avenue.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the Metro E Line Expo/Sepulveda Station within the fare paid zone.

- Passengers would be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces. No additional automobile parking would be provided at the proposed station.

Santa Monica Boulevard Station

- This aerial station would be located just south of Santa Monica Boulevard, between the I-405 northbound travel lanes and Cotner Avenue.
- Station entrances would be located on the southeast and southwest corners of Santa Monica Boulevard and Cotner Avenue. The entrance on the southeast corner of the intersection would be connected to the station concourse level via an elevated pedestrian walkway spanning Cotner Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located under UCLA Lot 36 on the east side of Veteran Avenue north of Wilshire Boulevard.
- A station entrance would be located on the northeast corner of the intersection of Veteran Avenue and Wilshire Boulevard.
- An underground pedestrian walkway would connect the concourse level of the proposed station to the Metro D Line Westwood/UCLA Station using a knock-out panel provided in the Metro D Line Station box. This connection would occur within the fare paid zone.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located beneath Gateway Plaza.
- Station entrances would be located on the northern end and southeastern end of the plaza.
- No dedicated station parking would be provided at this station.

Getty Center Station

- This aerial station would be located on the west side of I-405 near the Getty Center, approximately 1,000 feet north of the Getty Center tram station.
- An elevated pedestrian walkway would connect the proposed station's concourse level with the Getty Center tram station. The proposed connection would occur outside the fare paid zone.
- An entrance to the walkway above the Getty Center's parking lot would be the proposed station's only entrance.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This aerial station would be located east of I-405, just south of Ventura Boulevard.
- A transit plaza, including two station entrances, would be located on the east side of the station. The plaza would require the closure of a 0.1-mile segment of Dickens Street between Sepulveda

Boulevard and Ventura Boulevard, with a passenger pick-up/drop-off loop and bus stops provided south of the station, off Sepulveda Boulevard.

- No dedicated station parking would be provided at this station.

Metro G Line Sepulveda Station

- This aerial station would be located near the Metro G Line Sepulveda Station, between I-405 and the Metro G Line Busway.
- Entrances to the MRT station would be located on both sides of the new proposed Metro G Line bus rapid transit (BRT) station.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the proposed new Metro G Line BRT station outside of the fare paid zone.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are used for transit parking. No additional automobile parking would be provided at the proposed station.

Sherman Way Station

- This aerial station would be located inside the I-405 northbound loop off-ramp to Sherman Way.
- A station entrance would be located on the north side of Sherman Way, directly across the street from the I-405 northbound off-ramp to Sherman Way East.
- An on-street passenger pick-up/drop-off area would be provided on the north side of Sherman Way west of Firmament Avenue.
- No dedicated station parking would be provided at this station.

Van Nuys Metrolink Station

- This aerial station would be located on the east side of Van Nuys Boulevard, just south of the LOSSAN rail corridor, incorporating the site of the current Amtrak ticket office.
- A station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A second entrance would be located to the north of the LOSSAN rail corridor with an elevated pedestrian walkway connecting to both the concourse level of the proposed station and the platform of the Van Nuys Metrolink/Amtrak Station.
- Existing Metrolink Station parking would be reconfigured, maintaining approximately the same number of spaces, but 180 parking spaces would be relocated north of the LOSSAN rail corridor. Metrolink parking would not be available to Metro transit riders.

7.1.1.5 Station-to-Station Travel Times

Table 7-1 presents the station-to-station distance and travel times for Alternative 3. The travel times include both running time and dwelling time. The travel times differ between northbound and southbound trips because of grade differentials and operational considerations at end-of-line stations.

Table 7-1. Alternative 3: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	123	97	—
Santa Monica Boulevard Station					*30*
Santa Monica Boulevard	Wilshire/Metro D Line	1.1	192	194	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.9	138	133	—
UCLA Gateway Plaza Station					*30*
UCLA Gateway Plaza	Getty Center	2.6	295	284	—
Getty Center Station					*30*
Getty Center	Ventura Boulevard	4.7	414	424	—
Ventura Boulevard Station					*30*
Ventura Boulevard	Metro G Line	2.0	179	187	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.5	134	133	—
Sherman Way Station					*30*
Sherman Way	Van Nuys Metrolink	2.4	284	279	—
Van Nuys Metrolink Station					*30*

Source: LASRE, 2024

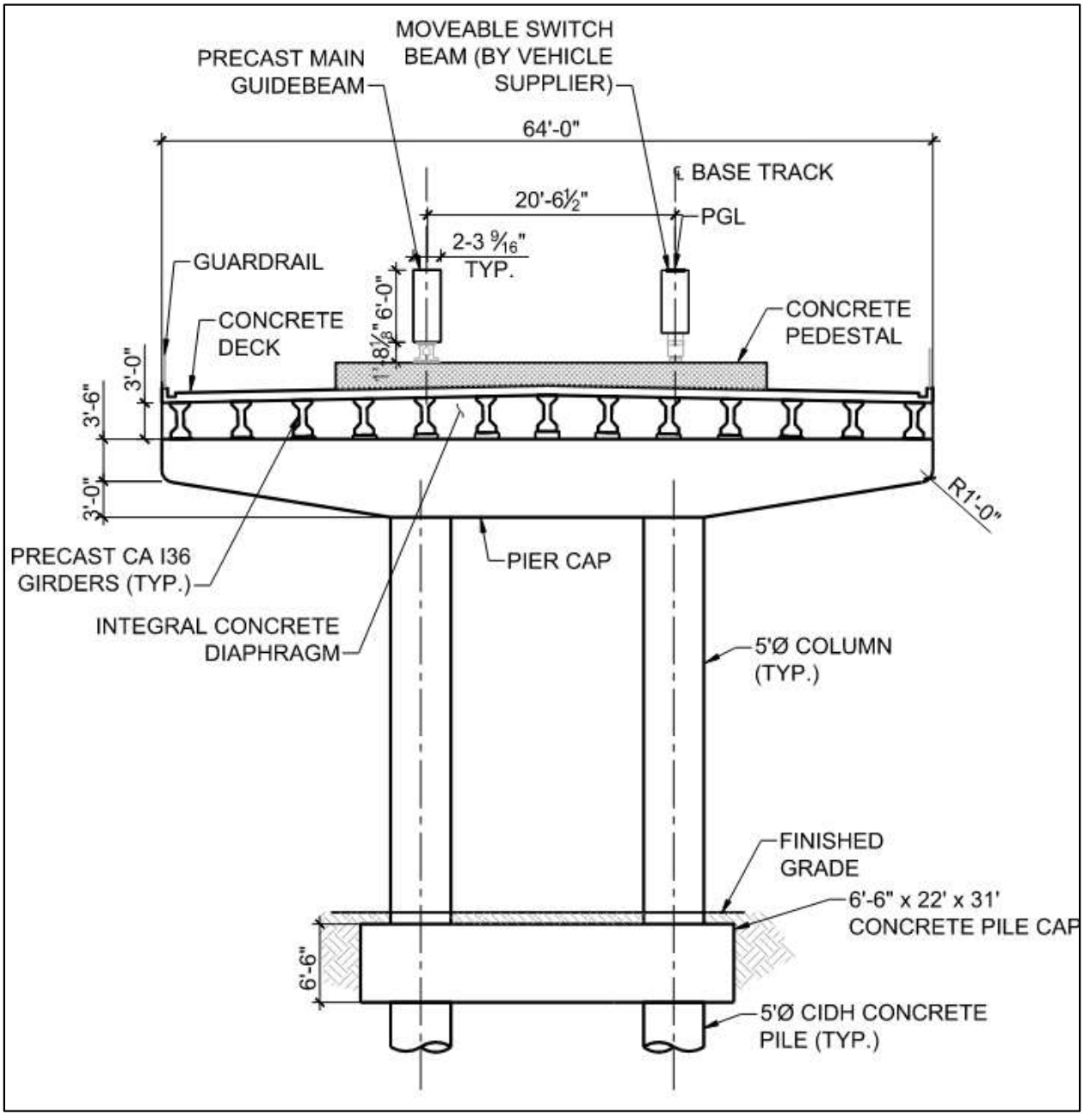
— = no data

7.1.1.6 Special Trackwork

Alternative 3 would include five pairs of beam switches to enable trains to cross over and reverse direction on the opposite beam. All beam switches would be located on aerial portions of the alignment of Alternative 3. From south to north, the first pair of beam switches would be located just north of the Metro E Line Expo/Sepulveda Station. A second pair of beam switches would be located on the west side of I-405, directly adjacent to the VA Hospital site, south of the Wilshire Boulevard/Metro D Line Station. A third pair of beam switches would be located in the Sepulveda Pass just south of Mountaingate Drive and Sepulveda Boulevard. A fourth pair of beam switches would be located south of the Metro G Line Station between the I-405 northbound lanes and the Metro G Line Busway. The final pair would be located near the Van Nuys Metrolink Station.

At beam switch locations, the typical cross-section of the guideway would increase in column and column cap width. The column cap width at these locations would be 64 feet, with dual 5-foot-diameter columns. Underground pile caps for additional structural support would also be required at these locations. Figure 7-5 shows a typical cross-section of the monorail beam switch.

Figure 7-5. Typical Monorail Beam Switch Cross-Section



Source: LASRE, 2024

7.1.1.7 Maintenance and Storage Facility

MSF Base Design

In the maintenance and storage facility (MSF) Base Design for Alternative 3, the MSF would be located on City of Los Angeles Department of Water and Power (LADWP) property east of the Van Nuys Metrolink Station. The MSF Base Design site would be approximately 18 acres and would be designed to accommodate a fleet of 208 monorail vehicles. The site would be bounded by the LOSSAN rail corridor

to the north, Saticoy Street to the south, and property lines extending north of Tyrone and Hazeltine Avenues to the east and west, respectively.

Monorail trains would access the site from the main alignment's northern tail tracks at the northwest corner of the site. Trains would travel parallel to the LOSSAN rail corridor before curving southeast to maintenance facilities and storage tracks. The guideway would remain in an aerial configuration within the MSF Base Design, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, an operations control center, and a maintenance shop and office
- Train car wash building
- Emergency generator
- Traction power substation (TPSS)
- Maintenance-of-way (MOW) building
- Parking area for employees

MSF Design Option 1

In the MSF Design Option 1, the MSF would be located on industrial property, abutting Orion Avenue, south of the LOSSAN rail corridor. The MSF Design Option 1 site would be approximately 26 acres and would be designed to accommodate a fleet of 224 monorail vehicles. The site would be bounded by I-405 to the west, Stagg Street to the south, the LOSSAN rail corridor to the north, and Orion Avenue and Raymer Street to the east. The monorail guideway would travel along the northern edge of the site.

Monorail trains would access the site from the monorail guideway east of Sepulveda Boulevard, requiring additional property east of Sepulveda Boulevard and north of Raymer Street. From the northeast corner of the site, trains would travel parallel to the LOSSAN rail corridor before turning south to maintenance facilities and storage tracks parallel to I-405. The guideway would remain in an aerial configuration within the MSF Design Option 1, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, an operations control center, and a maintenance shop and office
- Train car wash building
- Emergency generator
- TPSS
- MOW building
- Parking area for employees

Figure 7-6 shows the locations of the MSF Base Design and MSF Design Option 1 for Alternative 3.

Figure 7-6. Alternative 3: Maintenance and Storage Facility Options

Source: LASRE, 2024; HTA, 2024

7.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. A TPSS on a site of approximately 8,000 square feet would be located approximately every 1 mile along the alignment. Table 7-2 lists the TPSS locations proposed for Alternative 3.

Figure 7-7 shows the TPSS locations along the Alternative 3 alignment.

Table 7-2. Alternative 3: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1	TPSS 1 would be located east of I-405, just south of Exposition Boulevard and the monorail guideway tail tracks.	At-grade
2	TPSS 2 would be located east of I-405 and Sepulveda Boulevard, just north of the Getty Center Station.	At-grade
3	TPSS 3 would be located west of I-405, just east of the intersection between Promontory Road and Sepulveda Boulevard.	At-grade
4	TPSS 4 would be located between I-405 and Sepulveda Boulevard, just north of the Skirball Center Drive Overpass.	At-grade
5	TPSS 5 would be located east of I-405, just south of Ventura Boulevard Station, between Sepulveda Boulevard and Dickens Street.	At-grade
6	TPSS 6 would be located east of I-405, just south of the Metro G Line Sepulveda Station.	At-grade
7	TPSS 7 would be located east of I-405, just east of the Sherman Way Station, inside the I-405 Northbound Loop Off-Ramp to Sherman Way westbound.	At-grade
8	TPSS 8 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade
9	TPSS 9 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade (within MSF Design Option)
10	TPSS 10 would be located between Van Nuys Boulevard and Raymer Street, south of the LOSSAN rail corridor.	At-grade
11	TPSS 11 would be located south of the LOSSAN rail corridor, between Tyrone Avenue and Hazeltine Avenue.	At-grade (within MSF Base Design)
12	TPSS 12 would be located southwest of Veteran Avenue at Wellworth Avenue.	Underground
13	TPSS 13 would be located within the Wilshire Boulevard/Metro D Line Station.	Underground (adjacent to station)
14	TPSS 14 would be located underneath UCLA Gateway Plaza.	Underground (adjacent to station)

Source: LASRE, 2024; HTA, 2024

Figure 7-7. Alternative 3: Traction Power Substation Locations

Source: LASRE, 2024; HTA, 2024

7.1.1.9 Roadway Configuration Changes

Table 7-3 lists the roadway changes necessary to accommodate the guideway of Alternative 3. Figure 7-8 shows the location of these roadway changes in the Sepulveda Transit Corridor Project (Project) Study Area, except for the I-405 configuration changes, which occur throughout the corridor.

Table 7-3. Alternative 3: Roadway Changes

Location	From	To	Description of Change
Cotner Avenue	Nebraska Avenue	Santa Monica Boulevard	Roadway realignment to accommodate aerial guideway columns
Beloit Avenue	Massachusetts Avenue	Ohio Avenue	Roadway narrowing to accommodate aerial guideway columns
Sepulveda Boulevard	Getty Center Drive	Not Applicable	Southbound right turn lane to Getty Center Drive shortened to accommodate aerial guideway columns
I-405 Northbound On-Ramp and Off-Ramp at Sepulveda Boulevard near I-405 Exit 59	Sepulveda Boulevard near I-405 Northbound Exit 59	Sepulveda Boulevard/I-405 Undercrossing (near Getty Center)	Ramp realignment to accommodate aerial guideway columns and I-405 widening
Sepulveda Boulevard	I-405 Southbound Skirball Center Drive Ramps (north of Mountaingate Drive)	Skirball Center Drive	Roadway realignment into existing hillside to accommodate aerial guideway columns and I-405 widening
I-405 Northbound On-Ramp at Mulholland Drive	Mulholland Drive	Not Applicable	Roadway realignment into the existing hillside between the Mulholland Drive Bridge pier and abutment to accommodate aerial guideway columns and I-405 widening
Dickens Street	Sepulveda Boulevard	Ventura Boulevard	Permanent removal of street for Ventura Boulevard Station construction Pick-up/drop-off area would be provided along Sepulveda Boulevard at the truncated Dickens Street
Sherman Way	Haskell Avenue	Firmament Avenue	Median improvements, passenger drop-off and pick-up areas, and bus pads within existing travel lanes
Raymer Street	Sepulveda Boulevard	Van Nuys Boulevard	Curb extensions and narrowing of roadway width to accommodate aerial guideway columns
I-405	Sepulveda Boulevard Northbound Off-Ramp (Getty Center Drive interchange)	Sepulveda Boulevard Northbound On-Ramp (Getty Center Drive interchange)	I-405 widening to accommodate aerial guideway columns in the median
I-405	Skirball Center Drive	U.S. Highway 101	I-405 widening to accommodate aerial guideway columns in the median

Source: LASRE, 2024; HTA, 2024

Figure 7-8. Alternative 3: Roadway Changes

Source: LASRE, 2024; HTA, 2024

In addition to the changes made to accommodate the guideway, as listed in Table 7-3, roadways and sidewalks near stations would be reconstructed, which would result in modifications to curb ramps and driveways.

7.1.1.10 Ventilation Facilities

For ventilation of the monorail's underground portion, a plenum within the crown of the tunnel would provide a separate compartment for air circulation and allow multiple trains to operate between

stations. Vents would be located at the southern portal near the Federal Building parking lot, Wilshire/Metro D Line Station, UCLA Gateway Plaza Station, and at the northern portal near the Leo Baeck Temple parking lot. Emergency ventilation fans would be located at the UCLA Gateway Plaza Station and at the northern and southern tunnel portals.

7.1.1.11 Fire/Life Safety – Emergency Egress

Continuous emergency evacuation walkways would be provided along the guideway. Walkways along the alignment's aerial portions would typically consist of structural steel frames anchored to the guideway beams to support non-slip walkway panels. The walkways would be located between the two guideway beams for most of the aerial alignment; however, where the beams split apart, such as entering center-platform stations, short portions of the walkway would be located on the outside of the beams. For the underground portion of Alternative 3, 3.5-foot-wide emergency evacuation walkways would be located on both sides of the beams. Access to tunnel segments for first responders would be through stations.

7.1.2 Construction Activities

Construction activities for Alternative 3 would include constructing the aerial guideway and stations, underground tunnel and stations, and ancillary facilities, and widening I-405. Construction of the transit facilities through substantial completion is expected to have a duration of 8 ½ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

Aerial guideway construction would begin at the southern and northern ends of the alignment and connect in the middle. Constructing the guideway would require a combination of freeway and local street lane closures throughout the working limits to provide sufficient work area. The first stage of I-405 widening would include a narrowing of adjacent freeway lanes to a minimum width of 11 feet (which would eliminate shoulders) and placing K-rail on the outside edge of the travel lanes to create outside work areas. Within these outside work zones, retaining walls, drainage, and outer pavement widenings would be constructed to allow for I-405 widening. The reconstruction of on- and off-ramps would be the final stage of I-405 widening.

A median work zone along I-405 for the length of the alignment would be required for erection of the guideway structure. In the median work zone, demolition of existing median and drainage infrastructure would be followed by the installation of new K-rails and installation of guideway structural components, which would include full directional freeway closures when guideway beams must be transported into the median work areas during late-night hours. Additional night and weekend directional closures would be required for installation of long-span structures over I-405 travel lanes where the guideway would transition from the median.

Aerial station construction is anticipated to last the duration of construction activities for Alternative 3 and would include the following general sequence of construction:

- Site clearing
- Utility relocation
- Construction fencing and rough grading
- CIDH pile drilling and installation
- Elevator pit excavation
- Soil and material removal

- Pile cap and pier column construction
- Concourse level and platform level falsework and cast-in-place structural concrete
- Guideway beam installation
- Elevator and escalator installation
- Completion of remaining concrete elements such as pedestrian bridges
- Architectural finishes and mechanical, electrical, and plumbing installation

Underground stations, including the Wilshire Boulevard/Metro D Line Station and the UCLA Gateway Plaza Station, would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures are taken to resume cross traffic.

A tunnel boring machine (TBM) would be used to construct the underground segment of the guideway. The TBM would be launched from a staging area on Veteran Avenue south of Wilshire Boulevard, and head north toward an exit portal location north of Leo Baeck Temple. The southern portion of the tunnel between Wilshire Boulevard and the Bel Air Country Club would be at a depth between 80 to 110 feet from the surface to the top of the tunnel. The UCLA Gateway Plaza Station would be constructed using cut-and-cover methods. Through the Santa Monica Mountains, the tunnel would range between 30 to 300 feet deep.

Alternative 3 would require construction of a concrete casting facility for columns and beams associated with the elevated guideway. A specific site has not been identified; however, it is expected that the facility would be located on industrially zoned land adjacent to a truck route in either the Antelope Valley or Riverside County. When a site is identified, the contractor would obtain all permits and approvals necessary from the relevant jurisdiction, the appropriate air quality management entity, and other regulatory entities.

TPSS construction would require additional lane closures. Large equipment, including transformers, rectifiers, and switchgears would be delivered and installed through prefabricated modules where possible in at-grade TPSSs. The installation of transformers would require temporary lane closures on Exposition Boulevard, Beloit Avenue, and the I-405 northbound on-ramp at Burbank Boulevard.

Table 7-4 and Figure 7-9 show the potential construction staging areas for Alternative 3. Staging areas would provide the necessary space for the following activities:

- Contractors' equipment
- Receiving deliveries
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

Table 7-4. Alternative 3: Construction Staging Locations

No.	Location Description
1	Public Storage between Pico Boulevard and Exposition Boulevard, east of I-405
2	South of Dowlen Drive and east of Greater LA Fisher House
3	Federal Building Parking Lot
4	Kinross Recreation Center and UCLA Lot 36
5	North end of the Leo Baeck Temple Parking Lot (tunnel boring machine retrieval)
6	At 1400 N Sepulveda Boulevard
7	At 1760 N Sepulveda Boulevard
8	East of I-405 and north of Mulholland Drive Bridge
9	Inside of I-405 Northbound to US-101 Northbound Loop Connector, south of US-101
10	ElectroRent Building south of G Line Busway, east of I-405
11	Inside the I-405 Northbound Loop Off-Ramp at Victory Boulevard
12	Along Cabrito Road east of Van Nuys Boulevard

Source: LASRE, 2024; HTA, 2024

Figure 7-9. Alternative 3: Construction Staging Locations

Source: LASRE, 2024; HTA, 2024

7.2 Existing Conditions

The Project Study Area is approximately 68 square miles and consists of a variety of urban land uses, including commercial uses (e.g., offices, retail, and restaurants), industrial uses (e.g., warehouses, distributers, wholesalers, manufacturing, open storage, building materials, automotive repair shops, and storage facilities), residential uses (single- and multi-family), parks and recreational facilities (e.g., golf course and parks), institutional facilities (e.g., religious facilities, museums, and schools), and public facilities (e.g., government facilities and fire stations). The Project Study Area also has several vacant parcels in the commercial and residential areas, as well as undeveloped open space areas. Undeveloped open space areas are generally located in the Brentwood and Bel Air communities, as well as in the southern portions of the Sherman Oaks and Encino communities.

Land use adjacent to the Alternative 3 at the northern end of the alignment (from the northern terminus at the proposed MSF at Hazeltine Avenue to I-405) is primarily industrial. A mix of large-, medium-, and small-scale industrial uses are located in this area. Freight tracks and the Metrolink Ventura County Line within the LOSSAN rail corridor ROW parallel the alignment of Alternative 3 between the northern terminus and I-405. From the rail ROW to the Getty Center/Sepulveda Boulevard intersection, Alternative 3 is located either along the side or median of I-405. An institutional use (church) is located just north of Saticoy Street. Between Saticoy Street and Erwin Street, land uses adjacent to Alternative 3 are primarily single-family residential with some multi-family residential uses. Between Erwin Street and Valley Vista Boulevard, land uses include a mix of commercial (small, mid-size, and big-box retail; restaurants, and office buildings), industrial, and residential uses. The residential uses in this area are primarily multi-family residential uses, and a few public facilities. Sepulveda Basin is located west of I-405. From Valley Vista Boulevard to the Getty Center Drive/Sepulveda Boulevard intersection, the area adjacent to Alternative 3 has less development. This area consists of mostly low density single-family residential uses and undeveloped hillsides, as well as a few institutional uses (e.g., Skirball Cultural Center and a temple). Between the Getty Center Drive/Sepulveda Boulevard intersection and Sunset Boulevard, land use adjacent to Alternative 3 consist of primarily low-density single-family residential uses and undeveloped open space/hillsides, as well as a high school and a recreational facility. From Sunset Boulevard to Le Conte Avenue, adjacent land uses include uses that are associated with UCLA. These uses include, but are not limited to, facilities associated with the Henry Samueli School of Engineering, Ronald Regan UCLA Medical Center, UCLA Medical Plaza, and other medical-related facilities and research centers. Between Le Conte Avenue and Wilshire Boulevard/Veterans Avenue intersection, land uses generally include institutional uses, commercial uses, parking facilities, and the Los Angeles National Cemetery. The institutional uses in this area are also associated with UCLA and include the UCLA Extension Gayley Center, Geffen Academy, and Kinross Recreation Center. Land uses between Wilshire Boulevard/Veterans Avenue and Ohio Avenue include office buildings, the Veterans Affairs campus, and recreational facilities. From Ohio Street to the southern terminus, adjacent land uses consist of small-scale industrial, residential, and commercial (office buildings, and small and mid-size retail) uses.

7.2.1 Typical Types of Property Acquisitions and Displacements

The Project would affect existing properties and result in property acquisitions and displacements. The parcels acquired for the Project would involve either full or partial acquisition. Full acquisition for the Project would involve fee simple acquisitions, which consist of a complete transfer of ownership rights. In a fee simple acquisition, the buyer has full and irrevocable ownership of land and any buildings on it. Partial acquisition for the Project would involve either fee simple acquisitions or easements. Property

acquisitions may be phased over time depending on Project funding and construction phasing, methods, and schedule. Table 7-5 summarizes typical causes of property acquisitions and displacement that could occur as a result of Alternative 3.

Table 7-5. Alternative 3: Typical Causes of Property Acquisition and Displacement

Source of Acquisition	Type of Acquisition	Cause/Process
Horizontal Alignment	Full/Partial Fee Simple	Insufficient existing ROW for construction and operation.
Subsurface/At-Grade/Aerial Alignment	Permanent Easement	A condition for a non-exclusive access agreement or easement (either permanent or temporary) for subsurface, at-grade, or aerial alignments to allow access to a property or facility.
Vertical Circulation (e.g., stairs)	Partial Fee Simple	Area needed to bring passengers from the ground level to a station platform at an aerial (elevated) structure or to an underground station.
Property Encroachment	Full/Partial Fee Simple	Unauthorized use of private property. Resolution through boundary survey and potential relocation of use.
Access to a Residential or Non-Residential Use (driveway or road)	Full Fee Simple/Permanent Easement	Permanent easement would be needed to provide residential units or non-residential uses access to a road; full acquisition may be required if reduced or restricted access would disrupt use of residences or non-residential uses.
Street/Intersection Improvements; Grade Crossing/Separation; Drainage and Utility Improvements	Partial/Full Fee Simple	Additional area/lanes required to maintain traffic volumes, turn lanes and sidewalk widths; additional area required to upgrade drainage facilities or to improve utility.
Station Entrance	Full Fee Simple/Partial Fee Simple /Permanent Easement	Area needed to provide passenger access to a subsurface, at-grade, or aerial station.
Parking Facility	Partial/Full Fee Simple	Area required for station parking.
Operations Maintenance and Storage Facility	Partial/Full Fee Simple	Area required to perform maintenance activities.
TPSS and Ancillary Facilities	Partial/Full Fee Simple	Area required for TPSS sites and ancillary facilities.
Construction Activities	Temporary Construction Easements	Area used for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; property would be returned at the end of construction.
Construction Access, Staging and Laydown	Partial/Full Fee Simple	Area required for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; would be used for station parking or other permanent use after construction has been completed.

Source: HTA, 2024

ROW = right-of-way

7.2.2 Full Acquisition

Full acquisition would require the use of an entire property. Full property acquisition would result in the purchase of an entire property by the Los Angeles County Metropolitan Transportation Authority

(Metro) for the Project. Metro would purchase a "fee simple interest" of the property and become the owner of the property. Full acquisition would occur in instances where the Project would require the use of a significant portion of the property, including the physical structure or structures identified as the property's principal dwelling or business facility, permanently or for an extended period during construction. Full acquisition would also occur in cases where a property's physical structure or structures were not affected but another component critical to a property's intended use would be affected (such as a severe loss of parking or access that would reduce the useful operation of the property). Full property acquisition for Alternative 3 would be required for the following reasons:

- To construct and operate station areas
- To provide utility and drainage improvements
- To provide improvements to I-405
- To construct and operate ancillary facilities and TPSS
- To construct and operate the MSF
- To accommodate construction access, staging, and laydown areas

7.2.3 Partial Acquisition

Partial acquisition would occur if the Project would use a portion of a given property but would not require the entirety of the property. Partial property acquisition means that only a portion of the property would be acquired, and the owner would retain the remaining portion of the property. Types of partial acquisition include partial "fee simple" acquisitions and various types of permanent and temporary easements. For a "fee simple" acquisition, Metro would purchase a "fee simple interest" for the portion of the property and would become owner for that portion of the property. A partial acquisition is also considered if the area required for the Project is not critical to the property's primary function as a residence or business, or if the remaining portion of the property could be reconfigured to continue serving its purpose without significant disruption to occupants. Partial property acquisitions would be required for Alternative 3 for the following reasons:

- To provide adequate ROW for the alignment
- To widen streets or intersections or to provide other street improvements due to inadequate ROW widths
- To provide utility improvements
- To construct stations
- To provide improvements to I-405 for the alignment
- To construct and operate stations, ancillary facilities, TPSS, and MSF
- To accommodate construction access, staging, and laydown areas

7.2.4 Easement

An easement provides one party the right to use another party's property for a stated purpose. That property may be owned by a private person, business entity, or a group of owners and can involve a general or specific portion of the property. An easement can be at the surface, underground/subsurface (beneath a property), or aboveground (aerial) level and can be characterized as temporary (typically during construction) or permanent. Temporary construction easements (TCE) may be necessary if temporary rights may be required from property owners for material storage, construction activities, or

access. Depending on the size and location of the TCEs, they may or may not require the demolition of existing structures. If TCEs do not require demolition of existing structures, TCEs typically would not affect the primary function of the property. In these circumstances, the area may revert to its former use after construction activities have been completed. If TCEs require demolition of existing structures, the primary function of the property could be affected or may cause undue disruption to the occupants.

Underground/subsurface easements would be required during construction for tunneling and all underground facilities, including underground utilities and TPSS. The easement would be permanent since it would be required for the operations of an underground transit line once construction is completed. The underground/subsurface easement would not affect the primary function of the properties for Alternative 3 since the easements would be underground at a depth of between 20 to 60 feet below surface level and up to 300 feet below surface level through the Santa Monica Mountains. For properties with underground/subsurface easements, Alternative 3 does not involve any activities at the surface level or above grade that would affect the function of the property. Permanent aerial easements would be used for the operation of an elevated transit line. Permanent foundation easements would be required for the construction and maintenance of the foundations, footings, and support systems associated with the aerial structure. An easement is considered a partial property acquisition from the property owner. The purchase of an easement is accomplished through a one-time payment and the recording of an easement deed.

7.3 Impacts Evaluation

7.3.1 Permanent Acquisition and Displacement

7.3.1.1 Direct Impacts

Property acquisitions would be required for the following project components located outside of the public ROW:

- Aerial and underground MRT alignment
- Station areas
- MSF Base Design
- MSF Design Option 1
- At-grade TPSS facilities that are outside of station areas
- I-405, local street, utility, and drainage improvements

Partial acquisitions in the form of permanent aerial easements would be required to accommodate the aerial guideway beams and straddle bents for the MRT alignment. Partial acquisitions in the form of permanent foundation easements would be required to support the aerial alignment. Partial acquisitions in the form of permanent underground easements would be required to accommodate the underground MRT alignment, subsurface station, and subsurface TPSS facilities. Subsurface easements would not result in property acquisition or displacement of businesses or residences. Partial fee simple acquisitions would be required for local street improvements that occur outside of the public ROW. Both full and partial fee simple acquisitions would be required for the MRT stations; MRT MSF; TPSS and ancillary facilities; I-405 improvements; and utility and drainage improvements.

Table 7-6 summarizes the number of affected parcels and permanent acquisitions. It should be noted that some properties may contain multiple parcels. Appendix A of this report presents parcel-specific data and Appendix B provides figures that identify the parcels that would potentially be acquired along the alignment of Alternative 3. The mainline, stations, and associated facilities of Alternative 3 would

require the permanent acquisition of approximately 139 parcels, of which 26 parcels would involve full fee simple acquisition, 30 parcels would involve partial fee simple acquisition, 43 parcels would have aerial easements, 14 parcels would have foundation easements, and 57 parcels would have subsurface easements. Some parcels would involve multiple acquisition types (e.g., partial fee simple acquisition and aerial easement; partial fee simple acquisition and subsurface easement; partial fee simple acquisition and foundation easement; aerial easement and foundation easement; or partial fee simple acquisition, aerial easement, and foundation easement). Although Alternative 3 would acquire aerial easements over portions of the LOSSAN rail corridor ROW, the freight tracks and the Metrolink Ventura County Line in the rail ROW are active and would remain active during operations of Alternative 3. Property acquisition would primarily affect commercial, industrial, and residential properties, as well as institutional/public facilities and vacant land.

Table 7-6. Alternative 3: Permanent Property Acquisition

Land Use	Full Fee Simple Acquisition (No. of Parcels)	Partial Fee Simple Acquisition (No. of Parcels)	Aerial Easement (No. of Parcels)	Foundation Easement (No. of Parcels)	Subsurface Easement (No. of Parcels)
Mainline, Stations, and Associated Facilities except MSF					
Commercial	14	5	2	2	13
Industrial	10	4	13	5	0
Institutional/Public Facilities	0	8	6	2	8
Parks/Recreation	0	2	2	0	7
Transportation-Related (Busway, Railroad, Freeway On-/Off-Ramp)	0	2	8	1	0
Vacant/Undeveloped Open Space	1	4	5	3	5
Multi-Family Residential	0	5	6	1	0
Single-Family Residential	1	0	1	0	24
Subtotal	**26**	**30**	**43**	**14**	**57**
MSF Base Design					
Institutional/Public Facilities	1	0	0	0	0
Subtotal	**1**	**0**	**0**	**0**	0
MSF Design Option 1					
Industrial	3	0	0	0	0
Subtotal	**3**	**0**	**0**	**0**	**0**
Total - Alternative 3 with MSF Base Design	**27**	**30**	**43**	**14**	**57**
Total - Alternative 3 with MSF Design Option 1	**29**	**30**	**43**	**14**	**57**

Source: LASRE, 2024

The MSF Base Design for Alternative 3 would require the permanent full fee simple acquisition of one public facility (LADWP-owned storage yard). The MSF Design Option 1 would require the permanent full fee simple acquisition of three industrial parcels.

Overall, Alternative 3 with the MSF Base Design would result in 27 parcels with full fee simple acquisitions, 30 parcels with partial fee simple acquisitions, 43 parcels with aerial easements, 14 parcels with foundation easements, and 57 parcels with subsurface easements. Alternative 3 with MSF Design

Option 1 would result in 29 parcels with full fee simple acquisitions, 30 parcels with partial fee simple acquisitions, 43 parcels with aerial easements, 14 parcels with foundation easements, and 57 parcels with subsurface easements.

Non-residential and residential displacements would occur to accommodate project components. Property displacements are determined by evaluating the extent to which Alternative 3 would affect existing properties and identifying those properties where the current use would not be possible if Alternative 3 is constructed. Elements associated with Alternative 3 that were evaluated include direct effects on structures, assessment of property-specific elements (i.e., available parking, access to and traffic circulation within the property, and other aspects specific to the type of business and residential unit affected), and components that may disrupt a business' ability to conduct its primary function after implementation of Alternative 3.

Permanent jobs may be lost as a result of relocation. Metro would work with specialty businesses (e.g., businesses that cater to the local community or need a particular location to operate) to understand their specific relocation needs and provide them with information on available replacement sites, financial assistance, and other advisory assistance. Metro will work with these businesses as early in the process as possible to allow them additional lead time.

Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions would not be required to relocate. However, these affected residents may make a case that the remaining property is no longer compatible with their intended use and may choose to relocate, which may result in the need to relocate some residents.

Metro would compensate owners at fair market value to purchase the required property and would also need to compensate owners for damage to the remainder property. Metro would provide displaced businesses and residents relocation assistance and benefits for which the displacee is eligible.

Table 7-7 summarizes the number of potential non-residential uses and residences that would be permanently displaced as a result of Alternative 3. The mainline, stations, and associated facilities (without the MSF) for Alternative 3 would permanently displace 22 commercial and industrial businesses, two institutional/public facilities, and one single-family residential units. Overall, Alternative 3 with the MSF Base Design would permanently displace a total of approximately 22 commercial and industrial businesses, three institutional/public facility, and one single-family residential unit. Alternative 3 with MSF Design Option 1 would permanently displace a total of approximately 28 commercial and industrial businesses, two institutional/public facilities, and one single-family residential unit. The alignment would require specialty relocation for one parcel (surface parking lot for the Van Nuys Amtrack and Metrolink Station), and the MSF Design Option 1 would displace one specialty business (an aerospace office campus with offices and industrial manufacturing/parts handling facilities). Based on the City's average household size of 3.0 persons per household for owner-occupied units (US Census, 2021), approximately three people would be permanently displaced as a result of Alternative 3.

Table 7-7. Alternative 3: Non-Residential and Residential Unit Displacement

Land Use	Number of Non-Residential/Residential Units Displaced
Mainline, Stations, and Associated Facilities except MSF	
Commercial	14
Industrial	8
Institutional/Public Facilities	2
Single-Family Residential	1
Subtotal	**25**
MSF Base Design	
Institutional/Public Facilities	1
Subtotal	**1**
MSF Design Option 1	
Industrial	6
Subtotal	**6**
Total - Alternative 3 with MSF Base Design	**26**
Total - Alternative 3 with MSF Design Option 1	**31**

Source: LASRE, 2024

Where acquisition and relocation are unavoidable, Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Property acquired by Metro for Alternative 3 would be appraised to determine its fair market value. Just compensation, which shall not be less than the amount determined by an approved appraisal, would be offered by Metro. Each homeowner, renter, business, or nonprofit organization displaced as a result of Alternative 3 would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property.

The Project Study Area is urbanized with a number of existing buildings for sale or lease. According to CBRE Research, as of the 4th quarter of 2024 there was approximately 2.5 million square feet of industrial space (building square footage ranging from 10,000 to 100,000 square feet) available in the East San Fernando Valley market with an overall vacancy rate of 2.1 percent (CBRE, 2025a). Retail space availability in the 3rd quarter of 2024 was approximately 8.7 percent for the Westside market and 4.7 percent for the San Fernando Valley market (CBRE, 2024). Office space vacancy and availability is high throughout Los Angeles County which had a 24.4 percent vacancy rate as of the 4th quarter of 2024 (CBRE, 2025b).Given the availability of existing buildings/structures and non-residential properties, it is expected that most of the non-residential uses that would be displaced as a result of Alternative 3 would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. Similarly, it is expected that residential units that would be displaced would be relocated to existing residential units in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse indirect impacts related to permanent acquisitions and displacements are not anticipated for Alternative 3.

7.3.1.2 Indirect Impacts

Alternative 3 would introduce new visual elements, generate long-term localized pollutant emissions, and increase noise levels in the Resource Study Area for visual, air quality, and noise that could potentially disrupt businesses or residents. Alternative 3 also would potentially alter access and circulation in the Resource Study Area for transportation through sidewalk and roadway modifications. The environmental impacts associated with visual, air quality, noise, and transportation are discussed in the respective technical reports for those disciplines prepared for the Sepulveda Transit Corridor Project and described in the DEIR. Changes resulting from Alternative 3 that may influence voluntary relocation by businesses or residents would not cause any physical changes in the environment and do not require any mitigation beyond those identified for each environmental discipline and described in the DEIR for the Sepulveda Transit Corridor Project.

7.3.2 Temporary Acquisition for Construction

7.3.2.1 Direct Impacts

Constructing Alternative 3 would involve the following:

- Site preparation and demolition of structures
- Utility relocation
- Tunneling and cut-and-cover activities
- Construction of the aerial and underground MRT alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities
- Street widening
- Street and sidewalk reconstruction

Some parcels that would be permanently acquired for the operations of Alternative 3 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Depending on the location and size of the TCEs, existing structures on parcels could either remain in place or be demolished. For parcels where structures would be demolished, existing non-residential uses and residents would be relocated. For parcels where structures would not be demolished, non-residential uses could temporarily be displaced during construction, but no permanent displacement would occur. These parcels would be returned to pre-construction conditions once construction is completed. Generally, parcels that would be used for construction access, staging, and laydown would be permanently acquired and, thus, these parcels would not be returned to pre-construction conditions once construction is completed. Although Alternative 3 would require the temporary use of two residential parcels for construction, only a portion of the residential parcels would be affected. No structures on these residential parcels would be demolished and the function of these residential parcels would not change. Construction of Alternative 3 would not result in the displacement of any residential units.

Table 7-8 summarizes the types of parcels that would be affected by construction of Alternative 3. A total of approximately 50 parcels would be used for construction purposes. Of the 50 parcels, 43 parcels would be permanently acquired as fee simple acquisition and/or easements, and seven parcels would only be used as TCEs (with no permanent fee simple acquisition and/or easement). The seven parcels

that would be temporarily acquired would be returned to the owner once construction is completed. Section 7.3.1 discusses how Alternative 3 would affect the 43 parcels that would be permanently acquired.

Table 7-8. Alternative 3: Parcels to be Used During Construction

Land Use	Permanent Acquisition (Fee Simple and/or Easement)[a]	Temporary Construction Easement[b]
Commercial	4	4
Industrial	12	0
Institutional/Public Facilities	13	1
Parks/Recreation	1	0
Transportation-Related (Busway, Railroad, Freeway On-/Off-Ramp)	3	0
Vacant/Undeveloped Open Space	6	0
Multi-Family Residential	3	2
Single-Family Residential	1	0
Total	**43**	**7**

Source: LASRE, 2024

[a]Parcels that would be permanently acquired for the operation of Alternative 3 and also be used during construction, such as for access, staging, and/or laydown.

[b]Parcels from which the acquisition of TCEs may be required.

Parcels that would be temporarily acquired (e.g., for TCEs) and permanently acquired (e.g., a parcel would be used for construction purposes and would be used for the alignment or a station during operations) would be appraised to determine the fair market value of the portion that would be used temporarily during construction, and just compensation not less than the amount recommended/determined by an approved appraisal would be made to each property owner.

TCEs associated with Alternative 3 would not result in the displacement of any non-residential uses or residential dwelling units. Therefore, substantial adverse construction impacts related to temporary acquisitions and displacements are not anticipated for Alternative 3.

7.3.2.2 Indirect Impacts

Construction of Alternative 3 would temporarily change the visual quality and character, generate localized pollutant emissions, increase noise and vibration levels, and alter pedestrian and vehicular access in the Resource Study Area for visual, air quality, noise and vibration, and transportation; however, these changes are not expected to require additional residential or business displacements beyond those identified in the preceding section. Construction related disruptions would be temporary and measures would be implemented to reduce the effects of construction activities on nearby businesses and residents.

7.3.3 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

7.3.3.1 Permanent Impacts

Property acquisitions would occur prior to the construction and operations of Alternative 3. Alternative 3 would require the permanent acquisition (i.e., full fee simple acquisition, partial fee simple acquisition, aerial easement and/or foundation easement) of one single-family residential parcel. Approximately one

single-family residential unit would be permanently displaced. No multi-family residential units would be displaced. Based on an average household size of 3.0 persons per household for owner-occupied units in the City of Los Angeles (US Census, 2021), approximately three people would be permanently displaced as a result of Alternative 3. Metro would compensate owners at fair market value to purchase the required property. In the case of partial acquisitions, Metro would compensate owners if damages are incurred to the remainder property. Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions may make a case that the remainder property is no longer compatible with their intended use.

Metro would provide relocation assistance and compensation for displaced residents as required by the Uniform Act and California Relocation Act. Where acquisitions and relocation are unavoidable, Metro would follow the provisions of both Acts, as amended. As discussed in the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* (Metro, 2025d), current developments in the Project Study Area are anticipated to construct over 23,100 new housing units. Furthermore, various State, regional, and local policies and programs such as the 2024 Legislative Housing Package and the City's 2021-2029 Housing Element are aimed at increasing available housing stock to address the State's housing shortage. Working towards the RHNA target of 456,643 new housing units, the City of Los Angeles anticipates construction of 310,000 new housing units between 2021 and 2029. As such, given current and projected future housing availability, it is anticipated that the approximately three displaced residents would have adequate and comparable replacement housing available to them if they proceed with Metro relocation assistance. The 2025 wildfires may affect the short-term availability of replacement housing as it is anticipated that there will be increased demand for housing in the region while homes in the affected areas are rebuilt. Despite this increase in demand, there would still be adequate and comparable replacement housing available to displaced residents considering that the right of way acquisitions for the Project would take place over multiple years of project development. Property acquired by Metro for Alternative 3 would be appraised to determine its fair market value, and just compensation for properties acquired by Metro for Alternative 3 would not be less than the approved appraisal, and each residence displaced as a result of Alternative 3 would be given advance written notice and would be informed of their eligibility for relocation assistance and payments. As Metro would comply with the Uniform Act and California Relocation Act, the displacement and relocation of three residents are not expected to necessitate the construction of replacement housing elsewhere. Therefore, in full compliance with the Uniform Act and the California Relocation Act, impacts related to the displacement of residential units and its occupants that would necessitate the construction of replacement units would be less than significant.

7.3.3.2 Temporary (Construction) Impacts

Construction of Alternative 3 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; construction of the aerial and underground MRT alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 3 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Construction activities associated with Alternative 3 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

7.3.3.3 Maintenance and Storage Facilities

MSF Base Design

As listed in Table 7-6, the MSF Base Design would not require the acquisition or displacement of any residential property. Therefore, the MSF Base Design would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Base Design would have no impact.

MSF Design Option 1

As listed in Table 7-6, the MSF Design Option 1 would not require the acquisition or displacement of any residential property. Therefore, the MSF Design Option 1 would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Design Option 1 would have no impact.

7.4 Mitigation Measures

7.4.1 Permanent Impacts

No mitigation measures are required.

7.4.2 Temporary (Construction) Impacts

No mitigation measures are required.

7.4.3 Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

8 ALTERNATIVE 4

8.1 Alternative Description

Alternative 4 is a heavy rail transit (HRT) system with a hybrid underground and aerial guideway track configuration that would include four underground stations and four aerial stations. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, the East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 13.9 miles, with 5.7 miles of aerial guideway and 8.2 miles of underground configuration.

The four underground and four aerial HRT stations would be as follows:

1. Metro E Line Expo/Sepulveda Station (underground)
2. Santa Monica Boulevard Station (underground)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
6. Metro G Line Sepulveda Station (aerial)
7. Sherman Way Station (aerial)
8. Van Nuys Metrolink Station (aerial)

8.1.1 Operating Characteristics

8.1.1.1 Alignment

As shown on Figure 8-1, from its southern terminus station at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 4 would run underground north through the Westside of Los Angeles (Westside) and the Santa Monica Mountains to a tunnel portal south of Ventura Boulevard in the San Fernando Valley (Valley). At the tunnel portal, the alignment would transition to an aerial guideway that would generally run above Sepulveda Boulevard before curving eastward along the south side of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor to the northern terminus station adjacent to the Van Nuys Metrolink/Amtrak Station.

The proposed southern terminus station would be located underground east of Sepulveda Boulevard between the existing elevated Metro E Line tracks and Pico Boulevard. Tail tracks for vehicle storage would extend underground south of National Boulevard east of Sepulveda Boulevard. The alignment would continue north beneath Bentley Avenue before curving northwest to an underground station at the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard. From the Santa Monica Boulevard Station, the alignment would continue and curve eastward toward the Wilshire Boulevard/Metro D Line Station beneath the Metro D Line Westwood/UCLA Station, which is currently under construction as part of the Metro D Line Extension Project. From there, the underground alignment would curve slightly to the northeast and continue beneath Westwood Boulevard before reaching the UCLA Gateway Plaza Station.

Figure 8-1. Alternative 4: Alignment

Source: STCP, 2024; HTA, 2024

From the UCLA Gateway Plaza Station, the alignment would turn to the northwest beneath the Santa Monica Mountains to the east of Interstate 405 (I-405). South of Mulholland Drive, the alignment would curve to the north to reach a tunnel portal at Del Gado Drive, just east of I-405 and south of Sepulveda Boulevard.

The alignment would transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal and would continue northeast to the Ventura Boulevard/Sepulveda Boulevard

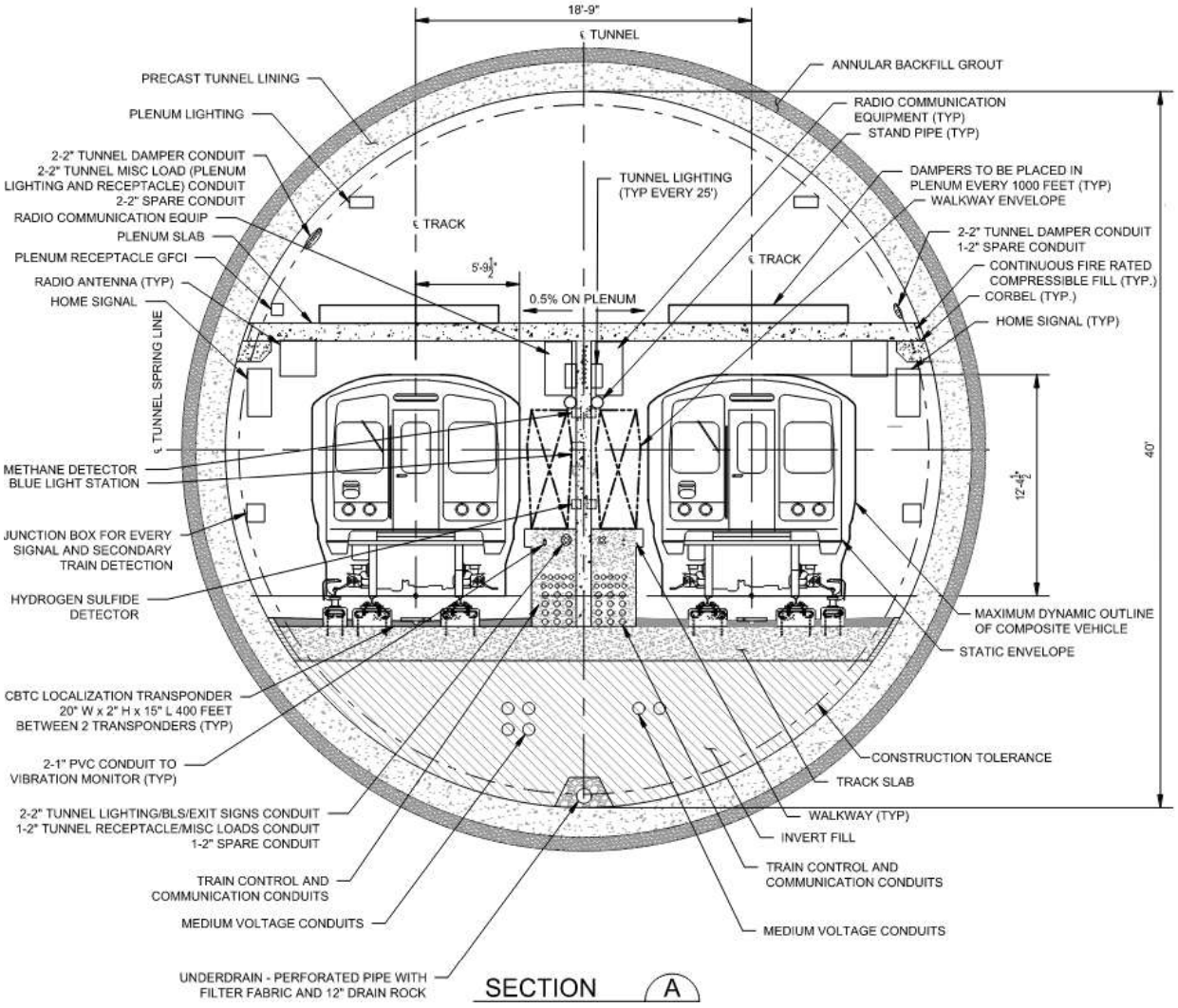
Station located over Dickens Street, immediately west of the Sepulveda Boulevard and Dickens Street intersection. North of the station, the aerial guideway would transition to the center median of Sepulveda Boulevard. The aerial guideway would continue north on Sepulveda Boulevard and cross over U.S. Highway 101 (US-101) and the Los Angeles River before continuing to the Metro G Line Sepulveda Station, immediately south of the Metro G Line Busway. Overhead utilities along Sepulveda Boulevard in the Valley would be undergrounded where they would conflict with the guideway or its supporting columns.

The aerial guideway would continue north above Sepulveda Boulevard where it would reach the Sherman Way Station just south of Sherman Way. After leaving the Sherman Way Station, the alignment would continue north before curving to the southeast to parallel the LOSSAN rail corridor on the south side of the existing tracks. Parallel to the LOSSAN rail corridor, the guideway would conflict with the existing Willis Avenue Pedestrian Bridge, which would be demolished. The alignment would follow the LOSSAN rail corridor before reaching the proposed northern terminus Van Nuys Metrolink Station located adjacent to the existing Metrolink/Amtrak Station. Tail tracks and yard lead tracks would descend to a proposed at-grade maintenance and storage facility (MSF) east of the northern terminus station. Modifications to the existing pedestrian underpass to the Metrolink platforms to accommodate these tracks would result in reconfiguration of an existing rail spur serving City of Los Angeles Department of Water and Power (LADWP) property.

8.1.1.2 Guideway Characteristics

Alternative 4 would utilize a single-bore tunnel configuration for underground tunnel sections, with an outside diameter of approximately 43.5 feet. The tunnel would include two parallel tracks with 18.75-foot track spacing in tangent sections separated by a continuous central dividing wall throughout the tunnel. Inner walkways would be constructed adjacent to the two tracks. Inner and outer walkways would be constructed within tunnel sections near the track crossovers. At the crown of tunnel, a dedicated air plenum would be provided by constructing a concrete slab above the railway corridor. The air plenum would allow for ventilation throughout the underground portion of the alignment. Figure 8-2 illustrates these components at a typical cross-section of the underground guideway.

Figure 8-2. Typical Underground Guideway Cross-Section

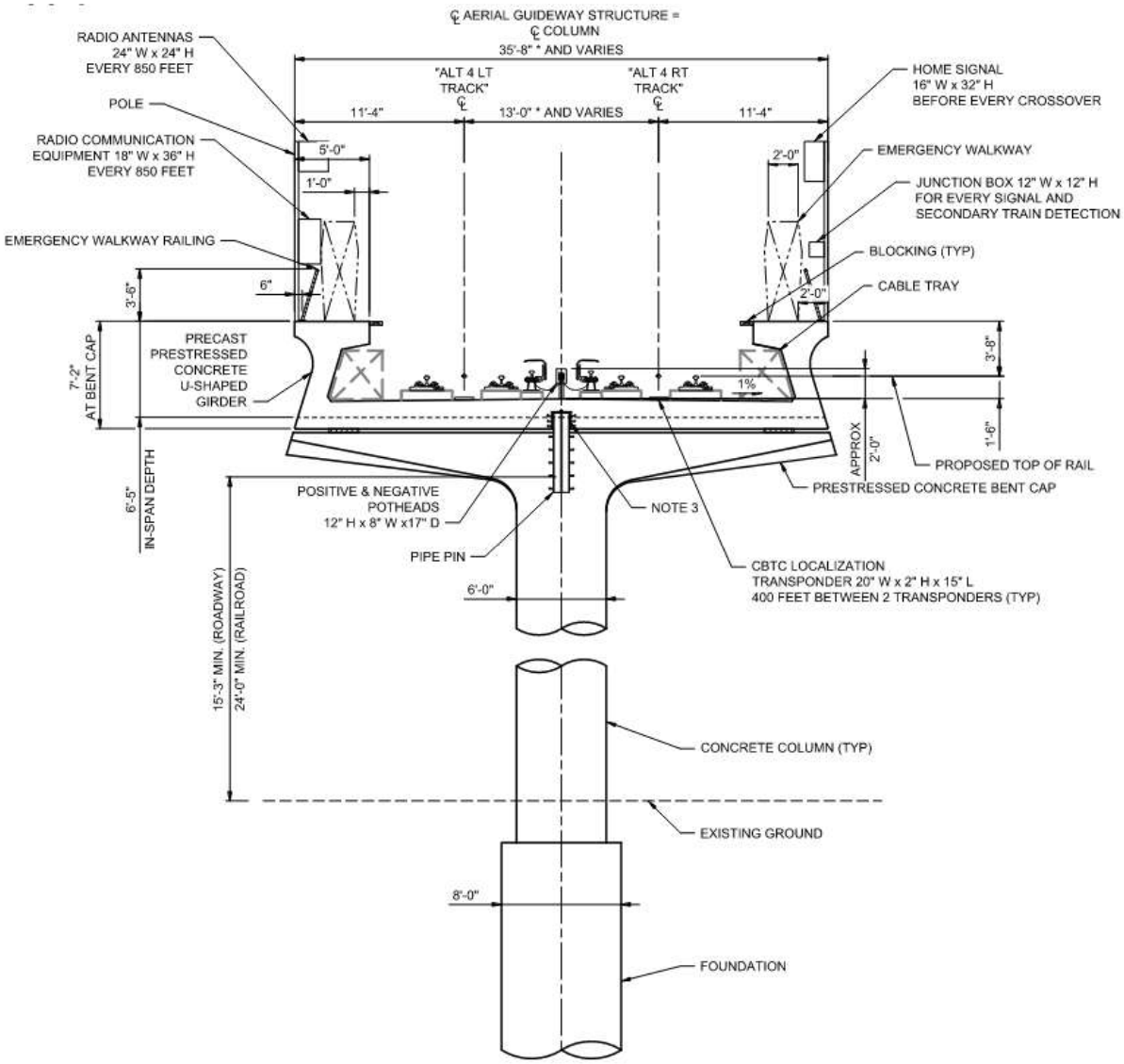


Source: STCP, 2024

In aerial sections, the guideway would be supported by either single columns or straddle-bents. Both types of structures would support a U-shaped concrete girder and the HRT track. The aerial guideway would be approximately 36 feet wide. The track would be constructed on the concrete girders with direct fixation and would maintain a minimum of 13 feet between the centerlines of the two tracks. On the outer side of the tracks, emergency walkways would be constructed with a minimum width of 2 feet.

The single-column pier would be the primary aerial structure throughout the aerial portion of the alignment. Crash protection barriers would be used to protect columns located in the median of Sepulveda Boulevard in the Valley. Figure 8-3 shows a typical cross-section of the single-column aerial guideway.

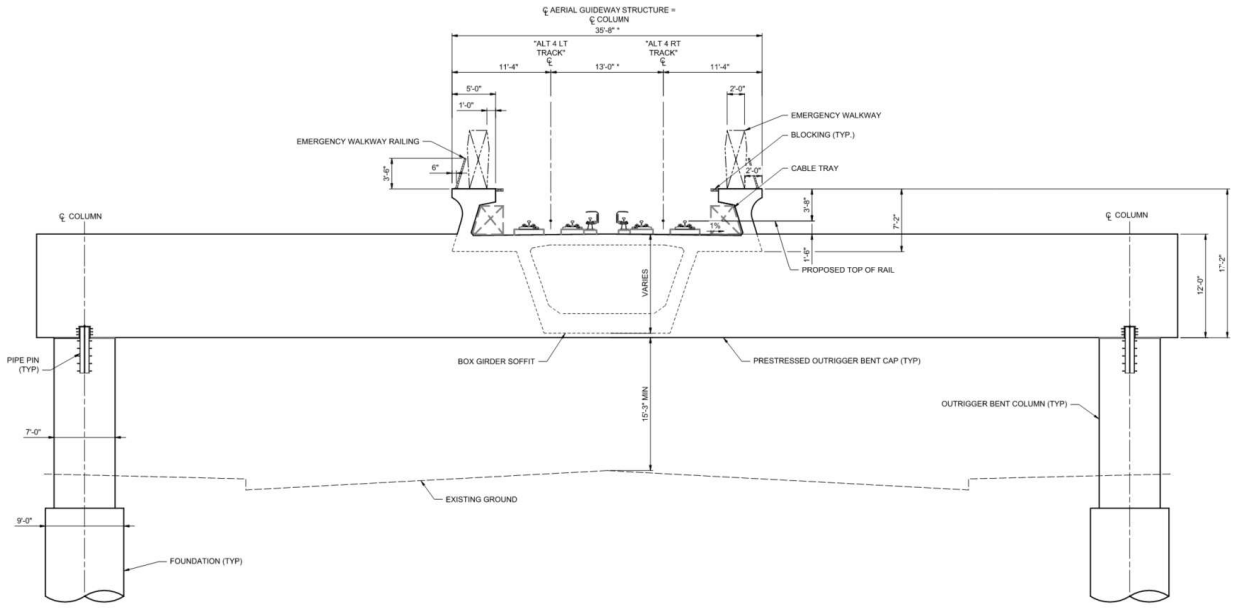
Figure 8-3. Typical Aerial Guideway Cross-Section



Source: STCP, 2024

In order to span intersections and maintain existing turn movements, sections of the aerial guideway would be supported by straddle bents, a concrete straddle-beam placed atop two concrete columns constructed outside of the underlying roadway. Figure 8-4 illustrates a typical straddle-bent configuration.

Figure 8-4. Typical Aerial Straddle-Bent Cross-Section



Source: STCP, 2024

8.1.1.3 Vehicle Technology

Alternative 4 would utilize steel-wheel HRT trains, with automated train operations and planned peak-period headways of 2.5 minutes and off-peak-period headways ranging from 4 to 6 minutes. Each train could consist of three or four cars with open gangways between cars. The HRT vehicle would have a maximum operating speed of 70 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations. Train cars would be approximately 10 feet wide with three double doors on each side. Each car would be approximately 72 feet long with capacity for 170 passengers. Trains would be powered by a third rail.

8.1.1.4 Stations

Alternative 4 would include four underground stations and four aerial stations with station platforms measuring 280 feet long for both station configurations. The aerial stations would be constructed a minimum of 15.25 feet above ground level, supported by rows of dual columns with 8-foot diameters. The southern terminus station would be adjacent to the Metro E Line Expo/Sepulveda Station, and the northern terminus station would be adjacent to the Van Nuys Metrolink/Amtrak Station.

All stations would be side-platform stations where passengers would select and travel to station platforms depending on their direction of travel. All stations would include 20-foot-wide side platforms separated by 30 feet for side-by-side trains. Aerial station platforms would be covered, but not enclosed. Each underground station would include an upper and lower concourse level prior to reaching the train platforms. Each aerial station, except for the Sherman Way Station, would include a mezzanine level prior to reaching the station platforms. At the Sherman Way Station, separate entrances on opposite sides of the street would provide access to either the northbound or southbound platform with an overhead pedestrian walkway providing additional connectivity across platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from the ground level to the concourse or mezzanine.

Stations would include automatic, bi-parting fixed doors along the edges of station platforms. These platform screen doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This underground station would be located just north of the existing Metro E Line Expo/Sepulveda Station, on the east side of Sepulveda Boulevard.
- A station entrance would be located on the east side of Sepulveda Boulevard north of the Metro E Line.
- A walkway to transfer to the Metro E Line would be provided at street level within the fare paid zone.
- A 126-space parking lot would be located immediately north of the station entrance, east of Sepulveda Boulevard. Passengers would also be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces.

Santa Monica Boulevard Station

- This underground station would be located under the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard.
- The station entrance would be located on the south side of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located beneath the Metro D Line tracks and platform under Gayley Avenue between Wilshire Boulevard and Lindbrook Drive.
- Station entrances would be provided on the northeast corner of Wilshire Boulevard and Gayley Avenue and on the northeast corner of Lindbrook Drive and Gayley Avenue. Passengers would also be able to use the Metro D Line Westwood/UCLA Station entrances to access the station platform.
- A direct internal station transfer to the Metro D Line would be provided at the south end of the station.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located underneath Gateway Plaza on the University of California, Los Angeles (UCLA) campus.
- Station entrances would be provided on the north side of Gateway Plaza and on the east side of Westwood Boulevard across from Strathmore Place.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This aerial station would be located west of Sepulveda Boulevard spanning over Dickens Street.

- A station entrance would be provided on the west side of Sepulveda Boulevard south of Dickens Street.
- A 52-space parking lot would be located adjacent to the station entrance on the southwest corner of the Sepulveda Boulevard and Dickens Street intersection, and an additional 40-space parking lot would be located on the northwest corner of the same intersection.

Metro G Line Sepulveda Station

- This aerial station would be located over Sepulveda Boulevard immediately south of the Metro G Line Busway.
- A station entrance would be provided on the west side of Sepulveda Boulevard south of the Metro G Line Busway.
- An elevated pedestrian walkway would connect the platform level of the proposed station to the planned aerial Metro G Line Busway platforms within the fare paid zone.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are used for transit parking. No additional automobile parking would be provided at the proposed station.

Sherman Way Station

- This aerial station would be located over Sepulveda Boulevard between Sherman Way and Gault Street.
- Station entrances would be provided on either side of Sepulveda Boulevard south of Sherman Way.
- A 46-space parking lot would be located on the northwest corner of the Sepulveda Boulevard and Gault Street intersection, and an additional 76-space parking lot would be located west of the station along Sherman Way.

Van Nuys Metrolink Station

- This aerial station would span Van Nuys Boulevard, just south of the LOSSAN rail corridor.
- The primary station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A secondary station entrance would be located between Raymer Street and Van Nuys Boulevard.
- An underground pedestrian walkway would connect the station plaza to the existing pedestrian underpass to the Metrolink/Amtrak platform outside the fare paid zone.
- Existing Metrolink Station parking would be reconfigured, maintaining approximately the same number of spaces, but 66 parking spaces would be relocated west of Van Nuys Boulevard. Metrolink parking would not be available to Metro transit riders.

8.1.1.5 Station-to-Station Travel Times

Table 8-1 presents the station-to-station distance and travel times at peak period for Alternative 4. The travel times include both run time and dwell time. Dwell time is 30 seconds for transfer stations and 20 seconds for other stations. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 8-1. Alternative 4: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	89	86	—
Santa Monica Boulevard Station					*20*
Santa Monica Boulevard	Wilshire/Metro D Line	0.9	91	92	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.7	75	68	—
UCLA Gateway Plaza Station					*20*
UCLA Gateway Plaza	Ventura Boulevard	6.1	376	366	—
Ventura Boulevard Station					*20*
Ventura Boulevard	Metro G Line	1.9	149	149	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.4	110	109	—
Sherman Way Station					*20*
Sherman Way	Van Nuys Metrolink	1.9	182	180	—
Van Nuys Metrolink Station					*30*

Source: STCP, 2024

— = no data

8.1.1.6 Special Trackwork

Alternative 4 would include 10 double crossovers throughout the alignment, enabling trains to cross over to the parallel track. Each terminus station would include a double crossover immediately north and south of the station. Except for the Santa Monica Boulevard Station, each station would have a double crossover immediately south of the station. The remaining crossovers would be located along the alignment midway between the UCLA Gateway Plaza Station and the Ventura Boulevard Station.

8.1.1.7 Maintenance and Storage Facility

The MSF for Alternative 4 would be located east of the Van Nuys Metrolink Station and would encompass approximately 46 acres. The MSF would be designed to accommodate 184 rail cars and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue on the east, and Hazeltine Avenue and industrial manufacturing enterprises to the west. Trains would access the site from the fixed guideway's tail tracks at the northwest corner of the site. Trains would then travel southeast to maintenance facilities and storage tracks.

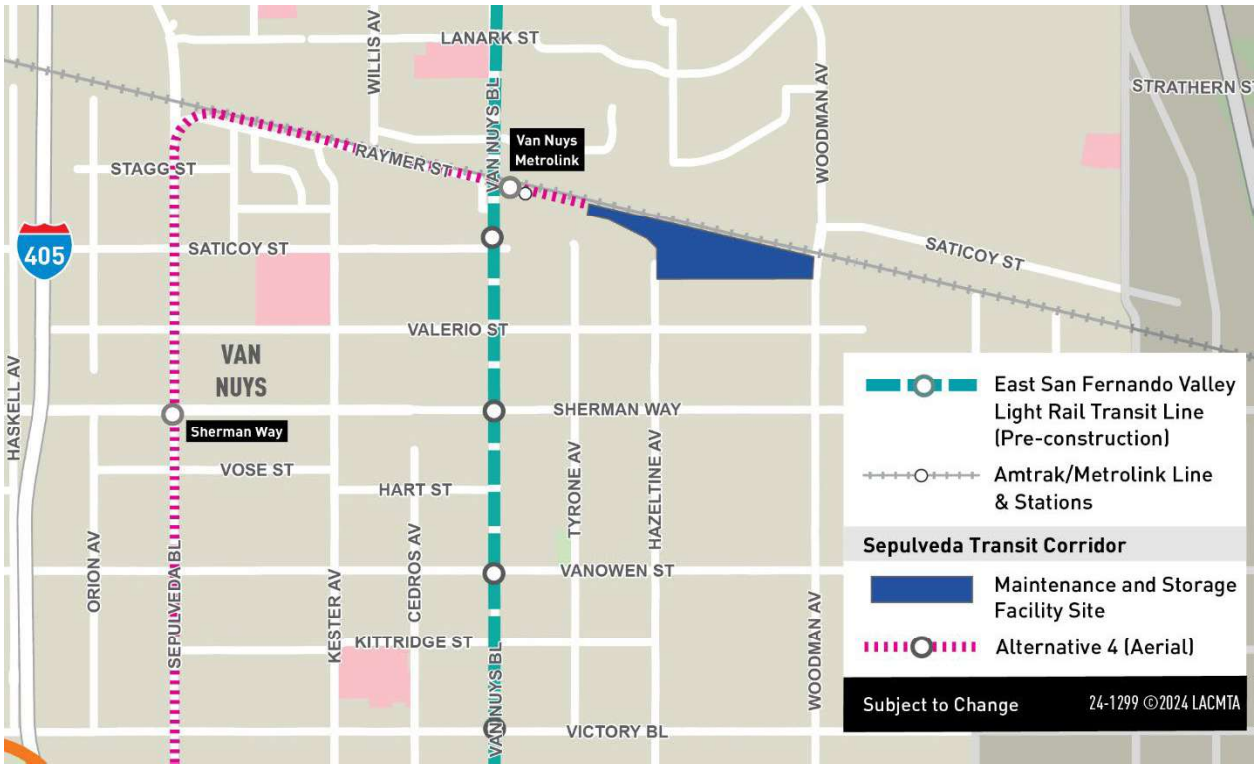
The site would include the following facilities:

- Two entrance gates with guard shacks
- Main shop building
- Maintenance-of-way building
- Storage tracks
- Carwash building
- Cleaning and inspections platforms
- Material storage building

- Hazmat storage locker
- Traction power substation (TPSS) located on the west end of the MSF to serve the mainline
- TPSS located on the east end of the MSF to serve the yard and shops
- Parking area for employees
- Grade separated access roadway (over the HRT tracks at the east end of the facility, and necessary drainage)

Figure 8-5 shows the location of the MSF site for Alternative 4.

Figure 8-5. Alternative 4: Maintenance and Storage Facility Site



Source: STCP, 2024; HTA, 2024

8.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. Twelve TPSS facilities would be located along the alignment and would be spaced approximately 0.5 to 2.5 miles apart. TPSS facilities would generally be located within the stations, adjacent to the tunnel through the Santa Monica Mountains, or within the MSF. TPSSs would be approximately 2,000 to 3,000 square feet. Table 8-2 lists the TPSS locations for Alternative 4.

Figure 8-6 shows the TPSS locations along the Alternative 4 alignment.

Table 8-2. Alternative 4: Traction Power Substation Locations

TPSS No.	Location Description	Configuration
1	TPSS 1 would be located east of Sepulveda Boulevard and north of the Metro E Line.	Underground (within station)
2	TPSS 2 would be located south of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.	Underground (within station)
3	TPSS 3 would be located at the southeast corner of UCLA Gateway Plaza.	Underground (within station)
4	TPSS 4 would be located south of Bellagio Road and west of Stone Canyon Road.	Underground (adjacent to tunnel)
5	TPSS 5 would be located west of Roscomare Road between Donella Circle and Linda Flora Drive.	Underground (adjacent to tunnel)
6	TPSS 6 would be located east of Loom Place between Longbow Drive and Vista Haven Road.	Underground (adjacent to tunnel)
7	TPSS 7 would be located west of Sepulveda Boulevard between the I-405 Northbound On-Ramp and Dickens Street.	At-grade (within station)
8	TPSS 8 would be located west of Sepulveda Boulevard between the Metro G Line Busway and Oxnard Street.	At-grade (within station)
9	TPSS 9 would be located at the southwest corner of Sepulveda Boulevard and Sherman Way.	At-grade (within station)
10	TPSS 10 would be located south of the LOSSAN rail corridor and north of Raymer Street and Kester Avenue.	At-grade
11	TPSS 11 would be located south of the LOSSAN rail corridor and east of the Van Nuys Metrolink Station.	At-grade (within MSF)
12	TPSS 12 would be located south of the LOSSAN rail corridor and east of Hazeltine Avenue.	At-grade (within MSF)

Source: STCP, 2024; HTA, 2024

Figure 8-6. Alternative 4: Traction Power Substation Locations

Source: STCP, 2024; HTA, 2024

8.1.1.9 Roadway Configuration Changes

Table 8-3 lists the roadway changes necessary to accommodate the guideway of Alternative 4. Figure 8-7 shows the location of roadway changes in the Sepulveda Transit Corridor Project (Project) Study Area, and Figure 8-8 shows detail of the street vacation at Del Gado Drive.

In addition to the changes made to accommodate the guideway, as listed in Table 8-3, roadways and sidewalks near stations would be reconstructed, resulting in modifications to curb ramps and driveways.

Table 8-3. Alternative 4: Roadway Changes

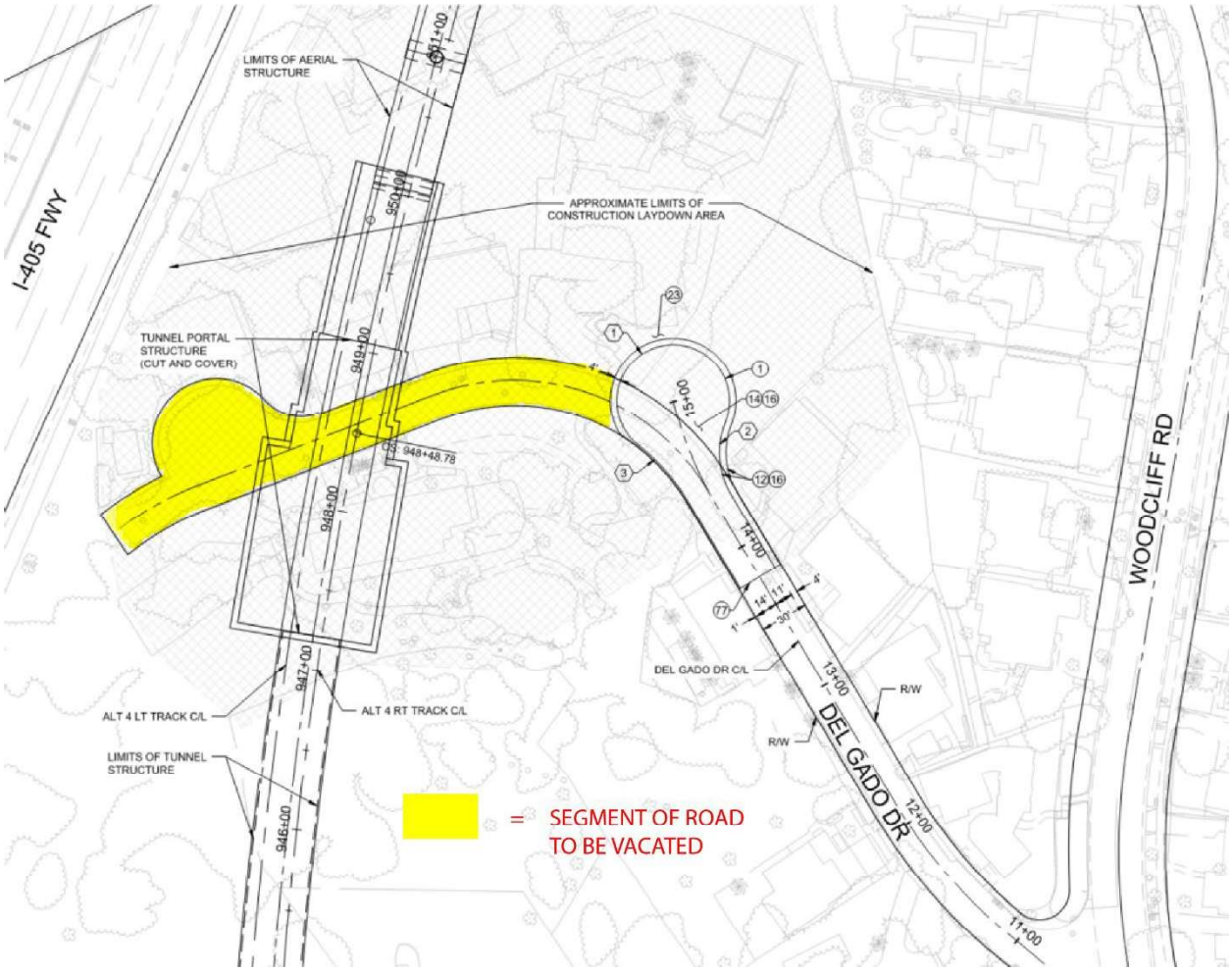
Location	From	To	Description of Change
Del Gado Drive	Woodcliff Road	Not Applicable	Vacation of approximately 325 feet of Del Gado Drive east of I-405 to accommodate tunnel portal
Sepulveda Boulevard	Ventura Boulevard	Raymer Street	Construction of raised median and removal of all on-street parking on the southbound side of the street and some on-street parking on the northbound side of the street to accommodate aerial guideway columns
Sepulveda Boulevard	La Maida Street	Not Applicable	Prohibition of left turns to accommodate aerial guideway columns
Sepulveda Boulevard	Valleyheart Drive South, Hesby Street, Hartsook Street, Archwood Street, Hart Street, Leadwell Street, Covello Street	Not Applicable	Prohibition of left turns to accommodate aerial guideway columns
Raymer Street	Kester Avenue	Keswick Street	Reconstruction resulting in narrowing of width and removal of parking on the westbound side of the street to accommodate aerial guideway columns

Source: STCP, 2024; HTA, 2024

Figure 8-7. Alternative 4: Roadway Changes

Source: STCP, 2024; HTA, 2024

Figure 8-8. Alternative 4: Street Vacation at Del Gado Drive



Source: STCP, 2024; HTA, 2024

8.1.1.10 Ventilation Facilities

For ventilation of the alignment's underground portion, a plenum within the crown of the tunnel would provide a separate compartment for air circulation and allow multiple trains to operate between stations. Each underground station would include a fan room with additional ventilation facilities. Alternative 4 would also include a stand-alone ventilation facility at the tunnel portal on the northern end of the tunnel segment, located east of I-405 and south of Del Gado Drive. Within this facility, ventilation fan rooms would provide both emergency ventilation, in case of a tunnel fire, and regular ventilation, during non-revenue hours. The facility would also house sump pump rooms to collect water from various sources, including storm water; wash water (from tunnel cleaning); and water from a fire-fighting incident, system testing, or pipe leaks.

8.1.1.11 Fire/Life Safety – Emergency Egress

Within the tunnel segment, emergency walkways would be provided between the center dividing wall and each track. Sliding doors would be located in the central dividing wall at required intervals to connect the two sides of the railway with a continuous walkway to allow for safe egress to a point of safety (typically at a station) during an emergency. Similarly, the aerial guideway would include two

emergency walkways with safety railing located on the outer side of the tracks. Access to tunnel segments for first responders would be through stations and the portal.

8.1.2 Construction Activities

Temporary construction activities for Alternative 4 would occur within project work zones at permanent facility locations, construction staging and laydown areas, and construction office areas. Construction of the transit facilities through substantial completion is expected to have a duration of 8 ¼ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

For the guideway, Alternative 4 would consist of a single-bore tunnel through the Westside and Santa Monica Mountains. The tunnel would be comprised of two separate segments, one running north from the southern terminus to the UCLA Gateway Plaza Station (Westside segment), and the other running south from the portal in the San Fernando Valley to the UCLA Gateway Plaza Station (Santa Monica Mountains segment). Two tunnel boring machines (TBM) with approximately 45-foot-diameter cutting faces would be used to construct the two tunnel segments underground. For the Westside segment, the TBM would be launched from Staging Area No. 1 in Table 8-4 at Sepulveda Boulevard and National Boulevard. For the Santa Monica Mountains segment, the TBM would be launched from Staging Area No. 4 in the San Fernando Valley. Both TBMs would be extracted from the UCLA Gateway Plaza Station Staging Area No. 3 in Table 8-4. Figure 8-9 shows the location of construction staging locations along the Alternative 4 alignment.

Table 8-4. Alternative 4: On-Site Construction Staging Locations

No.	Location Description
1	Commercial properties on southeast corner of Sepulveda Boulevard and National Boulevard
2	North side of Wilshire Boulevard between Veteran Avenue and Gayley Avenue
3	UCLA Gateway Plaza
4	Residential properties on both sides of Del Gado Drive and south side of Sepulveda Boulevard adjacent to I-405
5	West of Sepulveda Boulevard between Valley Vista Boulevard and Sutton Street
6	West of Sepulveda Boulevard between US-101 and Sherman Oaks Castle Park
7	Lot behind Los Angeles Fire Department Station 88
8	Commercial property on southeast corner of Sepulveda Boulevard and Raymer Street
9	South of the LOSSAN rail corridor east of Van Nuys Metrolink Station, west of Woodman Avenue

Source: STCP, 2024; HTA, 2024

Figure 8-9. Alternative 4: On-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

The distance from the surface to the top of the tunnel for the Westside tunnel segment would vary from approximately 40 feet to 90 feet depending on the depth needed to construct the underground stations. The depth of the Santa Monica Mountains tunnel segment would vary from approximately 470 feet as it passes under the Santa Monica Mountains to 50 feet near UCLA. The tunnel segment through the Westside would be excavated in soft ground, while the tunnel through the Santa Monica Mountains would be excavated primarily in hard ground or rock as geotechnical conditions transition from soft to hard ground near the UCLA Gateway Plaza Station.

The aerial guideway viaduct would be primarily situated in the center of Sepulveda Boulevard in the San Fernando Valley, with guideway columns located in both the center and outside of the right-of-way of Sepulveda Boulevard. This would result in a linear work zone spanning the full width of Sepulveda Boulevard along the length of the aerial guideway. Three to five main phases would be required to construct the aerial guideway. A phased approach would allow travel lanes along Sepulveda Boulevard to remain open as construction individually occupies either the center, left, or right side of the roadway via the use of lateral lane shifts. Additional lane closures on side streets may be required along with appropriate detour routing.

The aerial guideway would comprise a mix of simple spans and longer balanced cantilever spans ranging from 80 to 250 feet in length. The repetitive simple spans would be utilized when guideway bent is located within the center median of Sepulveda Boulevard and would be constructed using Accelerated Bridge Construction (ABC) segmental span-by-span technology. Longer balanced cantilever spans would be provided at locations such as freeways, arterials, or street crossings, and would be constructed using ABC segmental balance cantilever technology. Foundations would consist of cast-in-drilled-hole (CIDH) shafts with both precast and cast-in-place structural elements. During construction of the aerial guideway, multiple crews would work on components of the guideway simultaneously.

Construction work zones would also be co-located with future MSF and station locations. All work zones would comprise the permanent facility footprint with additional temporary construction easements from adjoining properties.

The Metro E Line, Santa Monica Boulevard, Wilshire Boulevard/Metro D Line, and UCLA Gateway Plaza Stations would be constructed using a “cut-and-cover” method whereby the station structure would be constructed within a trench excavated from the surface with a portion or all being covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures are taken to resume cross traffic. Constructing the Ventura Boulevard/Sepulveda Boulevard, Metro G Line Sepulveda, Sherman Way, and Van Nuys Metrolink Stations would include construction of CIDH elevated viaduct with two parallel side platforms supported by outrigger bents.

In addition to work zones, Alternative 4 would require construction staging and laydown areas at multiple locations along the alignment as well as off-site staging areas. Construction staging areas would provide the necessary space for the following activities:

- Contractors’ equipment
- Receiving deliveries
- Testing of soils for minerals or hazards
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

A larger, off-site staging area would be used for temporary storage of excavated material from both tunneling and station cut-and-cover excavation activities. Table 8-4 and Figure 8-9 present potential construction staging areas along the alignment for Alternative 4. Table 8-5 and Figure 8-10 present candidate sites for off-site staging and laydown areas.

Table 8-5. Alternative 4: Potential Off-Site Construction Staging Locations

No.	Location Description
S1	East of Santa Monica Airport Runway
S2	Ralph's Parking Lot in Westwood Village
N1	West of Sepulveda Basin Sports Complex, south of the Los Angeles River
N2	West of Sepulveda Basin Sports Complex, north of the Los Angeles River
N3	Metro G Line Sepulveda Station Park & Ride Lot
N4	North of Roscoe Boulevard and Hayvenhurst Avenue
N5	LADWP property south of the LOSSAN rail corridor, east of Van Nuys Metrolink Station

Source: STCP, 2024; HTA, 2024

Figure 8-10. Alternative 4: Potential Off-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

Construction of the HRT guideway between the Van Nuys Metrolink Station and the MSF would require reconfiguration of an existing rail spur serving LADWP property. The new location of the rail spur would require modification to the existing pedestrian undercrossing at the Van Nuys Metrolink Station.

Alternative 4 would require construction of a concrete casting facility for tunnel lining segments because no existing commercial fabricator capable of producing tunnel lining segments for a large-diameter tunnel exists within a practical distance of the Project Study Area. The site of the MSF would initially be

used for this casting facility. The casting facility would include casting beds and associated casting equipment, storage areas for cement and aggregate, and a field quality control facility, which would need to be constructed on-site. When a more detailed design of the facility is completed, the contractor would obtain all permits and approvals necessary from the City of Los Angeles, the South Coast Air Quality Management District, and other regulatory entities.

As areas of the MSF site begin to become available following completion of pre-casting operations, construction of permanent facilities for the MSF would begin, including construction of surface buildings such as maintenance shops, administrative offices, train control, traction power and systems facilities. Some of the yard storage track would also be constructed at this time to allow delivery and inspection of passenger vehicles that would be fabricated elsewhere. Additional activities occurring at the MSF during the final phase of construction would include staging of trackwork and welding of guideway rail.

8.2 Existing Conditions

The Project Study Area is approximately 68 square miles and consists of a variety of urban land uses, including commercial uses (e.g., offices, retail, and restaurants, and health care facilities), industrial uses (e.g., light and heavy industrial, suppliers, distributers, open storage, warehouses, wholesalers, manufacturing, open storage, building materials, automotive repair shops, and food processing), residential uses (single- and multi-family), parks and recreational facilities (e.g., parks, gardens, and golf courses), institutional facilities (e.g., religious facilities and schools), and public facilities (e.g., government facilities). The project Study Area also has several vacant parcels in the commercial and residential areas, as well as undeveloped open space. Undeveloped open space areas are generally located in the Bel Air community and the southern portion of the Sherman Oaks community.

Land use adjacent to the Alternative 4 at the northern end of the alignment (from the northern terminus at the proposed MSF at Woodman Avenue to Sepulveda Boulevard) is primarily industrial. A mix of large-, medium-, and small-scale industrial uses are located in this area. Freight tracks and the Metrolink Ventura County Line within the LOSSAN rail corridor ROW parallel the alignment of Alternative 4 between the northern terminus and Sepulveda Boulevard. Between the rail ROW and Saticoy Street, small-scale commercial/industrial uses with limited multi-family residences are generally located along the alignment of Alternative 4. Many of these commercial/industrial uses are auto related. From Saticoy Street to Valley Vista Boulevard, uses along the alignment of Alternative 4 generally consist of a mix of multi-family residential, commercial (small, mid-size, and big-box retail), and light industrial uses. Between Valley Vista Boulevard and Sunset Boulevard, land uses transition to a mix of low density single-family residential uses and undeveloped hillsides. A school, a recreational facility, and Stone Canyon Reservoir are also located in this area. From Sunset Boulevard to Le Conte Avenue, adjacent land uses include a high school and uses that are associated with UCLA. These uses include, but are not limited to, facilities associated with the Anderson School of Management, John Wooden Center, James West Alumni Center, Meyer and Renee Luskin Conference Center and Hotel, J.D. Morgan Center, Henry Samueli School of Engineering, the Ronald Regan UCLA Medical Center, UCLA Medical Plaza, and other medical-related facilities and research centers. From Le Conte Avenue to Ashton Avenue, land uses generally include commercial uses (offices and retail) and an institutional use (UCLA Extension). From Ashton Avenue to the southern terminus at the National Boulevard/Sepulveda boulevard intersection, land uses include a mix of multi-family and single-family residential uses, recreational facilities, and small-scale commercial uses.

8.2.1 Typical Types of Property Acquisitions and Displacements

The Project would affect existing properties and result in property acquisitions and displacements. The parcels acquired for the Project would involve either a full or partial acquisition. Full acquisition for the Project would involve fee simple acquisitions, which consist of a complete transfer of ownership rights. In a fee simple acquisition, the buyer has full and irrevocable ownership of land and any buildings on it. Partial acquisition for the Project would involve either fee simple acquisitions or easements. Property acquisitions may be phased over time depending on Project funding and construction phasing, methods, and schedule. Table 8-6 summarizes typical causes of property acquisitions and displacement that could occur as a result of Alternative 4.

Table 8-6. Alternative 4: Typical Causes of Property Acquisition and Displacement

Source of Acquisition	Type of Acquisition	Cause/Process
Horizontal Alignment	Full/Partial Fee Simple	Insufficient existing ROW for construction and operation.
Subsurface/At-Grade/Aerial Alignment	Permanent Easement	A condition for a non-exclusive access agreement or easement (either permanent or temporary) for subsurface, at-grade, or aerial alignments to allow access to a property or facility.
Vertical Circulation (e.g., stairs)	Partial Fee Simple	Area needed to bring passengers from the ground level to a station platform at an aerial (elevated) structure or to an underground station.
Property Encroachment	Full/Partial Fee Simple	Unauthorized use of private property. Resolution through boundary survey and potential relocation of use.
Access to a Residential or Non-Residential Use (driveway or road)	Full Fee Simple/ Permanent Easement	Permanent easement would be needed to provide residential units or non-residential uses access to a road; full acquisition may be required if reduced or restricted access would disrupt use of residences or non-residential uses.
Street/Intersection Improvements; Grade Crossing/Separation; Drainage and Utility Improvements	Partial/Full Fee Simple	Additional area/lanes required to maintain traffic volumes, turn lanes and sidewalk widths; additional area required to upgrade drainage facilities or to improve utility.
Station Entrance	Full Fee Simple/ Partial Fee Simple /Permanent Easement	Area needed to provide passenger access to a subsurface, at-grade, or aerial station.
Parking Facility	Partial/Full Fee Simple	Area required for station parking.
Operations Maintenance and Storage Facility	Partial/Full Fee Simple	Area required to perform maintenance activities.
TPSS and Ancillary Facilities	Partial/Full Fee Simple	TPSS's and ancillary facilities would be located within the station footprints. However, there might specific locations along the alignment where partial/full takes are needed to make sure that all required infrastructure would be in place to support the efficient operation of the Sepulveda rail line.

Source of Acquisition	Type of Acquisition	Cause/Process
Construction Activities	Temporary Construction Easements	Area used for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; property would be returned at the end of construction.
Construction Access, Staging and Laydown	Partial/Full Fee Simple	Area required for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; would be used for station parking or other permanent use after construction has been completed.

Source: HTA, 2024

ROW = right-of-way

8.2.2 Full Acquisition

Full acquisition would require the use of an entire property. Full property acquisition would result in the purchase of an entire property by the Los Angeles County Metropolitan Transportation Authority (Metro) for the Project. Metro would purchase a "fee simple interest" of the property and become the owner of the property. Full acquisition would occur in instances where the Project would require the use of a significant portion of the property, including the physical structure or structures identified as the property's principal dwelling or business facility, permanently or for an extended period during construction. Full acquisition would also occur in cases where a property's physical structure or structures were not affected but another component critical to a property's intended use would be affected (such as a severe loss of parking or access that would reduce the useful operation of the property). Full property acquisition for Alternative 4 would be required for the following reasons:

- To provide adequate space for the alignment to transition from an aerial alignment to an underground/subsurface alignment
- To construct and operate station areas
- To construct and operate ancillary facilities and TPSS
- To construct and operate the MSF
- To accommodate construction access, staging, and laydown areas

8.2.3 Partial Acquisition

Partial acquisition would occur if the Project would use a portion of a given property but would not require the entirety of the property. Partial property acquisition means that only a portion of the property would be acquired, and the owner would retain the remaining portion of the property. Types of partial acquisition include partial "fee simple" acquisitions and various types of permanent and temporary easements. For a "fee simple" acquisition, Metro would purchase a "fee simple interest" for the portion of the property and would become owner for that portion of the property. A partial acquisition is also considered if the area required for the Project is not critical to the property's primary function as a residence or business, or if the remaining portion of the property could be reconfigured to continue serving its purpose without significant disruption to occupants. Partial property acquisitions would be required for Alternative 4 for the following reasons:

- To provide adequate ROW for the alignment

- To widen streets or intersections or to provide other street improvements due to inadequate ROW widths
- To provide utility and drainage improvements
- To provide adequate space for the alignment to transition from an aerial alignment to a subsurface alignment
- To construct and operate stations, ancillary facilities, TPSS, and MSF
- To accommodate construction access, staging, and laydown areas

8.2.4 Easement

An easement provides one party the right to use another party's property for a stated purpose. That property may be owned by a private person, business entity, or a group of owners and can involve a general or specific portion of the property. An easement can be at the surface, underground/subsurface (beneath a property), or aboveground (aerial) level and can be characterized as temporary (typically during construction) or permanent. TCEs would be necessary if temporary rights are required from property owners for material storage, construction activities, or access. Depending on the size and location of the TCEs, they may or may not require the demolition of existing structures. If TCEs do not require demolition of existing structures, TCEs typically would not affect the primary function of the property. In these circumstances, the area may revert to its former use after construction activities have been completed. If TCEs require demolition of existing structures, the primary function of the property could be affected or may cause undue disruption to the occupants.

Underground/subsurface easements would be required during construction for tunneling and all underground facilities, including underground utilities and underground TPSS. The easement would be permanent since it would be required for the operations of an underground transit line once construction is completed. The underground/subsurface easement would not affect the primary function of the properties for Alternative 4 since the easements would be underground at a depth of between 40 to 80 feet below surface level and up to 500 feet below surface level through the Santa Monica Mountains. For properties with underground/subsurface easements, Alternative 4 does not involve any activities at the surface level or above grade that would affect the function of the properties. Permanent aerial easements would be used for the operation of an elevated transit line. An easement is considered a partial property acquisition from the property owner. The purchase of an easement is accomplished through a one-time payment and the recording of an easement deed.

8.3 Impacts Evaluation

8.3.1 Permanent Acquisition and Displacement

8.3.1.1 Direct Impacts

Property acquisitions would be required for the following project components located outside of the public ROW:

- Aerial station areas
- MSF
- At-grade TPSS facilities that are outside of station areas
- Local street, utility, and drainage improvements

Partial acquisitions in the form of permanent aerial easements would be required to accommodate the aerial guideway beams and straddle bents. Partial acquisitions in the form of permanent subsurface easements would be required to accommodate the subsurface alignment, subsurface stations, and subsurface TPSS facilities. Subsurface easements would not result in property acquisition or displacement of businesses or residences. Partial fee simple acquisitions would be required for local street improvements that occur outside of the public ROW. Both full and partial fee simple acquisitions would be required for stations; MSF; and TPSS and ancillary facilities.

Table 8-7 summarizes the number of affected parcels and permanent acquisitions. It should be noted that some properties may contain multiple parcels. Appendix A of this report present parcel-specific data and Appendix B provides figures that identify the parcels that would potentially be acquired along the alignment of Alternative 4. The mainline, stations, and associated facilities of Alternative 4 would require the permanent acquisition of approximately 512 parcels, of which 42 parcels would involve full fee simple acquisition, 45 parcels would involve partial fee simple acquisition, 97 parcels would have aerial easements, and 346 parcels would have subsurface easements. Some parcels would involve multiple acquisition types (e.g., partial fee simple acquisition and aerial easement, or partial fee simple acquisition and subsurface easement). Although Alternative 4 would acquire aerial easements over portions of the LOSSAN rail corridor ROW, the freight tracks and the Metrolink Ventura County Line in the rail ROW are active and would remain active during operations of Alternative 4. Property acquisition would primarily affect commercial and residential properties, many of which involve either aerial or subsurface easements.

Table 8-7. Alternative 4: Permanent Property Acquisition

Land Use	Full Fee Simple Acquisition (No. of Parcels)	Partial Fee Simple Acquisition (No. of Parcels)	Aerial Easement (No. of Parcels)	Subsurface Easement (No. of Parcels)
Mainline, Stations, and Associated Facilities except MSF				
Commercial	19	29	66	29
Industrial	9	3	6	2
Mixed-Use	1	0	1	0
Institutional/Public Facilities	0	5	1	6
Parks/Recreation	0	0	0	3
Transportation-Related (Railroad)	0	0	0	0
Vacant/Undeveloped Open Space	1	0	0	19
Multi-Family Residential	3	4	23	63
Single-Family Residential	9	4	0	224
Subtotal	**42**	**45**	**97**	**346**
MSF				
Industrial	2	0	0	0
Institutional/Public Facilities	1	0	0	0
Subtotal	**3**	**0**	**0**	**0**
Total – Alternative 4 with MSF	**45**	**45**	**97**	**346**

Source: STCP, 2024

Note: Multi-family residential properties with condominiums are counted as one parcel.

The Alternative 4 MSF would require the permanent full fee simple acquisition of two commercial parcel and one institutional/public facilities parcel.

Overall, Alternative 4 with the MSF would result in 45 parcels with full fee simple acquisitions, 45 parcels with partial fee simple acquisitions, 97 parcels with aerial easements, and 346 parcels with subsurface easements.

Non-residential and residential displacements would occur to accommodate project components. Property displacements are determined by evaluating the extent to which Alternative 4 would affect existing properties and identifying those properties where the current use would not be possible if Alternative 4 is constructed. Elements associated with Alternative 4 that were evaluated include direct effects on structures, assessment of property-specific elements (i.e., available parking, access to and traffic circulation within the property, and other aspects specific to the type of business and residential unit affected), and component that may disrupt a business' ability to conduct its primary function after implementation of Alternative 4.

Permanent jobs may be lost as a result of relocation. Metro will work with specialty businesses (e.g., businesses that cater to the local community or need a particular location to operate) to understand their specific relocation needs and provide them with information on available replacement sites, financial assistance, and other advisory assistance. Metro will work with these businesses as early in the process as possible to allow them additional lead time.

Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions would not be required to relocate. However, these affected residents may make a case that the remaining property is no longer compatible with their intended use and may choose to relocate, which may result in the need to relocate some residents.

Metro would compensate owners at fair market value to purchase the required property and would also need to compensate owners for damage to the remainder property. Metro would provide displaced businesses and residents relocation assistance and benefits for which the displacee is eligible.

Table 8-8 summarizes the number of potential non-residential uses and residences that would be permanently displaced as a result of Alternative 4. The mainline, stations, and associated facilities (without the MSF) for Alternative 4 would permanently displace 110 commercial and industrial businesses, 202 multi-family residential units, and 10 single-family residential units. Overall, Alternative 4 with the MSF would permanently displace a total of approximately 111 commercial and industrial businesses, one institutional/public facility, and 212 residential units. One specialty business (a structure with restaurants and the UCLA Extension) would be relocated for the alignment. The MSF would displace two specialty businesses (a City of Los Angeles Department of Water and Power maintenance yard and a car auction business). Based on the City's average household size of 3.0 persons per household for owner-occupied units and 2.7 persons per household for renter-occupied units (US Census, 2021), approximately 575 people would be permanently displaced as a result of Alternative 4.

Table 8-8. Alternative 4: Non-Residential and Residential Unit Displacement

Land Use	Number of Non-Residential/Residential Units Displaced
Mainline, Stations, and Associated Facilities except MSF	
Commercial	96
Industrial	12
Mixed-Use	2 businesses 34 residential units
Multi-Family Residential	168
Single-Family Residential	10
Subtotal	**322**
MSF	
Commercial	1
Institutional/Public Facilities	1
Subtotal	**2**
Total – Alternative 4 with MSF	**324**

Source: STCP, 2024

Where acquisition and relocation are unavoidable, Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Properties acquired by Metro for Alternative 4 would be appraised to determine its fair market value. Just compensation, which shall not be less than the amount determined by an approved appraisal, would be offered by Metro. Each homeowner, renter, business, or nonprofit organization displaced as a result of Alternative 4 would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property.

The Project Study Area is urbanized with a number of existing buildings for sale or lease. According to CBRE Research, as of the 4th quarter of 2024 there was approximately 2.5 million square feet of industrial space (building square footage ranging from 10,000 to 100,000 square feet) available in the East San Fernando Valley market with an overall vacancy rate of 2.1 percent (CBRE, 2025a). Retail space availability in the 3rd quarter of 2024 was approximately 8.7 percent for the Westside market and 4.7 percent for the San Fernando Valley market (CBRE, 2024). Office space vacancy and availability is high throughout Los Angeles County which had a 24.4 percent vacancy rate as of the 4th quarter of 2024 (CBRE, 2025b). Given the availability of existing buildings/structures and non-residential properties, it is expected that most of the non-residential uses that would be displaced as a result of Alternative 4 would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. Similarly, it is expected that most of the residential units that would be displaced would be relocated to existing residential units in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse indirect impacts related to acquisitions and displacements are not anticipated for Alternative 4.

8.3.1.2 Indirect Impacts

Alternative 4 would introduce new visual elements, generate long-term localized pollutant emissions, and increase noise levels that could potentially disrupt businesses or residents in the Resource Study

Area for visual, air quality, and noise. Alternative 4 would also potentially alter access and circulation in the Resource Study Area for transportation through sidewalk and roadway modifications. The environmental impacts associated with visual, air quality, noise, and transportation are discussed in the respective technical reports for those disciplines prepared for the Sepulveda Transit Corridor Project and described in the DEIR. Changes resulting from Alternative 4 that may influence voluntary relocation by businesses or residents would not cause any physical changes in the environment and do not require any mitigation beyond those identified for each environmental discipline and described in the DEIR for the Sepulveda Transit Corridor Project.

8.3.2 Temporary Acquisition for Construction

8.3.2.1 Direct Impacts

Constructing Alternative 4 would involve the following:

- Site preparation and demolition of structures
- Utility relocation
- Tunneling and cut-and-cover activities
- Construction of the aerial and subsurface alignments, stations, MSF, TPSS, auxiliary facilities, and parking facilities
- Street widening
- Street and sidewalk reconstruction

Some parcels that would be permanently acquired for the operations of Alternative 4 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Depending on the location and size of the TCEs, existing structures on parcels could either remain in place or be demolished. For parcels where structures would be demolished, existing non-residential uses and residents would be relocated. For parcels where structures would not be demolished, non-residential uses could temporarily be displaced during construction, but no permanent displacement would occur. These parcels would be returned to pre-construction conditions once construction is completed. Generally, parcels that would be used for construction access, staging, and laydown would be permanently acquired and, thus, these parcels would not be returned to pre-construction conditions once construction is completed. Although Alternative 4 would require the temporary use of 15 residential parcels along the mainline for construction, only a portion of the residential parcels would be affected. No structures on these residential parcels would be demolished and the function of these residential parcels would not change.

Table 8-9 summarizes the types of parcels that would be affected by construction of Alternative 4. A total of 123 parcels along the mainline would be used for construction purposes. Of the 123 parcels, 87 parcels would be permanently acquired as partial fee simple acquisition and/or easements, and 36 parcels would only be used as TCEs (with no permanent fee simple acquisition and/or easement). The 36 parcels that would be temporarily acquired would be returned to the owner once construction is completed. Section 8.3.1 discusses how Alternative 4 would affect the 87 parcels that would be permanently acquired for the mainline.

Table 8-9. Alternative 4: Parcels to be Used During Construction

Land Use	Permanent Acquisition (Fee Simple and/or Easement)[a]	Temporary Construction Easement[b]
Commercial	63	12
Industrial	5	4
Mixed Use	1	0
Institutional/Public Facilities	5	1
Transportation-Related (Busway, Railroad, Transit Station Parking)	0	2
Vacant/Undeveloped Open Space	0	2
Multi-Family Residential	13	15
Subtotal	**87**	**36**

Source: LASRE, 2024

[a]Parcels that would be permanently acquired for Alternative 4 operations and also be used during construction, such as for access, staging, and/or laydown.

[b]Parcels that would only be temporarily acquired to be used during construction.

Parcels that would be temporarily acquired (e.g., for TCEs) and permanently acquired (e.g., a parcel would be used for construction purposes and would also be used for the alignment or a station during operations) would be appraised to determine the fair market value of the portion that would be used temporarily during construction, and just compensation not less than the amount recommended/determined by an approved appraisal would be offered by Metro to each property owner.

Construction of Alternative 4 would displace 10 commercial businesses and one industrial business. Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Each business displaced as a result of Alternative 4 construction would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property. It is expected that most of the non-residential uses that would be displaced as a result of Alternative 4 construction would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse construction impacts related to acquisitions and displacements are not anticipated for Alternative 4.

8.3.2.2 Indirect Impacts

Construction of Alternative 4 would temporarily change the visual quality and character, generate localized pollutant emissions, increase noise and vibration levels, and alter pedestrian and vehicular access in the Resource Study Area for visual, air quality, noise and vibration, and transportation; however, these changes are not expected to require additional residential or business displacements beyond those identified in the preceding section. Construction related disruptions would be temporary and measures would be implemented to reduce the effects of construction activities on nearby businesses and residents.

8.3.3 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

8.3.3.1 Permanent Impacts

Property acquisitions would occur prior to the construction and operations of Alternative 4. Alternative 4 would require the permanent acquisition (i.e., full fee simple acquisition, partial fee simple acquisition, aerial easement and/or subsurface easement) of two mixed-use development, 93 multi-family residential parcels and 237 single-family residential parcels. A total of approximately 202 multi-family residential units (includes the 34 units from the mixed-use development) and 10 single-family residential units would be permanently displaced. Based on an average household size of 3.0 persons per household for owner-occupied units and 2.7 persons per household for renter-occupied units in the City of Los Angeles, approximately 575 people would be permanently displaced as a result of Alternative 4. Metro would compensate owners at fair market value to purchase the required property. In the case of partial acquisitions, Metro would compensate owners if damages are incurred to the remainder property. Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions may make a case that the remainder property is no longer compatible with their intended use.

Metro would provide relocation assistance and compensation for displaced residents as required by the Uniform Act and California Relocation Act. Where acquisitions and relocation are unavoidable, Metro would follow the provisions of both Acts, as amended. As discussed in the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* (Metro, 2025d), current developments in the Project Study Area are anticipated to construct over 23,100 new housing units. Furthermore, various State, regional, and local policies and programs such as the 2023 Legislative Housing Package and the City's 2021-2029 Housing Element are aimed at increasing available housing stock to address the State's housing shortage. Working towards the RHNA target of 456,643 new housing units, the City of Los Angeles anticipates construction of 310,000 new housing units between 2021 and 2029. The 2025 wildfires may affect the short-term availability of replacement housing as it is anticipated that there will be increased demand for housing in the region while homes in the affected areas are rebuilt. Despite this increase in demand, there would still be adequate and comparable replacement housing available to displaced residents considering that the right of way acquisitions for the Project would take place over multiple years of project development. Due to the magnitude of anticipated residential relocations associated with Alternative 4, it is anticipated that the relocation process would be implemented over multiple years in a carefully phased manner, thereby minimizing disruptions to the local housing marking and providing adequate time for Metro's real estate specialists to work closely with displaced residents to secure fair, equitable, and suitable relocation options. Therefore, in full compliance with the Uniform Act and the California Relocation Act, impacts related to the displacement of residential units and its occupants that would necessitate the construction of replacement units would be less than significant.

8.3.3.2 Temporary (Construction) Impacts

Construction of Alternative 4 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; construction of the aerial and subsurface alignments, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 4 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs. These TCEs

would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties. Therefore, construction activities associated with Alternative 4 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

Construction of Alternative 4 would not displace any residential units. Therefore, no impact would occur during construction.

8.3.3.3 Maintenance and Storage Facility

As listed in Table 8-7 the MSF would not require the acquisition or displacement of any residential property. Therefore, the MSF would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF would have no impact.

8.4 Mitigation Measures

8.4.1 Permanent Impacts

No mitigation measures are required.

8.4.2 Temporary (Construction) Impacts

No mitigation measures are required.

8.4.3 Impacts After Mitigation

No mitigation measures are required; permanent impacts are less than significant, and no temporary (construction) impacts would occur.

9 ALTERNATIVE 5

9.1 Alternative Description

Alternative 5 consists of a heavy rail transit (HRT) system with a primarily underground guideway track configuration, including seven underground stations and one aerial station. This alternative would include five transfers to high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 13.8 miles, with 0.7 miles of aerial guideway and 13.1 miles of underground configuration.

The seven underground and one aerial HRT stations would be as follows:

1. Metro E Line Expo/Sepulveda Station (underground)
2. Santa Monica Boulevard Station (underground)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Ventura Boulevard/Sepulveda Boulevard Station (underground)
6. Metro G Line Sepulveda Station (underground)
7. Sherman Way Station (underground)
8. Van Nuys Metrolink Station (aerial)

9.1.1 Operating Characteristics

9.1.1.1 Alignment

As shown on Figure 9-1, from its southern terminus station at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 5 would run underground north through the Westside of Los Angeles (Westside), the Santa Monica Mountains, and the San Fernando Valley (Valley) to a tunnel portal east of Sepulveda Boulevard and south of Raymer Street. As it approaches the tunnel portal, the alignment would curve eastward and begin to transition to an aerial guideway along the south side of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor that would continue to the northern terminus station adjacent to the Van Nuys Metrolink/Amtrak Station.

The proposed southern terminus station would be located underground east of Sepulveda Boulevard between the existing elevated Metro E Line tracks and Pico Boulevard. Tail tracks for vehicle storage would extend underground south of National Boulevard east of Sepulveda Boulevard. The alignment would continue north beneath Bentley Avenue before curving northwest to an underground station at the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard. From the Santa Monica Boulevard Station, the alignment would continue and curve eastward to the Wilshire Boulevard/Metro D Line Station beneath the Metro D Line Westwood/UCLA Station, which is currently under construction as part of the Metro D Line Extension Project. From there, the underground alignment would curve slightly to the northeast and continue beneath Westwood Boulevard before reaching the UCLA Gateway Plaza Station.

Figure 9-1. Alternative 5: Alignment

Source: STCP, 2024; HTA, 2024

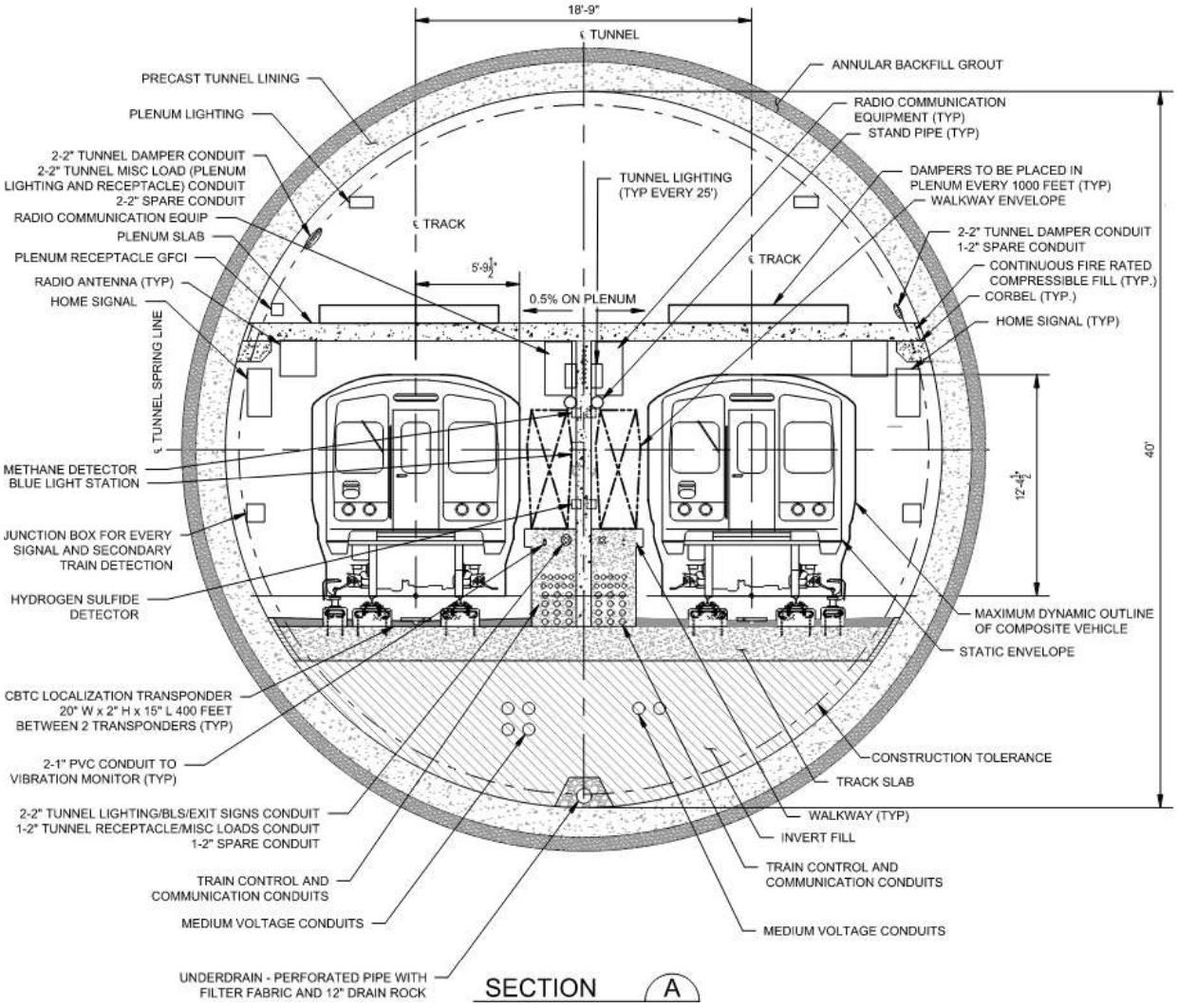
From the UCLA Gateway Plaza Station, the alignment would turn to the northwest beneath the Santa Monica Mountains to the east of Interstate 405 (I-405). South of Mulholland Drive, the alignment would curve to the north, aligning with Saugus Avenue south of Valley Vista Boulevard. The Ventura Boulevard Station would be located under Saugus Avenue between Greenleaf Street and Dickens Street. The alignment would then continue north beneath Sepulveda Boulevard to the Metro G Line Sepulveda Station immediately south of the Metro G Line Busway. After leaving the Metro G Line Sepulveda Station, the alignment would continue beneath Sepulveda Boulevard to reach the Sherman Way Station,

the final underground station along the alignment, immediately south of Sherman Way. From the Sherman Way Station, the alignment would continue north before curving slightly to the northeast to the tunnel portal south of Raymer Street. The alignment would then transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal. East of the tunnel portal, the alignment would transition to a cut-and-cover U-structure segment followed by a trench segment before transitioning to an aerial guideway that would run east along the south side of the LOSSAN rail corridor. Parallel to the LOSSAN rail corridor, the guideway would conflict with the existing Willis Avenue Pedestrian Bridge which would be demolished. The alignment would follow the LOSSAN rail corridor before reaching the proposed northern terminus Van Nuys Metrolink Station located adjacent to the existing Metrolink/Amtrak Station. The tail tracks and yard lead tracks would descend to the proposed at-grade maintenance and storage facility (MSF) east of the proposed northern terminus station. Modifications to the existing pedestrian underpass to the Metrolink platforms to accommodate these tracks would result in reconfiguration of an existing rail spur serving City of Los Angeles Department of Water and Power (LADWP) property.

9.1.1.2 Guideway Characteristics

For underground sections, Alternative 5 would utilize a single-bore tunnel configuration with an outside diameter of approximately 43.5 feet. The tunnel would include two parallel tracks at 18.75-foot spacing in tangent sections separated by a continuous central dividing wall throughout the tunnel. Inner walkways would be constructed adjacent to the two tracks. Inner and outer walkways would be constructed within tunnel sections near the track crossovers. At the crown of tunnel, a dedicated air plenum would be provided by constructing a concrete slab above the railway corridor. The air plenum would allow for ventilation throughout the underground portion of the alignment. Figure 9-2 illustrates these components at a typical cross-section of the underground guideway.

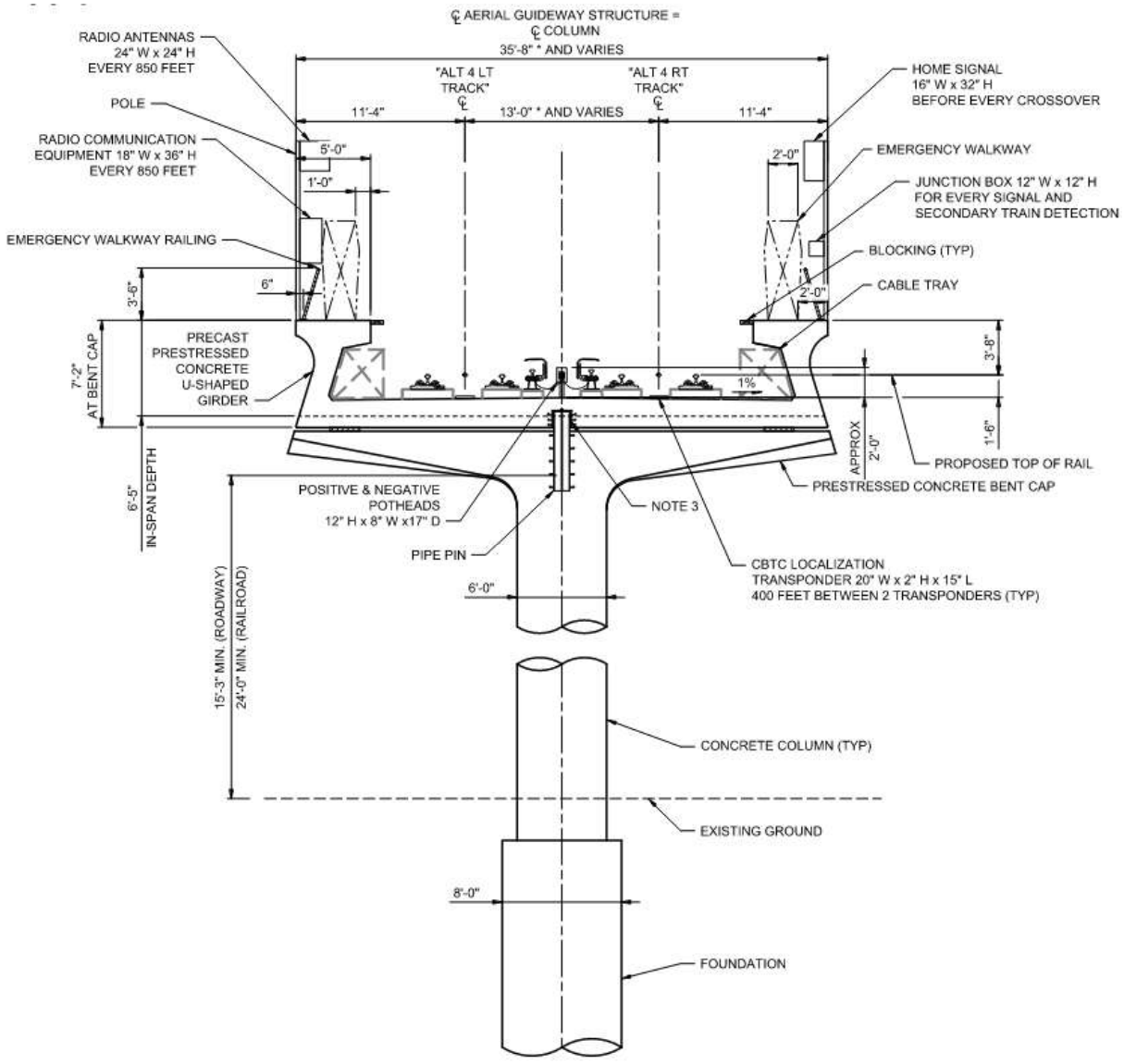
Figure 9-2. Typical Underground Guideway Cross-Section



Source: STCP, 2024

In aerial sections adjacent to Raymer Street and the LOSSAN rail corridor, the guideway would consist of single-column spans. The single-column spans would include a U-shaped concrete girder structure that supports the railway track atop a series of individual columns. The single-column aerial guideway would be approximately 36 feet wide. The track would be constructed on the concrete girders with direct fixation and would maintain a minimum of 13 feet between the two-track centerlines. On the outer side of the tracks, emergency walkways would be constructed with a minimum width of 2 feet. The single-column aerial guideway would be the primary aerial structure throughout the aerial portion of the alignment. Figure 9-3 shows a typical cross-section of the single-column aerial guideway.

Figure 9-3. Typical Aerial Guideway Cross-Section



Source: STCP, 2024

9.1.1.3 Vehicle Technology

Alternative 5 would utilize steel-wheel HRT trains, with automated train operations and planned peak-period headways of 2.5 minutes and off-peak-period headways ranging from 4 to 6 minutes. Each train could consist of three or four cars with open gangways between cars. The HRT vehicle would have a maximum operating speed of 70 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations. Train cars would be approximately 10 feet wide with three double doors on each side. Each car would be approximately 72 feet long with capacity for 170 passengers. Trains would be powered by a third rail.

9.1.1.4 Stations

Alternative 5 would include seven underground stations and one aerial station with station platforms measuring 280 feet long for both station configurations. The aerial station would be constructed a minimum of 15.25 feet above ground level, supported by rows of dual columns with 8-foot diameters. The southern terminus station would be adjacent to the Metro E Line Expo/Sepulveda Station, and the northern terminus station would be adjacent to the Van Nuys Metrolink/Amtrak Station.

All stations would be side-platform stations where passengers would select and travel up to station platforms depending on their direction of travel. All stations would include 20-foot-wide side platforms separated by 30 feet for side-by-side trains. Each underground station would include an upper and lower concourse level prior to reaching the train platforms. The Van Nuys Metrolink Station would include a mezzanine level prior to reaching the station platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from ground level to the concourse or mezzanine.

Stations would include automatic, bi-parting fixed doors along the edges of station platforms. These platform screen doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This underground station would be located just north of the existing Metro E Line Expo/Sepulveda Station, on the east side of Sepulveda Boulevard.
- A station entrance would be located on the east side of Sepulveda Boulevard north of the Metro E Line.
- A direct internal transfer to the Metro E Line would be provided at street level within the fare paid zone.
- A 126-space parking lot would be located immediately north of the station entrance, east of Sepulveda Boulevard. Passengers would also be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces.

Santa Monica Boulevard Station

- This underground station would be located under the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard.
- The station entrance would be located on the south side of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located beneath the Metro D Line tracks and platform under Gayley Avenue between Wilshire Boulevard and Lindbrook Drive.
- Station entrances would be provided on the northeast corner of Wilshire Boulevard and Gayley Avenue and on the northeast corner of Lindbrook Drive and Gayley Avenue. Passengers would also be able to use the Metro D Line Westwood/UCLA Station entrances to access the station platform.

- A direct internal station transfer to the Metro D Line would be provided at the south end of the station.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located underneath Gateway Plaza on the University of California, Los Angeles (UCLA) campus.
- Station entrances would be provided on the north side of Gateway Plaza and on the east side of Westwood Boulevard across from Strathmore Place.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This underground station would be located under Saugus Avenue between Greenleaf Street and Dickens Street.
- A station entrance would be located on the southeast corner of Saugus Avenue and Dickens Street.
- Approximately 92 parking spaces would be supplied at this station west of Sepulveda Boulevard between Dickens Street and the U.S. Highway 101 (US-101) On-Ramp.

Metro G Line Sepulveda Station

- This underground station would be located under Sepulveda Boulevard immediately south of the Metro G Line Busway.
- A station entrance would be provided on the west side of Sepulveda Boulevard south of the Metro G Line Busway.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are currently used for transit parking. No new parking would be constructed.

Sherman Way Station

- This underground station would be located below Sepulveda Boulevard between Sherman Way and Gault Street.
- The station entrance would be located near the southwest corner of Sepulveda Boulevard and Sherman Way.
- Approximately 122 parking spaces would be supplied at this station on the west side of Sepulveda Boulevard with vehicle access from Sherman Way.

Van Nuys Metrolink Station

- This aerial station would span Van Nuys Boulevard, just south of the LOSSAN rail corridor.
- The primary station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A secondary station entrance would be located between Raymer Street and Van Nuys Boulevard.
- An underground pedestrian walkway would connect the station plaza to the existing pedestrian underpass to the Metrolink/Amtrak platform outside the fare paid zone.

- Existing Metrolink Station parking would be reconfigured, maintaining approximately the same number of spaces, but 66 parking spaces would be relocated west of Van Nuys Boulevard. Metrolink parking would not be available to Metro transit riders.

9.1.1.5 Station-to-Station Travel Times

Table 9-1 presents the station-to-station distance and travel times at peak period for Alternative 5. The travel times include both run time and dwell time. Dwell time is 30 seconds for transfer stations and 20 seconds for other stations. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 9-1. Alternative 5: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	89	86	—
Santa Monica Boulevard Station					*20*
Santa Monica Boulevard	Wilshire/Metro D Line	0.9	91	92	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.7	75	69	—
UCLA Gateway Plaza Station					*20*
UCLA Gateway Plaza	Ventura Boulevard	6.0	368	359	—
Ventura Boulevard Station					*20*
Ventura Boulevard	Metro G Line	2.0	137	138	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.4	113	109	—
Sherman Way Station					*20*
Sherman Way	Van Nuys Metrolink	1.9	166	162	—
Van Nuys Metrolink Station					*30*

Source: STCP, 2024

— no data

9.1.1.6 Special Trackwork

Alternative 5 would include 10 double crossovers throughout the alignment enabling trains to cross over to the parallel track. Each terminus station would include a double crossover immediately north and south of the station. Except for the Santa Monica Boulevard Station, each station would have a double crossover immediately south of the station. The remaining crossover would be located along the alignment midway between the UCLA Gateway Plaza Station and the Ventura Boulevard Station.

9.1.1.7 Maintenance and Storage Facility

The MSF for Alternative 5 would be located east of the Van Nuys Metrolink Station and would encompass approximately 46 acres. The MSF would be designed to accommodate 184 rail cars and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue on the east, and Hazeltine Avenue and industrial manufacturing enterprises to the

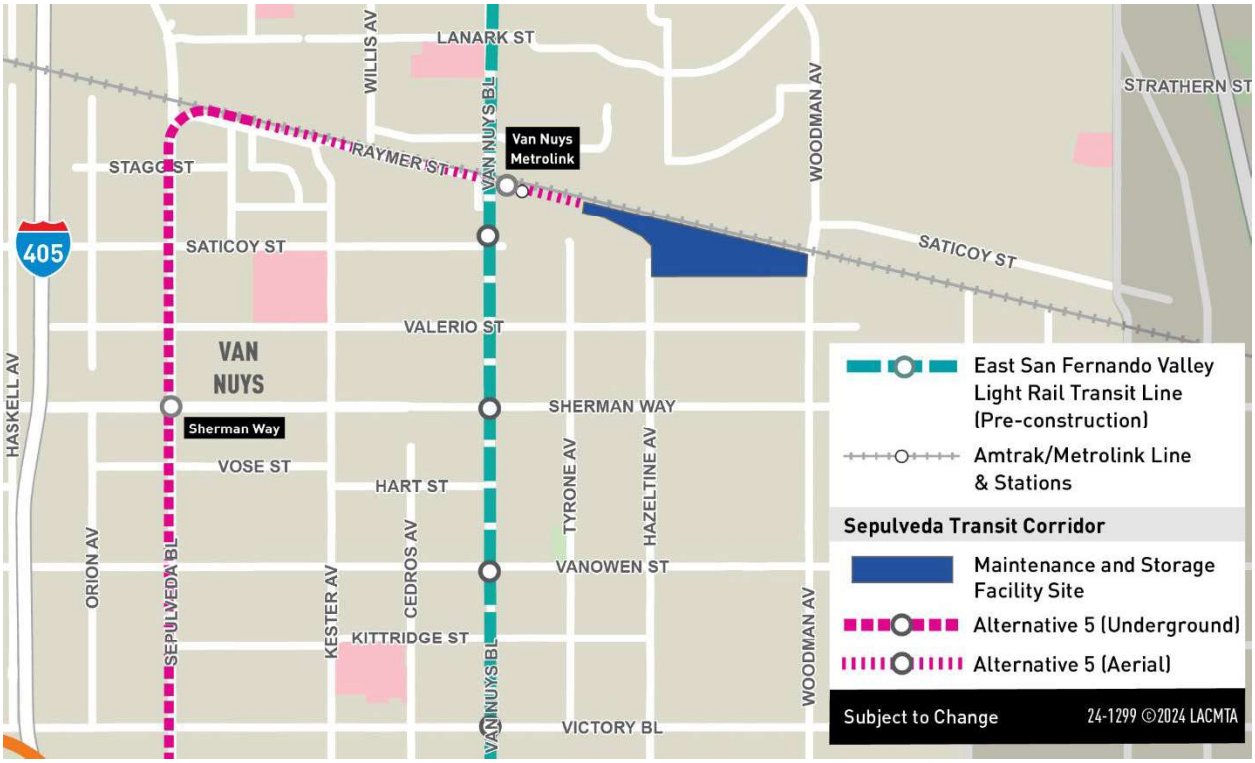
west. Trains would access the site from the fixed guideway's tail tracks at the northwest corner of the site. Trains would then travel southeast to maintenance facilities and storage tracks.

The site would include the following facilities:

- Two entrance gates with guard shacks
- Main shop building
- Maintenance-of-way building
- Storage tracks
- Carwash building
- Cleaning and inspections platforms
- Material storage building
- Hazmat storage locker
- Traction power substation (TPSS) located on the west end of the MSF to serve the mainline
- TPSS located on the east end of the MSF to serve the yard and shops
- Parking area for employees
- Grade separated access roadway (over the HRT tracks at the east end of the facility) and necessary drainage

Figure 9-4 shows the location of the MSF site for Alternative 5.

Figure 9-4. Alternative 5: Maintenance and Storage Facility Site



Source: STCP, 2024; HTA, 2024

9.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. Twelve TPSS facilities would be located along the alignment and would be spaced approximately 0.5 to 2.5 miles apart. All TPSS facilities would be located within the stations, adjacent to the tunnel through the Santa Monica Mountains, or within the MSF. Table 9-2 lists the TPSS locations for Alternative 5.

Figure 9-5 shows the TPSS locations along the Alternative 5 alignment.

Table 9-2. Alternative 5: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1	TPSS 1 would be located east of Sepulveda Boulevard and north of the Metro E Line.	Underground (within station)
2	TPSS 2 would be located south of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.	Underground (within station)
3	TPSS 3 would be located at the southeast corner of UCLA Gateway Plaza.	Underground (within station)
4	TPSS 4 would be located south of Bellagio Road and west of Stone Canyon Road.	Underground (adjacent to tunnel)
5	TPSS 5 would be located west of Roscomare Road between Donella Circle and Linda Flora Drive.	Underground (adjacent to tunnel)
6	TPSS 6 would be located east of Loom Place between Longbow Drive and Vista Haven Road.	Underground (adjacent to tunnel)
7	TPSS 7 would be located west of Sepulveda Boulevard between the I-405 Northbound On-Ramp and Dickens Street.	Underground (within station)
8	TPSS 8 would be located west of Sepulveda Boulevard between the Metro G Line Busway and Oxnard Street.	Underground (within station)
9	TPSS 9 would be located at the southwest corner of Sepulveda Boulevard and Sherman Way.	Underground (within station)
10	TPSS 10 would be located south of the LOSSAN rail corridor and north of Raymer Street and Kester Avenue.	At-grade
11	TPSS 11 would be located south of the LOSSAN rail corridor and east of the Van Nuys Metrolink Station.	At-grade (within MSF)
12	TPSS 12 would be located south of the LOSSAN rail corridor and east of Hazeltine Avenue.	At-grade (within MSF)

Source: STCP, 2024; HTA, 2024

Note: Sepulveda Transit Corridor Partners (STCP) has stated that Alternative 5 TPSS locations are derived from and assumed to be similar to the Alternative 4 TPSS locations.

Figure 9-5. Alternative 5: Traction Power Substation Locations

Source: STCP, 2024; HTA, 2024

9.1.1.9 Roadway Configuration Changes

Table 9-3 lists the roadway changes necessary to accommodate the guideway of Alternative 5. Figure 9-6 shows the location of the roadway changes within the Sepulveda Transit Corridor Project (Project) Study Area. In addition to the changes made to accommodate the guideway, as listed in Table 9-3, roadways and sidewalks near stations would be reconstructed, resulting in modifications to curb ramps and driveways.

Table 9-3. Alternative 5: Roadway Changes

Location	From	To	Description of Change
Raymer Street	Kester Avenue	Keswick Street	Reconstruction resulting in narrowing of width and removal of parking on the westbound side of the street to accommodate aerial guideway columns.
Cabrito Road	Raymer Street	Marson Street	Closure of Cabrito Road at the LOSSAN rail corridor at-grade crossing. A new segment of Cabrito Road would be constructed from Noble Avenue and Marson Street to provide access to extra space storage from the north.

Source: STCP, 2024; HTA, 2024

Figure 9-6. Alternative 5: Roadway Changes

Source: STCP, 2024; HTA, 2024

9.1.1.10 Ventilation Facilities

For ventilation, a plenum within the crown of the tunnel would provide a separate compartment for air circulation and allow multiple trains to operate between stations. Each underground station would include a fan room with additional ventilation facilities. Alternative 5 would also include a stand-alone ventilation facility at the tunnel portal on the northern end of the tunnel segment, located east of Sepulveda Boulevard and south of Raymer Street. Within this facility, ventilation fan rooms would provide both emergency ventilation, in case of a tunnel fire, and regular ventilation, during non-revenue hours. The facility would also house sump pump rooms to collect water from various sources, including storm water; wash-water (from tunnel cleaning); and water from a fire-fighting incident, system testing, or pipe leaks.

9.1.1.11 Fire/Life Safety – Emergency Egress

Within the tunnel segment, emergency walkways would be provided between the center dividing wall and each track. Sliding doors would be located in the central dividing wall at required intervals to connect the two sides of the railway with a continuous walkway to allow for safe egress to a point of safety (typically at a station) during an emergency. Similarly, the aerial guideway near the LOSSAN rail corridor would include two emergency walkways with safety railing located on the outer side of the tracks. Access to tunnel segments for first responders would be through stations and the portal.

9.1.2 Construction Activities

Temporary construction activities for Alternative 5 would include project work zones at permanent facility locations, construction staging and laydown areas, and construction office areas. Construction of the transit facilities through substantial completion is expected to have a duration of 8 ¼ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

For the guideway, Alternative 5 would consist of a single-bore tunnel through the Westside, Valley, and Santa Monica Mountains. The tunnel would comprise three separate segments, one running north from the southern terminus to the UCLA Gateway Plaza Station (Westside segment), one running south from the Ventura Boulevard Station to the UCLA Gateway Plaza Station (Santa Monica Mountains segment), and one running north from the Ventura Boulevard Station to the portal near Raymer Street (Valley segment). Tunnel boring machines (TBM) with approximately 45-foot-diameter cutting faces would be used to construct the tunnel segments underground. For the Westside segment, the TBM would be launched from Staging Area No. 1 in Table 9-4 at Sepulveda Boulevard and National Boulevard. For the Santa Monica Mountains segment, the TBMs would be launched from the Ventura Boulevard Station. Both TBMs would be extracted from the UCLA Gateway Plaza Station Staging Area No. 3 in Table 9-4. For the Valley segment, the TBM would be launched from Staging Area No. 8 as shown in Table 9-4 and extracted from the Ventura Boulevard Station. Figure 9-7 shows the location of construction staging locations along the Alternative 5 alignment.

Table 9-4. Alternative 5: On-Site Construction Staging Locations

No.	Location Description
1	Commercial properties on southeast corner of Sepulveda Boulevard and National Boulevard
2	North side of Wilshire Boulevard between Veteran Avenue and Gayley Avenue
3	UCLA Gateway Plaza
4	Commercial property on southwest corner of Sepulveda Boulevard and Dickens Street
5	West of Sepulveda Boulevard between US-101 and Sherman Oaks Castle Park
6	Lot behind Los Angeles Fire Department Station 88
7	Property on the west side of Sepulveda Boulevard between Sherman Way and Gault Street
8	Industrial property on both sides of Raymer Street, west of Burnet Avenue
9	South of the LOSSAN rail corridor east of Van Nuys Metrolink Station, west of Woodman Avenue

Source: STCP, 2024; HTA, 2024

Figure 9-7. Alternative 5: On-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

The distance from the surface to the top of the tunnel for the Westside tunnel would vary from approximately 40 feet to 90 feet depending on the depth needed to construct the underground stations. The depth of the Santa Monica Mountains tunnel segment varies greatly from approximately 470 feet as it passes under the Santa Monica Mountains to 50 feet near UCLA. The depth of the Valley segment would vary from approximately 40 feet near the Ventura Boulevard/Sepulveda Station and north of the Metro G Line Sepulveda Station to 150 feet near Weddington Street. The tunnel segments through the Westside and Valley would be excavated in soft ground while the tunnel through the Santa Monica Mountains would be excavated primarily in hard ground or rock as geotechnical conditions transition from soft to hard ground near the UCLA Gateway Plaza Station.

Construction work zones would also be co-located with future MSF and station locations. All work zones would comprise the permanent facility footprint with additional temporary construction easements from adjoining properties.

All underground stations would be constructed using a “cut-and-cover” method whereby the underground station structure would be constructed within a trench excavated from the surface with a portion or all being covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures are taken to resume cross traffic.

In addition to work zones, Alternative 5 would include construction staging and laydown areas at multiple locations along the alignment as well as off-site staging areas. Construction staging areas would provide the necessary space for the following activities:

- Contractors’ equipment
- Receiving deliveries
- Testing of soils for minerals or hazards
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

A larger, off-site staging area would be used for temporary storage of excavated material from both tunneling and station cut-and-cover excavation activities. Table 9-4 and Figure 9-7 present the potential construction staging areas along the alignment for Alternative 5. Table 9-5 and Figure 9-8 present candidate sites for off-site staging and laydown areas.

Table 9-5. Alternative 5: Potential Off-Site Construction Staging Locations

No.	Location Description
S1	East of Santa Monica Airport Runway
S2	Ralph's Parking Lot in Westwood Village
N1	West of Sepulveda Basin Sports Complex, south of the Los Angeles River
N2	West of Sepulveda Basin Sports Complex, north of the Los Angeles River
N3	Metro G Line Sepulveda Station Park & Ride Lot
N4	North of Roscoe Boulevard and Hayvenhurst Avenue
N5	LADWP property south of the LOSSAN rail corridor, east of Van Nuys Metrolink Station

Source: STCP, 2024; HTA, 2024

Figure 9-8. Alternative 5: Potential Off-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

Construction of the HRT guideway between the Van Nuys Metrolink Station and the MSF would require reconfiguration of an existing rail spur serving LADWP property. The new location of the rail spur would require modification to the existing pedestrian undercrossing at the Van Nuys Metrolink Station.

Alternative 5 would require construction of a concrete casting facility for tunnel lining segments because no existing commercial fabricator capable of producing tunnel lining segments for a large-diameter tunnel exists within a practical distance of the Project Study Area. The site of the MSF would initially be

used for this casting facility. The casting facility would include casting beds and associated casting equipment, storage areas for cement and aggregate, and a field quality control facility, which would need to be constructed on-site. When a more detailed design of the facility is completed, the contractor would obtain all permits and approvals necessary from the City of Los Angeles, the South Coast Air Quality Management District, and other regulatory entities.

As areas of the MSF site begin to become available following completion of pre-casting operations, construction of permanent facilities for the MSF would begin, including construction of surface buildings such as maintenance shops, administrative offices, train control, traction power, and systems facilities. Some of the yard storage track would also be constructed at this time to allow delivery and inspection of passenger vehicles that would be fabricated elsewhere. Additional activities occurring at the MSF during the final phase of construction would include staging of trackwork and welding of guideway rail.

9.2 Existing Conditions

The Project Study Area is approximately 68 square miles and consists of a variety of urban land uses, including commercial uses (e.g., offices, retail, gas stations; automotive sales and rentals, and restaurants), industrial uses (e.g., light and heavy industrial, suppliers, distributers, open storage, warehouses, building materials, automotive repair shops, and food processing), residential uses (single- and multi-family), parks and recreational facilities (e.g., parks, gardens and golf courses), institutional facilities (e.g., religious facilities and schools), and public facilities (e.g., government facilities). The Project Study Area also has several vacant parcels in the commercial and residential areas, as well as undeveloped open space. Undeveloped open space areas are generally located in the Bel Air community and in the southern portion of the Sherman Oaks community.

Land use adjacent to Alternative 5 at the northern end of the alignment (from the northern terminus at the proposed MSF at Woodman Avenue to Sepulveda Boulevard) is primarily industrial. A mix of large-, medium-, and small-scale industrial uses are located in this area. Freight tracks and the Metrolink Ventura County Line within the LOSSAN rail corridor ROW parallel the alignment of Alternative 5 between the northern terminus and Sepulveda Boulevard. Between the rail ROW and Saticoy Street, small-scale commercial/industrial uses with limited multi-family residences are generally located along the alignment of Alternative 5. Many of these commercial/industrial uses are auto related. From Saticoy Street to Valley Vista Boulevard, uses along the alignment of Alternative 5 generally consist of a mix of multi-family residential, commercial (small, mid-size, and big-box retail), and light industrial uses. Between Valley Vista Boulevard and Sunset Boulevard, land uses transition to a mix of low density single-family residential uses and undeveloped hillsides. A few commercial uses, a school, a recreational facility, and Stone Canyon Reservoir are also located in this area. From Sunset Boulevard to Le Conte Avenue, adjacent land uses include a high school and uses that are associated with UCLA. These uses include, but are not limited to, facilities associated with the Anderson School of Management, John Wooden Center, James West Alumni Center, Meyer and Renee Luskin Conference Center and Hotel, J.D. Morgan Center, Henry Samueli School of Engineering, the Ronald Regan UCLA Medical Center, UCLA Medical Plaza, and other medical-related facilities and research centers. From Le Conte Avenue to Ashton Avenue, land uses generally include commercial uses (offices and retail) and an institutional use (UCLA Extension). From Ashton Avenue to the southern terminus at the National Boulevard/Sepulveda Boulevard intersection, land uses include a mix of multi-family and single-family residential uses, recreational facilities, and small-scale commercial uses.

9.2.1 Typical Types of Property Acquisitions and Displacements

The Project would affect existing properties and result in property acquisitions and displacements. The parcels acquired for the Project would involve either a full or partial acquisition. Full acquisition for the Project would involve fee simple acquisitions, which consist of a complete transfer of ownership rights. In a fee simple acquisition, the buyer has full and irrevocable ownership of land and any buildings on it. Partial acquisition for the Project would involve either fee simple acquisitions or easements. Property acquisitions may be phased over time depending on Project funding and construction phasing, methods, and schedule. Table 9-6 summarizes typical causes of property acquisitions and displacement that could occur as a result of Alternative 5.

Table 9-6. Alternative 5: Typical Causes of Property Acquisition and Displacement

Source of Acquisition	Type of Acquisition	Cause/Process
Horizontal Alignment	Full/Partial Fee Simple	Insufficient existing ROW for construction and operation.
Subsurface/At-Grade/Aerial Alignment	Permanent Easement	A condition for a non-exclusive access agreement or easement (either permanent or temporary) for subsurface, at-grade, or aerial alignments to allow access to a property or facility.
Vertical Circulation (e.g., stairs)	Partial Fee Simple	Area needed to bring passengers from the ground level to a station platform at an aerial (elevated) structure or to an underground station.
Property Encroachment	Full/Partial Fee Simple	Unauthorized use of private property. Resolution through boundary survey and potential relocation of use.
Access to a Residential or Non-Residential Use (driveway or road)	Full Fee Simple/ Permanent Easement	Permanent easement would be needed to provide residential units or non-residential uses access to a road; full acquisition may be required if reduced or restricted access would disrupt use of residences or non-residential uses.
Street/Intersection Improvements; Grade Crossing/Separation; Drainage and Utility Improvements	Partial/Full Fee Simple	Additional area/lanes required to maintain traffic volumes, turn lanes and sidewalk widths; additional area required to upgrade drainage facilities or to improve utility.
Station Entrance	Full Fee Simple/ Partial Fee Simple /Permanent Easement	Area needed to provide passenger access to a subsurface, at-grade, or aerial station.
Parking Facility	Partial/Full Fee Simple	Area required for station parking.
Operations Maintenance and Storage Facility	Partial/Full Fee Simple	Area required to perform maintenance activities.
TPSS and Ancillary Facilities	Partial/Full Fee Simple	TPSS's and ancillary facilities would be located within the station footprints. However, there might specific locations along the alignment where partial/full takes are needed to make sure that all required infrastructure would be in place to support the efficient operation of the Sepulveda rail line.

Source of Acquisition	Type of Acquisition	Cause/Process
Construction Activities	Temporary Construction Easements	Area used for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; property would be returned at the end of construction.
Construction Access, Staging and Laydown	Partial/Full Fee Simple	Area required for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; may be used for station parking or other permanent use after construction has been completed.

Source: HTA, 2024

ROW = right-of way

9.2.2 Full Acquisition

Full acquisition would require the use of an entire property. Full property acquisition would result in the purchase of an entire property by the Los Angeles County Metropolitan Transportation Authority (Metro) for the Project. Metro would purchase a "fee simple interest" of the property and become the owner of the property. Full acquisition would occur in instances where the Project would require the use of a significant portion of the property, including the physical structure or structures identified as the property's principal dwelling or business facility, permanently or for an extended period during construction. Full acquisition would also occur in cases where a property's physical structure or structures were not affected but another component critical to a property's intended use would be affected (such as a severe loss of parking or access that would reduce the useful operation of the property). Full property acquisition for Alternative 5 would be required for the following reasons:

- To provide adequate space for the alignment to transition from an aerial alignment to a subsurface alignment
- To construct and operate stations
- To construct and operate ancillary facilities and TPSS
- To construct and operate the MSF
- To accommodate construction access, staging, and laydown areas

9.2.3 Partial Acquisition

Partial acquisition would occur if the Project would use a portion of a given property but would not require the entirety of the property. Partial property acquisition means that only a portion of the property would be acquired, and the owner would retain the remaining portion of the property. Types of partial acquisition include partial "fee simple" acquisitions and various types of permanent and temporary easements. For a "fee simple" acquisition, Metro would purchase a "fee simple interest" for the portion of the property and would become owner for that portion of the property. A partial acquisition is also considered if the area required for the Project is not critical to the property's primary function as a residence or business, or if the remaining portion of the property could be reconfigured to continue serving its purpose without significant disruption to occupants. Partial property acquisitions would be required for Alternative 5 for the following reasons:

- To provide adequate ROW for the alignment

- To widen streets or intersections or to provide other street improvements due to inadequate ROW widths
- To provide utility and drainage improvements
- To provide adequate space for the alignment to transition from an aerial alignment to a subsurface alignment
- To construct and operate stations, ancillary facilities, TPSS, and MSF
- To accommodate construction access, staging, and laydown areas

9.2.4 Easement

An easement provides one party the right to use another party's property for a stated purpose. That property may be owned by a private person, business entity, or a group of owners and can involve a general or specific portion of the property. An easement can be at the surface, underground/subsurface (beneath a property), or aboveground (aerial) level and can be characterized as temporary (typically during construction) or permanent.

TCEs would be necessary if temporary rights are required from property owners for material storage, construction activities, or access. Depending on the size and location of the TCEs, they may or may not require the demolition of existing structures. If TCEs do not require demolition of existing structures, TCEs typically would not affect the primary function of the property. In these circumstances, the area may revert to its former use after construction activities have been completed. If TCEs require demolition of existing structures, the primary function of the property could be affected or may cause undue disruption to the occupants.

Underground/subsurface easements would be required during construction for tunneling and all underground facilities, including underground utilities and underground TPSS. The easement would be permanent since it would be required for the operations of an underground transit line once construction is completed. The underground/subsurface easement would not affect the primary function of the properties for Alternative 5 since the easements would be underground at a depth of between 40 to 80 feet below surface level and up to 500 feet below surface level through the Santa Monica Mountains. For properties with underground/subsurface easements, Alternative 5 does not involve any activities at the surface level or above grade that would affect the function of the properties. Permanent aerial easements would be used for the operation of an elevated transit line.

An easement is considered a partial property acquisition from the property owner. The purchase of an easement is accomplished through a one-time payment and the recording of an easement deed.

9.3 Impacts Evaluation

9.3.1 Permanent Acquisition and Displacement

9.3.1.1 Direct Impacts

Property acquisitions would be required for the following project components located outside of the public ROW:

- Aerial station areas
- MSF
- At-grade TPSS facilities that are outside of station areas

- Local street, utility, and drainage improvements

Partial acquisitions in the form of permanent aerial easements would be required to accommodate the aerial guideway beams and straddle bents. Partial acquisitions in the form of permanent subsurface easements would be required to accommodate the subsurface alignment, subsurface stations, and subsurface TPSS facilities. Subsurface easements would not result in property acquisition or displacement of businesses or residences. Partial fee simple acquisitions would be required for local street improvements that occur outside of the public ROW. Both full and partial fee simple acquisitions would be required for stations; MSF; and TPSS and ancillary facilities.

Table 9-7 summarizes the number of affected parcels and permanent acquisitions. It should be noted that some properties may contain multiple parcels. Appendix A of this report presents parcel-specific data and Appendix B provides figures that identify the parcels that would potentially be acquired along the alignment of Alternative 5. The mainline, stations, and associated facilities of Alternative 5 would require the permanent acquisition of approximately 469 parcels, of which 37 parcels would involve full fee simple acquisition, 27 parcels would involve partial fee simple acquisition, and 415 parcels would have subsurface easements. Some parcels would involve multiple acquisition types (e.g., partial fee simple acquisition and aerial easement, or partial fee simple acquisition and subsurface easement). Although Alternative 5 would acquire aerial easements over portions of the LOSSAN rail corridor ROW, the freight tracks and the Metrolink Ventura County Line in the rail ROW are active and would remain active during operations of Alternative 5. Property acquisition would primarily affect commercial, industrial, and residential properties.

The Alternative 5 MSF would require the permanent full fee simple acquisition of two industrial parcels and one institutional/public facility parcel.

Overall, Alternative 5 with the MSF would result in 40 parcels with full fee simple acquisitions, 27 parcels with partial fee simple acquisitions, and 415 parcels with subsurface easements.

Table 9-7. Alternative 5: Permanent Property Acquisition

Land Use	Full Fee Simple Acquisition (No. of Parcels)	Partial Fee Simple Acquisition (No. of Parcels)	Subsurface Easement (No. of Parcels)
Mainline, Stations, and Associated Facilities except MSF			
Commercial	26	19	41
Industrial	9	2	14
Mixed-Use	1	0	0
Institutional/Public Facilities	0	5	5
Parks/Recreation	0	0	3
Vacant/Undeveloped Open Space	1	0	16
Multi-Family Residential	0	1	68
Single-Family Residential	0	0	268
Subtotal	**37**	**27**	**415**
MSF			
Industrial	2	0	0
Institutional/Public Facilities	1	0	0
Subtotal	**3**	**0**	**0**
Total - Alternative 5 with MSF	**40**	**27**	**415**

Source: STCP, 2024

Note: Multi-family residential properties with condominiums are counted as one parcel.

Non-residential and residential displacements would occur to accommodate project components. Property displacements are determined by evaluating the extent to which Alternative 5 would affect existing properties and identifying those properties where the current use would not be possible if Alternative 5 is constructed. Elements associated with Alternative 5 that were evaluated include direct effects on structures, assessment of property-specific elements (i.e., available parking, access to and traffic circulation within the property, and other aspects specific to the type of business and residential unit affected), and components that may disrupt a business' ability to conduct its primary function after implementation of Alternative 5.

Permanent jobs may be lost as a result of the relocation. Metro will work with specialty businesses (e.g., businesses that cater to the local community or need a particular location to operate) to understand their specific relocation needs and provide them with information on available replacement sites, financial assistance, and other advisory assistance. Metro will work with these businesses as early in the process as possible to allow them additional lead time.

Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions would not be required to relocate. However, these affected residents may make a case that the remaining property is no longer compatible with their intended use and may choose to relocate, which may result in the need to relocate some residents.

Metro would compensate owners at fair market value to purchase the required property and would also need to compensate owners for damage to the remainder property. Metro would provide displaced businesses and residents relocation assistance and benefits for which the displacee is eligible.

Table 9-8 summarizes the number of potential non-residential uses and residences that would be permanently displaced as a result of Alternative 5. The mainline, stations, and associated facilities (without the MSF) for Alternative 5 would permanently displace 106 commercial and industrial businesses and 34 multi-family residential units. Overall, Alternative 5 with the MSF would permanently displace a total of approximately 107 commercial and industrial businesses, one institutional/public facility, and 34 residential units. One specialty business (a structure with restaurants and the UCLA Extension) would be relocated for the alignment. The MSF would displace two specialty businesses (a City of Los Angeles Department of Water and Power maintenance yard and a car auction business). Based on the City's average household size of 2.7 persons per household for renter-occupied units (US Census, 2021), approximately 92 people would be permanently displaced as a result of Alternative 5.

Table 9-8. Alternative 5: Non-Residential and Residential Unit Displacement

Land Use	Number of Non-Residential/Residential Units Displaced
Mainline, Stations, and Associated Facilities except MSF	
Commercial	86
Industrial	18
Mixed-Use	2 businesses 34 residential units
Subtotal	**140**
MSF	
Industrial	1

Land Use	Number of Non-Residential/Residential Units Displaced
Institutional/Public Facilities	1
Subtotal	**2**
Total – Alternative 5 with MSF	**142**

Source: STCP, 2024

Where acquisition and relocation are unavoidable, Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Real property acquired by Metro for Alternative 5 would be appraised to determine its fair market value. Just compensation, which shall not be less than the amount determined by an approved appraisal, would be offered by Metro. Each homeowner, renter, business, or nonprofit organization displaced as a result of Alternative 5 would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property.

The Project Study Area is urbanized with a number of existing buildings for sale or lease. According to CBRE Research, as of the 4th quarter of 2024 there was approximately 2.5 million square feet of industrial space (building square footage ranging from 10,000 to 100,000 square feet) available in the East San Fernando Valley market with an overall vacancy rate of 2.1 percent (CBRE, 2025a). Retail space availability in the 3rd quarter of 2024 was approximately 8.7 percent for the Westside market and 4.7 percent for the San Fernando Valley market (CBRE, 2024). Office space vacancy and availability is high throughout Los Angeles County which had a 24.4 percent vacancy rate as of the 4th quarter of 2024 (CBRE, 2025b). Given the availability of existing buildings/structures and non-residential properties, it is expected that most of the businesses that would be displaced as a result of Alternative 5 would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. Similarly, it is expected that most of the residential units that would be displaced would be relocated to existing residential units in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse indirect impacts related to acquisitions and displacements are not anticipated for Alternative 5.

9.3.1.2 Indirect Impacts

Alternative 5 would introduce new visual elements, generate long-term localized pollutant emissions, and increase noise levels that could potentially disrupt businesses or residents in the Resource Study Area for visual, air quality, and noise. Alternative 5 would also potentially alter access and circulation in the Resource Study Area for transportation through sidewalk and roadway modifications. The environmental impacts associated with visual, air quality, noise, and transportation are discussed in the respective technical reports for those disciplines prepared for the Sepulveda Transit Corridor Project and described in the DEIR. Changes resulting from Alternative 5 that may influence voluntary relocation by businesses or residents would not cause any physical changes in the environment and do not require any mitigation beyond those identified for each environmental discipline and described in the DEIR for the Sepulveda Transit Corridor Project.

9.3.2 Temporary Acquisition for Construction

9.3.2.1 Direct Impacts

Constructing Alternative 5 would involve the following:

- Site preparation and demolition of structures
- Utility relocation
- Tunneling and cut-and-cover activities
- Soil relocation
- Construction of the aerial and subsurface alignments, stations, MSF, TPSS, auxiliary facilities, and parking facilities
- Street widening
- Street and sidewalk reconstruction

Some parcels that would be permanently acquired for the operations of Alternative 5 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Depending on the location and size of the TCEs, existing structures on parcels could either remain in place or be demolished. For parcels where structures would be demolished, existing non-residential uses and residents would be relocated. For parcels where structures would not be demolished, non-residential uses could temporarily be displaced during construction, but no permanent displacement would occur. These parcels would be returned to pre-construction conditions once construction is completed. Generally, parcels that would be used for construction access, staging, and laydown would be permanently acquired and, thus, these parcels would not be returned to pre-construction conditions once construction is completed. Although Alternative 5 would require the use of four residential parcels along the mainline for construction, only a portion of the residential parcels would be affected. No structures on these residential parcels would be demolished and the function of these residential parcels would not change.

Table 9-9 summarizes the types of parcels that would be affected by construction of Alternative 5. A total of 58 parcels along the mainline would be used for construction purposes. Of the 58 parcels that would be acquired along the mainline, 26 parcels would be permanently acquired as partial fee simple acquisition and/or easement, and 32 parcels would only be used as TCEs (with no permanent fee simple acquisition and/or easement). The 32 parcels that would be temporarily acquired would be returned to the owner once construction is completed. Section 9.3.1 discusses how Alternative 5 would affect the 26 parcels that would be permanently acquired for the mainline.

Parcels that would be temporarily acquired (e.g., for TCEs) and permanently acquired e.g., a parcel would be used for TCE or construction staging and laydown during construction, and would be used as an easement for the alignment or a station during operations) would be appraised to determine the fair market value of the portion that would be used temporarily during construction, and just compensation not less than the amount recommended/determined by an approved appraisal would be offered by Metro to each property owner.

Construction of Alternative 5 would displace 10 commercial businesses and two industrial business. Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act

of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Each business displaced as a result of Alternative 5 construction would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property. It is expected that most of the non-residential uses that would be displaced as a result of Alternative 5 construction would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse construction impacts related to temporary acquisitions and displacements are not anticipated for Alternative 5.

Table 9-9. Alternative 5: Parcels to be Used During Construction

Land Use	Permanent Acquisition (Fee Simple and/or Easement)[a]	Temporary Construction Easement[b]
Commercial	15	17
Industrial	5	8
Institutional/Public Facilities	5	0
Transportation-Related (Railroad)	0	2
Vacant/Undeveloped Open Space	0	3
Multi-Family Residential	1	2
Subtotal	**26**	**32**

Source: LASRE, 2024

[a]Parcels that would be permanently acquired for Alternative 5 operations and also be used during construction, such as for access, staging, and/or laydown.

[b]Parcels that would only be temporarily acquired to be used during construction.

9.3.2.2 Indirect Impacts

Construction of Alternative 5 would temporarily change the visual quality and character, generate localized pollutant emissions, increase noise and vibration levels, and alter pedestrian and vehicular access in the Resource Study Area for visual, air quality, noise and vibration, and transportation; however, these changes are not expected to require additional residential or business displacements beyond those identified in the preceding section. Construction related disruptions would be temporary and measures would be implemented to reduce the effects of construction activities on nearby businesses and residents.

9.3.3 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

9.3.3.1 Permanent Impacts

Property acquisitions would occur prior to the construction and operations of Alternative 5. Alternative 5 would require the permanent acquisition (i.e., full fee simple acquisition, partial fee simple acquisition, aerial easement, surface easement, and/or subsurface easement) of one mixed-use development, 69 multi-family residential parcels and 268 single-family residential parcels. Approximately 34 multi-family residential units and no single-family residential units would be permanently displaced. Based on an average household size of 2.7 persons per household for renter-occupied units in the City of Los

Angeles, approximately 92 people would be permanently displaced as a result of Alternative 5. Metro would compensate owners at fair market value to purchase the required property. In the case of partial acquisitions, Metro would compensate owners if damages are incurred to the remainder property. Residents of properties that would be fully acquired by Metro would need to be relocated. Residents of parcels affected by partial acquisitions may make a case that the remainder property is no longer compatible with their intended use.

Metro would provide relocation assistance and compensation for displaced residents as required by the Uniform Act and California Relocation Act. Where acquisitions and relocation are unavoidable, Metro would follow the provisions of both Acts, as amended. As discussed in the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* (Metro, 2025d), current developments in the Project Study Area are anticipated to construct over 23,100 new housing units. Furthermore, various State, regional, and local policies and programs such as the 2023 Legislative Housing Package and the City's 2021-2029 Housing Element are aimed and increasing available housing stock to address the State's housing shortage. Working towards the RHNA target of 456,643 new housing units, the City of Los Angeles anticipates construction of 310,000 new housing units between 2021 and 2029. The 2025 wildfires may affect the short-term availability of replacement housing as it is anticipated that there will be increased demand for housing in the region while homes in the affected areas are rebuilt. Despite this increase in demand, there would still be adequate and comparable replacement housing available to displaced residents considering that the right of way acquisitions for the Project would take place over multiple years of project development. it is anticipated that the relocation process is expected to be implemented over multiple years in a carefully phased manner, thereby minimizing disruptions to the local housing marking and providing adequate time for Metro's real estate specialists to work closely with displaced residents to secure fair, equitable, and suitable relocation options. Therefore, in full compliance with the Uniform Act and the California Relocation Act, impacts related to the displacement of residential units and its occupants that would necessitate the construction of replacement units would be less than significant.

9.3.3.2 Temporary (Construction) Impacts

Construction of Alternative 5 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; construction of the aerial and subsurface alignments, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 5 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as TCEs.

Construction of Alternative 5 would not displace any residential units. Therefore, no impact would occur during construction.

9.3.3.3 Maintenance and Storage Facility

As listed in Table 9-7, the MSF would not require the acquisition or displacement of any residential property. Therefore, the MSF would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF would have no impact.

9.4 Mitigation Measures

9.4.1 Permanent Impacts

No mitigation measures are required.

9.4.2 Temporary (Construction) Impacts

No mitigation measures are required.

9.4.3 Impacts After Mitigation

No mitigation measures are required; permanent impacts are less than significant, and no temporary (construction) impacts would occur.

10 ALTERNATIVE 6

10.1 Alternative Description

Alternative 6 is a heavy rail transit (HRT) system with an underground track configuration. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 12.9 miles.

The seven underground HRT stations would be as follows:

1. Metro E Line Expo/Bundy Station (underground)
2. Santa Monica Boulevard Station (underground)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Ventura Boulevard/Van Nuys Boulevard Station (underground)
6. Metro G Line Van Nuys Station (underground)
7. Van Nuys Metrolink Station (underground)

10.1.1 Operating Characteristics

10.1.1.1 Alignment

As shown on Figure 10-1, from its southern terminus station at the Metro E Line Expo/Bundy Station, the alignment of Alternative 6 would run underground through the Westside of Los Angeles (Westside), the Santa Monica Mountains, and the San Fernando Valley (Valley) to the alignment's northern terminus adjacent to the Van Nuys Metrolink/Amtrak Station.

The proposed southern terminus station would be located beneath the Bundy Drive and Olympic Boulevard intersection. Tail tracks for vehicle storage would extend underground south of the station along Bundy Drive for approximately 1,500 feet, terminating just north of Pearl Street. The alignment would continue north beneath Bundy Drive before turning to the east near Iowa Avenue to run beneath Santa Monica Boulevard. The Santa Monica Boulevard Station would be located between Barrington Avenue and Federal Avenue. After leaving the Santa Monica Boulevard Station, the alignment would turn to the northeast and pass under Interstate 405 (I-405) before reaching the Wilshire Boulevard/Metro D Line Station beneath the Metro D Line Westwood/UCLA Station, which is currently under construction as part of the Metro D Line Extension Project. From there, the underground alignment would curve slightly to the northeast and continue beneath Westwood Boulevard before reaching the UCLA Gateway Plaza Station.

Figure 10-1. Alternative 6: Alignment

Source: HTA, 2024

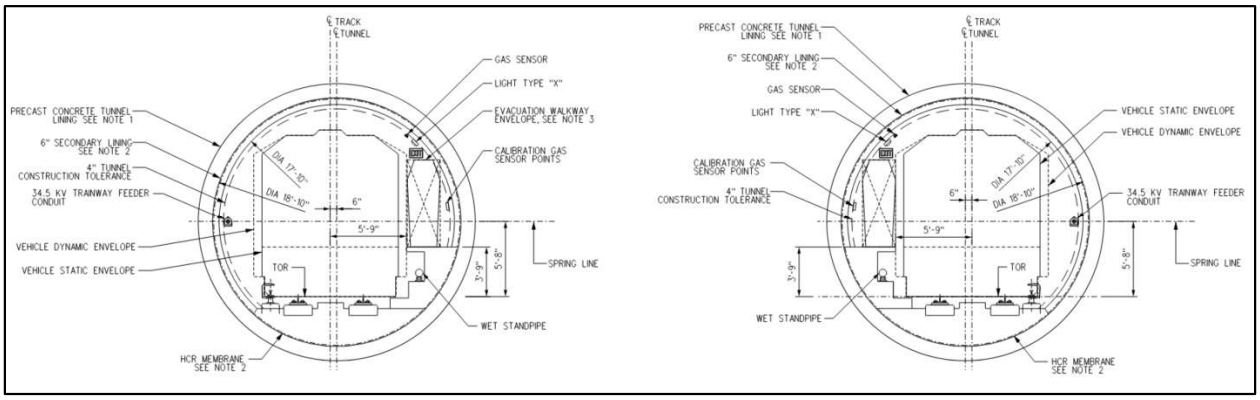
After leaving the UCLA Gateway Plaza Station, the alignment would continue to the north and travel under the Santa Monica Mountains. While still under the mountains, the alignment would shift slightly to the west to travel under the City of Los Angeles Department of Water and Power (LADWP) Stone Canyon Reservoir property to facilitate placement of a ventilation shaft on that property east of the reservoir. The alignment would then continue to the northeast to align with Van Nuys Boulevard at Ventura Boulevard as it enters the San Fernando Valley. The Ventura Boulevard Station would be beneath Van Nuys Boulevard at Moorpark Street. The alignment would then continue under Van Nuys

Boulevard before reaching the Metro G Line Van Nuys Station just south of Oxnard Street. North of the Metro G Line Van Nuys Station, the alignment would continue under Van Nuys Boulevard until reaching Sherman Way, where it would shift slightly to the east and run parallel to Van Nuys Boulevard before entering the Van Nuys Metrolink Station. The Van Nuys Metrolink Station would serve as the northern terminus station and would be located between Saticoy Street and Keswick Street. North of the station, a yard lead would turn sharply to the southeast and transition to an at-grade configuration and continue to the proposed maintenance and storage facility (MSF) east of the Van Nuys Metrolink Station.

10.1.1.2 Guideway Characteristics

The alignment of Alternative 6 would be underground using Metro's standard twin-bore tunnel design. Figure 10-2 shows a typical cross-section of the underground guideway. Cross-passages would be constructed at regular intervals in accordance with Metro Rail Design Criteria (MRDC). Each of the tunnels would have a diameter of 19 feet (not including the thickness of wall). Each tunnel would include an emergency walkway that measures a minimum of 2.5 feet wide for evacuation.

Figure 10-2. Typical Underground Guideway Cross-Section



Source: HTA, 2024

10.1.1.3 Vehicle Technology

Alternative 6 would utilize driver-operated steel-wheel HRT trains, as used on the Metro B and D Lines, with planned peak headways of 4 minutes and off-peak-period headways ranging from 8 to 20 minutes. Trains would consist of four or six cars and are expected to consist of six cars during the peak period. The HRT vehicle would have a maximum operating speed of 67 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations. Train cars would be 10.3 feet wide with three double doors on each side. Each car would be approximately 75 feet long with capacity for 133 passengers. Trains would be powered by a third rail.

10.1.1.4 Stations

Alternative 6 would include seven underground stations with station platforms measuring 450 feet long. The southern terminus underground station would be adjacent to the existing Metro E Line Expo/Bundy Station, and the northern terminus underground station would be located south of the existing Van Nuys Metrolink/Amtrak Station. Except for the Wilshire Boulevard/Metro D Line, UCLA Gateway Plaza, and Metro G Line Van Nuys Stations, all stations would have a 30-foot-wide center platform. The Wilshire/Metro D Line Station would have a 32-foot-wide platform to accommodate the anticipated passenger transfer volumes, and the UCLA Gateway Plaza Station would have a 28-foot-wide platform because of the width constraint between the existing buildings. At the Metro G Line Van Nuys Station,

the track separation would increase significantly in order to straddle the future East San Fernando Valley Light Rail Transit Line Station piles. The platform width at this station would increase to 58 feet.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Bundy Station

- This underground station would be located under Bundy Drive at Olympic Boulevard.
- Station entrances would be located on either side of Bundy Drive between the Metro E Line and Olympic Boulevard, as well as on the northeast corner of Bundy Drive and Mississippi Avenue.
- At the existing Metro E Line Expo/Bundy Station, escalators from the plaza to the platform level would be added to improve inter-station transfers.
- An 80-space parking lot would be constructed east of Bundy Drive and north of Mississippi Avenue. Passengers would also be able to park at the existing Metro E Line Expo/Bundy Station parking facility, which provides 217 parking spaces.

Santa Monica Boulevard Station

- This underground station would be located under Santa Monica Boulevard between Barrington Avenue and Federal Avenue.
- Station entrances would be located on the southwest corner of Santa Monica Boulevard and Barrington Avenue and on the southeast corner of Santa Monica Boulevard and Federal Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located under Gayley Avenue between Wilshire Boulevard and Lindbrook Drive.
- A station entrance would be provided on the northwest corner of Midvale Avenue and Ashton Avenue. Passengers would also be able to use the Metro D Line Westwood/UCLA Station entrances to access the station platform.
- Direct internal station transfers to the Metro D Line would be provided at the south end of the station.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located underneath Gateway Plaza on the University of California, Los Angeles (UCLA) campus.
- Station entrances would be provided on the north side of Gateway Plaza, north of the Luskin Conference Center, and on the east side of Westwood Boulevard across from Strathmore Place.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Van Nuys Boulevard Station

- This underground station would be located under Van Nuys Boulevard at Moorpark Street.
- The station entrance would be located on the northwest corner of Van Nuys Boulevard and Ventura Boulevard.
- Two parking lots with a total of 185 parking spaces would be provided on the west side of Van Nuys Boulevard between Ventura Boulevard and Moorpark Street.

Metro G Line Van Nuys Station

- This underground station would be located under Van Nuys Boulevard south of Oxnard Street.
- The station entrance would be located on the southeast corner of Van Nuys Boulevard and Oxnard Street.
- Passengers would be able to park at the existing Metro G Line Van Nuys Station parking facility, which provides 307 parking spaces. No additional automobile parking would be provided at the proposed station.

Van Nuys Metrolink Station

- This underground station would be located immediately east of Van Nuys Boulevard between Saticoy Street and Keswick Street.
- Station entrances would be located on the northeast corner of Van Nuys Boulevard and Saticoy Street and on the east side of Van Nuys Boulevard just south of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor.
- Existing Metrolink Station parking would be reconfigured, maintaining approximately the same number of spaces. Metrolink parking would not be available to Metro transit riders.

10.1.1.5 Station-to-Station Travel Times

Table 10-1 presents the station-to-station distance and travel times for Alternative 6. The travel times include both run time and dwell time. Dwell time is 30 seconds for stations anticipated to have higher passenger volumes and 20 seconds for other stations. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 10-1. Alternative 6: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*20*
Metro E Line	Santa Monica Boulevard	1.1	111	121	—
Santa Monica Boulevard Station					*20*
Santa Monica Boulevard	Wilshire/Metro D Line	1.3	103	108	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.7	69	71	—
UCLA Gateway Plaza Station					*30*
UCLA Gateway Plaza	Ventura Boulevard	5.9	358	358	—

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Ventura Boulevard Station					*20*
Ventura Boulevard	Metro G Line	1.8	135	131	—
Metro G Line Station					*30*
Metro G Line	Van Nuys Metrolink	2.1	211	164	—
Van Nuys Metrolink Station					*30*

Source: HTA, 2024

— = no data

10.1.1.6 Special Trackwork

Alternative 6 would include seven double crossovers within the revenue service alignment, enabling trains to cross over to the parallel track with terminal stations having an additional double crossover beyond the end of the platform.

10.1.1.7 Maintenance and Storage Facility

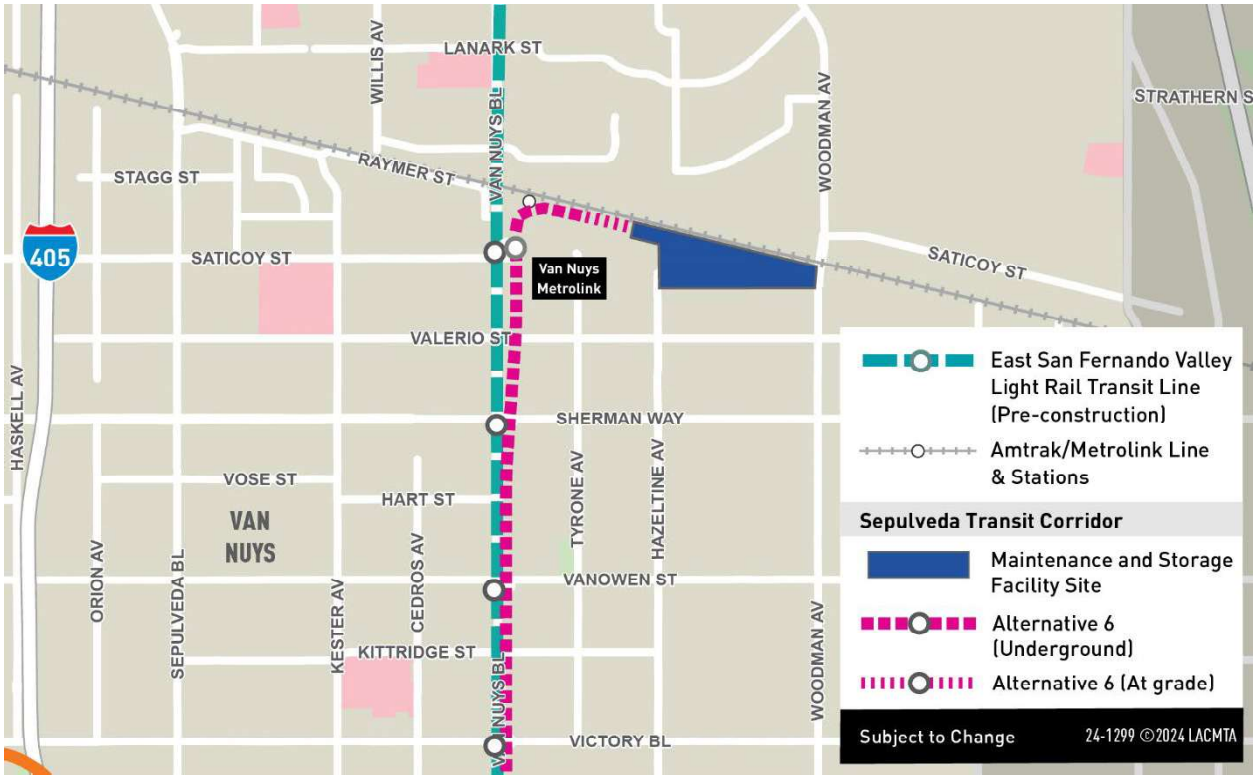
The MSF for Alternative 6 would be located east of the Van Nuys Metrolink Station and would encompass approximately 41 acres. The MSF would be designed to accommodate 94 vehicles and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue to the east, and Hazeltine Avenue and industrial manufacturing enterprises to the west. Heavy rail trains would transition from underground to an at-grade configuration near the MSF, the northwest corner of the site. Trains would then travel southeast to maintenance facilities and storage tracks.

The site would include the following facilities:

- Two entrance gates with guard shacks
- Maintenance facility building
- Maintenance-of-way facility
- Storage tracks
- Carwash
- Cleaning platform
- Administrative offices
- Pedestrian bridge connecting the administrative offices to employee parking
- Two traction power substations (TPSS)

Figure 10-3 shows the location of the MSF for Alternative 6.

Figure 10-3. Alternative 6: Maintenance and Storage Facility Site



Source: HTA, 2024

10.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. Twenty-two TPSS facilities would be located along the alignment and would be spaced approximately 1 mile apart except within the Santa Monica Mountains. Each at-grade TPSS along the alignment would be approximately 5,000 square feet. Table 10-2 lists the TPSS locations for Alternative 6.

Figure 10-4 shows the TPSS locations along the Alternative 6 alignment.

Table 10-2. Alternative 6: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1 and 2	TPSSs 1 and 2 would be located immediately north of the Bundy Drive and Mississippi Avenue intersection.	Underground (within station)
3 and 4	TPSSs 3 and 4 would be located east of the Santa Monica Boulevard and Stoner Avenue intersection.	Underground (within station)
5 and 6	TPSSs 5 and 6 would be located southeast of the Kinross Avenue and Gayley Avenue intersection.	Underground (within station)
7 and 8	TPSSs 7 and 8 would be located at the north end of the UCLA Gateway Plaza Station.	Underground (within station)
9 and 10	TPSSs 9 and 10 would be located east of Stone Canyon Reservoir on LADWP property.	At-grade
11 and 12	TPSSs 11 and 12 would be located at the Van Nuys Boulevard and Ventura Boulevard intersection.	Underground (within station)
13 and 14	TPSSs 13 and 14 would be located immediately south of Magnolia Boulevard and west of Van Nuys Boulevard.	At-grade
15 and 16	TPSSs 15 and 16 would be located along Van Nuys Boulevard between Emelita Street and Califa Street.	Underground (within station)
17 and 18	TPSSs 17 and 18 would be located east of Van Nuys Boulevard and immediately north of Vanowen Street.	At-grade
19 and 20	TPSSs 19 and 20 would be located east of Van Nuys Boulevard between Saticoy Street and Keswick Street.	Underground (within station)
21 and 22	TPSSs 21 and 22 would be located south of the Metrolink tracks and east of Hazeltine Avenue.	At-grade (within MSF)

Source: HTA, 2024

Figure 10-4. Alternative 6: Traction Power Substation Locations

Source: HTA, 2024

10.1.1.9 Roadway Configuration Changes

In addition to the access road described in the following section, Alternative 6 would require reconstruction of roadways and sidewalks near stations.

10.1.1.10 Ventilation Facilities

Tunnel ventilation for Alternative 6 would be similar to existing Metro ventilation systems for light and heavy rail underground subways. In case of emergency, smoke would be directed away from trains and extracted through the use of emergency ventilation fans installed at underground stations and crossover locations adjacent to the stations. In addition, a mid-mountain facility located on LADWP property east of Stone Canyon Reservoir in the Santa Monica Mountains would include a ventilation shaft for the extraction of air, along with two TPSSs. An access road from the Stone Canyon Reservoir access road would be constructed to the location of the shaft, requiring grading of the hillside along its route.

10.1.1.11 Fire/Life Safety – Emergency Egress

Each tunnel would include an emergency walkway that measures a minimum of 2.5 feet wide for evacuation. Cross-passages would be provided at regular intervals to connect the two tunnels to allow for safe egress to a point of safety (typically at a station) during an emergency. Access to tunnel segments for first responders would be through stations.

10.1.2 Construction Activities

Temporary construction activities for Alternative 6 would include construction of ancillary facilities, as well as guideway and station construction and construction staging and laydown areas, which would be co-located with future MSF and station locations. Construction of the transit facilities through substantial completion is expected to have a duration of 7½ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

For the guideway, twin-bore tunnels would be constructed using two tunnel boring machines (TBM). The tunnel alignment would be constructed over three segments—including the Westside, Santa Monica Mountains, and Valley—using a different pair of TBMs for each segment. For the Westside segment, the TBMs would be launched from the Metro E Line Station and retrieved at the UCLA Gateway Plaza Station. For the Santa Monica Mountains segment, the TBMs would operate from the Ventura Boulevard Station in a southerly direction for retrieval from UCLA Gateway Plaza Station. In the Valley, TBMs would be launched from the Van Nuys Metrolink Station and retrieved at the Ventura Boulevard Station.

The distance from the surface to the top of the tunnels would vary from approximately 50 feet to 130 feet in the Westside, between 120 feet and 730 feet in the Santa Monica Mountains, and between 40 feet and 75 feet in the Valley.

Construction work zones would also be co-located with future MSF and station locations. All work zones would comprise the permanent facility footprint with additional temporary construction easements from adjoining properties. In addition to permanent facility locations, TBM launch at the Metro E Line Station would require the closure of I-10 westbound off-ramps at Bundy Drive for the duration of the Sepulveda Transit Corridor Project (Project) construction.

Alternative 6 would include seven underground stations. All stations would be constructed using a “cut-and-cover” method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures have been taken to resume cross traffic. In addition, portions of the Wilshire Boulevard/Metro D Line Station crossing underneath the Metro D Line Westwood/UCLA Station and underneath a mixed-use building at the north end of the station would be

constructed using sequential excavation method as it would not be possible to excavate the station from the surface.

Construction of the MSF site would begin with demolition of existing structures, followed by earthwork and grading. Building foundations and structures would be constructed, followed by yard improvements and trackwork, including paving, parking lots, walkways, fencing, landscaping, lighting, and security systems. Finally, building mechanical, electrical, and plumbing systems, finishes, and equipment would be installed. The MSF site would also be used as a staging site.

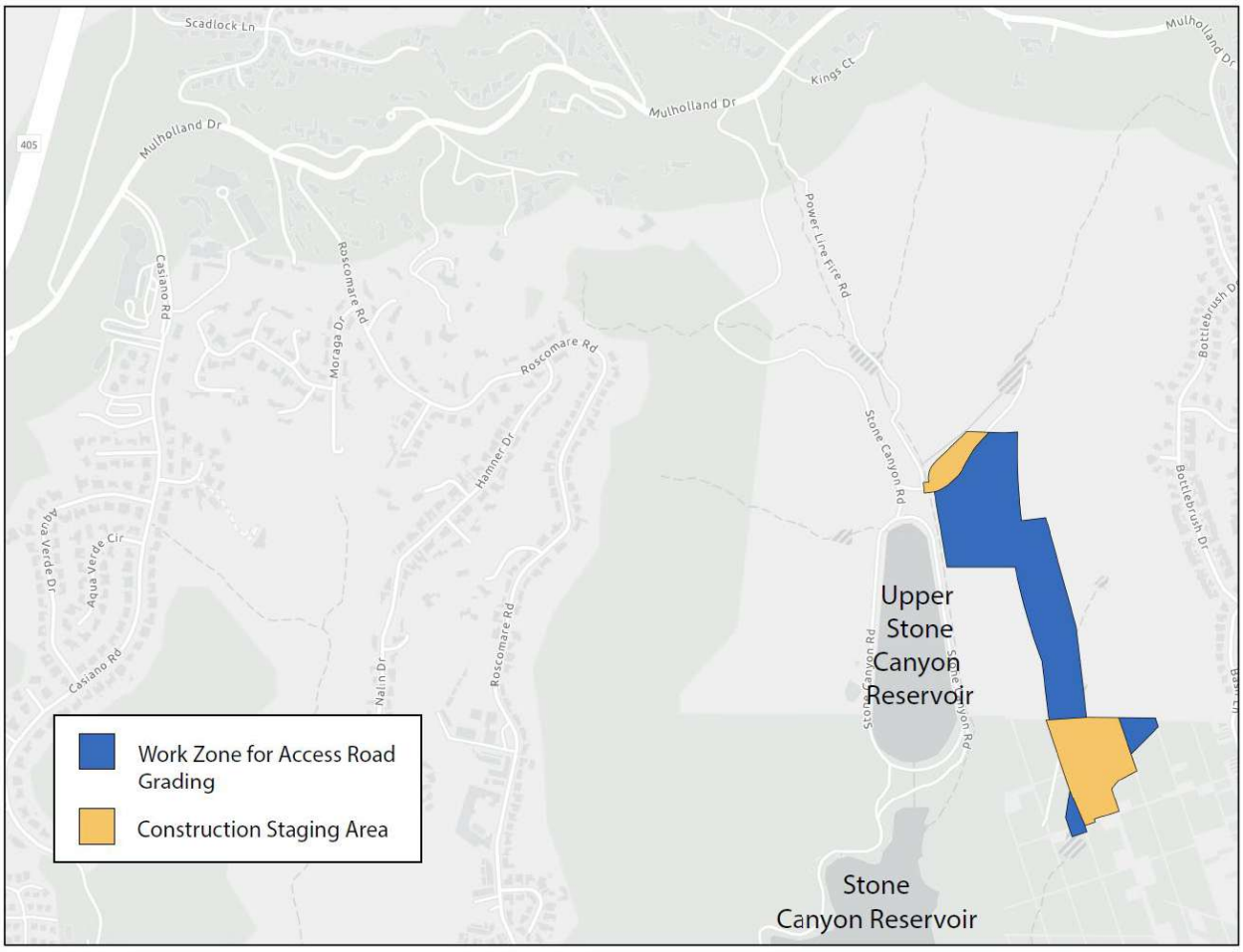
Station and MSF sites would be used for construction staging areas. A construction staging area, shown on Figure 10-5, would also be located off Stone Canyon Road northeast of the Upper Stone Canyon Reservoir. In addition, temporary construction easements outside of the station and MSF footprints would be required along Bundy Drive, Santa Monica Boulevard, Wilshire Boulevard, and Van Nuys Boulevard. The westbound to southbound loop off-ramp of the I-10 interchange at Bundy Drive would also be used as a staging area and would require extended ramp closure. Construction staging areas would provide the necessary space for the following activities:

- Contractors' equipment
- Receiving deliveries
- Testing of soils for minerals or hazards
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

The size of proposed construction staging areas for each station would depend on the level of work to be performed for a specific station and considerations for tunneling, such as TBM launch or extraction. Staging areas required for TBM launching would include areas for launch and access shafts, cranes, material and equipment, precast concrete segmental liner storage, truck wash areas, mechanical and electrical shops, temporary services, temporary power, ventilation, cooling tower, plants, temporary construction driveways, storage for spoils, and space for field offices.

Alternative 6 would also include several ancillary facilities and structures, including TPSS structures, a deep vent shaft structure at Stone Canyon Reservoir, as well as additional vent shafts at stations and crossovers. TPSSs would be co-located with MSF and station locations, except for two TPSSs at the Stone Canyon Reservoir vent shaft and four along Van Nuys Boulevard in the Valley. The Stone Canyon Reservoir vent shaft would be constructed using a vertical shaft sinking machine that uses mechanized shaft sinking equipment to bore a vertical hole down into the ground. Operation of the machine would be controlled and monitored from the surface. The ventilation shaft and two TPSSs in the Santa Monica Mountains would require an access road within the LADWP property at Stone Canyon Reservoir. Construction of the access road would require grading east of the reservoir. Construction of all mid-mountain facilities would take place within the footprint shown on Figure 10-5.

Figure 10-5. Alternative 6: Mid-Mountain Construction Staging Site



Source: HTA, 2024

Alternative 6 would utilize precast tunnel lining segments in the construction of the transit tunnels. These tunnel lining segments would be similar to those used in recent Metro underground transit projects. Therefore, it is expected that the tunnel lining segments would be obtained from an existing casting facility in Los Angeles County and no additional permits or approvals would be necessary specific to the facility.

10.2 Existing Conditions

The Project Study Area is approximately 68 square miles and consists of a variety of urban land uses, including commercial uses (e.g., offices, retail, restaurants, gas stations, automotive sales, and fitness centers), industrial uses (e.g., manufacturing, distributers, and automotive repair shops), residential uses (single- and multi-family), parks and recreational facilities (e.g., parks and golf course), institutional facilities (e.g., religious facilities and schools), and public facilities (e.g., government facilities). The Project Study Area also has several vacant parcels in the commercial and residential areas, as well as undeveloped open space. Undeveloped open space areas are generally located in the Bel Air and Beverly Glen communities and in the southern portion of the Sherman Oaks community.

Land use adjacent to Alternative 6 at the northern end of the alignment (from the northern terminus at the proposed MSF at Woodman Avenue to Van Nuys Boulevard) consists of a mix of industrial and public facilities. Freight tracks and the Metrolink Ventura County Line within the LOSSAN rail corridor ROW parallel the alignment of Alternative 6 between the northern terminus and Van Nuys Boulevard. From the rail ROW to Dickens Street, land use consists of primarily commercial uses with a limited amount of light industrial uses, multi-family residential uses, mixed-use development, medical facilities, and public facilities. From Dickens Street to Sunset Boulevard, land uses transition from primarily multi-family residential uses near Dickens Street to primarily low-density single-family residential uses and undeveloped hillsides. The Stone Canyon Reservoir is located in this area. A recreational use is located closer to Sunset Boulevard. From Sunset Boulevard to Le Conte Avenue, adjacent land uses include a high school and uses that are associated with UCLA. These uses include, but are not limited to, facilities associated with the Anderson School of Management, John Wooden Center, Henry Samueli School of Engineering, the Ronald Regan UCLA Medical Center, UCLA Medical Plaza, and other medical-related facilities and research centers. From Le Conte Avenue to Exposition Boulevard, uses include a mix of commercial uses (primarily small-scale retail, and a few mid-size retail and office buildings), mixed-use development, multi-family residential uses, public facilities, and recreational facilities. From Exposition Boulevard to the southern terminus at the Bundy Drive/Pearl Street intersection, land uses adjacent to the alignment of Alternative 6 consist of primarily single-family residential uses with commercial uses along Pico Boulevard.

10.2.1 Typical Types of Property Acquisitions and Displacements

The Project would affect existing properties and result in property acquisitions and displacements. The parcels acquired for the Project would involve either a full or partial acquisition. Full acquisition for the Project would involve fee simple acquisitions, which consist of a complete transfer of ownership rights. In a fee simple acquisition, the buyer has full and irrevocable ownership of land and any buildings on it. Partial acquisition for the Project would involve either fee simple acquisitions or easements. Property acquisitions may be phased over time depending on Project funding and construction phasing, methods, and schedule. Table 10-3 summarizes typical causes of property acquisitions and displacement that could occur as a result of Alternative 6.

Table 10-3. Alternative 6: Typical Causes of Property Acquisition and Displacement

Source of Acquisition	Type of Acquisition	Cause/Process
Horizontal Alignment	Full/Partial Fee Simple	Insufficient existing ROW for construction and operation.
Subsurface Alignment	Permanent Easement	A condition for a non-exclusive access agreement or easement (either permanent or temporary) for subsurface alignment to allow access to a property or facility.
Vertical Circulation (e.g., stairs)	Partial Fee Simple	Area needed to bring passengers from the ground level to a station platform at an underground station.
Property Encroachment	Full/Partial Fee Simple	Unauthorized use of private property. Resolution through boundary survey, full or partial acquisition, and potential relocation of use.
Access to a Residential or Non-Residential Use (driveway or road)	Full Fee Simple/ Permanent Easement	Permanent easement would be needed to provide residential units or non-residential uses access to a road; full acquisition may be required if reduced or restricted access would disrupt use of residences or non-residential uses.
Street/Intersection Improvements; Grade Crossing/Separation; Drainage and Utility Improvements	Partial/Full Fee Simple	Additional area/lanes required to maintain traffic volumes, turn lanes and sidewalk widths; additional area required to upgrade drainage facilities or to improve utility.
Station Entrance	Full Fee Simple/ Partial Fee Simple/ Permanent Easement	Area needed to provide passenger access to a subsurface or at-grade station.
Parking Facility	Partial/Full Fee Simple	Area required for station parking.
Operations Maintenance and Storage Facility	Partial/Full Fee Simple	Area required to perform maintenance activities.
TPSS and Ancillary Facilities	Partial/Full Fee Simple	Area required for TPSS sites and ancillary facilities.
Construction Activities	Temporary Construction Easements	Area used for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; property would be returned at the end of construction.
Construction Access, Staging and Laydown	Partial/Full Fee Simple	Area required for staging materials and equipment, as well as cut-and-cover and tunneling activities, during the construction period; would be used for station parking or other permanent use after construction has been completed.

Source: HTA, 2024

ROW = right-of-way

10.2.2 Full Acquisition

Full acquisition would require the use of an entire property. Full property acquisition would result in the purchase of an entire property by the Los Angeles County Metropolitan Transportation Authority (Metro) for the Project. Metro would purchase a “fee simple interest” of the property and become the owner of the property. Full acquisition would occur in instances where the Project would require the use of a significant portion of the property, including the physical structure or structures identified as the property’s principal dwelling or business facility, permanently or for an extended period during construction. Full acquisition would be required for Alternative 6 in cases where a property’s physical

structure or structures were not affected but another component critical to a property's intended use would be affected (such as a severe loss of parking or access that would reduce the useful operation of the property). Full property acquisition for Alternative 6 would be required for the following reasons:

- To construct and operate station areas
- To construct and operate ancillary facilities and TPSS
- To construction and operations of the MSF
- To accommodate construction access, staging, and laydown areas

10.2.3 Partial Acquisition

Partial acquisition would occur if the Project would use a portion of a given property but would not require the entirety of the property. Partial property acquisition means that only a portion of the property would be acquired, and the owner would retain the remaining portion of the property. Types of partial acquisition include partial "fee simple" acquisitions and various types of permanent and temporary easements. For a "fee simple" acquisition, Metro would purchase a "fee simple interest" for the portion of the property and would become owner for that portion of the property. A partial acquisition is also considered if the area required for the Project is not critical to the property's primary function as a residence or business, or if the remaining portion of the property could be reconfigured to continue serving its purpose without significant disruption to occupants. Partial property acquisitions would be required for Alternative 6 for the following reasons:

- To provide adequate ROW to accommodate the alignment
- To widen streets or intersections or to provide other street improvements due to inadequate ROW widths
- To construct and operate stations, ancillary facilities, TPSS, and MSF
- To accommodate construction access, staging, and laydown areas

10.2.4 Easement

An easement provides one party the right to use another party's property for a stated purpose. That property may be owned by a private person, business entity, or a group of owners and can involve a general or specific portion of the property. An easement can be at the surface, underground/subsurface (beneath a property), or aboveground (aerial) level and can be characterized as temporary (typically during construction) or permanent.

TCEs would be necessary if temporary rights are required from property owners for material storage, construction activities, or access. Depending on the size and location of the TCEs, they may or may not require the demolition of existing structures. If TCEs do not require demolition of existing structures, TCEs typically would not affect the primary function of the property. In these circumstances, the area may revert to its former use after construction activities have been completed. If TCEs require demolition of existing structures, the primary function of the property could be affected or may cause undue disruption to the occupants. Temporary underground easements for tiebacks, which are horizontal wires or rods that reinforce retaining walls for stability, would also be required during construction.

Underground/subsurface easements would be required during construction for tunneling and all underground facilities, including TPSS. The easement would be permanent since it would be required for the operations of an underground transit line once construction is completed. Utility easement is a type

of underground easement that would be used by Alternative 6 to provide access to underground utilities. Underground/subsurface easement would not affect the primary function of the property since the easements would be underground. For properties with underground/surface easements, Alternative 6 does not involve activities at the surface level or above grade that would affect the function of the properties.

Permanent surface easements would be required during operations of Alternative 6 to allow for street improvements, access to certain properties in the undeveloped hillside areas, and to maintain the slopes in the hillside areas near Stone Canyon Reservoir.

An easement is considered a partial property acquisition from the property owner. The purchase of an easement is accomplished through a one-time payment and the recording of an easement deed.

10.3 Impacts Evaluation

10.3.1 Permanent Acquisition and Displacement

10.3.1.1 Direct Impacts

Property acquisition would be required for the following project components located outside of the public ROW:

- Underground alignment
- Station areas
- MSF
- At-grade TPSS facilities that are outside of station areas
- Local street improvements

Partial acquisitions in the form of permanent subsurface easements would be required to accommodate the subsurface alignment, stations, and TPSS facilities. Subsurface easements would not result in property acquisition or displacement of businesses or residences. Partial fee simple acquisitions would be required for local street improvements. Both full and partial fee simple acquisitions would be required for stations; MSF; and TPSS and ancillary facilities.

Table 10-4 summarizes the number of affected parcels and permanent acquisitions. It should be noted that some properties may contain multiple parcels. Appendix A of this report presents parcel-specific data and Appendix B provides figures that identify the parcels that would potentially be acquired along the alignment of Alternative 6. The mainline, stations, and associated facilities of Alternative 6 would require the permanent acquisition of approximately670 parcels, of which approximately 53 parcels would involve full fee simple acquisition, 22 parcels would involve partial fee simple acquisition, 53 parcels would have surface easements (for street improvements, access to portions of the hillside area, and to maintain the slopes in the hillside area), and 570 parcels would have subsurface easements (for utilities, the subsurface alignment, and associated subsurface facilities). Some parcels would involve multiple acquisition types (e.g., partial fee simple acquisition and subsurface easement, partial fee simple acquisition and surface easement, and subsurface easement and surface easement). The freight tracks within the LOSSAN rail corridor ROW and the Metrolink Ventura County Line are active and would remain active during operations of Alternative 6. Property acquisition would primarily affect commercial, residential, and vacant/undeveloped open space properties.

The Alternative 6 MSF would require permanent full fee simple acquisition of two industrial parcels. The industrial parcels for the MSF are currently used as a car auction business.

Overall, Alternative 6 (mainline, stations, associated facilities, and MSF) is estimated to result in 55 parcels with full fee simple acquisitions, 22 parcels with partial fee simple acquisitions, 53 parcels with surface easements (of which one parcel would have both an access easement and slope easement), and 570 parcels with subsurface easements.

Table 10-4. Alternative 6: Permanent Property Acquisition

Land Use	Full Fee Simple Acquisition (No. of Parcels)	Partial Fee Simple Acquisition (No. of Parcels)	Surface Easement (No. of Parcels)	Subsurface Easement (No. of Parcels)
Mainline, Stations, and Associated Facilities except MSF				
Commercial	41	5	30	131
Industrial	0	0	2	7
Mixed-Use	1	0	2	2
Institutional/Public Facilities	0	5	0	13
Parks/Recreation	0	0	0	2
Vacant/Undeveloped Open Space	10	11	15	98
Multi-Family Residential	1	2	1	76
Single-Family Residential	0	0	3	241
Subtotal	**53**	**22**	**53**	**570**
MSF				
Industrial	2	0	0	0
Subtotal	**2**	**0**	**0**	**0**
Total – Alternative 6 with MSF	**55**	**22**	**53**	**570**

Source: HTA, 2024

Note: Multi-family residential properties with condominiums are counted as one parcel.

Non-residential displacements would occur to accommodate project components. Property displacements are determined by evaluating the extent to which Alternative 6 would affect existing properties and identifying those properties where the current use would not be possible if Alternative 6 is constructed. Elements associated with Alternative 6 that were evaluated include direct effects on structures, assessment of property-specific elements (i.e., available parking, access to and traffic circulation within the property, and other aspects specific to the type of business and residential unit affected), and components that may disrupt a business' ability to conduct its primary function after implementation of Alternative 6.

Permanent jobs may be lost as a result of the relocation. Metro will work with specialty businesses (e.g., businesses that cater to the local community or need a particular location to operate) to understand their specific relocation needs and provide them with information on available replacement sites, financial assistance, and other advisory assistance. Metro will work with these businesses as early in the process as possible to allow them additional lead time.

Residents or parcels affected by partial acquisitions would not be required to relocate. However, these affected residents may make a case that the remaining property is no longer compatible with their intended use and may choose to relocate, which may result in the need to relocate some residents.

Metro would compensate owners at fair market value to purchase the required property and would also need to compensate owners for damage to the remainder property. Metro would provide displaced businesses and residents relocation assistance and benefits for which the displacee is eligible.

Table 10-5 summarizes the number of potential non-residential uses and residences that would be permanently displaced as a result of Alternative 6. The mainline, stations, and associated facilities (without the MSF) for Alternative 6 would permanently displace 46 commercial businesses, one institutional/public facility, and 127 multi-family residential units. Overall, Alternative 6 with MSF would permanently displace approximately 47 commercial and industrial businesses, one institutional/public facility, and 127 residential units. The alignment would require specialty relocation for one parcel (surface parking lot for the Van Nuys Amtrack and Metrolink Station), and the MSF would displace one specialty business (a car auction business). Based on the City's average household size of 2.7 persons per household for renter-occupied units (US Census, 2021), approximately 343 people would be permanently displaced as result of Alternative 6.

Table 10-5. Alternative 6: Non-Residential and Residential Unit Displacement

Land Use	Number of Non-Residential/Residential Units Displaced
Mainline, Stations, and Associated Facilities except MSF	
Commercial	44
Mixed-Use	2 businesses 3 residential units
Institutional/Public Facilities	1
Multi-Family Residential	124
Subtotal	**174**
MSF	
Industrial	1
Subtotal	**1**
Total – Alternative 6 with Bus Layover and MSF	**175**

Source: HTA, 2024

Where acquisition and relocation are unavoidable, Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Properties acquired by Metro for Alternative 6 would be appraised to determine its fair market value. Just compensation, which shall not be less than the amount determined by an approved appraisal, would be offered by Metro. Each renter, business, or nonprofit organization displaced as a result of Alternative 6 would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property.

The Project Study Area is urbanized with a number of existing buildings for sale or lease. According to CBRE Research, as of the 4th quarter of 2024 there was approximately 2.5 million square feet of industrial space (building square footage ranging from 10,000 to 100,000 square feet) available in the East San Fernando Valley market with an overall vacancy rate of 2.1 percent (CBRE, 2025a). Retail space availability in the 3rd quarter of 2024 was approximately 8.7 percent for the Westside market and 4.7 percent for the San Fernando Valley market (CBRE, 2024). Office space vacancy and availability is high throughout Los Angeles County which had a 24.4 percent vacancy rate as of the 4th quarter of 2024 (CBRE, 2025b).Given the availability of existing buildings/structures and non-residential properties, it is expected that most of the businesses that would be displaced as a result of Alternative 6 would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. It is expected that of the residential units that would be displaced would be relocated

to existing residential units in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse indirect impacts related to acquisitions and displacements are not anticipated for Alternative 6.

10.3.1.2 Indirect Impacts

Alternative 6 would introduce new visual elements, generate long-term localized pollutant emissions, and increase noise levels that could potentially disrupt businesses or residents in the Resource Study Area for visual, air quality, and noise. Alternative 6 would also potentially alter access and circulation in the Resource Study Area for transportation through sidewalk and roadway modifications. The environmental impacts associated with visual, air quality, noise, and transportation are discussed in the respective technical reports for those disciplines prepared for the Sepulveda Transit Corridor Project and described in the DEIR. Changes resulting from Alternative 6 that may influence voluntary relocation by businesses or residents would not cause any physical changes in the environment and do not require any mitigation beyond those identified for each environmental discipline and described in the DEIR for the Sepulveda Transit Corridor Project.

10.3.2 Temporary Acquisition for Construction

10.3.2.1 Direct Impacts

Constructing Alternative 6 would involve the following:

- Site preparation and demolition of structures
- Utility relocation
- Tunneling and cut-and-cover activities
- Soil relocation
- Construction of the subsurface alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities
- Installation of tiebacks to support the subsurface alignment
- Street widening
- Street and sidewalk reconstruction

Tieback easements would be required to install tiebacks that support the subsurface alignment. At the end of construction, tiebacks would be de-tensioned and left in place. Temporary acquisitions would be required for parcels that would only be used for construction purposes (i.e., TCEs and/or tieback installation). Some parcels that would be permanently acquired for the operations of Alternative 6 would also be used for construction purposes, such as to install tiebacks and/or for construction access, staging, and laydown.

Tieback easements are subsurface easements and would not involve the demolition of any structures. Tieback easements would not displace any non-residential or residential units. Depending on the location and size of the TCEs, existing structures on parcels could either remain in place or be demolished. For parcels where structures would be demolished, existing non-residential uses and residents would be relocated. For parcels where structures would not be demolished, non-residential uses could temporarily be displaced during construction, but no permanent displacement would occur.

These parcels would be returned to pre-construction conditions once construction is completed. Generally, parcels that would be used for construction access, staging, and laydown would be permanently acquired and, thus, these parcels would not be returned to pre-construction conditions once construction is completed. Although Alternative 6 would require the use of 13 residential parcels along the mainline for construction, only a portion of the residential parcels would be affected. No structures on these residential parcels would be demolished and the function of these residential parcels would not change.

Table 10-6 summarizes the type of parcels that would be affected by construction of Alternative 6. A total of approximately 171 parcels would be used for construction purposes. Of the 171 parcels, approximately 50 parcels would be permanently acquired as partial fee simple acquisition and/or subsurface/surface easement, and approximately 125 parcels would be temporarily acquired to be used as either TCEs and/or tieback easements (with no permanent fee simple acquisition and/or easement). The approximately 125 parcels that are estimated to be temporarily acquired would be returned to the owner once construction is completed. Section 10.3.1 discusses how Alternative 6 would affect the estimated 50 parcels that would be permanently acquired.

Construction of Alternative 6 mainline would displace two commercial businesses. No residential units would be displaced as a result of construction.

Parcels that would be temporarily acquired (e.g., for TCEs) and permanently acquired (e.g., a parcel would be used for TCE or construction staging and laydown during construction, and would be used as an easement for the alignment or a station during operations) would be appraised to determine the fair market value of the portion that would be used temporarily during construction, and just compensation not less than the amount recommended/determined by an approved appraisal would be made to each property owner.

Construction of Alternative 6 would displace 2 commercial businesses. Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.). Each business displaced as a result of Alternative 6 construction would be given advance written notice and would be informed of the eligibility requirements for relocation assistance and payments. Each displacee will receive a notice of not less than 90 days to vacate the acquired property. It is expected that most of the non-residential uses that would be displaced as a result of Alternative 6 construction would relocate to existing commercial and industrial buildings and/or other non-residential properties in the surrounding area. It is not anticipated that construction of a substantial amount of new commercial, industrial, and residential development that could result in substantial adverse impacts to the environment would occur. Therefore, substantial adverse construction impacts related to temporary acquisitions and displacements are not anticipated for Alternative 6.

Table 10-6. Alternative 6: Parcels to be Used During Construction

Land Use	Permanent Acquisition (Fee Simple and/or Easement)[a]	Temporary Parcel Acquisition[b]		
		Temporary Construction Easement Only (No. of Parcels)	Tieback Easements Only (No. of Parcels)	Temporary Construction Easement and Tieback Easement (No. of Parcels)
Commercial	31	26	48	10
Industrial	1	0	0	0
Mixed-Use	3	0	0	1
Institutional/Public Facilities	6	0	1	1
Transportation-Related (Busway, Railroad, Transit Station Parking)	0	0	0	0
Vacant/Undeveloped Open Space	0	0	2	0
Multi-Family Residential	1	4	5	0
Single-Family Residential	4	1	4	22
Total	**46**	**31**	**60**	**34**

Source: HTA, 2024

[a]Parcels that would be permanently acquired for the operation of Alternative 6 and would also be used during construction, such as to install tiebacks and for construction access, staging, and/or laydown. Includes full and partial acquisitions.

[b]Parcels that would only be used during construction as TCEs and/or to install tiebacks.

10.3.2.2 Indirect Impacts

Construction of Alternative 6 would temporarily change the visual quality and character, generate localized pollutant emissions, increase noise and vibration levels, and alter pedestrian and vehicular access in the Resource Study Area for visual, air quality, noise and vibration, and transportation; however, these changes are not expected to require additional residential or business displacements beyond those identified in the preceding section. Construction related disruptions would be temporary and measures would be implemented to reduce the effects of construction activities on nearby businesses and residents.

10.3.3 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

10.3.3.1 Permanent (Operational) Impacts

Property acquisitions would occur prior to the construction and operations of Alternative 6. Alternative 6 is estimated to require the permanent acquisition (i.e., full fee simple acquisition, partial fee simple acquisition, aerial easement and/or subsurface easement) of 77 multi-family residential parcels (of which one parcel would involve partial fee simple acquisition, subsurface easement, and surface easement), five mixed-use development, and 244 single-family residential parcels. A majority of these acquisitions involve a subsurface easement, and six of these acquisitions involve a surface (street) easement (three single-family parcels, one multi-family parcel, and two mixed-use parcels). A one-time payment and the recording of an easement deed would be required for the purchase of easements on these properties. The easements would not result in the displacement of residents.

Alternative 6 would displace three residential units from a mixed-use development and one multi-family residential development containing 124 residential units. The displacement would result from full acquisition of a mixed-use building (commercial retail on the first level and residential units on the second level) and one multi-family apartment building. Based on the Project Study Area's average household size of 2.7 persons per household for renter-occupied units, approximately 343 people would be permanently displaced as a result of Alternative 6. Metro would compensate owners at fair market value to purchase the required property. In the case of partial acquisitions, Metro would compensate owners if damages are incurred to the remainder property. Residents of properties that would be fully acquired by Metro would need to be relocated.

Metro would provide relocation assistance and compensation for displaced residents as required by the Uniform Act and California Relocation Act. Where acquisitions and relocation are unavoidable, Metro would follow the provisions of both Acts, as amended. As discussed in the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* (Metro, 2025d), current developments in the Project Study Area are anticipated to construct over 23,100 new housing units. Furthermore, various State, regional, and local policies and programs such as the 2023 Legislative Housing Package and the City's 2021-2029 Housing Element are aimed at increasing available housing stock to address the State's housing shortage. Working towards the RHNA target of 456,643 new housing units, the City of Los Angeles anticipates construction of 310,000 new housing units between 2021 and 2029. The 2025 wildfires may affect the short-term availability of replacement housing as it is anticipated that there will be increased demand for housing in the region while homes in the affected areas are rebuilt. Despite this increase in demand, there would still be adequate and comparable replacement housing available to displaced residents considering that the right of way acquisitions for the Project would take place over multiple years of project development. Due to the magnitude of anticipated residential relocations associated with Alternative 6, it is anticipated that the relocation process is expected to be implemented over multiple years in a carefully phased manner, thereby minimizing disruptions to the local housing marking and providing adequate time for Metro's real estate specialists to work closely with displaced residents to secure fair, equitable, and suitable relocation. Therefore, in full compliance with the Uniform Act and the California Relocation Act, impacts related to the displacement of residential units and its occupants that would necessitate the construction of replacement units would be less than significant.

10.3.3.2 Temporary (Construction) Impacts

Construction of Alternative 6 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; installation of tiebacks to support the subsurface alignment; construction of subsurface alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 6 would also be used for construction purposes (e.g., installation of tiebacks or for construction access, staging, and laydown). Temporary acquisitions would be required for parcels that would only be used as TCEs or tieback easements.

Construction activities associated with Alternative 6 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of Alternative 6 construction.

10.3.3.3 Maintenance and Storage Facility

As listed in Table 10-4, the MSF would not require the acquisition or displacement of any residential property. Therefore, the MSF would have no potential to displace existing people or housing and would not necessitate the construction of replacement housing elsewhere. The MSF would have no impact.

10.4 Mitigation Measures

10.4.1 Permanent Impacts

No mitigation measures are required.

10.4.2 Temporary (Construction) Impacts

No mitigation measures are required.

10.4.3 Impacts After Mitigation

No mitigation measures are required; permanent impacts are less than significant, and no temporary (construction) impacts would occur.

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Appendix A. Parcel Data

Appendix B. Acquisitions Maps