SEPULVEDA TRANSIT CORRIDOR PROJECT

Cumulative Impacts Technical Report

March 2025

Metro

SEPULVEDA TRANSIT CORRIDOR PROJECT

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Cumulative Impacts Technical Report

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Prepared for:

Metro

Los Angeles County
Metropolitan Transportation Authority

Prepared by:

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Table of Contents

ABBREVIATIONS AND ACRONYMS VIII

1 INTRODUCTION 1-1

1.1 Project Background 1-1
1.2 Project Alternatives 1-1
1.3 Project Study Area 1-2
1.4 Purpose of this Report and Structure 1-2

2 REGULATORY AND POLICY FRAMEWORK 2-1

2.1 Federal 2-1
2.2 State 2-1
2.2.1 California Environmental Quality Act 2-1
2.3 Regional 2-1
2.4 Local 2-1

3 METHODOLOGY 3-1

3.1 Operation and Construction 3-1
3.2 CEQA Threshold of Significance 3-2

4 FUTURE BACKGROUND PROJECTS 4-1

4.1 Highway Improvements 4-1
4.2 Transit Improvements 4-1
4.3 Regional Rail Projects 4-2

5 NO PROJECT ALTERNATIVE 5-1

5.1 Cumulative Conditions 5-1
5.1.1 Project Study Area 5-1
5.1.2 Related Projects 5-1
5.2 Impacts Evaluation 5-11
5.2.1 Transportation Impacts 5-11
5.2.2 Land Use and Development 5-11
5.2.3 Real Estate, Acquisitions, and Population and Housing 5-12
5.2.4 Communities and Neighborhoods 5-12
5.2.5 Visual Quality and Aesthetics 5-12
5.2.6 Air Quality Impacts 5-13
5.2.7 Climate Change and Greenhouse Gas Emissions 5-15
5.2.8 Noise and Vibration Impacts 5-15
5.2.9 Ecosystems and Biological Resources 5-16
5.2.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources 5-17
5.2.11 Hazards and Hazardous Materials 5-17

5.2.12 Water Resources 5-17
5.2.13 Energy 5-18
5.2.14 Cultural Resources and Tribal Cultural Resources 5-19
5.2.15 Parklands 5-20
5.2.16 Safety and Security 5-20
5.3 Mitigation Measures 5-21
6 ALTERNATIVE 1 6-1
6.1 Alternative Description 6-1
6.1.1 Operating Characteristics 6-1
6.1.2 Construction Activities 6-19
6.2 Existing Conditions 6-22
6.2.1 Study Area 6-22
6.2.2 Related Projects 6-22
6.3 Impacts Evaluation 6-33
6.3.1 Transportation Impacts 6-33
6.3.2 Land Use and Development 6-34
6.3.3 Real Estate and Acquisitions 6-34
6.3.4 Communities and Neighborhoods 6-35
6.3.5 Visual Quality and Aesthetics 6-35
6.3.6 Air Quality 6-37
6.3.7 Climate Change and Greenhouse Gas Emissions 6-38
6.3.8 Noise and Vibration 6-38
6.3.9 Ecosystems and Biological Resources 6-39
6.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources 6-41
6.3.11 Hazards and Hazardous Materials 6-41
6.3.12 Water Resources 6-42
6.3.13 Energy 6-43
6.3.14 Cultural Resources and Tribal Cultural Resources 6-43
6.3.15 Parklands 6-44
6.3.16 Safety and Security 6-44
6.4 Mitigation Measures 6-45
7 ALTERNATIVE 3 7-1
7.1 Alternative Description 7-1
7.1.1 Operating Characteristics 7-1
7.1.2 Construction Activities 7-18
7.2 Cumulative Conditions 7-22
7.2.1 Study Area 7-22
7.2.2 Related Projects 7-22

7.3 Impacts Evaluation 7-33
7.3.1 Transportation Impacts 7-33
7.3.2 Land Use and Development 7-34
7.3.3 Real Estate and Acquisitions 7-34
7.3.4 Communities and Neighborhoods 7-35
7.3.5 Visual Quality and Aesthetics 7-35
7.3.6 Air Quality 7-37
7.3.7 Climate Change and Greenhouse Gas Emissions 7-38
7.3.8 Noise and Vibration 7-38
7.3.9 Ecosystems and Biological Resources 7-39
7.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources 7-41
7.3.11 Hazards and Hazardous Materials 7-42
7.3.12 Water Resources 7-42
7.3.13 Energy 7-43
7.3.14 Cultural Resources and Tribal Cultural Resources 7-43
7.3.15 Parklands 7-44
7.3.16 Safety and Security 7-45
7.4 Mitigation Measures 7-46
8 ALTERNATIVE 4 8-1
8.1 Alternative Description 8-1
8.1.1 Operating Characteristics 8-1
8.1.2 Construction Activities 8-16
8.2 Cumulative Conditions 8-21
8.2.1 Study Area 8-21
8.2.2 Related Projects 8-21
8.3 Impacts Evaluation 8-31
8.3.1 Transportation Impacts 8-31
8.3.2 Land Use and Development 8-31
8.3.3 Real Estate and Acquisitions 8-32
8.3.4 Communities and Neighborhoods 8-33
8.3.5 Visual Quality and Aesthetics 8-33
8.3.6 Air Quality 8-35
8.3.7 Climate Change and Greenhouse Gas Emissions 8-36
8.3.8 Noise and Vibration 8-36
8.3.9 Ecosystems and Biological Resources 8-37
8.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources 8-38
8.3.11 Hazards and Hazardous Materials 8-39
8.3.12 Water Resources 8-39

8.3.13 Energy 8-40
8.3.14 Cultural Resources and Tribal Cultural Resources 8-41
8.3.15 Parklands 8-42
8.3.16 Safety and Security 8-42
8.4 Mitigation Measures 8-43
9 ALTERNATIVE 5 9-1
9.1 Alternative Description 9-1
9.1.1 Operating Characteristics 9-1
9.1.2 Construction Activities 9-14
9.2 Cumulative Conditions 9-20
9.2.1 Study Area 9-20
9.2.2 Related Projects 9-20
9.3 Impacts Evaluation 9-30
9.3.1 Transportation Impacts 9-30
9.3.2 Land Use and Development 9-30
9.3.3 Real Estate and Acquisitions 9-31
9.3.4 Communities and Neighborhoods 9-31
9.3.5 Visual Quality and Aesthetics 9-32
9.3.6 Air Quality 9-33
9.3.7 Climate Change and Greenhouse Gas Emissions 9-34
9.3.8 Noise and Vibration 9-34
9.3.9 Ecosystems and Biological Resources 9-35
9.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources 9-36
9.3.11 Hazards and Hazardous Materials 9-36
9.3.12 Water Resources 9-37
9.3.13 Energy 9-38
9.3.14 Cultural Resources and Tribal Cultural Resources 9-38
9.3.15 Parklands 9-39
9.3.16 Safety and Security 9-39
9.4 Mitigation Measures 9-40
10 ALTERNATIVE 6 10-1
10.1 Alternative Description 10-1
10.1.1 Operating Characteristics 10-1
10.1.2 Construction Activities 10-10
10.2 Cumulative Conditions 10-12
10.2.1 Study Area 10-13
10.2.2 Related Projects 10-13
10.3 Impacts Evaluation 10-23

10.3.1 Transportation Impacts 10-23
10.3.2 Land Use and Development 10-23
10.3.3 Real Estate and Acquisitions 10-24
10.3.4 Communities and Neighborhoods 10-24
10.3.5 Visual Quality and Aesthetics 10-25
10.3.6 Air Quality 10-25
10.3.7 Climate Change and Greenhouse Gas Emissions 10-27
10.3.8 Noise and Vibration 10-27
10.3.9 Ecosystems and Biological Resources 10-28
10.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources 10-29
10.3.11 Hazards and Hazardous Materials 10-29
10.3.12 Water Resources 10-30
10.3.13 Energy 10-30
10.3.14 Cultural Resources and Tribal Cultural Resources 10-31
10.3.15 Parklands 10-32
10.3.16 Safety and Security 10-32
10.4 Mitigation Measures 10-33
11 PREPARERS OF THE TECHNICAL REPORT 11-1
12 REFERENCES 12-1

Figures

Figure 1-1. Sepulveda Transit Corridor Project Study Area 1-3
Figure 5-1. Related Projects Identified in the Project Study Area - North 5-9
Figure 5-2. Related Projects Identified in the Project Study Area - South 5-10
Figure 6-1. Alternative 1: Alignment 6-2
Figure 6-2. Typical Monorail Guideway Cross-Section 6-4
Figure 6-3. Typical Monorail Straddle-Bent Cross-Section 6-5
Figure 6-4. Typical Monorail Beam Switch Cross-Section 6-10
Figure 6-5. Alternative 1: Maintenance and Storage Facility Options 6-12
Figure 6-6. Alternative 1: Electric Bus Maintenance and Storage Facility 6-13
Figure 6-7. Alternative 1: Traction Power Substation Locations 6-15
Figure 6-8. Alternative 1: Roadway Changes 6-18
Figure 6-9. Alternative 1: Construction Staging Locations 6-21
Figure 6-10. Alterative 1: Related Projects Identified in the Project Study Area - North 6-30
Figure 6-11. Alternative 1: Related Projects Identified in the Project Study Area - South 6-31
Figure 7-1. Alternative 3: Alignment 7-2
Figure 7-2. Typical Aerial Monorail Guideway Cross-Section 7-4

Figure 7-3. Typical Monorail Straddle-Bent Cross-Section 7-5
Figure 7-4. Typical Underground Monorail Guideway Cross-Section 7-6
Figure 7-5. Typical Monorail Beam Switch Cross-Section 7-11
Figure 7-6. Alternative 3: Maintenance and Storage Facility Options 7-13
Figure 7-7. Alternative 3: Traction Power Substation Locations 7-15
Figure 7-8. Alternative 3: Roadway Changes 7-17
Figure 7-9. Alternative 3: Construction Staging Locations 7-21
Figure 7-10. Alternative 3: Related Projects Identified in the Project Study Area - North 7-30
Figure 7-11. Alternative 3: Related Projects Identified in the Project Study Area - South 7-31
Figure 8-1. Alternative 4: Alignment 8-2
Figure 8-2. Typical Underground Guideway Cross-Section 8-4
Figure 8-3. Typical Aerial Guideway Cross-Section 8-5
Figure 8-4. Typical Aerial Straddle-Bent Cross-Section 8-6
Figure 8-5. Alternative 4: Maintenance and Storage Facility Site 8-10
Figure 8-6. Alternative 4: Traction Power Substation Locations 8-12
Figure 8-7. Alternative 4: Roadway Changes 8-14
Figure 8-8. Alternative 4: Street Vacation at Del Gado Drive 8-15
Figure 8-9. Alternative 4: On-Site Construction Staging Locations 8-17
Figure 8-10. Alternative 4: Potential Off-Site Construction Staging Locations 8-20
Figure 8-11. Alternative 4: Related Projects Identified in the Project Study Area - North 8-29
Figure 8-12. Alternative 4: Related Projects Identified in the Project Study Area - South 8-30
Figure 9-1. Alternative 5: Alignment 9-2
Figure 9-2. Typical Underground Guideway Cross-Section 9-4
Figure 9-3. Typical Aerial Guideway Cross-Section 9-5
Figure 9-4. Alternative 5: Maintenance and Storage Facility Site 9-9
Figure 9-5. Alternative 5: Traction Power Substation Locations 9-11
Figure 9-6. Alternative 5: Roadway Changes 9-13
Figure 9-7. Alternative 5: On-Site Construction Staging Locations 9-16
Figure 9-8. Alternative 5: Potential Off-Site Construction Staging Locations 9-19
Figure 9-9. Alternative 5: Related Projects Identified in the Project Study Area - North 9-28
Figure 9-10. Alternative 5: Related Projects Identified in the Project Study Area - South 9-29
Figure 10-1. Alternative 6: Alignment 10-2
Figure 10-2. Typical Underground Guideway Cross-Section 10-3
Figure 10-3. Alternative 6: Maintenance and Storage Facility Site 10-7
Figure 10-4. Alternative 6: Traction Power Substation Locations 10-9
Figure 10-5. Alternative 6: Mid-Mountain Construction Staging Site 10-12
Figure 10-6. Alternative 6: Related Projects Identified in the Project Study Area - North 10-21
Figure 10-7. Alternative 6: Related Projects Identified in the Project Study Area - South 10-22

Tables

Table 4-1. Fixed Guideway Transit System in 2045 4-2
Table 5-1. Related Projects List 5-2
Table 6-1. Alternative 1: Station-to-Station Travel Times and Station Dwell Times 6-9
Table 6-2. Alternative 1: Traction Power Substation Locations 6-14
Table 6-3. Alternative 1: Roadway Changes 6-16
Table 6-4. Alternative 1: Construction Staging Locations 6-20
Table 6-5. Alternative 1: Related Projects List 6-23
Table 7-1. Alternative 3: Station-to-Station Travel Times and Station Dwell Times 7-10
Table 7-2. Alternative 3: Traction Power Substation Locations 7-14
Table 7-3. Alternative 3: Roadway Changes 7-16
Table 7-4. Alternative 3: Construction Staging Locations 7-20
Table 7-5. Alternative 3: Related Projects List 7-23
Table 8-1. Alternative 4: Station-to-Station Travel Times and Station Dwell Times 8-9
Table 8-2. Alternative 4: Traction Power Substation Locations 8-10
Table 8-3. Alternative 4: Roadway Changes 8-13
Table 8-4. Alternative 4: On-Site Construction Staging Locations 8-16
Table 8-5. Alternative 4: Potential Off-Site Construction Staging Locations 8-19
Table 8-6. Alternative 4: Related Projects List 8-22
Table 9-1. Alternative 5: Station-to-Station Travel Times and Station Dwell Times 9-8
Table 9-2. Alternative 5: Traction Power Substation Locations 9-10
Table 9-3. Alternative 5: Roadway Changes 9-12
Table 9-4. Alternative 5: On-Site Construction Staging Locations 9-15
Table 9-5. Alternative 5: Potential Off-Site Construction Staging Locations 9-18
Table 9-6. Alternative 5: Related Projects List 9-21
Table 10-1. Alternative 6: Station-to-Station Travel Times and Station Dwell Times 10-6
Table 10-2. Alternative 6: Traction Power Substation Locations 10-8
Table 10-3. Alternative 6: Related Projects List 10-14

Abbreviations and Acronyms

AB	Assembly Bill
ABC	Accelerated Bridge Construction
APM	automated people mover
AQMP	Air Quality Management Plan
Basin Plan	Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BRT	bus rapid transit
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CIDH	cast-in-drilled-hole
CO	carbon monoxide
Cumulative RSA	cumulative Resource Study Area
DCP	City of Los Angeles Department of City Planning
DEIR	Draft Environmental Impact Report
DPM	diesel particulate matter
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESFV	East San Fernando Valley
ExpressLanes project	I-405 Sepulveda Pass ExpressLanes Project
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
HOV	high-occupancy vehicle
HRT	heavy rail transit
HTA	HTA Partners
I-10	Interstate 10
I-405	Interstate 405
LADPW	Los Angeles County Department of Public Works
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department

LAPD	Los Angeles Police Department
LARWQCB	Los Angeles Regional Water Quality Control Board
LASD	Los Angeles County Sheriff Department
LASRE	LA SkyRail Express
LAX	Los Angeles International Airport
LOSSAN	Los Angeles-San Diego-San Luis Obispo
LRT	light rail transit
MATES	Multiple Air Toxics Exposure Study
Metro	Los Angeles County Metropolitan Transportation Authority
MM	mitigation measure
MMBtu	million British thermal units
MOW	maintenance-of-way
MRDC	Metro Rail Design Criteria
MRT	monorail transit
MSF	maintenance and storage facility
MWh	megawatt-hours
NAAQS	National Ambient Air Quality Standards
NO_2	nitrous oxide
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPS	National Park Service
O_3	ozone
PM	project measure
PM_{10}	respirable particulate matter of diameter less than 10 microns
$PM_{2.5}$	fine particulate matter of diameter less than 2.5 microns
Project	Sepulveda Transit Corridor Project
ROW	right-of-way
RSA	Resource Study Area
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SAV	stand-alone validator
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCORE	Southern California Optimized Rail Expansion
SMMNRA	Santa Monica Mountains National Recreation Area

SO_2	sulfur dioxide
STCP	Sepulveda Transit Corridor Partners
SUSMP	Standard Urban Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TBM	tunnel boring machine
TCR	Tribal Cultural Resources
TPSS	traction power substation
UCLA	University of California, Los Angeles
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
US-101	United States Highway 101
U.S.C.	United States Code
VA	U.S. Department of Veterans Affairs
Valley	San Fernando Valley
VMT	vehicle miles traveled
Westside	Westside of Los Angeles

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 (Westside). 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 cumulative environmental impacts of the Project. It describes existing cumulative 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 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

There are no applicable federal plans, policies, or regulations in regard to cumulative effects.

2.2 State

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires an Environmental Impact Report to evaluate a project's contribution to cumulative impacts. California Public Resources Code Section 21083(b)(2) states that a project may have a significant effect on the environment if "the possible effects of a project are individually limited but cumulatively considerable." Section 15355 of the CEQA Guidelines defines "cumulative impacts" as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Guidelines Section 15064).

CEQA Guidelines Section 15130(b) states that the discussion of cumulative impacts can be either "a list of past, present, and probable future projects" or a "summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect."

2.3 Regional

There are no applicable regional plans, policies, or regulations in regard to cumulative effects.

2.4 Local

There are no applicable local plans, policies, or regulations in regard to cumulative effects.

3 METHODOLOGY

3.1 Operation and Construction

CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires Environmental Impact Reports to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

A cumulative impact assessment has been conducted for each environmental discipline being evaluated as part of the Draft Environmental Impact Report (DEIR) for the Sepulveda Transit Corridor Project (Project). To accomplish the evaluation, a list of probable future projects with the potential to produce related or cumulative impacts was developed using the Project Study Area as the geographic range for the query. The future projects were identified through review of existing plans, including the plans of the municipalities within the Project Study Area; regional long-term plans for economic, land use, and transportation development; the region's Federal Transportation Improvement Program (FTIP); the high-speed rail program plan; and utility providers' long-term plans, as available. The resulting list of related projects includes two categories of projects: development projects and regional transportation projects. Development projects include residential, commercial, and industrial land use developments, while regional transportation projects consist of various transportation projects proposed throughout the region but have some influence on the transportation conditions in the Project Study Area.

The cumulative context includes the geographic area, timeframe, and/or type of projects that could combine with the Project to result in cumulative impacts. This context differs for each discipline and a cumulative Resource Study Area (Cumulative RSA) was developed for each discipline for the evaluation of cumulative impacts. By and large, the Cumulative RSA for most disciplines matches the Project Study Area with the exceptions noted in each discipline discussion. The cumulative context to which the Project would contribute incremental environmental effects is described in the Cumulative Conditions section for each environmental discipline.

This evaluation summarizes expected cumulative impacts produced by these projects and references any additional information that may be used to help determine the impacts. This analysis is contained in Section 5.2 of this technical report, which discusses the cumulative impacts of the related projects identified within the Project Study Area. The methodology used for this analysis follows California Environmental Quality Act (CEQA) Guidelines (Section 15130). The cumulative impact discussion for each specific discipline being assessed in this DEIR is not intended to reflect the potential severity of the impacts and the likelihood of their occurrence. Rather, the focus is on the cumulative impact to which the identified other projects contribute. The discussion of each project alternative's contribution to cumulative impacts is based on the analyses presented in the relevant technical reports prepared for the Project, including:

- *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a)
- *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025b)
- *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report* (Metro, 2025c)

- *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025d)
- *Sepulveda Transit Corridor Project Visual Quality and Aesthetics Technical Report* (Metro, 2025e)
- *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f)
- *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g)
- *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h)
- *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i)
- *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report*
(Metro, 2025j)
- *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025k)
- *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025l)
- *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m)
- *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n)
- *Sepulveda Transit Corridor Project Parklands Technical Report* (Metro, 2025o)
- *Sepulveda Transit Corridor Project Safety and Security Impacts Technical Report* (Metro, 2025p)

For those disciplines where the combined cumulative impact associated with the project alternatives and the other listed projects is not significant, this section briefly discusses why the cumulative impact is not significant. Note that the CEQA Guidelines indicate that the mere existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the Project's incremental effects are cumulatively considerable.

3.2 CEQA Threshold of Significance

The CEQA Guidelines mandate that an Environmental Impact Report discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable (Section 15130). "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (Section 15064).

In considering whether the project's incremental impact is cumulatively considerable, mitigation measures that will be implemented by the project sponsor may be considered. If the mitigation measures alleviate the cumulative impact caused by the project's contribution, then the project does not result in a significant impact that is cumulatively considerable. A lead agency may also determine that a project's incremental contribution to a cumulative impact is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program such as an air quality attainment or maintenance plan or habitat conservation plan.

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 Cumulative Conditions

CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires EIRs to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

5.1.1 Project Study Area

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for the evaluation of cumulative impacts.

For purposes of the cumulative analysis, the geographic area for identifying related projects that could combine with the Project's environmental impacts is the Project Study Area. The Project Study Area lies within the jurisdictions of the Cities of Los Angeles and Santa Monica and the unincorporated Sawtelle VA community of Los Angeles County. Communities identified within the City of Los Angeles include the communities of North Hills, Panorama City, Sun Valley, Lake Balboa, Van Nuys, North Hollywood, Encino, North Sherman Oaks, Sherman Oaks, Brentwood, Bel Air, Beverly Crest, Westwood, West Los Angeles, Mar Vista, and Palms.

5.1.2 Related Projects

Related projects considered in the cumulative impact analysis are those projects that may occur in the Project's vicinity within the same timeframe as the Project and includes past, present, and reasonably foreseeable future projects. Past projects are accounted for to the extent their effects contribute to the existing environmental conditions used as the baseline for this analysis. Present and reasonably foreseeable future projects are those anticipated to occur concurrently with the Project and that could interact cumulatively with the Project's impacts. Related projects include regional transportation improvement projects, commercial developments of at least 50,000 square feet, and residential developments of 20 units or more. Related projects within the Project Study Area are listed in Table 5-1 and identified on Figure 5-1 and Figure 5-2. A total of 100 related projects was identified and includes nine regional projects, 81 City of Los Angeles projects, and 10 City of Santa Monica projects. Of the regional projects identified, eight are transportation or transit improvements. All of the City of Los Angeles and City of Santa Monica projects identified consist of development projects, including residential, commercial, and mixed-use developments.

Table 5-1. Related Projects List

Map ID	Project Name	Location	Description	Status
Regional				
1	Metro North San Fernando Valley Bus Rapid Transit Project	East-west across the northern San Fernando Valley	18-mile bus rapid transit connecting to the East San Fernando Valley Transit Corridor Project, Chatsworth Metrolink Station, and North Hollywood Metro B/G Line Station.	Planned completion 2025
NA	Metro NextGen Bus Plan	Los Angeles County	Metro bus plan to adjust bus routes and schedules based on existing origin/destination ridership data.	Phase 2 implemented 2021.
2	Metro East San Fernando Valley Light Rail Transit Project	San Fernando Valley	9.2-mile light rail transit connecting the Metro G Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station.	Construction planned to begin 2027
3	City of Los Angeles Orange (G) Line Transit Neighborhood Plan	San Fernando Valley	Long-range planning effort around three Metro G Line stations in the Eastern San Fernando Valley to regulate land uses, zoning, and design of new development.	Planning process, planned adoption 2025
4	Metro G Line Bus Rapid Transit Improvements Project	San Fernando Valley	18 miles of Metro G Line bus rapid transit improvements, including up to 35 railroad-style gates at intersections and new grade-separated structures at Van Nuys Boulevard and Sepulveda Boulevard.	Planned completion 2027
5	Metro Purple Line Extension Transit Project	City of Los Angeles	2.56-mile extension of the Metro D Line and two new stations at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.	Planned completion 2027
6	Metro G Line Conversion to Light Rail	City of Los Angeles, Van Nuys	Metro G Line conversion of the 18-mile Bus Rapid Transit to Light Rail Transit service.	Planned completion 2057
7	I-405 ExpressLanes	I-405 from I-10 to US 101	Installation of new ExpessLanes between the San Fernando Valley and the Westside along I-405.	Planned completion 2030
8	I-405 Dynamic Corridor Ramp Metering System	I-405 from I-10 to US 101	System-wide adaptive ramp metering strategy to coordinate with arterial traffic-signal operation.	Completed construction 2023

Map ID	Project Name	Location	Description	Status
City of Los Angeles				
9	Multi-Family Development	14541 & 14547 Gilmore Street	31 units	Under construction, anticipated completion 2024.
10	Multi-Family Development	14629 Erwin Street	20 units	Planning process
11	Mixed-Use Development	6569 N. Van Nuys Boulevard	174-unit mixed use	Under construction Since 2022 (near complete)
12	Multi-Family Development	6500 Sepulveda Boulevard	45 units	Approved December 2020, pre-construction
13	Multi-Family Development	14400-14412 Vanowen Street	45 units	Approved January 2021, pre-construction
14	Multi-Family Development	14303-14313 Friar Street	30 units	Planning process
15	Multi-Family Development	14553 Friar Street	42 units	Planning process
16	Mixed-Use Development	7002-7004 Van Nuys Boulevard	170-unit mixed use	Not constructed as of November 2020
17	One Westside / Google	10800 Pico Boulevard	584,000 sf office space	Under construction 2024
18	West End	Pico Boulevard & Overland Avenue	Renovation to 230,000 sf office space	Under construction 2024
19	West Los Angeles Veterans Affairs Center	West Los Angeles Veterans Affairs Medical Center Campus	1,200 units	Construction ongoing
20	Martin Expo Town Center	12101 W. Olympic Boulevard	600-unit mixed use, 150,000 sf office space	Under construction, planned completion 2023
21	Multi-Family Development	11950 W. Missouri Avenue	74 units	Planned completion summer 2021
22	Mixed-Use Development	12001-12021 W. Pico Boulevard	80-unit mixed use	Planning approved April 2020, no construction as of October 2024
23	Mission Gateway	8811-8845 Sepulveda Boulevard	356 units	Under construction 2024
24	ICON at Panorama	14665 Roscoe Boulevard	350-unit mixed use, 250,000 sf commercial space	Planned completion 2022, no construction as of October 2024
25	Mixed-Use Development	3443 S. Sepulveda Boulevard	409-unit mixed use, 60,000 sf retail space	Planned completion 2024
26	Multi-Family Development	2136-2140 Westwood Boulevard	77 units	Pre-construction

Map ID	Project Name	Location	Description	Status
27	Multi-Family Development	2600-2616 Sepulveda Boulevard	43 units	Approved February 2020, pre-construction
28	Multi-Family Development	2117-2121 Westwood Boulevard	109 units	Planning process, pre-construction as of December 2020
29	Multi-Family Development	10822 Wilshire Boulevard	54-unit eldercare facility	Planning process
30	Mixed-Use Development	11628 W. Santa Monica Boulevard	99-unit mixed use, 12,121 sf commercial space	Approved April 2021, planning/pre-construction as of December 2020
31	Multi-Family Development	2444-2456 S. Barry Avenue	61 units	Approved August 2020, pre-construction as of December 2020
32	Multi-Family Development	1656 S. Sawtelle Boulevard	33 units	Approved August 2020, pre-construction as of December 2020
33	Department of Water and Power Office Space	11761-12300 W. Nebraska Avenue	92,000 sf office building	Approved 2020
34	Via Avanti	4827 N. Sepulveda Boulevard	325 units, 44,000 sf retail space	Under construction
35	Multi-Family Development	16015 Sherman Way	46-unit supportive housing	Under construction
36	Mixed-Use Development	8141 Van Nuys Boulevard	200-unit mixed use, 2,450 sf retail space	Planning process
37	Multi-Family Development	7700 N. Woodman Avenue	239-unit senior affordable housing	Under construction
38	Multi-Family Development	888 S. Devon Avenue	21 units	Approved February 2020, no construction as of October 2024
39	Multi-Family Development	1300 S. Westwood Boulevard	31 units	Approved September 2020, no construction as of October 2024
40	Multi-Family Development	1427 S. Greenfield Avenue	29 units	Approved September 2020, revised plans submitted May 2021. No construction as of October 2024
41	Multi-Family Development	15027 – 15033 W. Ventura Boulevard	33 units	Approved August 2020, pre-construction as of 2019
42	Mixed-Use Development	13716 W. Victory Boulevard	32-unit mixed use, 1,000 sf commercial space	Approved June 2020, pre-construction
43	Multi-Family Development	1721 S. Colby Avenue	34 units	Approved January 2020, pre-construction as of December 2020

Map ID	Project Name	Location	Description	Status
44	Commercial Development	6001 Van Nuys Boulevard	82,273 sf commercial space (Keyes Honda Auto Dealership)	Planned completion 2020, but pre-construction as of November 2020
45	Commercial Development	5746 Sepulveda Boulevard	75-unit hotel	Approved June 2018, pre-construction as of 2019
46	Berggruen Institute Campus	1901 Sepulveda Boulevard. & 2100, 2101, 2132, 2139, 2141, 2187 N. Canyonback Road	160,880 sf office space, temporary dwelling units, studios	Planned completion 2028
47	Girls Athletic Leadership School	14203 W. Valerio Street	Public charter middle school campus, 330 students grades 6-8	Planning process, pre-construction
48	UCLA Lot 15 Residence Hall	UCLA Lot 15	1,781 beds (student housing)	Under construction
49	UCLA Southwest Campus Apartments	900 Weyburn Place North	2,279 beds (student housing)	Under construction
50	UCLA 10995 Le Conte Avenue Apartments	10995 Le Conte Avenue	1,167 beds (student housing)	Under construction, expected completion 2021
51	Multi-Family Development	10460 W. Santa Monica Boulevard	68 units	Planning process
52	Multi-Family Development	11261 Santa Monica Boulevard	119 units	Approved June 2019, pre-construction
53	West Los Angeles Civic Center	1645 Corinth Avenue	926-unit mixed use, 114,400 sf commercial and office space	Planning process
54	Multi-Family Development	12300 W. Pico Boulevard	65 units	Approved October 2018, pre-construction as of December 2020
55	Multi-Family Development	11001 Pico Boulevard	89 units	Approved November 2019, pre-construction as of December 2020
56	Barringway Place	11701 Gateway Boulevard	73 units mixed use, 5,900 sf commercial space	Revised plans submitted May 2021
57	Multi-Family Development	11857-11861 Santa Monica Boulevard	52 units	Approved November 2021, pre-construction as of December 2020
58	Multi-Family Development	16243 W. Chase Street	25 beds (congregate living health facility)	Planning process
59	Multi-Family Development	10915 W. Strathmore Drive	37 units	Planning process
60	Multi-Family Development	10841 N. Sepulveda Boulevard	52 units	Pre-construction
61	Commercial Development	10768 Bellagio Drive	Demolition and reconstruction of the Bel Air Country Club House (approximately 62,615 sf)	Revised plans submitted January 2021, pre-construction

Map ID	Project Name	Location	Description	Status
62	Trident Center Expansion	11355 & 11377 W. Olympic Boulevard	Additional 120,000 sf of office and retail space	Planned completion 2022
63	Mixed-Use Development	14130 and 14154 Riverside Drive	249-unit mixed use, 27,000 sf commercial	Approved, pre-construction
64	Multi-Family Development	11010 Santa Monica Boulevard.	50-unit affordable housing	Planning process
65	Multi-Family Development	11272 Nebraska Avenue	24 units	Approved April 2018, under construction December 2020 (near completion)
66	On Butler	11421 W. Olympic Boulevard	77-unit mixed use, 6,575 sf commercial	Under construction as of December 2020 (near completion)
67	Multi-Family Development	11434 W. Pico Boulevard	102 units	Planning approved June 2019, pre-construction as of December 2020
68	Mixed-Use Development	11460 W. Gateway Boulevard.	129-unit mixed use, 5,241 sf commercial space	Planning process, not constructed as of 2019
69	Multi-Family Development	11600-11618 W. Santa Monica Boulevard	100 units	Under construction
70	Mixed-Use Development	11650-11674 Santa Monica Boulevard.	180-unit mixed use, 64,759 sf grocery store and amenities	Approved October 2019, pre-construction as of December 2020
71	Mixed-Use Development	11701 Santa Monica Boulevard.	53-unit mixed use, 1,500 sf retail	Updated plans approved 2020, pre-construction as of December 2020
72	Mixed-Use Development	11750-11770 Wilshire Boulevard.	376-unit mixed use	Planned completion 2022
73	West Edge	12101 W. Olympic Boulevard	600-unit mixed use, 200,000 sf office and amenities	Planned completion 2022
74	Multi-Family Development	1402 S. Veteran Avenue	23 units	Planning process
75	Multi-Family Development	14142 Vanowen Street	64 units	Planned completion 2024
76	Multi-Family Development	14534-14536 W. Burbank Boulevard.	55 units	Planned completion September 2021
77	Commercial Development	15005 W. Oxnard Street	98,458 sf storage facility	Planning process, pre-construction

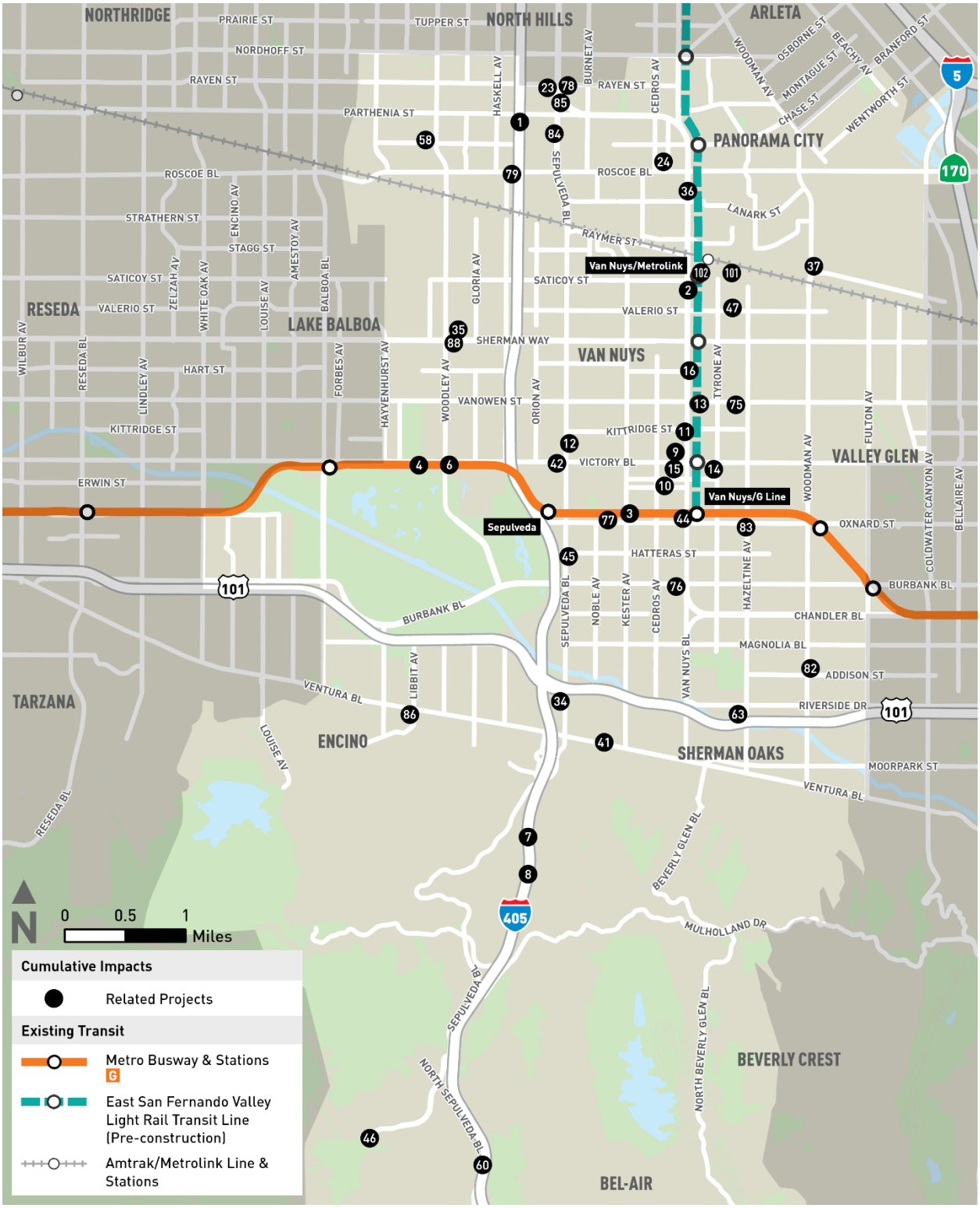
Map ID	Project Name	Location	Description	Status
78	Multi-Family Development	15314 W. Rayen Street	64 units	Planning process
79	Commercial Development	15640 W. Roscoe Boulevard	123,950 sf self-storage facility	Under construction
80	Commercial Development	2255 Sawtelle Boulevard & 2222 Corinth Avenue	135,000 sf office building	Approved March 2021, pre-construction
81	Multi-Family Development	2415-2419 S. Barrington Avenue	38 units	Approved January 2020, pre-construction as of December 2020
82	Multi-Family Development	5020 Woodman Avenue	51 units	Under construction
83	Multi-Family Development	5943-5953 N. Hazeltine Avenue	61 units	Planning process
84	Angel Apartments	8547-8549 N. Sepulveda Boulevard	54 units	Approved October 2019, pre-construction as of November 2020
85	Multi-Family Development	8750 N. Sepulveda Boulevard	43 units	Approved January 2020, pre-construction as of November 2020
86	Multi-Family Development	4741 N. Libbit Avenue	46 units	Approved April 2019, pre-construction
87	Multi-Family Development	1855-1871 Westwood Boulevard.	60 units	Under construction as of December 2020
88	Mixed-Use Development	16030 W. Sherman Way	54-unit mixed use	Under construction as of November 2020
89	Multi-Family Development	3357 S. Overland Avenue	41 units	Under construction, planned completion 2021
100	Mixed-Use Development	10955 Wilshire Boulevard	250-unit mixed use.	Preconstruction
101	Mid-Valley Water Facility Project	South of LOSSAN Corridor	New Water System District Yard	Construction anticipated to begin 2027
102	Multi-Family Development	7650 Van Nuys Boulevard	124-unit	Construction completed 2024, occupancy expected 2025
City of Santa Monica				
90	Commercial Development	1633 26th Street	129,265 sf commercial space	Planning process
91	Mixed-Use Development	2906 Santa Monica Boulevard	88-unit mixed use, 12,400 sf retail pace	Planning process
92	Providence Saint John's Health Center South Campus	2121 Santa Monica Boulevard	799,000 sf health care facilities	Planning process

Map ID	Project Name	Location	Description	Status
93	Mixed-Use Development	2901 Santa Monica Boulevard	60-unit mixed use, 5,100 sf retail space	Approved, pre-construction
94	Multi-Family Development	1450 Cloverfield Boulevard	34 units	Approved, under construction
95	Mixed-Use Development	2822 Santa Monica Boulevard	50-unit mixed use, 10,347 sf commercial space	Approved, under construction
96	Mixed-Use Development	1707 Cloverfield Boulevard	63-unit mixed use, 74,665 sf commercial space	Approved, pre-construction
97	Mixed-Use Development	1618 Stanford	50-unit mixed use, 15,548 sf commercial space	Approved, pre-construction
98	Mixed-Use Development	3223 Wilshire Boulevard	53-unit mixed use, 5,831 sf commercial space	Approved, pre-construction
99	Mixed-Use Development	3030 Nebraska Avenue	177-unit mixed use, 66,100 sf creative office space	Approved, pre-construction

Source: Bel-Air-Beverly Crest Neighborhood Council, n.d.; City of Santa Monica, n.d.; Curbed Los Angeles, n.d.; Encino Neighborhood Council, n.d.; LA Geohub, 2015a, 2015b; LADCP, 2019a, 2019b, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e); LADOT, n.d.; Lake Balboa Neighborhood Council, n.d.; Los Angeles Department of Building & Safety, 2020a, 2020b, 2020c, 2021a, 2021b; Mar Vista Community Council, n.d.; Metro, 2020a, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); Metro, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); North Valley Area Planning Commission, n.d.; North Westwood Neighborhood Council, n.d.; Palms Neighborhood Council, n.d.; Panorama City Neighborhood Council, n.d.; SCAG, 2020b, 2021b; Sherman Oaks Homeowners Association, n.d.; Sherman Oaks Neighborhood Council, n.d.; South Valley Area Planning Commission, n.d.; UCLA, n.d.; Urbanize LA, n.d.; Van Nuys Neighborhood Council Planning and Land Use Committee, n.d.; Veterans Affairs Greater Los Angeles Healthcare System, 2018; West Los Angeles Area Planning Commission, n.d.; West Los Angeles Sawtelle Neighborhood Council, n.d.; Westside Neighborhood Council, n.d.; Westwood Neighborhood Council, n.d.

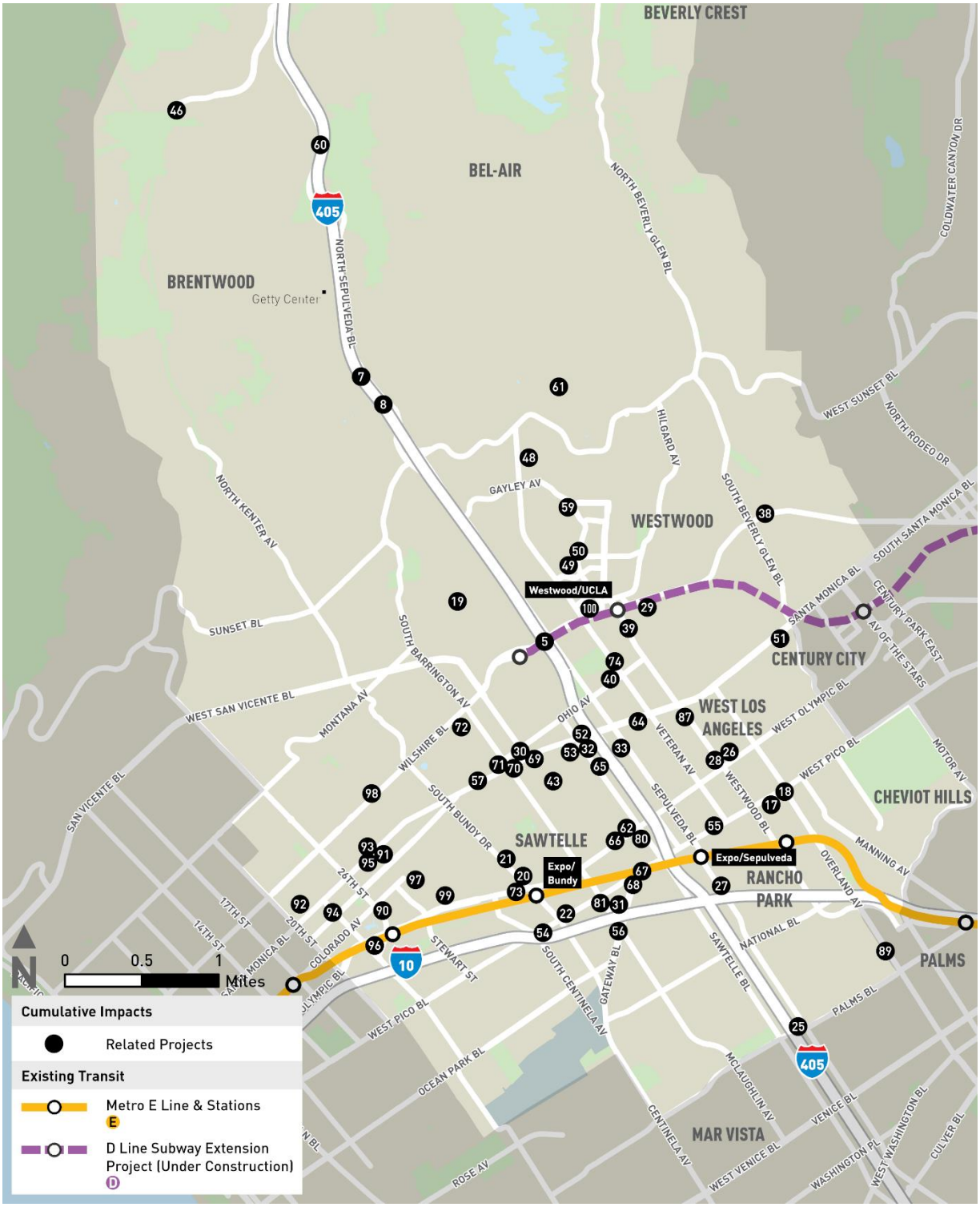
NA = not applicable
sf = square feet

Figure 5-1. Related Projects Identified in the Project Study Area - North



Source: HTA, 2024

Figure 5-2. Related Projects Identified in the Project Study Area - South



Source: HTA, 2024

5.2 Impacts Evaluation

5.2.1 Transportation Impacts

The Cumulative Impact Resource Study Area (RSA) for transportation impacts is the Project Study Area. Under cumulative conditions, incremental improvements to roadway networks in the Cumulative RSA would occur, primarily consisting of intersection-level additions of turning lanes and traffic-signal upgrades to improve safety (by providing separated turning phases) or traffic flow by adding turn-lane capacity. Congestion along I-405 and throughout the Cumulative RSA is anticipated to worsen as a result of natural population and employment growth. The only major roadway project identified in Table 5-1 is the ExpressLanes project. While construction of the ExpressLanes project is anticipated to result in short-term impacts to traffic congestion along I-405 resulting from construction-related ramp closures due to construction, the project is anticipated to result in long-term improvements to traffic flow along the highway.

As reported in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), transit mode share is anticipated to be 2.2 percent of all trips in 2045 and with approximately 436,000 daily boardings on urban rail and bus rapid transit lines in the Cumulative RSA. As a result, existing transit lines may reach peak-load capacities in the 2045 condition; however, it is expected that Metro would accommodate the additional demand by implementing operational improvements and by updating its short- and long-range transit plans. Several projects identified in Table 5-1 would improve transit service and capacity in the region, including the Metro North San Fernando Valley Bus Rapid Transit project, Metro NextGen Bus Plan, Metro East San Fernando Valley Light Rail Transit project, and the Metro G Line Conversion to Light Rail project.

According to the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), ambient population and employment growth would result in increased vehicle miles traveled (VMT) in the Cumulative RSA, from 456,869,300 VMT in the existing condition to 568,557,200 by 2045.

5.2.2 Land Use and Development

The Cumulative RSA for land use and planning is the Project Study Area. The Cumulative Impact RSA for land use and development is the Cumulative RSA. The related land development projects identified in Table 5-1 are site-specific projects in a highly urbanized area, generally consisting of development on existing parcels. Simultaneous construction of some related land development projects could occur, potentially resulting in short-term and temporary construction disruptions to the existing physical environment and localized circulation through temporary street or sidewalk closures. However, the potential street closures and turning restrictions associated with the related projects would not divide existing communities as access to streets and surrounding properties would generally be required to be maintained through the rerouting of traffic within adjacent local streets as specified in traffic management plans. Therefore, the related projects would not result in a divided community. The related land development projects are subject to land use regulation by the Cities of Los Angeles and Santa Monica, among other jurisdictions, that are updated as necessary to reflect current land use planning policies supported by state, regional, and local jurisdictions. Accordingly, it is not anticipated that conflicts with land use plans or policies would occur. Major transportation projects in the Study Area such as the Metro East San Fernando Valley Light Rail Transit project (Map ID 2) may require land acquisition and potential conversion of land uses to transportation uses. However, all transportation projects identified in the Project Study Area follow existing transportation corridors, and it is not anticipated that substantial residential property acquisitions or displacements would occur.

5.2.3 Real Estate, Acquisitions, and Population and Housing

The Cumulative RSA for population and housing is the Project Study Area. Several of the related land development projects identified in Table 5-1 provide new housing or commercial opportunities, which would result in increases in local population and employment. These projects would not result in displacement that would require construction of replacement housing elsewhere.

Several of the regional transportation projects identified in Table 5-1 include construction of new infrastructure that may require the acquisition and displacement of housing or commercial properties. However, each of the related transportation projects identified generally follow existing transportation corridors and are not anticipated to displace substantial numbers of people or housing such that construction of replacement housing elsewhere would be required.

5.2.4 Communities and Neighborhoods

An increase in transit service in the region may allow for increased development around station areas; however, such development is anticipated in the local jurisdictions' general plans and would be contingent upon local city zoning regulations and approvals. Therefore, development around the station areas of related transit projects would not occur in an uncontrolled manner.

As discussed in Section 5.2.3, several of the related land development projects would introduce new housing and commercial uses. However, these projects are subject to local city zoning regulations and approvals and must meet state Regional Housing Needs Allocation; therefore, the introduction of new housing or commercial opportunities would not constitute uncontrolled growth. Considered cumulatively, the increases in population and employment could require construction or expansion of new community facilities, including schools and libraries, or otherwise increase the use of such facilities.

According to the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025d), both Los Angeles Department of Water and Power (LADWP) and Metropolitan Water District of Southern California predict that water supply will meet future demand should current passive conservation methods remain employed. The LADWP plans to increase water conservation through turf replacement programs, increased water recycling and stormwater capture. Under the post-conservation water demand scenario in 2045, water supplies would be in a surplus compared to demand. Development in the Project Study Area would increase water use, but anticipated water conservation measures consistent with Urban Water Management Plans would ensure that water supplies are maintained. Regarding solid waste, of the landfills that serve the Project Study Area, all but the Calabasas and Scholl Canyon Landfills are anticipated to operate until at least 2037 with adequate capacity to serve the region. Related projects would produce additional solid waste, but existing solid waste capacity would not be exceeded in the cumulative scenario. Regarding wastewater, related projects could result in additional wastewater generation, but are not anticipated to exceed the treatment capacity within the city of approximately 580 million gallons per day.

5.2.5 Visual Quality and Aesthetics

The geographic scope for the cumulative Resource Study Area (Cumulative RSA) for visual impacts includes the six landscape units described in the *Sepulveda Transit Corridor Project Visual Quality and Aesthetics Technical Report* (Metro, 2025e). The Project and the related projects identified in Table 5-1 are typical of the urbanized environment and cumulatively would not substantially change the existing visual character. Further, it is anticipated that the related development projects would comply with zoning and design requirements of the applicable jurisdiction, including undergoing mandated design

review where applicable. Scenic vistas are largely absent within the Cumulative RSA, with the exception of vantage points in the Santa Monica Mountains and along Mulholland Drive. Several of the related land development projects identified in Table 5-1 are sufficiently substantial enough in massing and visual presence that they would be visible from a scenic vista vantage point; however, all of the development projects within the viewshed would be consistent with the existing development pattern of the Cumulative RSA and would not substantially alter views available in the Cumulative RSA, as all development, including the Project, would blend into the urban character of the Santa Monica Mountains viewshed.

There are no California-designated scenic highways within the Cumulative RSA for visual impacts; however, there are six City of Los Angeles-designated scenic highways, including portions of Beverly Glen Boulevard, Mulholland Drive, Santa Monica Boulevard, Sepulveda Boulevard, Sherman Way, and Sunset Boulevard. It is not anticipated that any of the development projects listed in Table 5-1 would affect scenic resources along these city-designed scenic highways; however, the ExpressLanes project would involve changes to the I-405 facility, including potential widening within the Sepulveda Pass. Widening I-405 in this area may require slope modifications, including potential large cut-and-fill slopes in areas where the freeway right-of-way (ROW) is particularly constrained. Such changes could affect scenic resources available along Sepulveda Boulevard, including views of the natural landscape and hillsides. It is anticipated that the ExpressLanes project will implement various measures to minimize these potential visual effects, potentially including revegetation and landscaping and aesthetic design enhancements.

Other past, present, and reasonably foreseeable projects within the Sepulveda Pass include the I-405 High Occupancy Vehicle Lanes project, which was completed in 2014. The I-405 High Occupancy Vehicle Lanes project resulted in significant alterations to the Sepulveda Pass landscape, including widening of I-405, slope alterations, and replacement of several bridges. The ExpressLanes project is currently undergoing environmental review and the ultimate design and associated potential slope alterations that may result from that design are unknown.

The existing urbanized environment within the Cumulative RSA experiences a wide range of existing light and glare sources, including industrial and commercial uses, vehicular light, streetlights, and parking facilities. Related land development projects identified in Table 5-1 are consistent with the light and glare profile within the Cumulative RSA.

5.2.6 Air Quality Impacts

The geographic extent of the cumulative analysis for air quality includes the South Coast Air Basin (SCAB) at the regional level. Despite substantial growth in population, air quality within the SCAB has been gradually improving over the past several decades as a result of robust regulatory control measures administered at the federal, state, and regional levels. The SCAB is currently in attainment or maintenance of the ambient air quality standards for carbon monoxide (CO), nitrous oxide (NO_2), and sulfur dioxide (SO_2), and is designated as nonattainment for ozone (O_3) and fine particulate matter ($PM_{2.5}$) at the federal level and nonattainment for O_3, respirable particulate matter of diameter less than 10 microns (PM_{10}), and $PM_{2.5}$ at the state level. The nonattainment designations represent on-going significant cumulative air quality impacts within the RSA; therefore, emissions of O_3 precursors and particulate matter associated with implementation of the project alternatives are of particular concern. The South Coast Air Quality Management District (SCAQMD) prepares the Air Quality Management Plan (AQMP) to evaluate contemporary SCAB air quality and the emissions inventory and forecast control strategies to ultimately bring the SCAB into attainment of the ambient air quality standards. The AQMP

emissions budgets are partially developed based on the SCAG *Connect SoCal, 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024-2050 RTP/SCS) (SCAG, 2024), and the two planning documents are developed in conjunction with one another. The 2022 AQMP is focused on attaining the 2015 8-hour O_3 standard of 70 parts per billion and builds upon the emission reductions strategies stated in previous AQMPs, such as the 2016 AQMP, which focused on demonstrating National Ambient Air Quality Standards attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard, which focused on attaining the 1997 8-hour and 2008 8-hour O_3 standards, as well as $PM_{2.5}$ standards.

The 2022 AQMP focuses primarily on reducing nitrogen oxides (NO_X) emissions, as it is the key pollutant in controlling the formation of O_3. Additionally, reducing NO_X emissions would also reduce the secondary formation of $PM_{2.5}$, thus, supporting efforts to meet $PM_{2.5}$ standards. The 2022 AQMP states that NO_X emissions would need to be reduced by 67 percent by 2037 to meet the standard. Emission reduction strategies to meet the standard will build upon already strict regulations for stationary and tailpipe sources, and will also rely on adoption and implementation of zero-emission technologies and low-NO_X technologies.

Emissions of toxic air contaminants within the SCAB have also declined over the past several decades. The SCAQMD 2018-2019 Multiple Air Toxics Exposure Study V report concluded that emissions of carcinogens within the SCAB had decreased by 48 percent since the 2012-2013 MATES IV report, and both the average SCAB monitored (40 percent decrease) and modeled (54 percent decrease) ambient carcinogenic risks had been substantially reduced over the 6-year timeframe between MATES publications. Approximately 48 percent of this risk was attributed to emissions associated with off-road mobile sources, and approximately 40 percent was attributed to on-road mobile sources, with approximately 7 percent from area sources and 5 percent from point sources. Diesel particulate matter (DPM) comprised approximately 72 percent of the total ambient carcinogenic risk, and average DPM concentrations were 53 percent lower than those measured in MATES IV. Compliance with the California Air Resources Board (CARB) diesel program requirements for heavy-duty commercial diesel trucks beginning in January 2023 will further reduce diesel particulate emissions into the future.

The greatest potential for a cumulative impact on regional air quality would be the incremental addition of pollutants from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with construction of cumulative projects. As described in Section 5.2.1, VMT in the Project Study Area would grow from 456,869,300 VMT in the existing condition to 568,557,200 by 2045. While development in the Project Study Area would increase VMT, exhaust emission factors tend to decrease in future years due to expected improvements in vehicle engine technology, fuel efficiency, and turnover in older, more heavily polluting vehicles. Construction impacts related to cumulative projects would be cumulatively considerable within the SCAB if their combined construction emissions would exceed the SCAQMD daily emission thresholds during construction. Any project located within the SCAB would be required to comply with SCAQMD rules and regulations to reduce potential emissions during construction. Other projects would be required to implement fugitive dust control measures and use construction equipment with engine designations of United States (U.S.) Environmental Protection Agency (EPA) Tier 4.

The transportation projects identified in Table 5-1 would all be consistent with the 2024-2050 RTP/SCS because each would improve regional transit by expanding the region's transit service and contribute to reducing VMT and associated emissions. Other transit projects identified in the Long-Range Transportation Plan that would be implemented by 2045 would have a net cumulative beneficial effect to regional air quality operational emissions from the reduction in passenger vehicle use expected under

the various transit improvements. Finally, as part of the 2024-2050 RTP/SCS (SCAG, 2024), SCAG has identified strategies to relieve congestion, reduce delay and harmful emissions, and improve safety on major truck corridors.

5.2.7 Climate Change and Greenhouse Gas Emissions

The Cumulative RSA for greenhouse gas (GHG) emissions is the SCAG region. As noted in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), GHG and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA, 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) also serves as the cumulative impact analysis.

Climate change refers to variations in average long-term meteorological conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and frequency and severity of extreme weather events. Historical records indicate that global climate fluctuations have occurred in the past due to natural phenomena; however, recent data increasingly suggests that the current global conditions are distinct from previous patterns and are influenced by anthropogenic (human-caused) GHG emissions. GHGs are a class of pollutants that are generally understood to play a critical role in controlling atmospheric temperature near the Earth's surface by allowing high-frequency shortwave solar radiation to enter the planet's atmosphere and then subsequently trapping low-frequency infrared radiative energy that would otherwise emanate back out into space.

Cumulative development affecting GHG emissions within the RSA includes all transportation projects that are programmed in the 2024-2050 RTP/SCS (SCAG, 2024). CARB issued a determination that the 2020-2045 RTP/SCS (SCAG, 2020a, 2020b) successfully demonstrated that the region would attain its established Senate Bill (SB) 375 per capita GHG emissions targets in the 2035 horizon year of the analysis on October 30, 2020 and is currently in the process of reviewing the 2024-2050 RTP/SCS, which has identified a target of a 19 percent reduction in GHG emissions by 2035. CARB's determination relies on projects that are programmed into the current RTP/SCS being implemented. The transportation projects identified in Table 5-1 all support the 2024-2050 RTP/SCS GHG reduction goals, as each provides transit improvements in the region that contribute to a reduction in automobile VMT and associated reduction in GHG emissions. GHG emissions from the No Project Alternative presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) represent a future condition from existing conditions where the changes are solely due to growth in regional traffic because of natural population growth and development, and planned service changes. According to the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), VMT would increase by 24 percent between the years 2021 and 2045; however, mobile source GHG emission factors are anticipated to improve over time due to expected improvements in vehicle engine technology, fuel efficiency, and turnover in older, more heavily polluting vehicles. As a result, a net decrease in GHG emissions is anticipated.

5.2.8 Noise and Vibration Impacts

The Cumulative RSA for noise and vibration consists of the Project Study Area. The existing cumulative noise condition is characterized by existing traffic and freight noise, which was captured by ambient noise measurements conducted for the Project. Projects identified in Table 5-1 would be likely to result in additional noise generated in the RSA, both during construction and operation. Construction activities

associated with any of the related projects would generate temporary point source noise and vibration that would increase the ambient noise at receptor locations in the vicinity of a given project's construction. Such impacts would be exacerbated by the concurrent construction of two or more projects taking place in close proximity to one another. Operation of related projects, including both transportation and land use development projects, would result in long-term increases in noise due either to the operation of transit vehicles or due to additional economic activity, including work commutes for new residents and workers at the development sites of the projects identified in Table 5-1. Cumulative growth and development the City of Los Angeles could result in increases in roadway traffic volumes over time that would concurrently increase ambient noise levels in the RSA. However, future increases in roadway noise are expected to be minimal within the Cumulative RSA because of limited roadway capacity.

5.2.9 Ecosystems and Biological Resources

The Cumulative RSA for biological resources consists of the Project Study Area. Historically, development and rapid urbanization have been occurring in the region since the late 1800s. Continued development relating to infrastructure improvement, housing construction, and other community needs is regularly, and frequently, occurring. There is an existing cumulative impact related to biological resources as a result of the highly urbanized setting and both historic and present development throughout the region. Today, the region is an established metropolitan setting consisting of a mostly highly urbanized landscape, including both industrial and residential communities, resulting in an existing impact to the biological setting of the Cumulative RSA for biological resources. The Santa Monica Mountains area is less developed with steep slopes that are covered by remnant native chaparral habitats and non-native grasslands. Native habitat is interspersed with single-family residences that occur along the north-south-oriented roadways atop ridge lines and through canyons and valleys. Portions of the Santa Monica Mountains National Recreation Area (SMMNRA) are within the Santa Monica Mountains; the SMMNRA consists of approximately 150,000 acres and provides habitats to more than 1,000 different plant and 500 wildlife species (National Park Conservation Association, 2023).

I-405 is a major arterial freeway running north-south through the middle of the Cumulative RSA, connecting communities in the San Fernando Valley with the Los Angeles Basin through the Sepulveda Pass in the Santa Monica Mountains. The freeway serves as a blockage for wildlife movement within the Santa Monica Mountains, as roads in urban areas threaten wildlife by acting as barriers to movement through increased mortality, reduced habitat quality and connectivity, changes in behavior, and restrictions to genetic flow (Riley et al. 2014; Coffin, 2007; Riley et. al 2006).

Related projects identified in Table 5-1 would have limited potential to affect special status species or associated habitat, as a majority of the Cumulative RSA is heavily urbanized. However, the ExpressLanes project would involve changes to the I-405 facility, including potential widening within the Sepulveda Pass. Widening the I-405 in this area may require slope modifications, including potential large cut-and-fill slopes in areas where the freeway ROW is particularly constrained. Slope alterations have the potential to affect sensitive habitat within the SMMNRA. Furthermore, widening the I-405 facility has the potential to further affect wildlife movement within the Santa Monica Mountains as a wider highway and the presence of additional infrastructure may deter wildlife from crossing the facility, either at designated wildlife crossings or via undesignated routes. The ExpressLanes project is currently undergoing environmental review and the ultimate design and associated potential impacts to habitat and wildlife movement are unknown.

5.2.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources

The Cumulative RSA for geology and soils consists of the Southern California Region. Geologic and soils impacts are generally site-specific and do not typically combine across multiple projects to cause cumulative effects. Each project would be subject to localized conditions such as seismic hazards, soil stability, and ground movement, and these risks would be managed independently for each site. As a result, significant cumulative impacts related to geology and soils are not anticipated. Projects listed in Table 5-1 would require soil and/or ground disturbance in order to construct the projects. Of the transit projects listed in Table 5-1, only the Metro D Line Extension project includes substantial ground disturbance and tunnelling activities. In addition, all of the development projects listed in Table 5-1 would involve construction of new habitable structures that would be subject to seismic hazards common to the Cumulative RSA and the greater region. Each of these projects would be required to comply with all prescribed standards, requirements, and guidance related to seismic and geologic hazards, and implement mitigation measures as necessary. While each related project is subject to various geologic risks, these risks would be site-specific and would not be cumulatively significant. With regard to potential paleontological impacts, projects listed in Table 5-1 would include ground disturbance at varying depths, which has the potential to unearth undiscovered paleontological resources. A paleontological records search from the Natural History Museum of Los Angeles County identified one fossil discovery within the Cumulative RSA and an additional 14 other fossil localities located within 5 miles of the Cumulative RSA. A significant cumulative impact would occur if multiple related projects encounter and disturb important paleontological resources during excavation activities. Since a majority of the related projects identified in Table 5-1 do not involve deep excavations below existing artificial fill, it is not anticipated that a cumulative impact to paleontological resources would occur. Related projects disturbing ground and subsurface areas would be required to mitigate potential impacts to paleontological resources in highly sensitive paleontological areas.

5.2.11 Hazards and Hazardous Materials

The Cumulative RSA for hazardous materials is the Project Study Area. Highway improvement projects, such as the ExpressLanes project, would occur within freeway ROW, and construction may disturb pavement contaminated with aerially deposited lead as well as lead-based paints. Operation-related projects would likely involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. Cleaning and maintenance products are required to be labeled with appropriate cautions and instructions for handling, storage, and disposal, and do not represent a significant threat to human health and the environment. None of the related projects involve activities that would result in the use or discharge of unregulated hazardous materials. Storage and disposal of hazardous materials and waste would be conducted in accordance with all federal and state regulatory requirements that are intended to prevent or manage hazards, and if a spill does occur, it would be remediated accordingly.

5.2.12 Water Resources

The Cumulative RSA for hydrology and water quality is the Project Study Area. Potential pollutants (e.g., petroleum products/lubricants, paints, solvents, and other project-related products) used during operations and maintenance of the related projects would contribute to water pollution if not properly dispensed, stored, or disposed. Uncontrolled discharge of runoff carrying these potential pollutants would result in significant impacts to water quality in important waters such as the Los Angeles River and Ballona Creek, which would violate water quality standards and waste discharge requirements if not appropriately managed. Each project affecting runoff would include several sustainability features in

compliance with the *Low Impact Development Standards Manual* (LADPW, 2014), which would serve to reduce impervious area and promote infiltration, thereby improving water quality. These projects would also comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, water quality control and/or sustainable groundwater management plans, including the *Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) (LARWQCB, 2014) and *City of Los Angeles General Plan* (DCP, 2001), as well as commonly used industry standards.

The Cumulative RSA, which is within the Los Angeles River Watershed and the Ballona Creek Watershed, is covered by urban uses. The existing drainage system in the watersheds consists of engineered storm channels and various streams and tributaries originating in the Santa Monica Mountains. Potential cumulative increases in stormwater runoff are not expected to significantly alter drainage patterns because the projects would utilize existing municipal stormwater facilities. It is not expected that any of the reasonably foreseeable projects would result in a substantial change to the amount of impervious land cover in the Project Study Area, as a majority of related projects would be sited in a heavily urbanized environment where there is limited pervious surface available. Since the amount of runoff generated in the Cumulative RSA would not be expected to significantly increase due to development of surrounding projects, substantial increases in erosion, siltation, flooding, or exceedance of the stormwater drainage system would not be expected and cumulative impacts would be less than significant.

With regard to surface water and ground water quality in the Cumulative RSA, each of the concurrent projects would be subject to applicable water quality regulations and thus would be required to prepare a stormwater pollution prevention plan for construction activities and to incorporate best management practices to control pollutant discharges. In addition, operation of all the related projects would be required, by Chapter 13.29, Storm Water and Urban Runoff Pollution Prevention Control and Standard Urban Stormwater Management Plan (SUSMP) of the Los Angeles Municipal Code, to submit and implement an SUSMP.

5.2.13 Energy

The Cumulative RSA for energy is both regional and statewide. State, regional, and local agencies and jurisdictions have published a wide range of documents intended to reduce energy consumption and increase the use of renewable energy. The intent is typically to reduce the use of non-renewable energy to reduce pollution that contributes to global warming. As of 2017, approximately 30 percent of Metro's electricity is generated by renewable sources, and the seven Metro-owned solar installations around the greater Los Angeles area generated a total of 2,670 megawatt-hours (MWh). Metro has a goal of 50 percent renewable energy use by 2030. Additionally, Metro operates 11 Leadership in Energy and Environmental Design-certified buildings representing nearly 2 million square feet of floor area. All of the transit projects listed in Table 5-1, including the Metro North San Fernando Valley BRT project, Metro East San Fernando Valley Light Rail Transit project, and the Metro G Line BRT Improvement project, support regional and local conservation plans in reducing VMT. Furthermore, none of the related projects interfere with Metro's commitments to improving energy efficiency or expanding its alternative energy infrastructure. All existing and future projects would consume energy, but also would undergo project-specific environmental clearance and associated development of mitigation measures to avoid or minimize wasteful, inefficient, or unnecessary energy use. California Energy Commission (CEC) transportation energy demand forecasts indicate that gasoline and diesel fuel production is anticipated to increase between 2021 and 2035, while demand for both gasoline and diesel transportation fuels is projected to decrease over the same time period (CEC, 2021). These increases would not place an undue burden on existing petroleum-based transportation fuels reserves or supply

within Los Angeles County. There are numerous state and regional regulatory measures designed to minimize excess transportation fuels consumption.

5.2.14 Cultural Resources and Tribal Cultural Resources

The Cumulative RSA for historic, archaeological, and tribal cultural resources consists of the Project Study Area. There is potential for related projects identified in Table 5-1 to disturb unknown archaeological resources or human remains during construction, which would be considered a significant cumulative impact, particularly if multiple projects disturb different areas of the same archaeological resource, such as remnants of a Native American village or burial ground. While a majority of the related projects identified in Table 5-1 are unlikely to unearth unknown archaeological resources, as most would be constructed in areas that have previously been disturbed by existing development, there remains potential for significant impacts to archaeological resources, as the subsurface conditions of each related project are unknown. It is presumed that current and future development would include mitigation and avoidance measures to avoid or mitigate potential impacts to undiscovered buried archaeological resources or human remains.

Similarly, related projects that involve the demolition of historic buildings or changes to the historic setting as a result of the presence of related project facilities would result in a significant cumulative impact. Historic districts identified within the Cumulative RSA include the following:

- Sherman Oaks Circle Historic District
- University of California, Los Angeles (UCLA) Historic District
- Acanto Street Historic District
- University Crest Historic District
- West Los Angeles Veterans Affairs Historic District

None of the related projects identified in Table 5-1 are presumed to demolish any historic buildings; however, project-specific environmental review is required to determine impacts on historical resources and any associated mitigation measures to address such impacts. A handful of projects identified in Table 5-1 would be located within one of the previously listed historic districts, namely, the Metro Purple Line Extension project within the West Los Angeles Veterans Affairs Historic District and several housing projects within the UCLA Historic District. With regard to the UCLA Historic District, housing development on the UCLA campus is dictated by the *UCLA Long Range Development Plan* (UCLA, 2017) and the *UCLA Physical Design Framework* (UCLA, 2009), which account for and protect existing historic resources, including UCLA Historic District contributing elements. Furthermore, none of the proposed housing developments are located within the UCLA Historic District, so there is no potential for direct impacts on the district or its contributing elements. As such, it is not anticipated that significant impacts to the UCLA Historic District would result from cumulative projects. With regard to the West Los Angeles Veterans Affairs Historic District, the Metro Purple Line Extension project has completed environmental review and did not identify a significant impact to the West Los Angeles Veterans Affairs Historic District. No contributing elements to the district are affected by the transit project construction.

While there are no formally recorded indigenous travel routes documented within the Cumulative RSA for tribal cultural resources, AB 52 consultation indicated that the Sepulveda pass may represent a significant landscape to tribes who have traditional knowledge of, and cultural connections to, the corridor. The pass has been used for thousands of years to support exchange networks and travel, and it holds religious significance to tribes in the region. There is an existing cumulative impact to this tribal

cultural resource as past, present, and probable future development has altered and continues to alter the landscape.

5.2.15 Parklands

The Cumulative RSA for recreation is the Project Study Area. Cumulative projects listed in Table 5-1 could cumulatively increase use of parks in the RSA due to increases in the number of residents. Transportation projects identified in Table 5-1 may also result in cumulative effects on parks in the RSA due to indirect population growth as a result of additional transit-oriented development around transit stations that would be constructed as part of these transit improvement projects. While it is not anticipated that any of the related projects would result in any direct land impacts on parks in the RSA, there is potential for some of the related projects to affect park property requiring construction or expansion of new or replacement parkland. In particular, the ExpressLanes project would be constructed along I-405 in the Sepulveda Pass. Throughout this portion of the I-405 corridor, portions of the SMMNRA and associated open space are present and abut the highway ROW. Any widening of the I-405 facility may require acquisition of open space land associated with the SMMNRA or open space conservation land managed by the Santa Monica Mountains Conservancy. Such property acquisitions would be considered a significant impact. None of the related projects listed in Table 5-1 are anticipated to acquire open space land associated with the SMMNRA.

5.2.16 Safety and Security

The Cumulative RSA for safety and security is the Project Study Area. As discussed in Section 5.2.3, several of the related land development projects would introduce new housing and commercial uses. However, these projects are subject to local city zoning regulations and approvals and must meet state Regional Housing Needs Allocation; therefore, the introduction of new housing or commercial opportunities would not constitute uncontrolled growth. Considered cumulatively, the increases in population and employment could require construction or expansion of new community serving facilities, including police facilities and fire facilities. Construction or expansion of these facilities could result in a cumulatively significant impact on safety and security.

With regard to wildfire risks, the Santa Monica Mountains have been designated as a Very High Fire Hazard Severity Zone by the California Department of Forestry and Fire Protection and I-405 and Sepulveda Boulevard are designated by Los Angeles County as Primary and Secondary disaster routes, respectively. Of the projects listed in Table 5-1, only the ExpressLanes project, I-405 Dynamic Corridor Ramp Metering System, and one multi-family housing development have been identified within the Sepulveda Pass and subject to potential wildfire hazards. None of these projects would conflict with adopted emergency response plans, as the primary and secondary disaster routes (i.e., I-405 and Sepulveda Boulevard) would be maintained and improved. However, roadway improvements within I-405 and Sepulveda Boulevard associated with the ExpressLanes project would result in a temporary and intermittent reduction of the number of lanes or temporary closure of roadways, which would interfere with evacuations in the event of a natural disaster. None of the related projects would exacerbate wildfire risks, as these projects would undergo separate environmental analysis, which could include wildfire mitigation measures as well as operating plans that are in compliance with all state laws, plans, policies, and regulations of the California Health and Safety Code (Sections 13000 et seq.) and the local jurisdiction municipal codes that pertain to wildfires. Similarly, all development would be required to provide adequate access for emergency vehicles during construction per existing state, county, and city Fire Code regulations. The state, county, and city Fire Code regulations would be incorporated into legally required health and safety plans for all construction workers and visitors.

5.3 Mitigation Measures

There are no mitigation measures identified specifically to address cumulative impacts of the No Project Alternative.

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)
1. Santa Monica Boulevard Station (aerial)
2. 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
3. Getty Center Station (aerial)
4. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
5. Metro G Line Sepulveda Station (aerial)
6. Sherman Way Station (aerial)
7. Van Nuys Metrolink Station (aerial)

6.1.1 Operating Characteristics

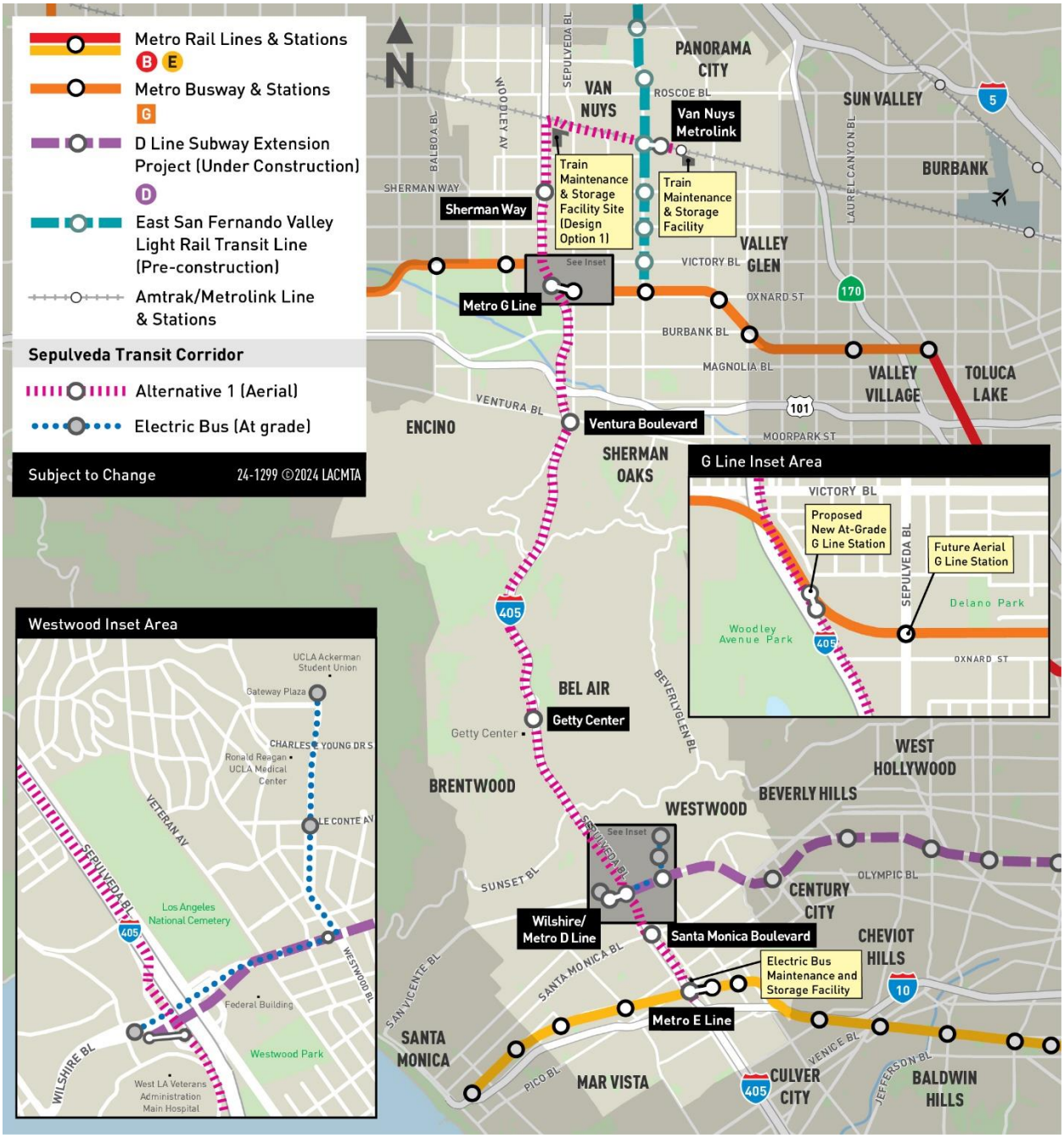
6.1.1.1 Alignment

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 (ROW) 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 (I-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, 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).

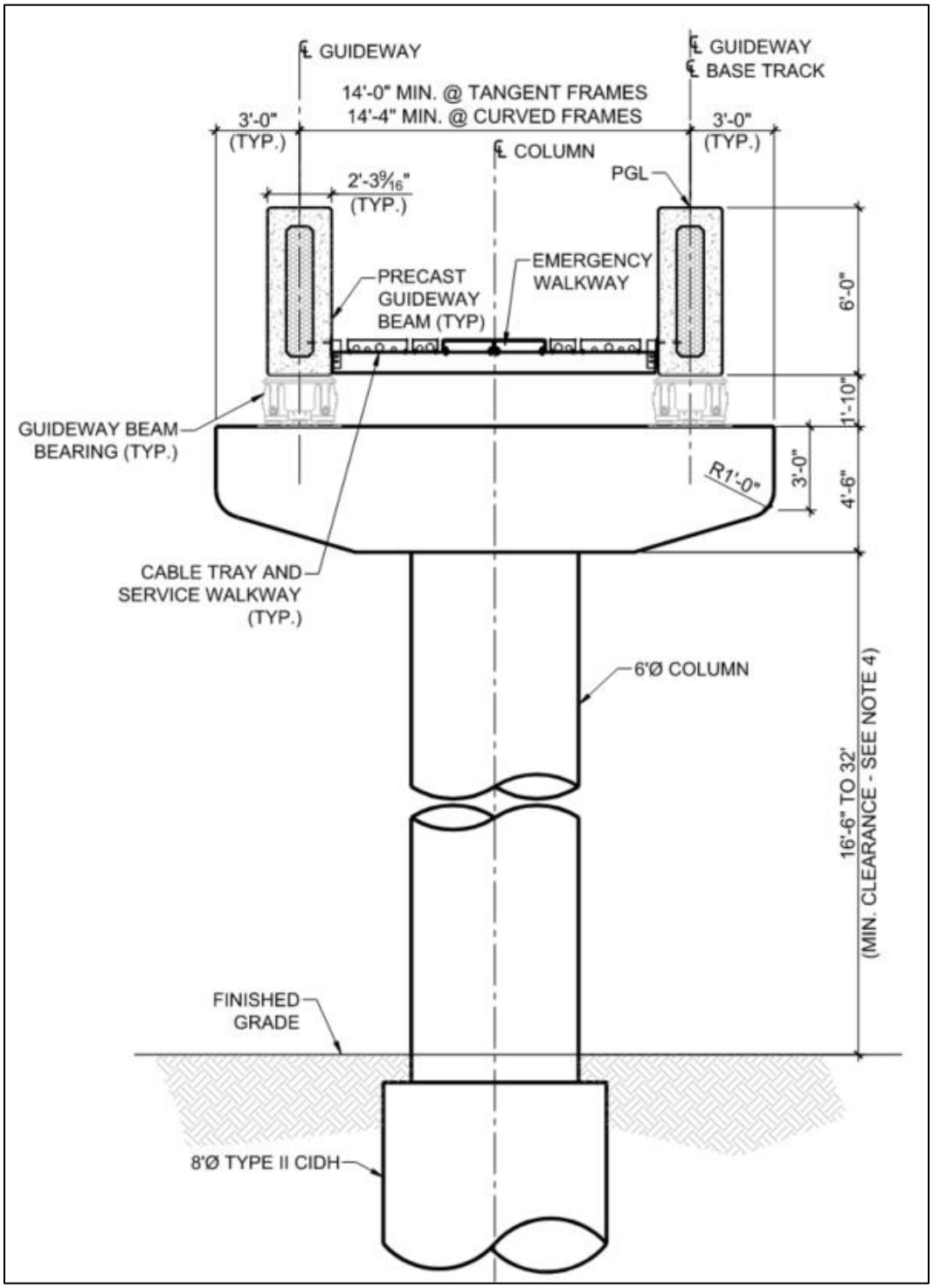
Near Greenleaf Street, the alignment would cross over the northbound freeway lanes and northbound on-ramps toward the proposed Ventura Boulevard Station on the east side of I-405. This station would be located above a transit plaza and would replace an existing segment of Dickens Street adjacent to I-405, 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



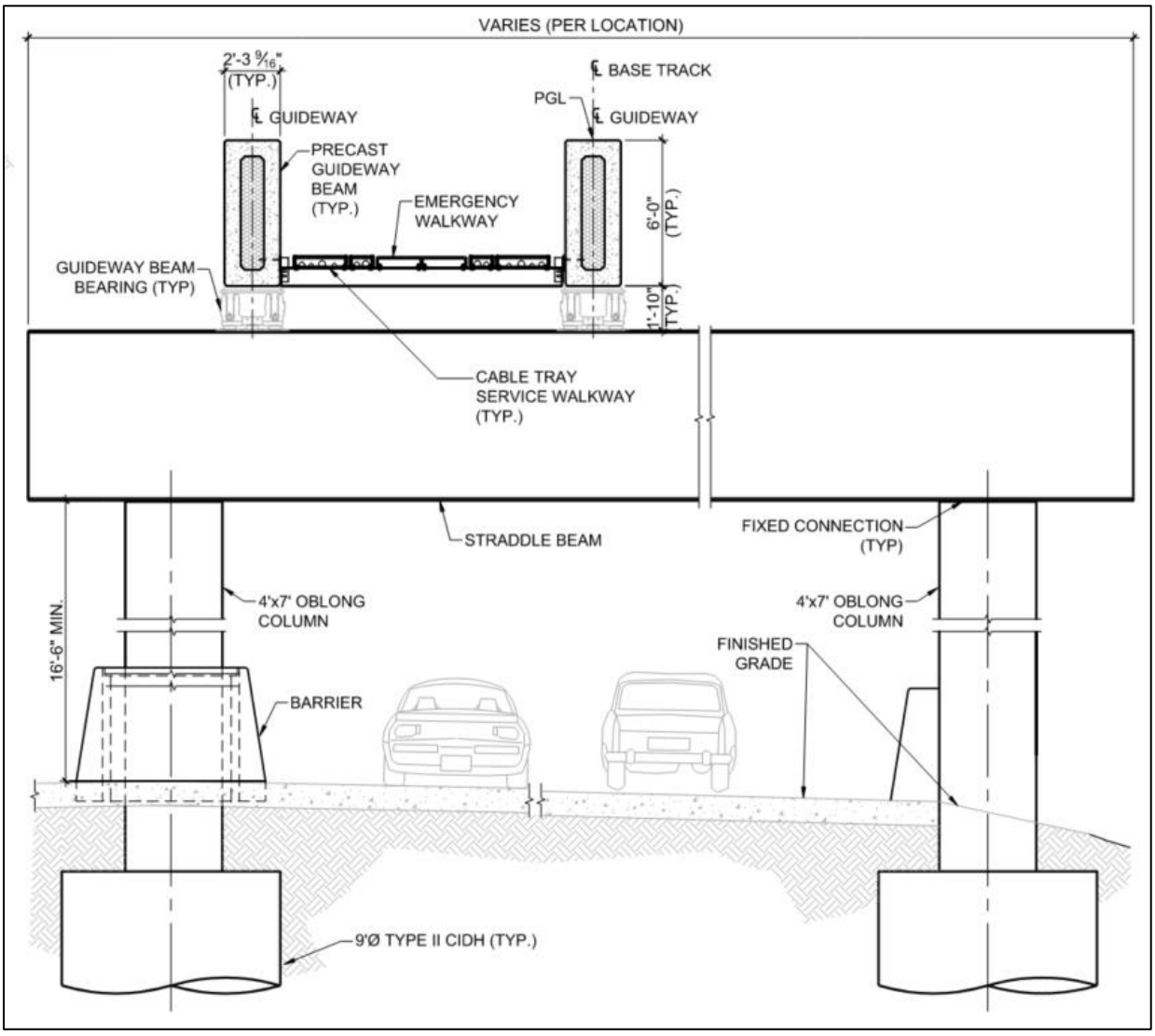
Source: LASRE, 2024

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

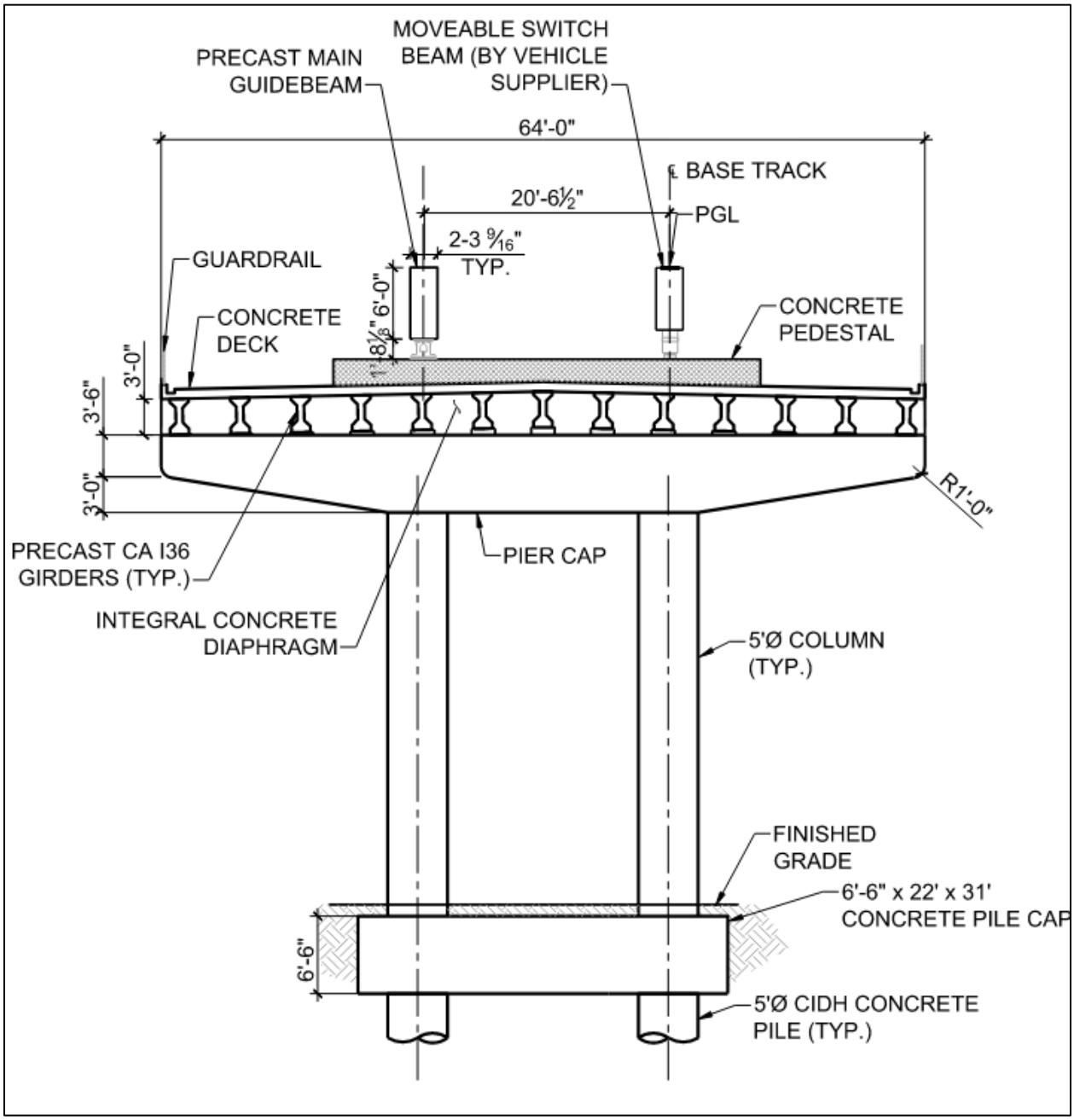
— = no data

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

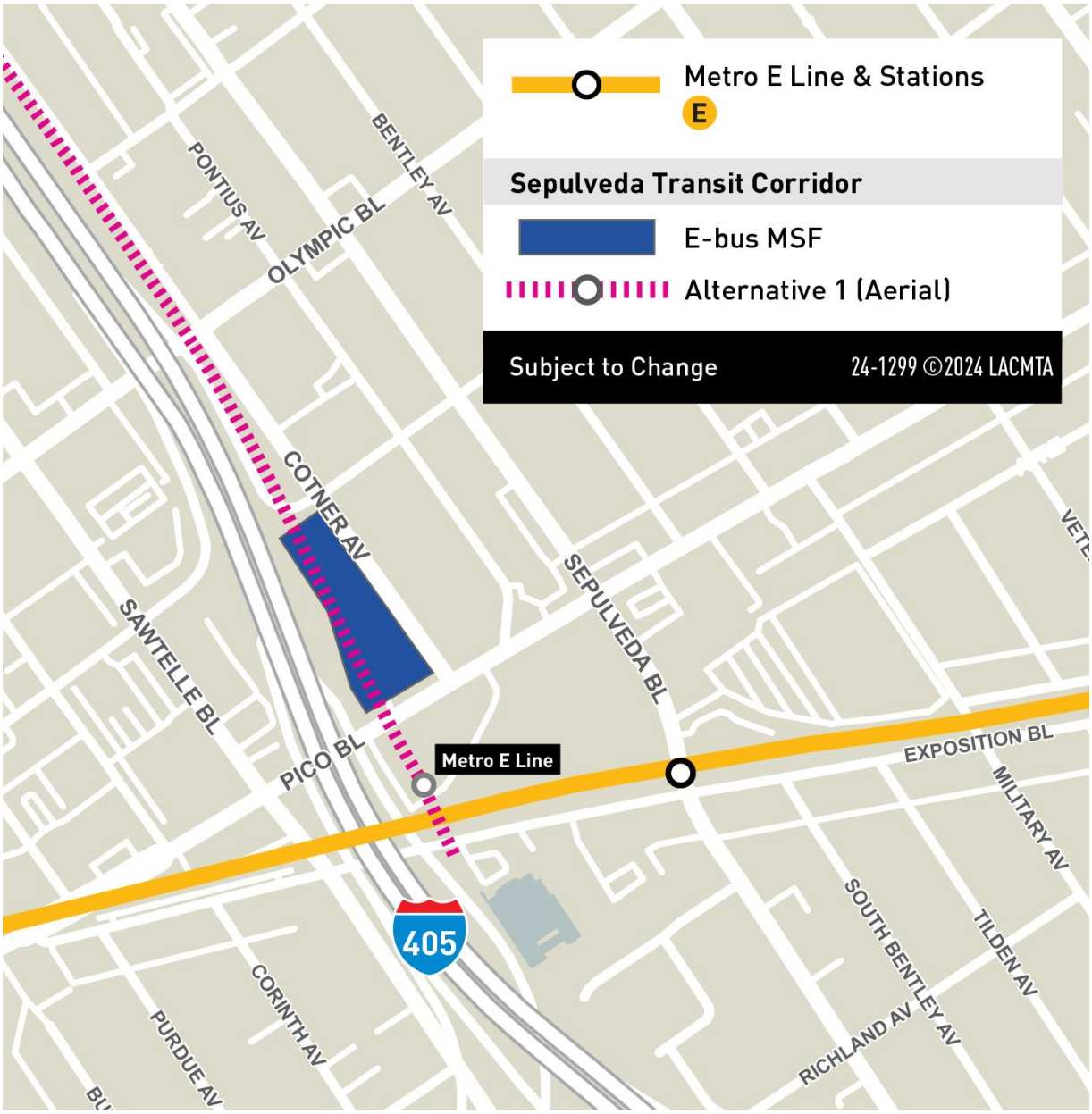
An electric bus MSF would be located on the northwest corner of Pico Boulevard and Cotner Avenue and would be designed to accommodate 14 electric buses. The site would be approximately 2 acres and would comprise six parcels bounded by Cotner Avenue to the east, I-405 to the west, Pico Boulevard to the 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
- Casting items and material transportation from other locations to on-site
- 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

CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires Environmental Impact Reports to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

6.2.1 Study Area

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for the evaluation of cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area.

For purposes of the cumulative analysis, the Study Area 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 Final Feasibility Report* (Metro, 2019). The Study Area lies within the jurisdictions of the Cities of Los Angeles and Santa Monica and the unincorporated Sawtelle VA community of Los Angeles County. Communities identified within the City of Los Angeles include the communities of North Hills, Panorama City, Sun Valley, Lake Balboa, Van Nuys, North Hollywood, Encino, North Sherman Oaks, Sherman Oaks, Brentwood, Bel Air, Beverly Crest, Westwood, West Los Angeles, Mar Vista, and Palms.

6.2.2 Related Projects

Related projects considered in the cumulative impact analysis are those projects that may occur in the Project site's vicinity within the same timeframe as Alternative 1 and includes past, present, and reasonably probable future projects. Related projects include regional transportation improvement projects, commercial developments of at least 50,000 square feet, and residential developments of 20 units or more. Related projects associated with this growth and located within the Project Study Area are listed in Table 6-5 and identified on Figure 6-10 and Figure 6-11. A total of 100 related projects was identified and includes nine regional projects, 81 City of Los Angeles projects, and 10 City of Santa Monica projects. Of the regional projects identified, eight are transportation or transit improvements. All of the City of Los Angeles and City of Santa Monica projects identified consist of development projects, including residential, commercial, and mixed-use developments.

Table 6-5. Alternative 1: Related Projects List

Map ID	Project Name	Location	Description	Status
Regional				
1	Metro North San Fernando Valley Bus Rapid Transit Project	East-west across the northern San Fernando Valley	18-mile bus rapid transit connecting to the East San Fernando Valley Transit Corridor project, Chatsworth Metrolink Station, and North Hollywood Metro B/G Line Station.	Planned completion 2025
NA	Metro NextGen Bus Plan	Los Angeles County	Metro bus plan to adjust bus routes and schedules based on existing origin/destination ridership data.	Phase 2 implemented 2021.
2	Metro East San Fernando Valley Light Rail Transit Project	San Fernando Valley	9.2-mile light rail transit connecting the Metro G Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station.	Construction planned to begin 2027
3	City of Los Angeles Orange (G) Line Transit Neighborhood Plan	San Fernando Valley	Long-range planning effort around three Metro G Line stations in the Eastern San Fernando Valley to regulate land uses, zoning, and design of new development.	Planning process, planned adoption 2025
4	Metro G Line Bus Rapid Transit Improvements Project	San Fernando Valley	18 miles of Metro G Line bus rapid transit improvements, including up to 35 railroad-style gates at intersections and new grade-separated structures at Van Nuys Boulevard and Sepulveda Boulevard.	Planned completion 2027
5	Metro Purple Line Extension Transit Project	City of Los Angeles	2.56-mile extension of the Metro D Line and two new stations at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.	Planned completion 2027
6	Metro G Line Conversion to Light Rail	City of Los Angeles, Van Nuys	Metro G Line conversion of the 18-mile Bus Rapid Transit to Light Rail Transit service.	Planned completion 2057
7	I-405 ExpressLanes	I-405 from I-10 to US 101	Installation of new ExpessLanes between the San Fernando Valley and the Westside along I-405.	Planned completion 2030
8	I-405 Dynamic Corridor Ramp Metering System	I-405 from I-10 to US 101	System-wide adaptive ramp metering strategy to coordinate with arterial traffic-signal operation.	Completed construction 2023

Map ID	Project Name	Location	Description	Status
City of Los Angeles				
9	Multi-Family Development	14541 & 14547 Gilmore Street	31 units	Under construction, anticipated completion 2024.
10	Multi-Family Development	14629 Erwin Street	20 units	Planning process
11	Mixed-Use Development	6569 N. Van Nuys Boulevard	174-unit mixed use	Under construction 2020since 2022 (near complete)
12	Multi-Family Development	6500 Sepulveda Boulevard	45 units	Approved December 2020, pre-construction
13	Multi-Family Development	14400-14412 Vanowen Street	45 units	Approved January 2021, pre-construction
14	Multi-Family Development	14303-14313 Friar Street	30 units	Planning process
15	Multi-Family Development	14553 Friar Street	42 units	Planning process
16	Mixed-Use Development	7002-7004 Van Nuys Boulevard	170-unit mixed use	Not constructed as of November 2020
17	One Westside / Google	10800 Pico Boulevard	584,000 sf office space	Under construction 2024
18	West End	Pico Boulevard & Overland Avenue	Renovation to 230,000 sf office space	Under construction 2024
19	West Los Angeles Veterans Affairs Center	West Los Angeles Veterans Affairs Medical Center Campus	1,200 units	Construction ongoing
20	Martin Expo Town Center	12101 W. Olympic Boulevard	600-unit mixed use, 150,000 sf office space	Under construction, planned completion 2023
21	Multi-Family Development	11950 W. Missouri Avenue	74 units	Planned completion summer 2021
22	Mixed-Use Development	12001-12021 W. Pico Boulevard	80-unit mixed use	Planning approved April 2020, no construction as of October 2024
23	Mission Gateway	8811-8845 Sepulveda Boulevard	356 units	Under construction 2024
24	ICON at Panorama	14665 Roscoe Boulevard	350-unit mixed use, 250,000 sf commercial space	Planned completion 2022, no construction as of October 2024
25	Mixed-Use Development	3443 S. Sepulveda Boulevard	409-unit mixed use, 60,000 sf retail space	Planned completion 2024
26	Multi-Family Development	2136-2140 Westwood Boulevard	77 units	Pre-construction

Map ID	Project Name	Location	Description	Status
27	Multi-Family Development	2600-2616 Sepulveda Boulevard	43 units	Approved February 2020, pre-construction
28	Multi-Family Development	2117-2121 Westwood Boulevard	109 units	Planning process, pre-construction as of December 2020
29	Multi-Family Development	10822 Wilshire Boulevard	54-unit eldercare facility	Planning process
30	Mixed-Use Development	11628 W. Santa Monica Boulevard	99-unit mixed use, 12,121 sf commercial space	Approved April 2021, planning/pre-construction as of December 2020
31	Multi-Family Development	2444-2456 S. Barry Avenue	61 units	Approved August 2020, pre-construction as of December 2020
32	Multi-Family Development	1656 S. Sawtelle Boulevard	33 units	Approved August 2020, pre-construction as of December 2020
33	Department of Water and Power Office Space	11761-12300 W. Nebraska Avenue	92,000 sf office building	Approved 2020
34	Via Avanti	4827 N. Sepulveda Boulevard	325 units, 44,000 sf retail space	Under construction
35	Multi-Family Development	16015 Sherman Way	46-unit supportive housing	Under construction
36	Mixed-Use Development	8141 Van Nuys Boulevard	200-unit mixed use, 2,450 sf retail space	Planning process
37	Multi-Family Development	7700 N. Woodman Avenue	239-unit senior affordable housing	Under construction
38	Multi-Family Development	888 S. Devon Avenue	21 units	Approved February 2020, no construction as of October 2024
39	Multi-Family Development	1300 S. Westwood Boulevard	31 units	Approved September 2020, no construction as of October 2024
40	Multi-Family Development	1427 S. Greenfield Avenue	29 units	Approved September 2020, revised plans submitted May 2021. No construction as of October 2024
41	Multi-Family Development	15027 – 15033 W. Ventura Boulevard	33 units	Approved August 2020, pre-construction as of 2019
42	Mixed-Use Development	13716 W. Victory Boulevard	32-unit mixed use, 1,000 sf commercial space	Approved June 2020, pre-construction
43	Multi-Family Development	1721 S. Colby Avenue	34 units	Approved January 2020, pre-construction as of December 2020

Map ID	Project Name	Location	Description	Status
44	Commercial Development	6001 Van Nuys Boulevard	82,273 sf commercial space (Keyes Honda Auto Dealership)	Planned completion 2020, but pre-construction as of November 2020
45	Commercial Development	5746 Sepulveda Boulevard	75-unit hotel	Approved June 2018, pre-construction as of 2019
46	Berggruen Institute Campus	1901 Sepulveda Boulevard and 2100, 2101, 2132, 2139, 2141, 2187 N. Canyonback Road	160,880 sf office space, temporary dwelling units, studios	Planned completion 2028
47	Girls Athletic Leadership School	14203 W. Valerio Street	Public charter middle school campus, 330 students grades 6-8	Planning process, pre-construction
48	UCLA Lot 15 Residence Hall	UCLA Lot 15	1,781 beds (student housing)	Under construction
49	UCLA Southwest Campus Apartments	900 Weyburn Place North	2,279 beds (student housing)	Under construction
50	UCLA 10995 Le Conte Avenue Apartments	10995 Le Conte Avenue	1,167 beds (student housing)	Under construction, expected completion 2021
51	Multi-Family Development	10460 W. Santa Monica Boulevard	68 units	Planning process
52	Multi-Family Development	11261 Santa Monica Boulevard	119 units	Approved June 2019, pre-construction
53	West Los Angeles Civic Center	1645 Corinth Avenue	926-unit mixed use, 114,400 sf commercial and office space	Planning process
54	Multi-Family Development	12300 W. Pico Boulevard	65 units	Approved October 2018, pre-construction as of December 2020
55	Multi-Family Development	11001 Pico Boulevard	89 units	Approved November 2019, pre-construction as of December 2020
56	Barringway Place	11701 Gateway Boulevard	73 units mixed use, 5,900 sf commercial space	Revised plans submitted May 2021
57	Multi-Family Development	11857-11861 Santa Monica Boulevard	52 units	Approved November 2021, pre-construction as of December 2020
58	Multi-Family Development	16243 W. Chase Street	25 beds (congregate living health facility)	Planning process
59	Multi-Family Development	10915 W. Strathmore Drive	37 units	Planning process
60	Multi-Family Development	10841 N. Sepulveda Boulevard	52 units	Pre-construction
61	Commercial Development	10768 Bellagio Drive	Demolition and reconstruction of the Bel Air Country Club House (approximately 62,615 sf)	Revised plans submitted January 2021, pre-construction

Map ID	Project Name	Location	Description	Status
62	Trident Center Expansion	11355 and 11377 W. Olympic Boulevard	Additional 120,000 sf of office and retail space	Planned completion 2022
63	Mixed-Use Development	14130 and 14154 Riverside Drive	249-unit mixed use, 27,000 sf commercial	Approved, pre-construction
64	Multi-Family Development	11010 Santa Monica Boulevard.	50-unit affordable housing	Planning process
65	Multi-Family Development	11272 Nebraska Avenue	24 units	Approved April 2018, under construction December 2020 (near completion)
66	On Butler	11421 W. Olympic Boulevard	77-unit mixed use, 6,575 sf commercial	Under construction as of December 2020 (near completion)
67	Multi-Family Development	11434 W. Pico Boulevard	102 units	Planning approved June 2019, pre-construction as of December 2020
68	Mixed-Use Development	11460 W. Gateway Boulevard.	129-unit mixed use, 5,241 sf commercial space	Planning process, not constructed as of 2019
69	Multi-Family Development	11600-11618 W. Santa Monica Boulevard	100 units	Under construction
70	Mixed-Use Development	11650-11674 Santa Monica Boulevard.	180-unit mixed use, 64,759 sf grocery store and amenities	Approved October 2019, pre-construction as of December 2020
71	Mixed-Use Development	11701 Santa Monica Boulevard.	53-unit mixed use, 1,500 sf retail	Updated plans approved 2020, pre-construction as of December 2020
72	Mixed-Use Development	11750-11770 Wilshire Boulevard.	376-unit mixed use	Planned completion 2022
73	West Edge	12101 W. Olympic Boulevard	600-unit mixed use, 200,000 sf office and amenities	Planned completion 2022
74	Multi-Family Development	1402 S. Veteran Avenue	23 units	Planning process
75	Multi-Family Development	14142 Vanowen Street	64 units	Planned completion 2024
76	Multi-Family Development	14534-14536 W. Burbank Boulevard.	55 units	Planned completion September 2021
77	Commercial Development	15005 W. Oxnard Street	98,458 sf storage facility	Planning process, pre-construction

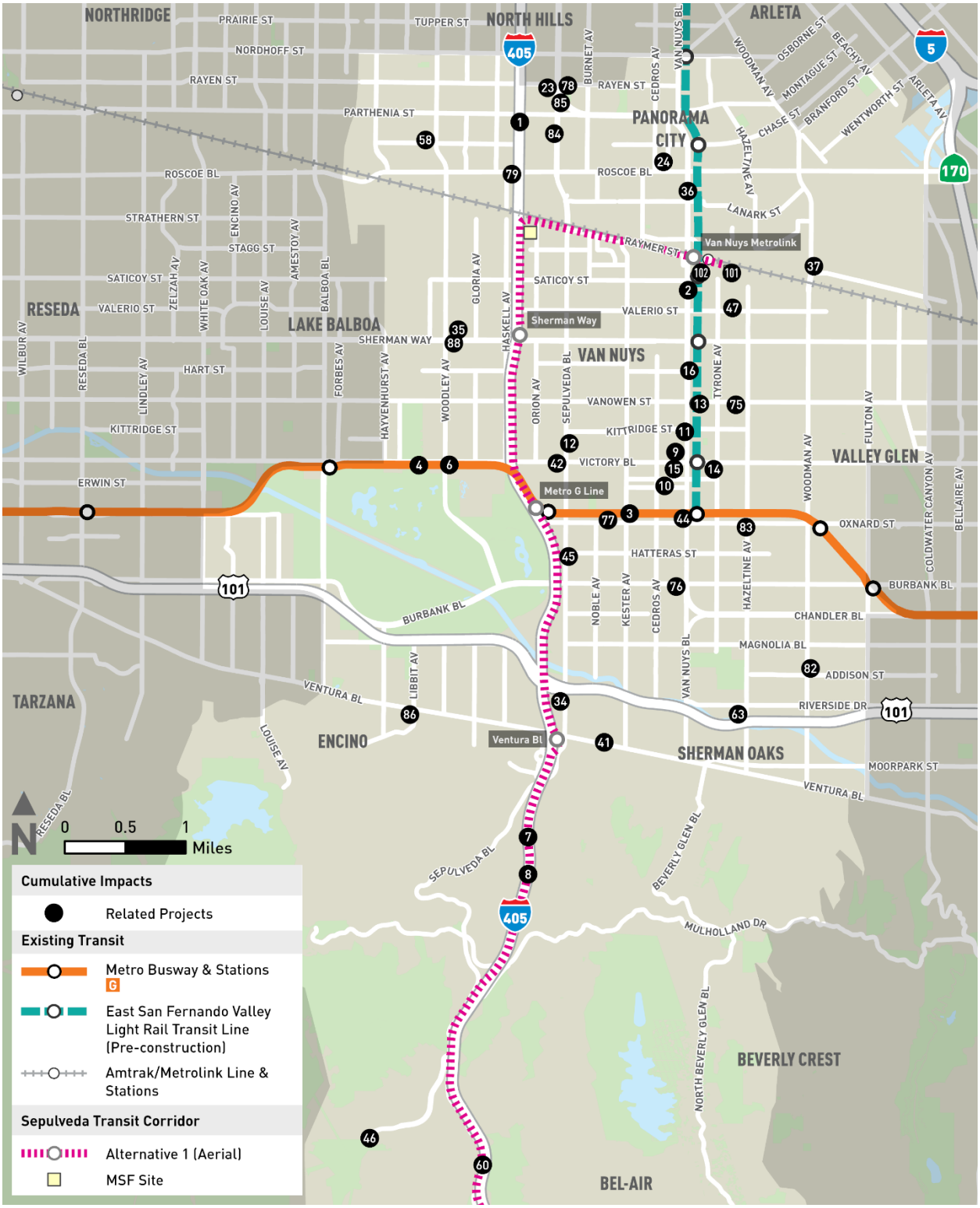
Map ID	Project Name	Location	Description	Status
78	Multi-Family Development	15314 W. Rayen Street	64 units	Planning process
79	Commercial Development	15640 W. Roscoe Boulevard	123,950 sf self-storage facility	Under construction
80	Commercial Development	2255 Sawtelle Boulevard & 2222 Corinth Avenue	135,000 sf office building	Approved March 2021, pre-construction
81	Multi-Family Development	2415-2419 S. Barrington Avenue	38 units	Approved January 2020, pre-construction as of December 2020
82	Multi-Family Development	5020 Woodman Avenue	51 units	Under construction
83	Multi-Family Development	5943-5953 N. Hazeltine Avenue	61 units	Planning process
84	Angel Apartments	8547-8549 N. Sepulveda Boulevard	54 units	Approved October 2019, pre-construction as of November 2020
85	Multi-Family Development	8750 N. Sepulveda Boulevard	43 units	Approved January 2020, pre-construction as of November 2020
86	Multi-Family Development	4741 N. Libbit Avenue	46 units	Approved April 2019, pre-construction
87	Multi-Family Development	1855-1871 Westwood Boulevard.	60 units	Under construction as of December 2020
88	Mixed-Use Development	16030 W. Sherman Way	54-unit mixed use	Under construction as of November 2020
89	Multi-Family Development	3357 S. Overland Avenue	41 units	Under construction, planned completion 2021
100	Mixed-Use Development	10955 Wilshire Boulevard	250-unit mixed use.	Preconstruction
101	Mid-Valley Water Facility Project	South of LOSSAN Corridor	New Water System District Yard	Construction anticipated to begin 2027
102	Multi-Family Development	7650 Van Nuys Boulevard	124-unit	Construction completed 2024, occupancy expected 2025
City of Santa Monica				
90	Commercial Development	1633 26th Street	129,265 sf commercial space	Planning process
91	Mixed-Use Development	2906 Santa Monica Boulevard	88-unit mixed use, 12,400 sf retail pace	Planning process
92	Providence Saint John's Health Center South Campus	2121 Santa Monica Boulevard	799,000 sf health care facilities	Planning process

Map ID	Project Name	Location	Description	Status
93	Mixed-Use Development	2901 Santa Monica Boulevard	60-unit mixed use, 5,100 sf retail space	Approved, pre-construction
94	Multi-Family Development	1450 Cloverfield Boulevard	34 units	Approved, under construction
95	Mixed-Use Development	2822 Santa Monica Boulevard	50-unit mixed use, 10,347 sf commercial space	Approved, under construction
96	Mixed-Use Development	1707 Cloverfield Boulevard	63-unit mixed use, 74,665 sf commercial space	Approved, pre-construction
97	Mixed-Use Development	1618 Stanford	50-unit mixed use, 15,548 sf commercial space	Approved, pre-construction
98	Mixed-Use Development	3223 Wilshire Boulevard	53-unit mixed use, 5,831 sf commercial space	Approved, pre-construction
99	Mixed-Use Development	3030 Nebraska Avenue	177-unit mixed use, 66,100 sf creative office space	Approved, pre-construction

Source: Bel-Air-Beverly Crest Neighborhood Council, n.d.; City of Santa Monica, n.d.; Curbed Los Angeles, n.d.; Encino Neighborhood Council, n.d.; LA Geohub, 2015a, 2015b; LADCP, 2019a, 2019b, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e); LADOT, n.d.; Lake Balboa Neighborhood Council, n.d.; Los Angeles Department of Building & Safety, 2020a, 2020b, 2020c, 2021a, 2021b; Mar Vista Community Council, n.d.; Metro, 2020a, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); North Hills West Neighborhood Council, n.d.; North Valley Area Planning Commission, n.d.; North Westwood Neighborhood Council, n.d.; Palms Neighborhood Council, n.d.; Panorama City Neighborhood Council, n.d.; SCAG, 2020b, 2021b; Sherman Oaks Homeowners Association, n.d.; Sherman Oaks Neighborhood Council, n.d.; South Valley Area Planning Commission, n.d.; UCLA, n.d.; Urbanize LA, n.d.; Van Nuys Neighborhood Council Planning and Land Use Committee, n.d.; Veterans Affairs Greater Los Angeles Healthcare System, 2018; West Los Angeles Area Planning Commission, n.d.; West Los Angeles Sawtelle Neighborhood Council, n.d.; Westside Neighborhood Council, n.d.; Westwood Neighborhood Council, n.d.

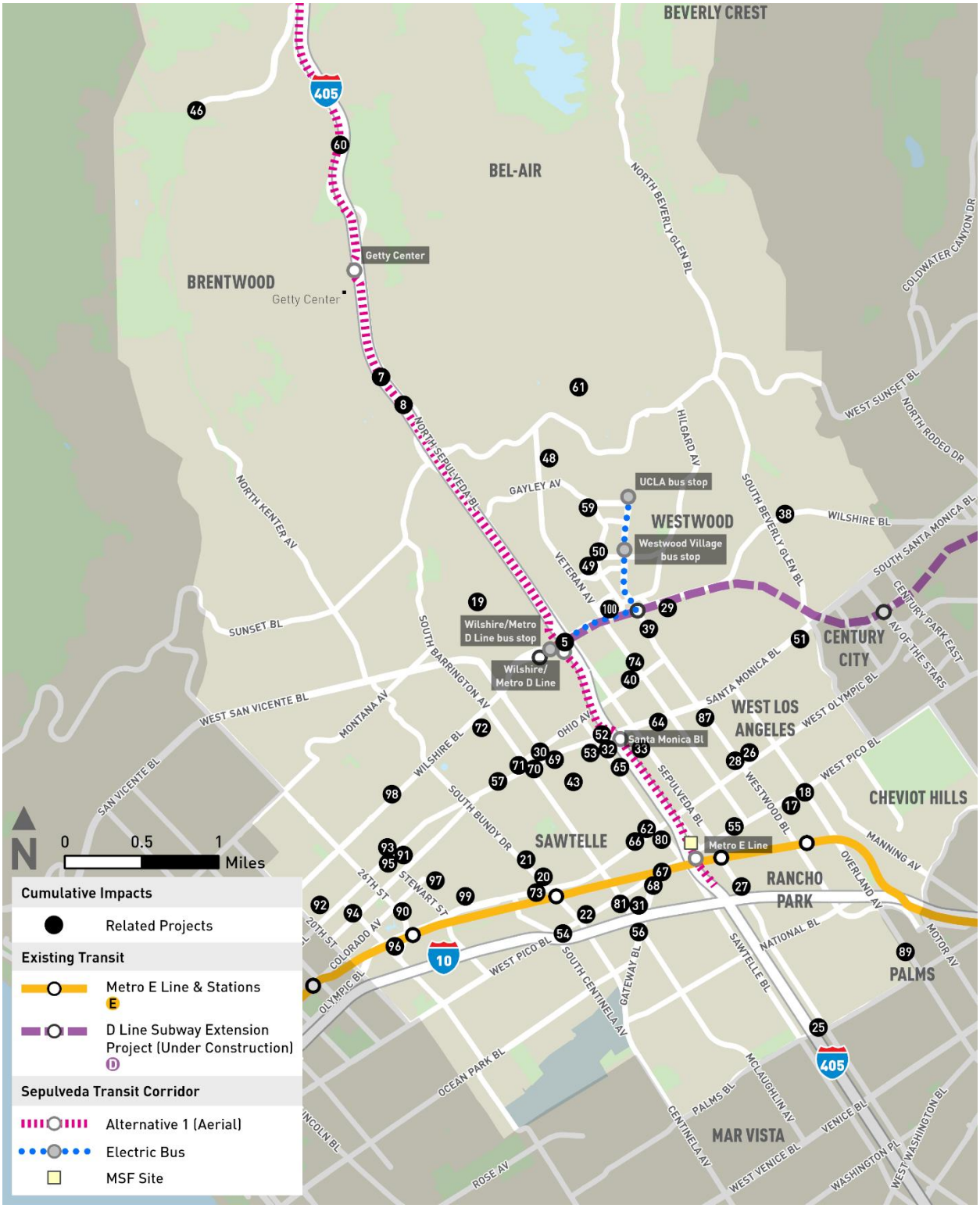
NA = not applicable
sf = square feet

Figure 6-10. Alterative 1: Related Projects Identified in the Project Study Area - North



Source: HTA, 2024

Figure 6-11. Alternative 1: Related Projects Identified in the Project Study Area - South



Source: HTA, 2024

The I-405 Sepulveda Pass ExpressLanes project (ExpressLanes project), identified in Section 4.1, is notable with regard to Alternative 1 because its project limits substantially overlap with the Alternative 1 footprint. More specifically, the ExpressLanes project is anticipated to provide for the addition of one travel lane in each direction on I-405, between US-101 and I-10. Alternative 1 similarly includes a southern terminus near I-10 and extends north, following the I-405 ROW until the LOSSAN rail corridor where the Alternative 1 alignment turns east to its northern terminus at the Van Nuys Metrolink Station. Accordingly, the two projects would be constructed along the same 9.5 mile stretch of I-405 with substantial overlap in project limits for approximately 8 miles between Wilshire Boulevard and US-101.

Like the Project, the ExpressLanes project is in the design and environmental document preparation phase, with the California Department of Transportation (Caltrans) serving as the lead agency for both CEQA and National Environmental Policy Act. Both projects affect the I-405 facility; the ExpressLanes project includes widening and restriping of I-405 to accommodate a new toll lane in each direction, while Alternative 1 would require highway modifications to provide needed space for MRT aerial guideway support columns. While both projects independently require modifications to I-405, certain facilities are anticipated to be affected by both projects, including lane striping, on- and off-ramps, the I-405 median, and retaining walls through the Sepulveda Pass. How each project affects these facilities is captured in the separate environmental analyses under development by the two project teams; however, when considering the combined effect of the two projects, it is apparent that the ultimate configuration of I-405 facilities would be different than the design considered for either project individually.

Timing of the two projects' development is the primary reason for this apparent conflict. Currently, the ExpressLanes project is anticipated to complete environmental and project approvals in 2026 with an anticipated construction start date in 2028 and construction completion in 2030. While design and environmental review of the Project has a similar schedule to that of the ExpressLanes project, project construction is not anticipated to begin until 2029, after the ExpressLanes project is anticipated to be under construction and potentially complete. As such, with the two projects proceeding independently, there is potential for various conflicts to arise, including removal of improvements installed by the ExpressLanes project to accommodate Alternative 1 improvements as well as potential for Alternative 1 construction activities to conflict with ExpressLanes operations. In practice, it is anticipated that if Alternative 1 is selected by the Metro Board, a coordination process between Metro, Caltrans, and Federal Transit Administration (FTA) would be required. This process would coordinate the two projects' ongoing designs and construction programming to appropriately site I-405 modifications and plan the two projects' construction schedules. Given the current schedule of the two projects' planning processes, this coordination could be accomplished through a coordinated Project Study Report consistent with Caltrans' *Project Development Procedures Manual*, which would be required of Alternative 1 if selected by the Metro Board.

For planning purposes, the ExpressLanes project has provided the designers of Alternative 1 with the footprint of the most conservative (i.e., largest envelope of improvements) ExpressLanes project configuration (e.g., lanes, shoulders, ramps, rights-of-way) currently under consideration. The ExpressLanes project Alternative 3 has been assumed as the ExpressLanes project configuration in the cumulative scenario; however, it should be noted that Caltrans has not decided on a preferred alternative for the ExpressLanes project and ExpressLanes project Alternatives 2 and 5 are also under consideration. To further aid the assessment of potential cumulative effects associated with the two projects, the Sepulveda Transit Corridor Project Alternative 1 design team developed a set of conceptual designs based on the ExpressLanes project Alternative 3 concept.

6.3 Impacts Evaluation

6.3.1 Transportation Impacts

Alternative 1 would expand regional transportation choices and is aimed at improving overall regional mobility and would result in decreases in vehicle miles traveled (VMT) and travel time due to the increased use of transit. Alternative 1 would, therefore, result in a beneficial cumulative effect on area-wide traffic conditions. In addition, Alternative 1 would not affect local transit operations and circulation, as there would be minimal impacts to individual bus lines or stops and transit service would be improved overall by implementation of Alternative 1. Other than the ExpressLanes project, none of the transportation projects listed in Table 6-5 intersect the Alternative 1 alignment other than at proposed station locations. As such, Alternative 1 would not result in cumulative geometric hazards, obstructed visibility, or reduced emergency access. The queues resulting from the peak-hour passenger flow into the East San Fernando Valley (ESFV) Light Rail Transit (LRT) Van Nuys Metrolink Station are forecast to exceed the available queueing space at the fare gates and would create a hazard to passengers. Passenger queues at other station transfers would have adequate space and would not create a hazard to passengers. Implementation of mitigation measure (MM) TRA-1 would replace the fare gates at the ESFV LRT Van Nuys Metrolink Station with stand-alone validators (SAV) allowing passengers to enter the fare-paid zone without interacting with a fare gate to prevent queue lengths from exceeding the available queueing space. Therefore, implementation of MM TRA-1 would reduce impacts to less than significant and Alternative 1 would not have a cumulatively considerable contribution to a significant cumulative transportation hazard impact.

Modifications to the roadway network to accommodate Alternative 1 would potentially be influenced by the ExpressLanes project. While Alternative 1 proposes modifications to the I-405 facility as well as parallel roadways and associated ramps, the ExpressLanes project proposes similar similarly proposes modifications to the I-405 corridor in the same locations as Alternative 1. All highway modifications associated with either project would require detailed review by Caltrans to ensure there are no geometric safety concerns.

The ExpressLanes project is anticipated change the lane configuration along I-405 and as a result there may not be adequate space to construct the MRT alignment and maintain the number of lanes assumed in the cumulative condition. To maintain the number lanes assumed in the cumulative condition, Alternative 1 would likely need to expand the I-405 facility westward several feet at several constrained locations along the I-405 corridor including portions of the corridor within the Brentwood and Sherman Oaks communities. As a result of the highway expansion, various modifications to adjacent roadways may be required including curb realignment, restriping, and ramp realignment. Despite these roadway changes, all highway and land use access would be maintained throughout the Cumulative RSA for transportation. Therefore, Alternative 1 would not result in a significant cumulative impact.

Construction impacts would be temporary and intermittent during the overall construction period for Alternative 1. As continued development is planned throughout the Cumulative RSA for transportation, individual development projects may occur simultaneously adjacent to the Alternative 1 alignment. Alternative 1 includes transportation-related mitigation measures such as MM TRA-4 and MM TRA-5 to minimize the anticipated traffic disruptions during construction. In addition, The ExpressLanes project would affect many of the same areas as Alternative 1, and is currently planned to be complete by 2030. If the ExpressLanes project is constructed prior to Alternative 1, construction activities associated with Alternative 1 have the potential to affect operation of the I-405 ExpressLanes and the I-405 general-purpose lanes through temporary lane closures required to construct the MRT alignment along the I-405

median. This would delay the benefit of the I-405 ExpressLanes, including improved traffic flows and travel times as well as vehicle/person throughout through the Sepulveda Pass. As such, Alternative 1 construction activities have the potential to result in a significant cumulative impact on transportation. Construction-related disruptions associated with Alternative 1 would have a cumulatively considerable incremental contribution to this significant cumulative impact.

6.3.2 Land Use and Development

The related projects identified in Table 6-5, are subject to land use regulation by local jurisdictions, including the City of Los Angeles, UCLA, and the VA. Simultaneous construction of related projects and Alternative 1 could occur, potentially resulting in short-term and temporary construction disruptions to the existing built environment and circulation through temporary roadway or sidewalk closures or construction laydown areas. Projects proposed in close proximity to Alternative 1 have the potential to be disruptive to the adjacent land uses if construction occurred concurrently, but given it is not anticipated that any of the transportation projects listed in Table 6-5 would have overlapping construction periods, cumulative construction-related disruptions would not occur. Additionally, the Alternative 1 roadway and/or I-405 lane closures and laydown areas in conjunction with related projects would not divide existing communities, as access within and out of the affected communities would generally be required to be maintained through their respective construction traffic management plans. Alternative 1 would implement MM TRA-4, which requires a transportation management plan to address construction-related traffic and access disruptions. Therefore, construction of Alternative 1 in combination with past, present, and reasonably probable future projects is not expected to result in a cumulatively considerable contribution to a cumulative impact related to the physical division of an established community.

As described in the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025b), operation of Alternative 1 would not divide the existing community in conjunction with the related projects, as access within and out of the communities would be unchanged or changed very little by these the related projects. Further, the related projects would be required to be consistent with applicable general plans and zoning codes. Therefore, Alternative 1 combined with past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to land use and planning during construction or operation.

6.3.3 Real Estate and Acquisitions

A project may have cumulatively considerable impacts associated with displacement of housing units, even when mitigated, if it would contribute cumulatively to displacement of the residential land uses in the Cumulative RSA such that replacement housing would need to be constructed. According to the *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report* (Metro, 2025c), Alternative 1 would result in the displacement of one housing unit. As required by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 United States Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.), all displaced residents would be entitled to relocation assistance, and it is anticipated residential displacements associated with Alternative 1 would be relocated in the Project Study Area or region. In addition, as described in Section 6.3.1, the ExpressLanes project has the potential to affect the footprint of Alternative 1, requiring various additional roadway modifications at several constrained points along I-405. Such modifications to the Alternative 1 footprint would similarly have the potential to result in additional property acquisitions, including potential residential displacements. It is anticipated that any additional property acquisitions would also be relocated within the Cumulative RSA or region. Thus,

cumulative impacts due to the displacement of housing or people would not be significant, and Alternative 1 would not have a significant cumulative impact.

6.3.4 Communities and Neighborhoods

Alternative 1 would not construct any new housing units and, therefore, would not generate direct population growth within the Project Study Area. Instead, Alternative 1 is anticipated to accommodate planned growth for the affected communities and potentially redirect growth to the Alternative 1 station areas. Potential indirect effects as a result of Alternative 1 would include the future planning and development of transit-oriented development within the proposed station areas. Such growth would not be unplanned, as Alternative 1 is already located in a part of the region that has been planned to receive additional growth through the designation of priority growth areas. Therefore, Alternative 1 would support regional planning efforts to focus growth in areas served by transit, and related transportation projects would similarly support these regional growth plans. Alternative 1 would not induce substantial unplanned population growth, and there would not be a cumulatively considerable contribution to a significant cumulative impact related to population and housing.

Construction of Alternative 1 would not require substantial consumption of potable water or generate substantial wastewater. During construction, water use would occur primarily related to water trucks required for dust control. This short-term use would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Alternative 1 would not include a significant long-term, permanent source of water use or wastewater generation. Alternative 1 would include a monorail vehicle MSF as well as an electric bus MSF, which would use water for cleaning transit vehicles and to support offices at the facilities. As part of Metro's *Moving Beyond Sustainability Plan* (Metro, 2020b) goal to reduce water consumption, it has implemented pilot program low-flow nozzles in some existing MSFs, resulting in a 40 percent reduction in water use per wash cycle. These features are anticipated to be installed for the MSF to meet Metro's sustainability goals. As such, this minimal water consumption would not interfere with the existing and planned capacity of the water supply or wastewater treatment capacity. Alternative 1 would not have a cumulatively considerable contribution to cumulative water and wastewater impacts.

Alternative 1 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 1 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor for Alternative 1 would comply with Assembly Bill (AB) 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Alternative 1 would not have a cumulatively considerable contribution to cumulative solid waste impacts.

6.3.5 Visual Quality and Aesthetics

As discussed in Section 5.2.5, there is an existing significant cumulative visual impact within the Sepulveda Pass portion of the Project Study Area. The primary visual elements of Alternative 1 would be the proposed aerial guideway, the aerial stations, MSF, electric bus MSF, freeway modifications, retaining wall relocations, and changes in parking, lanes, and sidewalks. The proposed aerial guideway, columns, straddle bents, and aerial stations would present new vertical features in the landscape that would be highly visible; however, views of the San Gabriel Mountains and Santa Monica Mountains would not be substantially obscured and would continue to be limited by the surrounding urban

development. In addition, the widening of I-405 and relocation of the existing retaining walls at certain locations of I-405 would not substantially obstruct views of the Santa Monica Mountains to the north, because the existing built-out urban landscape already prevent clear views of the mountains.

Motorists driving northbound and southbound on the I-405 would experience interruption in views while driving due to the presence of the aerial guideway; however, the interruption would be intermittent, because the aerial guideway would traverse the freeway from the east and west sides, and not remain in the same location from the vantage point of motorists. Recreationalists utilizing trails in the Santa Monica Mountains near I-405 would have the least interruption in views, because the aerial guideway would be located within the I-405 corridor when viewing the project alignment from higher ground. As such, views of scenic vistas as a whole would not be substantially affected by Alternative 1, and Alternative 1 would not result in a cumulatively considerable contribution to significant cumulative impacts on scenic vistas.

Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. While Alternative 1 would represent an overall change in views and visual quality and character as compared to existing conditions, it would be located in an urban area that has a mix of architectural styles and building materials and colors. Although viewer groups may have varying sensitivities to the visual change, Alternative 1 would be consistent with applicable zoning and other regulations governing scenic quality. As a result, the operation of Alternative 1 would have less than significant impacts related to visual character and quality.

Related projects such as the Metro G Line BRT Improvements project and the ExpressLanes project would introduce new transportation infrastructure such as grade-separated roadways and tolling gantries along I-405. Implementation of Alternative 1, in combination with past, present, and reasonably foreseeable projects, and in particular the ExpressLanes project, has the potential to result in alterations to the slopes and retaining walls within the Sepulveda Pass beyond those proposed by Alternative 1. Despite these incremental changes to the landscape, cumulative slope alterations and associated retaining walls would be visually indistinguishable from the existing slopes and retaining walls in the Sepulveda Pass; therefore, Alternative 1, in combination with past, present, and probable future projects, would not result in a significant cumulative impact to visual character.

Regarding light and glare, new nighttime light would primarily emanate from station areas (e.g., station plazas, entryways, and platforms), the MSF, and electric bus MSF, which would not substantially increase the amount of lighting in the immediate area, because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The aerial guideway would also emit light during nighttime hours; however, lighting from monorail vehicles on aerial structures is not expected to extend beyond the aerial guideway or roadway ROW. Per the Metro Rail Design Criteria (MRDC) or equivalent, all light sources at the surface parking lots and proposed stations would be directed downward to minimize potential spillover onto surrounding properties, including light-sensitive uses. All light generated by Alternative 1 would be consistent with the urban light setting, which typically involves street lighting and light emanating from dense development throughout the cumulative Resource Study Area (Cumulative RSA). Since Alternative 1 would follow the equivalent of the MRDC and Systemwide Station Design Standards Policy and light emitted by Alternative 1 would be consistent with existing light levels. As described in Section 4, related land development projects' light and glare profiles would similarly be consistent with existing light levels. Therefore, Alternative 1, in combination with past, present, and reasonably foreseeable projects, would not have significant cumulative lighting impacts.

6.3.6 Air Quality

Alternative 1 is included in the Southern California Association of Governments (SCAG) *Connect SoCal, 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024-2050 RTP/SCS) (SCAG, 2024). The 2024-2050 RTP/SCS is Southern California's long-range Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which serves as the foundation for estimating the region's transportation sector air pollutant emissions through 2050. The SCAG General Council adopted the plan on April 4, 2024. The Federal Highway Administration and FTA found the plan to conform to the State Implementation Plan on May 10, 2024. Transportation projects identified in a conforming RTP are consistent with the emissions reduction strategies outlined in the applicable regional Air Quality Management Plan.

As described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), South Coast Air Quality Management District's (SCAQMD) cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 1 net operational emissions would not exceed the applicable SCAQMD's regional operational significance thresholds, Alternative 1 operational emissions would not be cumulatively considerable. MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 1 NO_X and CO emissions below SCAQMD significance thresholds. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 1's contribution of pollutant emissions is not expected to result in measurable human-health impacts on a regional scale.

Alternative 1 construction emissions would exceed the SCAQMD regional significance thresholds for nitrogen oxides (NO_X) and carbon monoxide (CO) emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 1 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 1 construction emissions would be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 1's contribution of pollutant emissions may result in measurable human-health impacts on a regional scale.

Because Alternative 1 construction emissions would exceed the respirable particulate matter of diameter less than 10 microns (PM_{10}) localized significance threshold, Alternative 1 would cause or contribute to a violation of any health-protective CAAQS and NAAQS. Given that diesel particulate matter (DPM) emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources. The construction analysis for Alternative 1 conservatively assumed all equipment would be diesel powered; however, the Metro *Green*

Construction Policy (Metro, 2011) contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power. There are no feasible mitigation measures that would reduce Alternative 1 PM_{10} emissions below SCAQMD localized significance thresholds. A significant cumulative impact would occur if other related projects would generate construction emissions that would cause or contribute to a violation of health-protective standards. It is anticipated that multiple projects listed in Table 6-5 would generate DPM emissions that could affect the same sensitive receptors as those affected by Alternative 1. Although MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, including localized PM_{10} emissions, mitigation measures would not reduce Alternative 1 PM_{10} emissions below SCAQMD localized significance thresholds. As such, construction-related emissions of DPM from Alternative 1 would have a considerable contribution to a significant cumulative impact related to violations of health-protective CAAQS and NAAQS.

6.3.7 Climate Change and Greenhouse Gas Emissions

As noted in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), greenhouse gases (GHG) and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA, 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) also serves as the cumulative impact analysis. This analysis includes projected future VMT and associated GHG emissions resulting from all of the background development in the Project Study Area, described in Sections 4.1 through 4.3.

Implementation of Alternative 1 would result in a net reduction of annual GHG emissions compared to existing conditions, due to the displacement of VMT resulting from the improved transit service associated with Alternative 1. Alternative 1 would support state, regional and local efforts to reduce GHG emissions by providing an efficient transit system as an alternative mode of transportation for commuters traveling between the Valley and Westside of Los Angeles. Overall, Alternative 1 would not result in an incremental increase in GHG emissions that would contribute to climate change, but rather would result in an environmental benefit by reducing GHG emissions; therefore, cumulative impacts of GHG emissions associated with Alternative 1 would be less than significant.

6.3.8 Noise and Vibration

As noted in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h), construction of Alternative 1 would require heavy earth-moving equipment, generators, cranes, pneumatic tools, and other similar machinery. The existing cumulative noise condition is characterized by existing traffic noise, which was captured by existing ambient noise measurements. Construction noise levels for Alternative 1 would exceed FTA noise standards and, where applicable, the standards established by the local noise ordinances due to the intensive nature of Alternative 1 construction activities and the proximity of sensitive land uses to the corridor. Implementation of MM NOI-1.2 (Noise Control Plan) would reduce construction noise levels by implementing a noise control plan that would include various noise reduction strategies such as scheduling noisy activities during daytime hours, reducing concurrent use of multiple pieces of noise generating equipment, and noise monitoring at sensitive receptors, among others. However, there may still be temporary or periodic exceedances of the FTA construction noise criteria and local standards, resulting in temporary significant impacts related to construction noise.

Similar to Alternative 1, construction of related projects would likely include the use of heavy construction equipment that would generate elevated construction noise levels. Projected future projects would go through their own environmental clearance process and would include mitigation for construction noise to reduce impacts. Related projects within 500 feet of Alternative 1 construction could result in a cumulative construction noise impact at sensitive receptors. Currently, there have not been any related projects identified with construction schedules determined to overlap with Alternative 1. Although it is not possible to predict which related projects would result in a cumulative construction noise scenario, the construction noise levels associated with Alternative 1 could temporarily increase ambient noise levels. Therefore, Alternative 1, when combined with noise generated by past, present and probable future projects, would result in a significant cumulative noise impact during construction, and the incremental contribution of Alternative 1 to that significant cumulative impact would be cumulatively considerable.

The noise environment in the vicinity of the Alternative 1 alignment is dominated by traffic noise, including freeways such as I-405, I-10, US-101, arterial roads such as Sepulveda Boulevard and Wilshire Boulevard, and other local roadways. Aircraft flyovers are also contributors to the existing noise environment in most of the Cumulative RSA. Cumulative growth and development in the Cumulative RSA could result in increases in roadway traffic volumes over time that would also increase ambient noise levels in the vicinity of Alternative 1. Alternative 1 would result in significant operational noise impacts at sensitive receptors along the Alternative 1 alignment, primarily within the Sherman Oaks and Van Nuys communities. Implementation of MM NOI-1.1 would require installation of soundwalls and would reduce the significant impacts related to noise to a less than significant level. It is anticipated that the ExpressLanes project would similarly address operational noise impacts with mitigation measures such as installation of soundwalls or improvements to existing soundwalls along I-405. Therefore, Alternative 1, in combination with future traffic noise, is not anticipated to result in a significant cumulative impact. Alternative 1 would not have a cumulatively considerable contribution to a cumulative noise impact.

Regarding vibration, construction of Alternative 1 would result in significant and unavoidable vibration impacts, even with implementation of MM VIB-1.1, which would implement a vibration control plan to limit construction-generated vibration. However, it is not anticipated that vibration-generating equipment from past, present, and probable future projects would operate at the same time and in the same location as the construction equipment for Alternative 1. Operation of Alternative 1 would not generate excessive vibration, and it is not anticipated that any related projects in the vicinity of Alternative 1 would generate substantial vibration that could combine with Alternative 1 operational vibration such that a cumulative vibration impact would occur. Therefore, Alternative 1, combined with past, present, and reasonably foreseeable projects, would not result in significant cumulative vibration impacts.

6.3.9 Ecosystems and Biological Resources

According to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), 10 special-status wildlife and plant species were identified as present and 14 had medium or high potential to occur within the Alternative 1 Resource Study Area (RSA). Based on habitat requirements for these 24 species, they are most likely to occur in the Sepulveda Pass and could be in or proximate to work areas along I-405 in the Santa Monica Mountains. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of native vegetation would also be required for construction of the structural support beams for the guideway

track, staging yards, TPSSs, and aerial MRT stations; although vegetation that would be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. The clearing of native vegetation in the Sepulveda Pass would likely result in loss of suitable habitat that could be used for nesting, breeding, shelter, and/or foraging by special-status species. Other construction disturbances such as noise and vibration generated by construction equipment can disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. MM BIO-4 through MM BIO-11 and MM BIO-14 through MM BIO-27 would be implemented to reduce Alternative 1 construction-related impacts to special-status plant and wildlife species and their habitats to a less than significant level.

Tree removal has potential to affect nesting birds and roosting bats and potentially conflicts with local tree preservation policies and ordinances. Numerous projects listed in Table 6-5 such as the Metro East San Fernando Valley Light Rail Transit project and the ExpressLanes project would potentially result in the removal of trees. Alternative 1 would remove approximately 3,282 trees, including approximately 98 trees within the Santa Monica Mountains National Recreation Area, a considerable contribution to cumulative tree removals in the Cumulative RSA. Alternative 1 includes various mitigation measures, such as MM BIO-4 and MM BIO-5, to avoid potential impacts to nesting birds and roosting bats during construction. In addition, through implementation of MM BIO-11, Alternative 1 would replace removed trees in accordance with applicable local tree ordinances and policies. All related projects listed in Table 6-5 would be subject to local tree ordinances and would be expected to replace trees removed as a result of construction activities. While numerous trees would be removed throughout the Cumulative RSA as a result of the cumulative construction effects of Alternative 1 and other projects, each project would be responsible for replacing removed trees such that the cumulative impact would be less than significant.

The Alternative 1 aerial guideway also presents a potential hinderance to avian movement. Most bird species would migrate above the height of the aerial structure (45 to 55 feet above the existing ground level), so disruptions are expected to be minimal. Dispersing local resident or younger, recently fledged birds have potential to collide with the guideway track or vehicles while flying along local movement corridors. The Metro G Line Conversion to Light Rail project (Map ID 6) may involve an aerial alignment, or other raised infrastructure with transit vehicles that could combine for a cumulative impact to migratory birds. However, like Alternative 1, it is not anticipated that the Metro G Line alignment would be at a height that would hinder avian movement. As such, with regard to avian movement, Alternative 1, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impact.

I-405 currently acts as a restrictive barrier to mountain lion and vertebrate movement from east to west and vice-versa where it intersects the Santa Monica Mountains. Barriers to movement result in gene flow limitations and isolation of populations, both of which negatively affect the overall health and success of a species (NPS, 2019). Underpasses and culverts become increasingly important to wildlife movement in areas with extensive road networks (Penrod et. al, 2001). Instances of I-405 crossings by mountain lions and other vertebrates are rare but have been recorded on occasion, both successfully and unsuccessfully (i.e., death resulting from vehicle collision), during National Park Service studies of the Santa Monica Mountains population (NPS, 2019). Operation of Alternative 1 would further impact movement of mountain lions and other large mammals across I-405 as a result of the expanded (i.e., increased width) roadway, anthropogenic disturbance for ongoing maintenance, and the presence of the aerial guideway, a novel obstacle and potential deterrent to wildlife movement in the area; Alternative 1 operation is likely to decrease the potential of a successful crossing and increase barriers

to movement. MM BIO-28, described in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), is specified to reduce operational-related impacts to the movement of native wildlife species; specifically, mountain lions and other vertebrates, to less than significant. The I-405 ExpressLanes would pose similar potential impacts to special-status species habitat due to highway widening and associated grading and vegetation removal and contribute to existing obstacles to mountain lion and other vertebrate movement across the I-405 corridor. As such, Alternative 1, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact due to incremental expansion of the I-405 facility and additional transportation infrastructure, which may further deter wildlife movement. The addition of the aerial guideway through the Sepulveda Pass and associated modifications to the I-405 would result in a cumulatively considerable contribution to a significant cumulative impact to ecosystems and biological resources.

6.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources

As described in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report* (Metro, 2025j), during both construction and operation, Alternative 1 has the potential to expose people or structures to seismic risks, including the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides. Alternative 1 would also not result in impacts related to soil erosion, unstable or expansive soils, or adequacy of soils to support septic tanks. Alternative 1 would comply with all applicable state and local guidelines and mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future projects would also be subject to the same seismic risks as Alternative 1 but would also be required to comply with all prescribed standards, requirements, and guidance hazards, and implement mitigation measures as necessary. As such, Alternative 1, in combination with past, present, and reasonably foreseeable projects, would not have a significant cumulative impact related to seismic risks or soil concerns.

Regarding paleontological resources, it is expected that the CIDH method would be used during the construction of the foundations for the columns, which would cause potentially significant impacts to paleontological resources when utilized in paleontologically sensitive geologic formations. With implementation of MM GEO-6 through MM GEO-9, including construction monitoring, the impact to this paleontological resource would be considered less than significant. Since potential paleontological impacts can be mitigated and with exception to the Metro D Line Extension, other related projects in the Cumulative RSA do not involve substantial ground disturbance or drilling/tunneling, Alternative 1, in combination with past, present, and reasonably foreseeable projects, would not have a significant cumulative impact related to paleontological resources.

6.3.11 Hazards and Hazardous Materials

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025k), it is not anticipated that substantial quantities of hazardous materials would be routinely transported, used, stored, or disposed of during operation of Alternative 1. Operation of stations and the guideway would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. As with all development, use and storage of such materials are heavily regulated, and Alternative 1 would comply with all regulations and requirements related to transportation, use, and storage of hazardous materials. Any contaminated soils, building materials, or groundwater encountered during construction of Alternative 1 would be handled, disposed of and, if necessary, remediated consistent with regulatory requirements.

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as asbestos-containing material, lead-based paint, or polychlorinated biphenyls) during demolition activities; thus, impacts would be reduced to less than significant.

As described in Section 5.2.11, related projects would have similar potential to release or expose hazardous materials as Alternative 1; however, like Alternative 1, all related projects would be required to handle hazardous materials consistent with regulatory requirements and best practices. Therefore, Alternative 1 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hazardous materials.

6.3.12 Water Resources

As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025l), Alternative 1 would result in increased impervious surface area associated with stations and roadway modifications such as road realignments, columns in the median of I-405, and I-405 shoulder modifications. This increase in impervious surface area may affect or obstruct groundwater recharge. However, most of these facilities would be located in an urban area with substantial existing impervious surface area, and Alternative 1 would adhere to existing regulations and proper implementation of stormwater compliance requirements. As such, Alternative 1 impacts related to groundwater recharge and drainage would be less than significant. The Alternative 1 MSF and TPSS facilities would use products and materials that contain potential pollutants during maintenance that could contribute to water pollution if not properly dispensed, stored, or disposed. If not appropriately managed, uncontrolled discharge of runoff carrying these potential pollutants could result in significant impacts to water quality in groundwater and waterways, including the Pacoima Wash, Encino Creek, Ballona Creek, and the Los Angeles River.

Construction would expose soils in areas that are completely developed with impervious surfaces, which would increase the rate of runoff from these sites. Alternative 1 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. In accordance with mandated permitting requirements, Alternative 1 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Regional Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the best management practices that would be in place prior to the start of construction activities and during construction. Best management practices categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or waste discharge requirements or substantial degradation of surface or groundwater quality during operation would be less than significant. As discussed in Section 5.2.12, related projects would be required to adhere to the same regulations and implementation requirements as Alternative 1. These regulations and requirements are the Los Angeles Regional Water Quality Control Board's and other water management regulatory agencies' primary tools for managing the water quality and hydrology impacts of development in the region and throughout California. As such, Alternative 1 in combination with past,

present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hydrology and water quality.

6.3.13 Energy

Regarding construction activities, as described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), a one-time expenditure of approximately 5,609,190 gallons of diesel fuel, 515,777 gallons of gasoline, and 255 megawatt-hours (MWh) of electricity over an approximate 6.5-year construction period would result from Alternative 1. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operation of Alternative 1 within approximately 7.5 years through transportation mode shift. The temporary additional transportation fuels consumption would not require additional capacity provided at the local or regional level. There are numerous state and regional regulatory measures designed to minimize excess transportation fuels consumption. As described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), operation of Alternative 1 in the horizon year of 2045 would result in a net annual increase in regional electricity demand of 69,068 MWh and would result in a net annual reduction of 3,040,214 gallons of gasoline, 751,672 gallons of diesel fuel, and 29,801 diesel gallon equivalent of natural gas. Converting each of these quantities to standardized units of million British thermal units (MMBtu), Alternative 1 operations would result in a net decrease of 250,257 MMBtu annually in 2045. The electricity consumption would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would power a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Therefore, implementation of Alternative 1 would result in a substantial decrease in overall regional energy consumption and would not have a significant cumulative impact on energy.

6.3.14 Cultural Resources and Tribal Cultural Resources

As discussed in Section 5.2.14, there is an existing potential cumulative effect related to the undiscovered archaeological resources and human remains. As described in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n), construction of Alternative 1 similarly has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts on unique archaeological resources, human remains, and Tribal Cultural Resources (TCR) would be reduced to less than significant for Alternative 1. Since it is presumed that current and future development would include similar mitigation and avoidance measures to address undiscovered buried archaeological resources or human remains, Alternative 1 would not result in significant cumulative archaeological resources or human remains impacts.

Potential impacts to two landscape features identified as possible TCRs, the Sepulveda Pass and Los Angeles River, would be visual, audible, and/or atmospheric intrusions as a result of operational and maintenance activities. MM TCR-2 was developed to mitigate operational and construction impacts to the Sepulveda Pass and the Los Angeles River by requiring incorporation of Native American cultural heritage in Project design elements.

MM CUL-1 through MM CUL-4 would address potential impacts to historic resources by requiring a cultural resources monitoring plan, design treatments building protection measures as applicable, and

archival documentation. Alternative 1 would result in a significant and unavoidable impact on the Da Siani Ristorante, which would be acquired and demolished.

As discussed in Section 5.2.14, none of the related projects are presumed to result in significant impacts to a historic resource, and there would be no cumulative impacts to any of the historic districts identified within the Cumulative RSA for historic, archaeological, and tribal cultural resources. However, since Alternative 1 would result in a significant and unavoidable impact to a historic resource and there is potential for loss of other historic resources due to development in the Cumulative RSA for historic, archaeological, and tribal cultural resources, Alternative 1 would result in a significant cumulative impact. Since an historical resource would be demolished, Alternative 1 would have a cumulatively considerable contribution to a significant cumulative impact on historic buildings.

6.3.15 Parklands

As described in the *Sepulveda Transit Corridor Project Parklands Technical Report* (Metro, 2025o), Alternative 1 would not directly result in an increase in the number of residents; thus, there would be no direct increase in demand for parks or recreational facilities.

Alternative 1 would not result in significant impacts to parks or recreational facilities related to construction or operational activities. However, Alternative 1 could indirectly affect population, housing, and employment growth as a result of and in combination with probable future projects in the region. Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, since these growth projections are based on the General Plan land use designations of local jurisdictions. These projections, which include the Project and cumulative projects, are accounted for in population increases that affect planning for park facilities. Therefore, Alternative 1 would not result in significant cumulative impacts to parks and recreational facilities.

6.3.16 Safety and Security

Project measure (PM) SAF-1 requires compliance with the California Health and Safety Code to ensure fire-life safety at all facilities proposed by Alternative 1. Alternative 1 does not include any housing component that would directly increase population, although some indirect concentration of growth may occur around some of the station areas due to the new transit access. As described in the *Sepulveda Transit Corridor Project Safety and Security Impacts Technical Report* (Metro, 2025p), funds are allocated to fire protection services during the annual monitoring and budgeting process to ensure that fire protection services are responsive to changes in the City of Los Angeles. Similarly, the Los Angeles Fire Department (LAFD) or Los Angeles County Flood Control District evaluates staffing levels during the annual budgetary process, and personnel are hired, as needed, to ensure that adequate fire protection and emergency response services are maintained. The LAFD would also evaluate Alternative 1 to ensure that adequate fire protection could be accommodated with project implementation. With regard to police protection, the Metro system is currently policed by the Los Angeles Police Department (LAPD) and Los Angeles County Sheriff Department (LASD). Metro has contracted the LASD and the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. In addition, Alternative 1 would be monitored by Metro, which has implemented a multi-policing model inclusive of Metro's Transit Security Officers and contract security personnel. Since Alternative 1 is within the jurisdiction of the City of Los Angeles, the LAPD would be the first responders for Alternative 1 in the event of an emergency requiring police protection. Alternative 1 is not anticipated to affect either fire or police protection response times or otherwise affect emergency services. Therefore, the

incremental contribution of Alternative 1 to significant cumulative impacts regarding fire and police protection response times and emergency services would not be cumulatively considerable.

Related projects could have the potential to impact fire and police protection services within the Cumulative RSA by requiring temporary lane closures or drawing on emergency responders to respond to emergency incidents. None of the projects identified in Table 6-5 are anticipated to have overlapping construction periods such that cumulative construction activities could affect emergency response. If concurrent construction were to occur, it is reasonable to assume that the related projects would implement their own measures to reduce impacts to emergency services by implementing detours and appropriate notification of agencies, which Alternative 1 would implement to ensure construction-period impacts on emergency response would remain less than significant. Therefore, construction and operation of Alternative 1 combined with past, present, and probable future projects would not result in a significant cumulative impact related to the provision of new or altered fire or police service.

Alternative 1 would be located within a designated Very High Fire Hazard Severity Zone within the Santa Monica Mountains. However, Alternative 1 would result in less than significant impacts related to wildfire issues, including exacerbated wildfire risks, interference with emergency response plans, and flooding in areas affected by wildfires, as the Alternative 1 alignment and associated facilities would be situated along the I-405 ROW where such risks would be low. In addition, MM SAF-1 and MM SAF-2 would minimize wildfire risks by avoiding fire hazards during high-risk conditions and by clearing construction areas of potential wildfire fuels. As discussed in Section 5.2.16, none of the related projects identified in Table 6-5 are anticipated to exacerbate wildfire risks. The state, county, and city Fire Code regulations would be incorporated into legally required health and safety plans for all construction workers and visitors associated with related projects. As such, Alternative 1 would not result in a significant cumulative impact related to wildfire risks.

6.4 Mitigation Measures

The mitigation measures identified for each environmental discipline address both project-specific impacts and cumulative impacts of Alternative 1.

7 ALTERNATIVE 3

7.1 Alternative Description

Alternative 3 is an aerial monorail alignment that would run along the Interstate 405 (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).

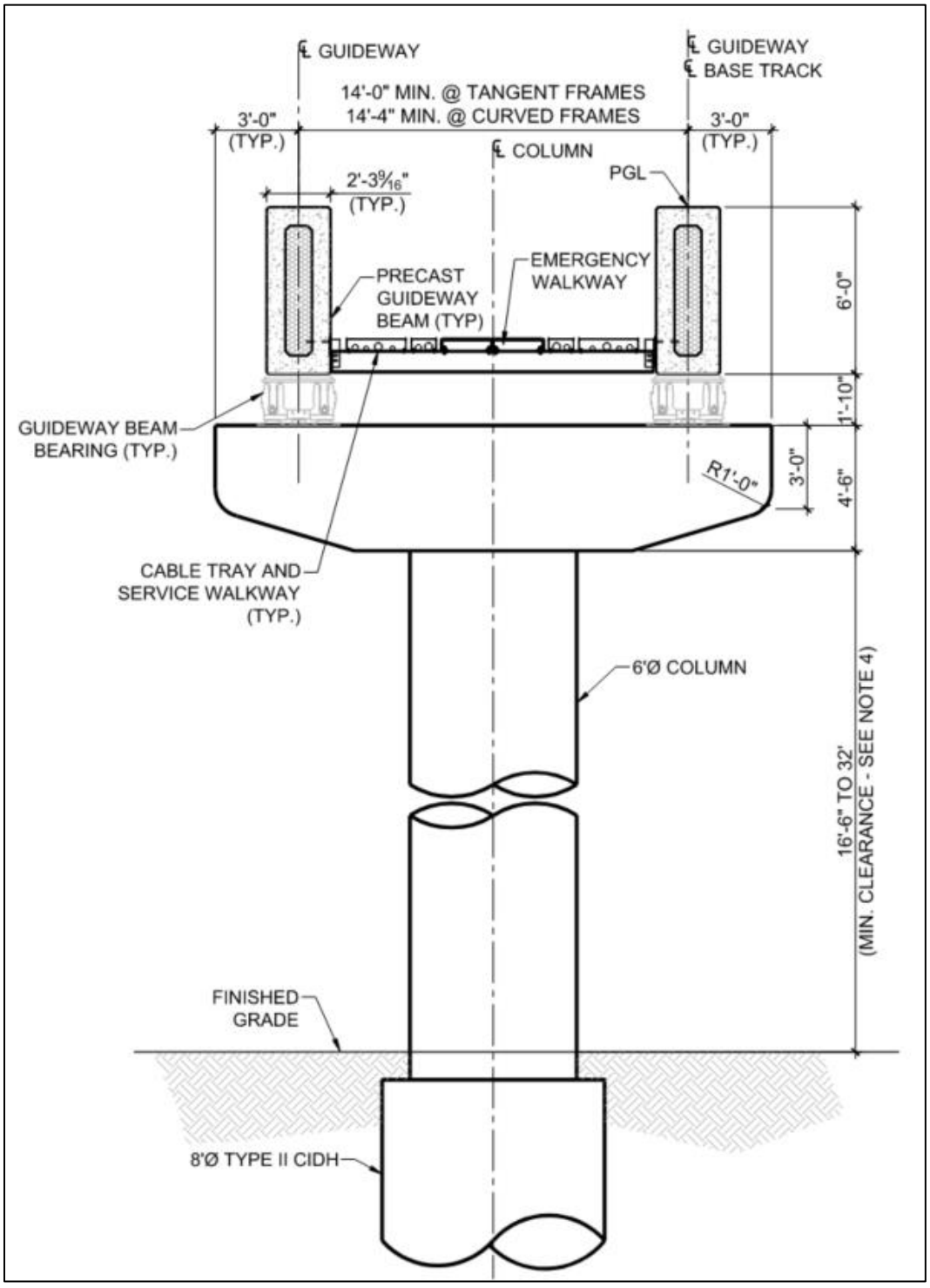
Near Greenleaf Street, the alignment would cross over the northbound freeway lanes and on-ramps toward the proposed Ventura Boulevard Station on the east side of I-405. This station would be located above a transit plaza and replace an existing segment of Dickens Street adjacent to I-405, just south 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



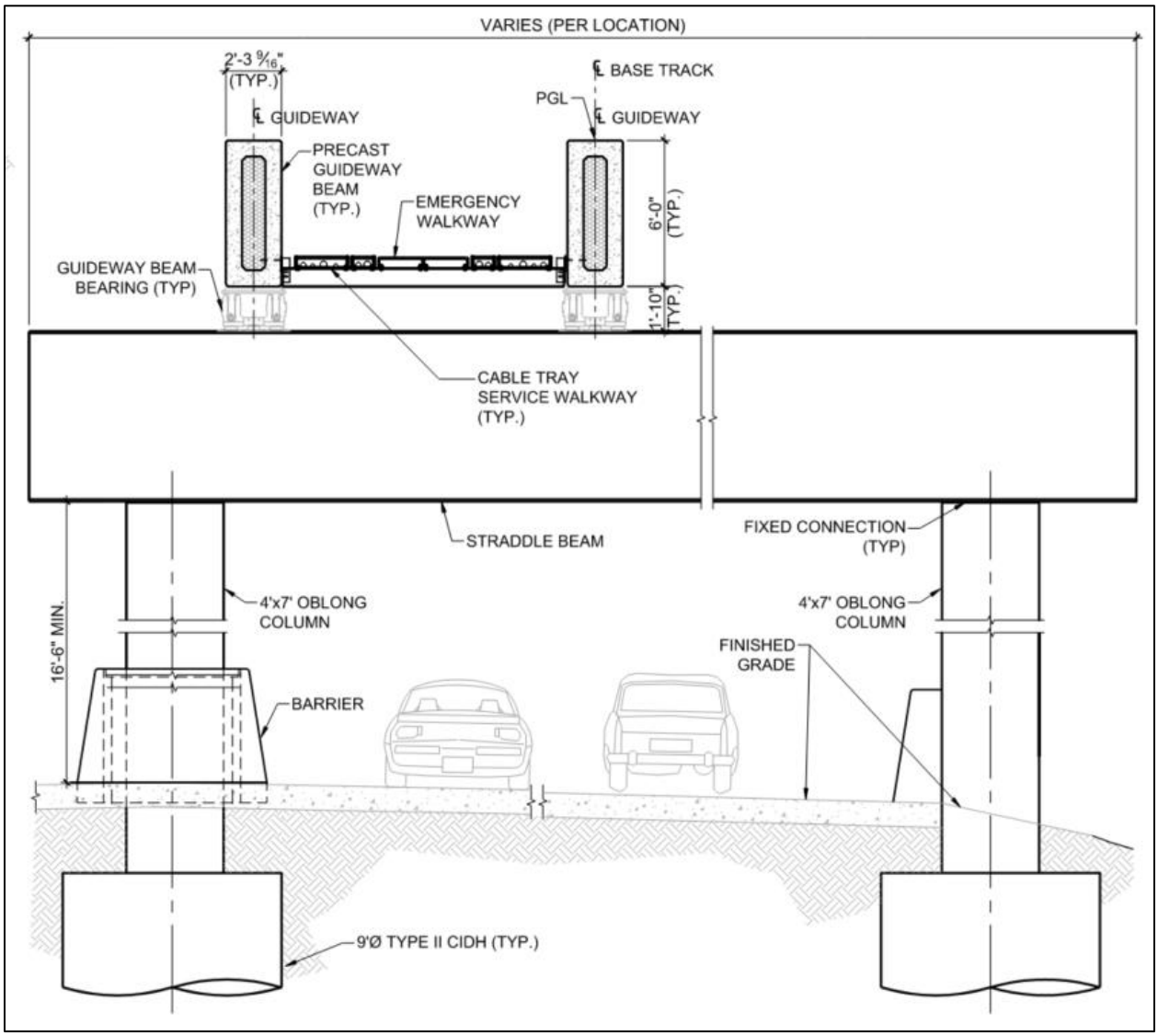
Source: LASRE, 2024

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



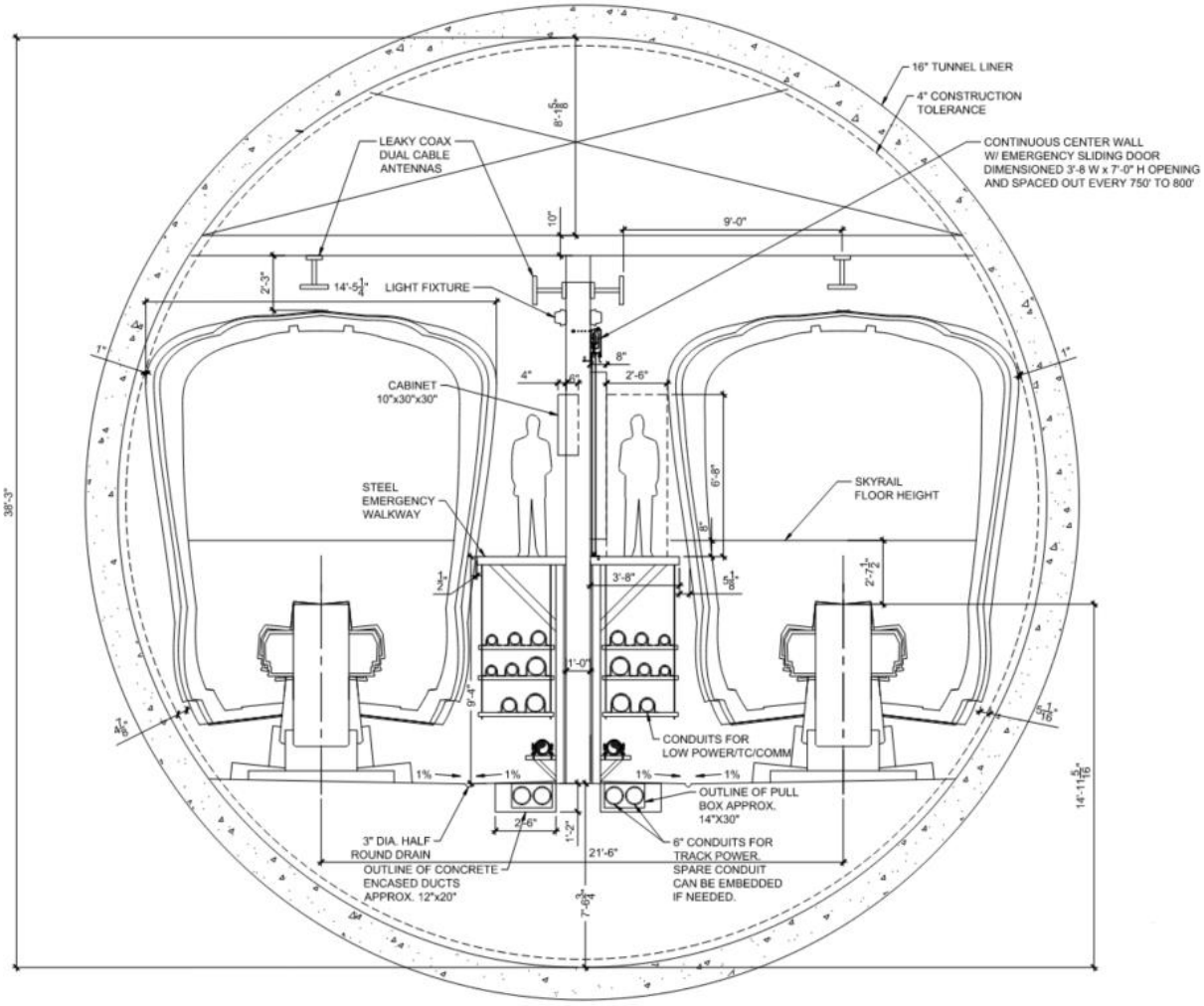
Source: LASRE, 2024

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

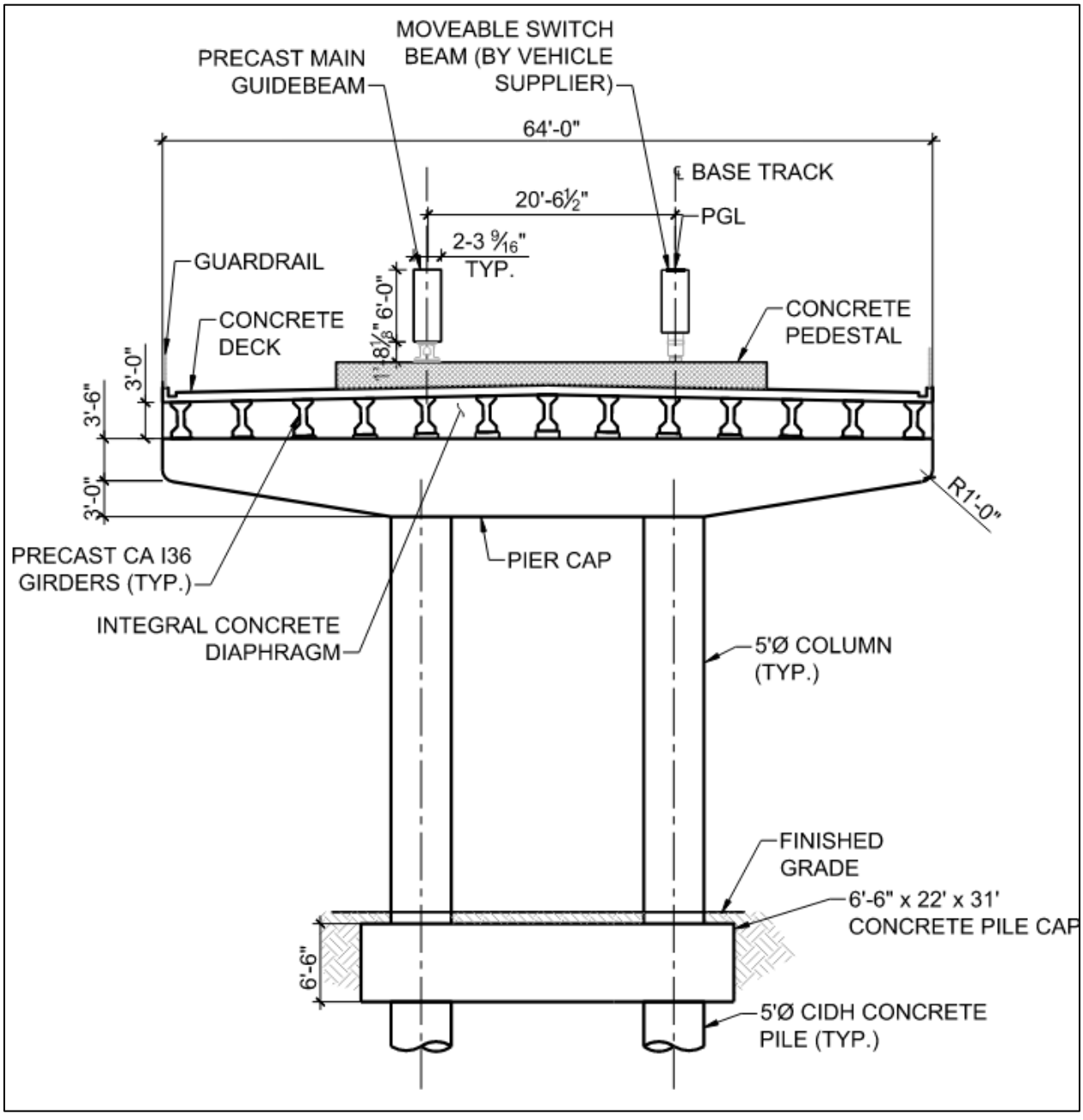
— = no data

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 Cumulative Conditions

CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires Environmental Impact Reports to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

7.2.1 Study Area

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for the evaluation of cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area.

For purposes of the cumulative analysis, the Study Area 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 Final Feasibility Report* (Metro, 2019). The Study Area lies within the jurisdictions of the Cities of Los Angeles and Santa Monica and the unincorporated Sawtelle VA community of Los Angeles County. Communities identified within the City of Los Angeles include the communities of North Hills, Panorama City, Sun Valley, Lake Balboa, Van Nuys, North Hollywood, Encino, North Sherman Oaks, Sherman Oaks, Brentwood, Bel Air, Beverly Crest, Westwood, West Los Angeles, Mar Vista, and Palms.

7.2.2 Related Projects

Related projects considered in the cumulative impact analysis are those projects that may occur in the project site's vicinity within the same timeframe as Alternative 3 and includes past, present, and reasonably probable future projects. Related projects include regional transportation improvement projects, commercial developments of at least 50,000 square feet, and residential developments of 20 units or more. Related projects associated with this growth and located within the Study Area are listed in Table 7-5 and identified on Figure 7-10 and Figure 7-11. A total of 100 related projects was identified and includes nine regional projects, 81 City of Los Angeles projects, and 10 City of Santa Monica projects. Of the regional projects identified, eight are transportation or transit improvements. All of the City of Los Angeles and City of Santa Monica projects identified consist of development projects, including residential, commercial, and mixed-use developments.

Table 7-5. Alternative 3: Related Projects List

Map ID	Project Name	Location	Description	Status
Regional				
1	Metro North San Fernando Valley Bus Rapid Transit Project	East-west across the northern San Fernando Valley	18-mile bus rapid transit connecting to the East San Fernando Valley Transit Corridor Project, Chatsworth Metrolink Station, and North Hollywood Metro B/G Line Station.	Planned completion 2025
NA	Metro NextGen Bus Plan	Los Angeles County	Metro bus plan to adjust bus routes and schedules based on existing origin/destination ridership data.	Phase 2 implemented 2021.
2	Metro East San Fernando Valley Light Rail Transit Project	San Fernando Valley	9.2-mile light rail transit connecting the Metro G Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station.	Construction planned to begin 2027
3	City of Los Angeles Orange (G) Line Transit Neighborhood Plan	San Fernando Valley	Long-range planning effort around three Metro G Line stations in the Eastern San Fernando Valley to regulate land uses, zoning, and design of new development.	Planning process, planned adoption 2025
4	Metro G Line Bus Rapid Transit Improvements Project	San Fernando Valley	18 miles of Metro G Line bus rapid transit improvements, including up to 35 railroad-style gates at intersections and new grade separated structures at Van Nuys Boulevard and Sepulveda Boulevard.	Planned completion 2027
5	Metro Purple Line Extension Transit Project	City of Los Angeles	2.56-mile extension of the Metro D Line and two new stations at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.	Planned completion 2027
6	Metro G Line Conversion to Light Rail	City of Los Angeles, Van Nuys	Metro G Line conversion of the 18-mile Bus Rapid Transit to Light Rail Transit service.	Planned completion 2057
7	I-405 ExpressLanes	I-405 from I-10 to US 101	Installation of new ExpessLanes between the San Fernando Valley and the Westside along I-405.	Planned completion 2030
8	I-405 Dynamic Corridor Ramp Metering System	I-405 from I-10 to US 101	System-wide adaptive ramp metering strategy to coordinate with arterial traffic-signal operation.	Completed construction 2023

Map ID	Project Name	Location	Description	Status
City of Los Angeles				
9	Multi-Family Development	14541 & 14547 Gilmore Street	31 units	Under construction, anticipated completion 2024
10	Multi-Family Development	14629 Erwin Street	20 units	Planning process
11	Mixed-Use Development	6569 N. Van Nuys Boulevard	174-unit mixed use	Under construction since 2022 (near complete)
12	Multi-Family Development	6500 Sepulveda Boulevard	45 units	Approved December 2020, pre-construction
13	Multi-Family Development	14400-14412 Vanowen Street	45 units	Approved January 2021, pre-construction
14	Multi-Family Development	14303-14313 Friar Street	30 units	Planning process
15	Multi-Family Development	14553 Friar Street	42 units	Planning process
16	Mixed-Use Development	7002-7004 Van Nuys Boulevard	170-unit mixed use	Not constructed as of November 2020
17	One Westside / Google	10800 Pico Boulevard	584,000 sf office space	Under construction 2024
18	West End	Pico Boulevard & Overland Avenue	Renovation to 230,000 sf office space	Under construction 2024
19	West Los Angeles Veterans Affairs Center	West Los Angeles Veterans Affairs Medical Center Campus	1,200 units	Construction ongoing
20	Martin Expo Town Center	12101 W. Olympic Boulevard	600-unit mixed use, 150,000 sf office space	Under construction, planned completion 2023
21	Multi-Family Development	11950 W. Missouri Avenue	74 units	Planned completion summer 2021
22	Mixed-Use Development	12001-12021 W. Pico Boulevard	80-unit mixed use	Planning approved April 2020, no construction as of October 2024
23	Mission Gateway	8811-8845 Sepulveda Boulevard	356 units	Under construction 2024
24	ICON at Panorama	14665 Roscoe Boulevard	350-unit mixed use, 250,000 sf commercial space	Planned completion 2022, no construction as of October 2024
25	Mixed-Use Development	3443 S. Sepulveda Boulevard	409-unit mixed use, 60,000 sf retail space	Planned completion 2024
26	Multi-Family Development	2136-2140 Westwood Boulevard	77 units	Pre-construction

Map ID	Project Name	Location	Description	Status
27	Multi-Family Development	2600-2616 Sepulveda Boulevard	43 units	Approved February 2020, pre-construction
28	Multi-Family Development	2117-2121 Westwood Boulevard	109 units	Planning process, pre-construction as of December 2020
29	Multi-Family Development	10822 Wilshire Boulevard	54-unit eldercare facility	Planning process
30	Mixed-Use Development	11628 W. Santa Monica Boulevard	99-unit mixed use, 12,121 sf commercial space	Approved April 2021, planning/pre-construction as of December 2020
31	Multi-Family Development	2444-2456 S. Barry Avenue	61 units	Approved August 2020, pre-construction as of December 2020
32	Multi-Family Development	1656 S. Sawtelle Boulevard	33 units	Approved August 2020, pre-construction as of December 2020
33	Department of Water and Power Office Space	11761-12300 W. Nebraska Avenue	92,000 sf office building	Approved 2020
34	Via Avanti	4827 N. Sepulveda Boulevard	325 units, 44,000 sf retail space	Under construction
35	Multi-Family Development	16015 Sherman Way	46-unit supportive housing	Under construction
36	Mixed-Use Development	8141 Van Nuys Boulevard	200-unit mixed use, 2,450 sf retail space	Planning process
37	Multi-Family Development	7700 N. Woodman Avenue	239-unit senior affordable housing	Under construction
38	Multi-Family Development	888 S. Devon Avenue	21 units	Approved February 2020, no construction as of October 2024
39	Multi-Family Development	1300 S. Westwood Boulevard	31 units	Approved September 2020, no construction as of October 2024
40	Multi-Family Development	1427 S. Greenfield Avenue	29 units	Approved September 2020, revised plans submitted May 2021. No construction as of October 2024
41	Multi-Family Development	15027-15033 W. Ventura Boulevard	33 units	Approved August 2020, pre-construction as of 2019
42	Mixed-Use Development	13716 W. Victory Boulevard	32-unit mixed use, 1,000 sf commercial space	Approved June 2020, pre-construction
43	Multi-Family Development	1721 S. Colby Avenue	34 units	Approved January 2020, pre-construction as of December 2020

Map ID	Project Name	Location	Description	Status
44	Commercial Development	6001 Van Nuys Boulevard	82,273 sf commercial space (Keyes Honda Auto Dealership)	Planned completion 2020, but pre-construction as of November 2020
45	Commercial Development	5746 Sepulveda Boulevard	75-unit hotel	Approved June 2018, pre-construction as of 2019
46	Berggruen Institute Campus	1901 Sepulveda Boulevard. & 2100, 2101, 2132, 2139, 2141, 2187 N. Canyonback Road	160,880 sf office space, temporary dwelling units, studios	Planned completion 2028
47	Girls Athletic Leadership School	14203 W. Valerio Street	Public charter middle school campus, 330 students grades 6-8	Planning process, pre-construction
48	UCLA Lot 15 Residence Hall	UCLA Lot 15	1,781 beds (student housing)	Under construction
49	UCLA Southwest Campus Apartments	900 Weyburn Place North	2,279 beds (student housing)	Under construction
50	UCLA 10995 Le Conte Avenue Apartments	10995 Le Conte Avenue	1,167 beds (student housing)	Under construction, expected completion 2021
51	Multi-Family Development	10460 W. Santa Monica Boulevard	68 units	Planning process
52	Multi-Family Development	11261 Santa Monica Boulevard	119 units	Approved June 2019, pre-construction
53	West Los Angeles Civic Center	1645 Corinth Avenue	926-unit mixed use, 114,400 sf commercial and office space	Planning process
54	Multi-Family Development	12300 W. Pico Boulevard	65 units	Approved October 2018, pre-construction as of December 2020
55	Multi-Family Development	11001 Pico Boulevard	89 units	Approved November 2019, pre-construction as of December 2020
56	Barringway Place	11701 Gateway Boulevard	73 units mixed use, 5,900 sf commercial space	Revised plans submitted May 2021
57	Multi-Family Development	11857-11861 Santa Monica Boulevard	52 units	Approved November 2021, pre-construction as of December 2020
58	Multi-Family Development	16243 W. Chase Street	25 beds (congregate living health facility)	Planning process
59	Multi-Family Development	10915 W. Strathmore Drive	37 units	Planning process
60	Multi-Family Development	10841 N. Sepulveda Boulevard	52 units	Pre-construction
61	Commercial Development	10768 Bellagio Drive	Demolition and reconstruction of the Bel Air Country Club House (approximately 62,615 sf)	Revised plans submitted January 2021, pre-construction

Map ID	Project Name	Location	Description	Status
62	Trident Center Expansion	11355 & 11377 W. Olympic Boulevard	Additional 120,000 sf of office and retail space	Planned completion 2022
63	Mixed-Use Development	14130 and 14154 Riverside Drive	249-unit mixed use, 27,000 sf commercial	Approved, pre-construction
64	Multi-Family Development	11010 Santa Monica Boulevard.	50-unit affordable housing	Planning process
65	Multi-Family Development	11272 Nebraska Avenue	24 units	Approved April 2018, under construction December 2020 (near completion)
66	On Butler	11421 W. Olympic Boulevard	77-unit mixed use, 6,575 sf commercial	Under construction as of December 2020 (near completion)
67	Multi-Family Development	11434 W. Pico Boulevard	102 units	Planning approved June 2019, pre-construction as of December 2020
68	Mixed-Use Development	11460 W. Gateway Boulevard.	129-unit mixed use, 5,241 sf commercial space	Planning process, not constructed as of 2019
69	Multi-Family Development	11600-11618 W. Santa Monica Boulevard	100 units	Under construction
70	Mixed-Use Development	11650-11674 Santa Monica Boulevard.	180-unit mixed use, 64,759 sf grocery store and amenities	Approved October 2019, pre-construction as of December 2020
71	Mixed-Use Development	11701 Santa Monica Boulevard.	53-unit mixed use, 1,500 sf retail	Updated plans approved 2020, pre-construction as of December 2020
72	Mixed-Use Development	11750-11770 Wilshire Boulevard.	376-unit mixed use	Planned completion 2022
73	West Edge	12101 W. Olympic Boulevard	600-unit mixed use, 200,000 sf office and amenities	Planned completion 2022
74	Multi-Family Development	1402 S. Veteran Avenue	23 units	Planning process
75	Multi-Family Development	14142 Vanowen Street	64 units	Planned completion 2024
76	Multi-Family Development	14534-14536 W. Burbank Boulevard.	55 units	Planned completion September 2021
77	Commercial Development	15005 W. Oxnard Street	98,458 sf storage facility	Planning process, pre-construction

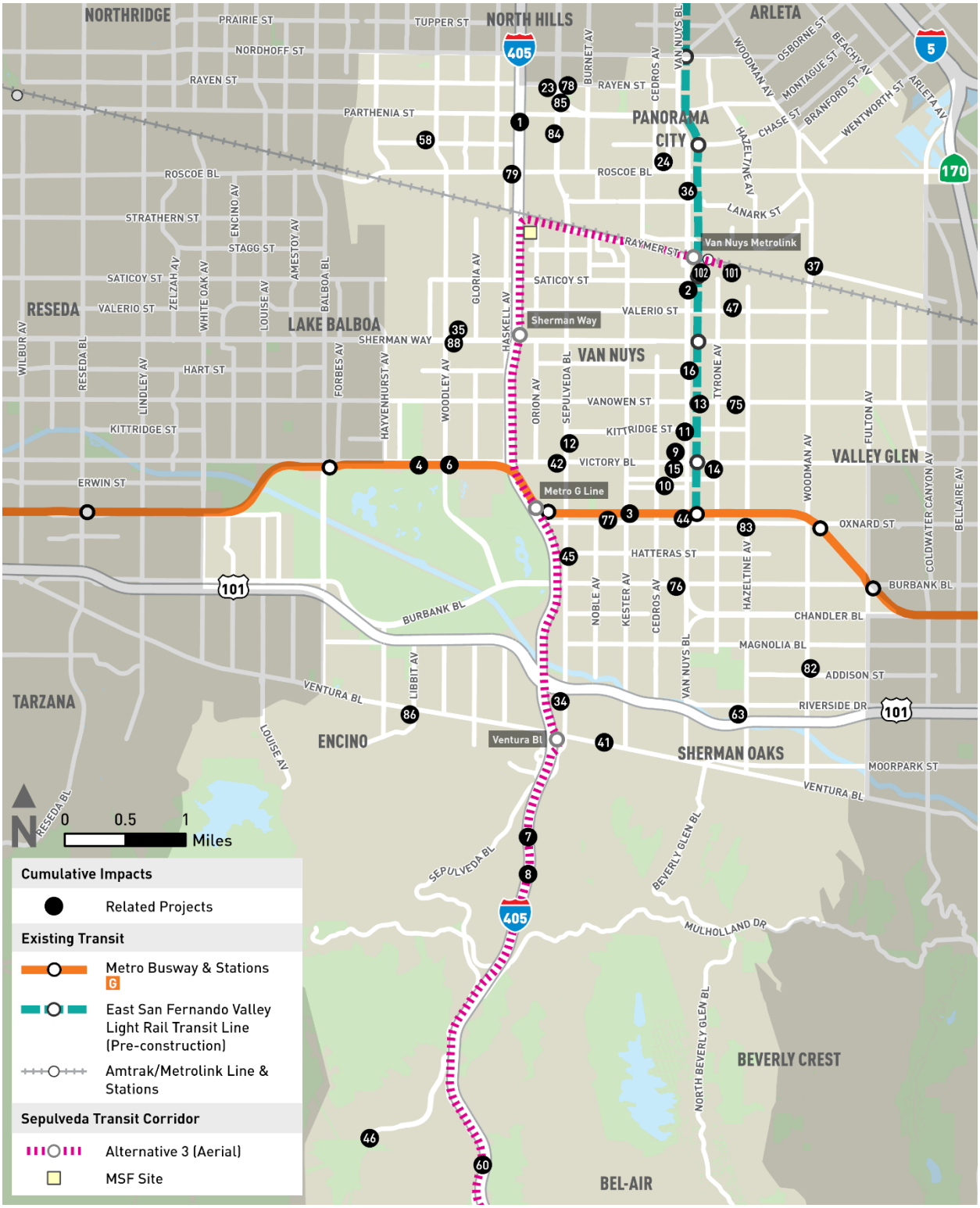
Map ID	Project Name	Location	Description	Status
78	Multi-Family Development	15314 W. Rayen Street	64 units	Planning process
79	Commercial Development	15640 W. Roscoe Boulevard	123,950 sf self-storage facility	Under construction
80	Commercial Development	2255 Sawtelle Boulevard & 2222 Corinth Avenue	135,000 sf office building	Approved March 2021, pre-construction
81	Multi-Family Development	2415-2419 S. Barrington Avenue	38 units	Approved January 2020, pre-construction as of December 2020
82	Multi-Family Development	5020 Woodman Avenue	51 units	Under construction
83	Multi-Family Development	5943-5953 N. Hazeltine Avenue	61 units	Planning process
84	Angel Apartments	8547-8549 N. Sepulveda Boulevard	54 units	Approved October 2019, pre-construction as of November 2020
85	Multi-Family Development	8750 N. Sepulveda Boulevard	43 units	Approved January 2020, pre-construction as of November 2020
86	Multi-Family Development	4741 N. Libbit Avenue	46 units	Approved April 2019, pre-construction
87	Multi-Family Development	1855-1871 Westwood Boulevard.	60 units	Under construction as of December 2020
88	Mixed-Use Development	16030 W. Sherman Way	54-unit mixed use	Under construction as of November 2020
89	Multi-Family Development	3357 S. Overland Avenue	41 units	Under construction, planned completion 2021
100	Mixed-Use Development	10955 Wilshire Boulevard	250-unit mixed use.	Preconstruction
101	Mid-Valley Water Facility Project	South of LOSSAN Corridor	New Water System District Yard	Construction anticipated to begin 2027
102	Multi-Family Development	7650 Van Nuys Boulevard	124-unit	Construction completed 2024, occupancy expected 2025
City of Santa Monica				
90	Commercial Development	1633 26th Street	129,265 sf commercial space	Planning process
91	Mixed-Use Development	2906 Santa Monica Boulevard	88-unit mixed use, 12,400 sf retail pace	Planning process
92	Providence Saint John's Health Center South Campus	2121 Santa Monica Boulevard	799,000 sf health care facilities	Planning process

Map ID	Project Name	Location	Description	Status
93	Mixed-Use Development	2901 Santa Monica Boulevard	60-unit mixed use, 5,100 sf retail space	Approved, pre-construction
94	Multi-Family Development	1450 Cloverfield Boulevard	34 units	Approved, under construction
95	Mixed-Use Development	2822 Santa Monica Boulevard	50-unit mixed use, 10,347 sf commercial space	Approved, under construction
96	Mixed-Use Development	1707 Cloverfield Boulevard	63-unit mixed use, 74,665 sf commercial space	Approved, pre-construction
97	Mixed-Use Development	1618 Stanford	50-unit mixed use, 15,548 sf commercial space	Approved, pre-construction
98	Mixed-Use Development	3223 Wilshire Boulevard	53-unit mixed use, 5,831 sf commercial space	Approved, pre-construction
99	Mixed-Use Development	3030 Nebraska Avenue	177-unit mixed use, 66,100 sf creative office space	Approved, pre-construction

Source: Bel-Air-Beverly Crest Neighborhood Council, n.d.; City of Santa Monica, n.d.; Curbed Los Angeles, n.d.; Encino Neighborhood Council, n.d.; LA Geohub, 2015a, 2015b; DCP, 2019a, 2019b, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e); LADOT, n.d.; Lake Balboa Neighborhood Council, n.d.; Los Angeles Department of Building & Safety, 2020a, 2020b, 2020c, 2021a, 2021b; Mar Vista Community Council, n.d.; Metro, 2020a, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); North Hills West Neighborhood Council, n.d.; North Valley Area Planning Commission, n.d.; North Westwood Neighborhood Council, n.d.; Palms Neighborhood Council, n.d.; Panorama City Neighborhood Council, n.d.; SCAG, 2020b, 2021b; Sherman Oaks Homeowners Association, n.d.; Sherman Oaks Neighborhood Council, n.d.; South Valley Area Planning Commission, n.d.; UCLA, n.d.; Urbanize LA, n.d.; Van Nuys Neighborhood Council Planning and Land Use Committee, n.d.; Veterans Affairs Greater Los Angeles Healthcare System, 2018; West Los Angeles Area Planning Commission, n.d.; West Los Angeles Sawtelle Neighborhood Council, n.d.; Westside Neighborhood Council, n.d.; Westwood Neighborhood Council, n.d.

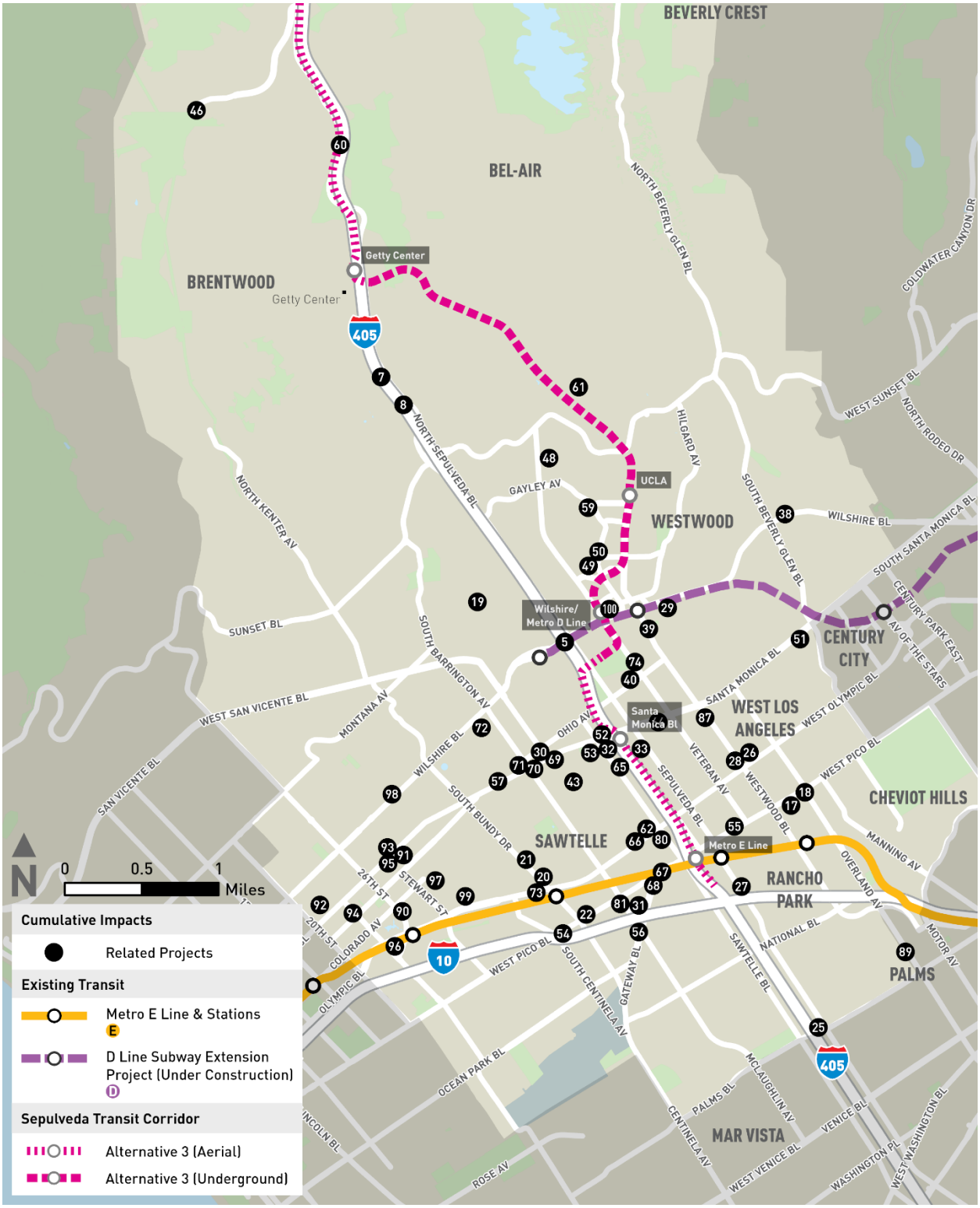
NA = not applicable
sf = square feet

Figure 7-10. Alternative 3: Related Projects Identified in the Project Study Area - North



Source: HTA, 2024

Figure 7-11. Alternative 3: Related Projects Identified in the Project Study Area - South



Source: HTA, 2024

The I-405 Sepulveda Pass ExpressLanes project (ExpressLanes project), identified in Section 4.1, is notable with regard to Alternative 3 because its project limits substantially overlap with the Alternative 3 footprint. More specifically, the ExpressLanes project is anticipated to provide for the addition of one travel lane in each direction on I-405 between US-101 and I-10. Alternative 3 similarly includes a southern terminus near I-10 and extends north following the I-405 right-of-way (ROW) until the LOSSAN rail corridor, where the Alternative 3 alignment turns east to its northern terminus at the Van Nuys Metrolink Station. Accordingly, the two projects would be constructed along the same 9.5 mile stretch of I-405 with substantial overlap in project limits for approximately 8 miles between Wilshire Boulevard and US-101.

According to Measure M, the ExpressLanes project is characterized as Phase 1, and the Sepulveda Transit Corridor Project is characterized as Phase 2 of the Sepulveda Corridor improvements within the Sepulveda Corridor. Like the Sepulveda Transit Corridor Project, the ExpressLanes project is in the design and environmental document preparation phase, with the California Department of Transportation (Caltrans) serving as the Lead agency for both CEQA and the National Environmental Policy Act. Both projects affect the I-405 facility; the ExpressLanes project includes widening and restriping of I-405 to accommodate a new toll lane in each direction, while Alternative 3 would require highway modifications to provide needed space for MRT aerial guideway support columns. While both projects independently require modifications to I-405, certain facilities are anticipated to be affected by both projects, including lane striping, on- and off-ramps, the I-405 median, and retaining walls through the Sepulveda Pass. How each project affects these facilities is captured in the separate environmental analyses under development by the two project teams; however, when considering the combined effect of the two projects, it is apparent that the ultimate configuration of I-405 facilities would be different than the design considered for either project individually.

Timing of the two projects' development is the primary reason for this apparent discrepancy. Currently, the ExpressLanes project is anticipated to complete environmental and project approvals in 2027 with an anticipated construction start date in 2028 and construction completion in 2030. While design and environmental review of the Project has a similar schedule to that of the ExpressLanes project, project construction is not anticipated to begin until 2029, after the ExpressLanes project is anticipated to be under construction and potentially complete. As such, with the two projects proceeding independently, there is potential for various conflicts to arise, including removal of improvements installed by the ExpressLanes project to accommodate Alternative 3 improvements as well as potential for Alternative 3 construction activities to conflict with ExpressLanes project operations. In practice, it is anticipated that if Alternative 3 is selected by the Metro Board, a coordination process between Metro, Caltrans, and the Federal Transit Administration (FTA) would be required. This process would coordinate the two projects' ongoing designs and construction programming to appropriately site I-405 modifications and plan the two projects' construction schedules. Given the current schedule of the two projects' planning processes, this coordination could be accomplished through a coordinated Project Study Report consistent with Caltrans' *Project Development Procedures Manual*, which would be required of Alternative 3 if selected by the Metro Board.

For planning purposes, the ExpressLanes project has provided the designers of Alternative 3 with the footprint of the most conservative (i.e., largest envelope of improvements) ExpressLanes configuration (lanes, shoulders, ramps, rights-of-way, etc.) currently under consideration, with several design variations. The ExpressLanes project Alternative 3 has been assumed as the ExpressLanes project configuration in the cumulative scenario; however, it should be noted that Caltrans has not decided on a preferred alternative for the ExpressLanes project, and ExpressLanes project Alternatives 2 and 5 are

also under consideration. To further aid the assessment of potential cumulative effects associated with the two projects, the Alternative 3 design team developed a set of conceptual designs based on the ExpressLanes project Alternative 3 concept.

7.3 Impacts Evaluation

7.3.1 Transportation Impacts

Alternative 3 would expand regional transportation choices and is aimed at improving overall regional mobility and would result in decreases in vehicle miles traveled (VMT) and travel time due to the increased use of transit. Alternative 3 would, therefore, result in a beneficial cumulative effect on area-wide traffic conditions. In addition, Alternative 3 would not affect local transit operations and circulation, as there would be minimal impacts to individual bus lines or stops, and transit service would be improved overall by implementation of Alternative 3. Other than the ExpressLanes project, none of the transportation projects listed in Table 7-5 intersect the Alternative 3 alignment other than at proposed station locations. As such, Alternative 3 would not result in cumulative geometric hazards or obstructed visibility or reduce emergency access. The queues resulting from the peak-hour passenger flow into the East San Fernando Valley (ESFV) Light Rail Transit (LRT) Van Nuys Metrolink Station are forecast to exceed the available queueing space at the fare gates and would create a hazard to passengers. Passenger queues at other station transfers would have adequate space and would not create a hazard to passengers. Implementation of mitigation measure (MM) TRA-1 would replace the fare gates at the ESFV LRT Van Nuys Metrolink Station with stand-alone validators (SAV) allowing passengers to enter the fare-paid zone without interacting with a fare gate to prevent queue lengths from exceeding the available queueing space. Therefore, implementation of MM TRA-1 would reduce impacts to less than significant, and Alternative 3 would not have a cumulatively considerable contribution to a significant cumulative transportation hazard impact.

Modifications to the roadway network to accommodate Alternative 3 would potentially be influenced by the ExpressLanes project. While Alternative 3 proposes modifications to the I-405 facility as well as parallel roadways and associated ramps, the ExpressLanes project similarly proposes modifications to the I-405 corridor in the same locations as Alternative 1.

The ExpressLanes project is anticipated change the lane configuration along I-405 and as a result there may not be adequate space to construct the MRT alignment and maintain the number of lanes assumed in the cumulative condition. To maintain the number lanes assumed in the cumulative condition, Alternative 1 would likely need to expand the I-405 facility westward several feet at several constrained locations along the I-405 corridor including portions of the corridor within the Brentwood and Sherman Oaks communities. As a result of the highway expansion, various modifications to adjacent roadways may be required including curb realignment, restriping, and ramp realignment. Despite these roadway changes, all highway and land use access would be maintained throughout the Cumulative RSA for transportation. Therefore, Alternative 1 would not result in a significant cumulative impact.

Construction impacts would be temporary and intermittent during the overall construction period for Alternative 3. As continued development is planned throughout the Cumulative RSA for transportation, individual development projects may occur simultaneously adjacent to the project alignment. Alternative 3 includes transportation-related mitigation measures such as MM TRA-4 and MM TRA-5 to minimize the anticipated traffic disruptions during construction by implementing a transportation management plan and maintaining transit service during construction. The ExpressLanes project would affect many of the same areas as Alternative 3 and is planned to be complete by 2030. If the

ExpressLanes project is constructed prior to Alternative 3, construction activities associated with Alternative 3 have the potential to affect operation of the I-405 ExpressLanes and the I-405 general-purpose lanes through temporary lane closures required to construct the MRT alignment along the I-405 median. This would delay the benefit of the I-405 ExpressLanes, including improved traffic flows and travel times as well as vehicle/person throughput through the Sepulveda Pass. As such, Alternative 3 construction activities have the potential to result in a significant cumulative impact on transportation. Construction-related disruptions associated with Alternative 3 would have a cumulatively considerable incremental contribution to this significant cumulative impact.

7.3.2 Land Use and Development

The related projects identified in Table 7-5, are subject to land use regulation by local jurisdictions, including the City of Los Angeles, UCLA, and the VA. Simultaneous construction of related projects and Alternative 3 could occur, potentially resulting in short-term and temporary construction disruptions to the existing built environment and circulation through temporary roadway or sidewalk closures or construction laydown areas. Projects proposed in close proximity to Alternative 3 have the potential to be disruptive to the adjacent land uses if construction occurred concurrently, but it is not anticipated that any of the transportation projects listed in Table 7-5 would have overlapping construction periods such that substantial cumulative construction-related disruptions would occur. Additionally, the Alternative 3 roadway and/or I-405 lane closures and laydown areas in conjunction with related projects would not divide existing communities, as access within and out of the affected communities would generally be required to be maintained through their respective construction traffic management plans. Alternative 3 would implement MM TRA-4, which requires a transportation management plan to address construction-related traffic and access disruptions. Therefore, construction of Alternative 3, in combination with past, present, and reasonably probable future projects, is not expected to result in a cumulatively significant impact related to the physical division of an established community.

As described in the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025b), operation of Alternative 3 would not divide the existing community in conjunction with the related projects, as access within and out of the communities would be unchanged or changed very little by these related projects. Further, the related projects would be required to be consistent with applicable general plans and zoning codes. Therefore, Alternative 3, combined with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact to land use and planning during construction or operation.

7.3.3 Real Estate and Acquisitions

A project may have cumulatively considerable impacts associated with displacement of housing units, even when mitigated, if it would contribute cumulatively to displacement of the residential land uses in the Cumulative RSA such that replacement housing would need to be constructed. According to the *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report* (Metro, 2025c), Alternative 3 would result in the displacement of one housing unit. As required by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 United States Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.), all displaced residents would be entitled to relocation assistance, and it is anticipated that residential displacements associated with Alternative 3 would be relocated in the Project Study Area or region. In addition, as described in Section 7.3.1, the ExpressLanes project has the potential to affect the footprint of Alternative 3, requiring various additional roadway modifications at several constrained points along I-405. Such modifications to the Alternative 3 footprint would similarly have the potential to result in

additional property acquisitions, including potential residential displacements. It is anticipated that any additional property acquisitions would also be relocated within the Cumulative RSA or region. Thus, cumulative impacts due to the displacement of housing or people would not be significant, and Alternative 3 would not have a cumulatively considerable contribution to a significant cumulative impact.

7.3.4 Communities and Neighborhoods

Alternative 3 would not construct any new housing units and, therefore, would not generate direct population growth within the Project Study Area. Instead, Alternative 3 is anticipated to accommodate planned growth for the affected communities and potentially redirect growth to the Alternative 3 station areas. Potential indirect effects as a result of Alternative 3 would include the future planning and development of transit-oriented development within the proposed station areas. Such growth would not be unplanned as Alternative 3 is already located in a part of the region that has been planned to receive additional growth through the designation of priority growth areas. Therefore, Alternative 3 would support regional planning efforts to focus growth in areas served by transit, and related transportation projects would similarly support these regional growth plans. Alternative 3 would not induce substantial unplanned population growth, and there would not be a cumulatively considerable contribution to a significant cumulative impact related to population and housing.

Construction of Alternative 3 would not require substantial consumption of potable water or generate substantial wastewater. During construction, water use would occur primarily related to water trucks required for dust control. This short-term use would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Alternative 3 would not include a significant long-term, permanent source of water use or wastewater generation. Alternative 3 would include an MSF, which would use water for cleaning transit vehicles and to support offices at the facility. As part of Metro's *Moving Beyond Sustainability Plan* (Metro, 2020b) goal to reduce water consumption, it has implemented pilot program low flow nozzles in some existing MSFs, resulting in a 40 percent reduction in water use per wash cycle. These features are anticipated to be installed for the MSF to meet Metro's sustainability goals. As such, this minimal water consumption would not interfere with the existing and planned capacity of the water supply or wastewater treatment capacity. Alternative 3 would not have a cumulatively considerable contribution to cumulative water and wastewater impacts.

Alternative 3 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 3 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor for Alternative 3 would comply with Assembly Bill (AB) 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Alternative 3 would not have a cumulatively considerable contribution to cumulative solid waste impacts.

7.3.5 Visual Quality and Aesthetics

As discussed in Section 5.2.5, there is an existing significant cumulative visual impact within the Sepulveda Pass portion of the Project Study Area. The primary visual elements of Alternative 3 would be the proposed aerial guideway, the aerial stations, MSF, freeway modifications, retaining wall relocations, and changes in parking, lanes, and sidewalks. The proposed aerial guideway, columns,

straddle bents, and aerial stations would present new vertical features in the landscape that would be highly visible; however, views of the San Gabriel Mountains and Santa Monica Mountains would not be substantially obscured and would continue to be limited by the surrounding urban development. In addition, the widening of I-405 and relocation of the existing retaining walls at certain locations of I-405 would not substantially obstruct views of the Santa Monica Mountains to the north, because the existing built-out urban landscape already prevents clear views of the mountains.

Motorists driving northbound and southbound on the I-405 would experience interruption in views while driving due to the presence of the aerial guideway; however, the interruption would be intermittent, because the aerial guideway would traverse the freeway from the east and west sides, and not remain in the same location from the vantage point of motorists. Recreationalists utilizing trails in the Santa Monica Mountains near I-405 would have the least interruption in views, because the aerial guideway would be located within the I-405 corridor when viewing the project alignment from higher ground. As such, views of scenic vistas as a whole would not be substantially affected by Alternative 3, and Alternative 3 would not result in a cumulatively considerable contribution to significant cumulative impacts on scenic vistas.

Alternative 3 would not conflict with applicable zoning or other regulations governing scenic quality. While Alternative 3 would represent an overall change in views and visual quality and character as compared to existing conditions, it would be located in an urban area that has a mix of architectural styles and building materials and colors. Although viewer groups may have varying sensitivities to the visual change, Alternative 3 would be consistent with applicable zoning and other regulations governing scenic quality. As a result, the operation of Alternative 3 would have less than significant impacts related to visual character and quality.

Related projects such as the Metro G Line BRT Improvements project and the ExpressLanes project would introduce new transportation infrastructure such as grade-separated roadways and tolling gantries along I-405. Implementation of Alternative 3, in combination with past, present, and reasonably foreseeable projects, and in particular the ExpressLanes project, has the potential to result in additional alterations to the slopes and retaining walls within the Sepulveda Pass beyond those proposed by Alternative 3. Despite these incremental changes to the landscape, cumulative slope alterations and associated retaining walls would be visually indistinguishable from the existing slopes and retaining walls in the Sepulveda Pass; therefore, Alternative 3, in combination with past, present, and probable future projects, would not result in a significant cumulative impact to visual character.

Regarding light and glare, new nighttime light would primarily emanate from station areas (e.g., station plazas, entryways, and platforms) and the MSF, which would not substantially increase the amount of lighting in the immediate area because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The aerial guideway would also emit light during nighttime hours; however, lighting from monorail vehicles on aerial structures is not expected to extend beyond the aerial guideway or roadway ROW. Per the Metro Rail Design Criteria (MRDC) or equivalent, all light sources at the surface parking lots and proposed stations would be directed downward to minimize potential spillover onto surrounding properties, including light-sensitive uses. All light generated by Alternative 3 would be consistent with the urban light setting, which typically involves street lighting and light emanating from dense development throughout the cumulative Resource Study Area (Cumulative RSA). Since Alternative 3 would follow the equivalent of MRDC and the Systemwide Station Design Standards Policy, and light emitted by Alternative 3 would be consistent with existing light levels. As described in Section 4, related land development projects' light and glare profiles would similarly be consistent with

existing light levels. Therefore, Alternative 3 in combination with past, present, and reasonably foreseeable projects would not have significant cumulative lighting impacts.

7.3.6 Air Quality

Alternative 3 is included in the Southern California Association of Governments (SCAG) *Connect SoCal, 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024-2050 RTP/SCS) (SCAG, 2024). The 2024-2050 RTP/SCS is Southern California's long-range Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which serves as the foundation for estimating the region's transportation sector air pollutant emissions through 2050. The SCAG General Council adopted the plan on April 4, 2024. The Federal Highway Administration and FTA found the plan to conform to the State Implementation Plan on May 10, 2024. Transportation projects identified in a conforming RTP are consistent with the emissions reduction strategies outlined in the applicable regional Air Quality Management Plan.

As described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), South Coast Air Quality Management District's (SCAQMD) cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 3 net operational emissions would not exceed the applicable SCAQMD's regional operational significance thresholds, Alternative 3 operational emissions would not be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 3's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Alternative 3 construction emissions would exceed the SCAQMD regional significance thresholds for nitrogen oxides (NO_X) and carbon monoxide (CO) emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 3 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 3 construction emissions would be cumulatively considerable. MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 3 NO_X and CO emissions below SCAQMD significance thresholds. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 3's contribution of pollutant emissions may result in measurable human health impacts on a regional scale.

Because Alternative 3 construction emissions would exceed the respirable particulate matter of diameter less than 10 microns (PM_{10}) localized significance threshold, Alternative 3 would cause or contribute to a violation of any health-protective CAAQS and NAAQS. Given that diesel particulate matter (DPM) emissions constitute a portion of localized PM_{10} emissions, impacts related to localized

DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources. The construction analysis for Alternative 3 conservatively assumed all equipment would be diesel powered; however, the Metro *Green Construction Policy* (Metro, 2011) contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power. There are no feasible mitigation measures that would reduce Alternative 3 PM_{10} emissions below SCAQMD localized significance thresholds. Although MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, including localized PM_{10} emissions, mitigation measures would not reduce Alternative 3 PM_{10} emissions below SCAQMD localized significance thresholds. A significant cumulative impact would occur if other related projects would generate construction emissions that would cause or contribute to a violation of health-protective standards. It is anticipated that multiple projects listed in Table 7-5 would generate DPM emissions that could affect the same sensitive receptors as those affected by Alternative 3. As such, construction-related emissions of DPM from Alternative 3 would have a considerable contribution to a significant cumulative impact related to violations of health-protective CAAQS and NAAQS.

7.3.7 Climate Change and Greenhouse Gas Emissions

As noted in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), greenhouse gases (GHG) and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA, 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) also serves as the cumulative impact analysis. This analysis includes projected future VMT and associated GHG emissions resulting from all of the background development in the Project Study Area, described in Sections 4.1 through 4.3.

Implementation of Alternative 3 would result in a net reduction of annual GHG emissions compared to existing conditions, due to the displacement of VMT resulting from the improved transit service associated with Alternative 3. Alternative 3 would support state, regional, and local efforts to reduce GHG emissions by providing an efficient transit system as an alternative mode of transportation for commuters traveling between the Valley and Westside of Los Angeles. Overall, Alternative 3 would not result in an incremental increase in GHG emissions that would contribute to climate change, but rather would result in an environmental benefit by reducing GHG emissions; therefore, impacts of GHG emissions associated with Alternative 3 would be less than significant.

7.3.8 Noise and Vibration

As noted in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h), construction of Alternative 3 would require heavy earth-moving equipment, generators, cranes, pneumatic tools, and other similar machinery. The existing cumulative noise condition is characterized by existing traffic noise, which was captured by existing ambient noise measurements. Construction noise levels for Alternative 3 would exceed FTA noise standards and, where applicable, the standards established by the local noise ordinances due to the intensive nature of Alternative 3 construction activities and the proximity of sensitive land uses to the corridor. Implementation of MM NOI-3.2 (Noise Control Plan) would reduce construction noise levels by implementing a noise control plan that would include various noise reduction strategies such as scheduling noisy activities during daytime hours, reducing concurrent use of multiple pieces of noise generating equipment, and noise monitoring at

sensitive receptors, among others. However, there may still be temporary or periodic exceedances of the FTA construction noise criteria and local standards, resulting in temporary significant impacts related to construction noise.

Similar to Alternative 3, construction of related projects would likely include the use of heavy construction equipment that would generate elevated construction noise levels. Projected future projects would go through their own environmental clearance process and would include mitigation for construction noise to reduce impacts. Related projects within 500 feet of Alternative 3 construction could result in a cumulative construction noise impact at sensitive receptors. Currently, there have not been any related projects identified with construction schedules determined to overlap with Alternative 3. Although it is not possible to predict which related projects would result in a cumulative construction noise scenario, the construction noise levels associated with Alternative 3 could temporarily increase ambient noise levels. Therefore, Alternative 3, when combined with noise generated by past, present and probable future projects, would result in a significant cumulative noise impact during construction, and the incremental contribution of Alternative 3 to that significant cumulative impact would be cumulatively considerable.

The noise environment in the vicinity of the Alternative 3 alignment is dominated by traffic noise, including freeways such as I-405, I-10, US-101, arterial roads such as Sepulveda Boulevard and Wilshire Boulevard, and other local roadways. Aircraft flyovers are also contributors to the existing noise environment in most of the Project Study Area. Cumulative growth and development in the Project Study Area could result in increases in roadway traffic volumes over time that would also increase ambient noise levels in the vicinity of Alternative 3. Alternative 3 would result in significant operational noise impacts at sensitive receptors along the Alternative 3 alignment, primarily within the Sherman Oaks and Van Nuys communities. Implementation of MM NOI-3.1 would require installation of soundwalls and would reduce the significant impacts related to noise to a less than significant level. It is anticipated that the ExpressLanes project would similarly address operational noise impacts with mitigation measures such as installation of soundwalls or improvements to existing soundwalls along I-405. Therefore, Alternative 3 in combination with future traffic noise is not anticipated to result in a significant cumulative impact. Alternative 3 would not have a cumulatively considerable contribution to a cumulative noise impact.

Regarding vibration, construction of Alternative 3 would result in significant and unavoidable vibration impacts, even with implementation of MM VIB-3.1, which would implement a vibration control plan to limit construction-generated vibration. However, it is not anticipated that vibration-generating equipment from past, present, and probable future projects would operate at the same time and in the same location as the construction equipment for Alternative 3. Operation of Alternative 3 would not generate excessive vibration, and it is not anticipated that any related projects in the vicinity of Alternative 3 would generate substantial vibration that could combine with Alternative 3 operational vibration such that a significant cumulative vibration impact would occur. Therefore, Alternative 3, combined with past, present, and reasonably foreseeable projects, would not result in a significant cumulative vibration impacts.

7.3.9 Ecosystems and Biological Resources

According to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), 10 special-status wildlife and plant species were identified as present, and 14 had medium or high potential to occur within the Alternative 3 Resource Study Area (RSA). Based on habitat requirements for these 24 species, they are most likely to occur in the Sepulveda Pass and could be in or

proximate to work areas along I-405 in the Santa Monica Mountains. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of native vegetation would also be required for construction of the structural support beams for the guideway track, staging yards, TPSSs, and aerial MRT stations; although vegetation that would be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. The clearing of native vegetation in the Sepulveda Pass would likely result in loss of suitable habitat that could be used for nesting, breeding, shelter, and/or foraging by special-status species. Other construction disturbances such as noise and vibration generated by construction equipment can disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. MM BIO-4 through MM BIO-11 and MM BIO-14 through MM BIO-27 would be implemented to reduce Alternative 3 construction-related impacts to special-status plant and wildlife species and their habitats to a less than significant level.

Tree removal has potential to affect nesting birds and roosting bats and potentially conflicts with local tree preservation policies and ordinances. Numerous projects listed in Table 7-5, such as the Metro East San Fernando Valley Light Rail Transit project and the ExpressLanes project, would potentially result in the removal of trees. Alternative 3 would remove approximately 2,926 trees, including approximately 98 trees within the Santa Monica Mountains National Recreation Area, a considerable contribution to cumulative tree removals in the Cumulative RSA. Alternative 3 includes various mitigation measures, such as MM BIO-4 and MM BIO-5, to avoid potential impacts to nesting birds and roosting bats during construction. In addition, through implementation of MM BIO-11, Alternative 3 would replace removed trees in accordance with applicable local tree ordinances and policies. All related projects listed in Table 7-5 would be subject to local tree ordinances and would be expected to replace trees removed as a result of construction activities. While numerous trees would be removed throughout the Cumulative RSA as a result of the cumulative construction effects of Alternative 3 and other projects, each project would be responsible for replacing removed trees such that the cumulative impact would be less than significant.

The Alternative 3 aerial guideway also presents a potential hinderance to avian movement. Most bird species would migrate above the height of the aerial structure (45 to 55 feet above the existing ground level), so disruptions are expected to be minimal. Dispersing local resident or younger, recently fledged birds have potential to collide with the guideway track or vehicles while flying along local movement corridors. The Metro G Line Conversion to Light Rail project (Map ID 6) may involve an aerial alignment, or other raised infrastructure with transit vehicles that could combine for a cumulative impact to migratory birds. However, like Alternative 3, it is not anticipated that the Metro G Line alignment would be at a height that would hinder avian movement. As such, with regard to avian movement, Alternative 1, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impact.

I-405 currently acts as a restrictive barrier to mountain lion and vertebrate movement from east to west and vice-versa where it intersects the Santa Monica Mountains. Barriers to movement result in gene flow limitations and isolation of populations, both of which negatively affect the overall health and success of a species (NPS, 2019). Underpasses and culverts become increasingly important to wildlife movement in areas with extensive road networks (Penrod et. al, 2001). Instances of I-405 crossings by mountain lions and other vertebrates are rare but have been recorded on occasion, both successfully and unsuccessfully (i.e., death resulting from vehicle collision), during National Park Service studies of the Santa Monica Mountains population (NPS, 2019). Operation of Alternative 3 would further impact

movement of mountain lions and other large mammals across I-405 as a result of the expanded (i.e., increased width) roadway, anthropogenic disturbance for ongoing maintenance, and the presence of the aerial guideway, a novel obstacle and potential deterrent to wildlife movement in the area; Alternative 3 operation is likely to decrease the potential of a successful crossing and increase barriers to movement. MM BIO-28, described in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), is specified to reduce operational-related impacts to the movement of native wildlife species; specifically, mountain lions and other vertebrates, to less than significant. The ExpressLanes project would pose similar potential impacts to special-status species habitat due to highway widening and associated grading and vegetation removal and contribute to existing obstacles to mountain lion and other vertebrate movement across the I-405 corridor. As such, Alternative 3, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact due to incremental expansion of the I-405 facility and additional transportation infrastructure, which may further deter wildlife movement. The addition of the aerial guideway through the Sepulveda Pass and associated modifications to I-405 would result in a cumulatively considerable contribution to a significant cumulative impact to ecosystems and biological resources.

7.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources

As described in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report* (Metro, 2025j), during both construction and operation, Alternative 3 has the potential to expose people or structures to seismic risks, including the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides. Alternative 3 would also not result in impacts related to soil erosion, unstable or expansive soils, or adequacy of soils to support septic tanks. Alternative 3 would comply with all applicable state and local guidelines and mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future projects would also be subject to the same seismic risks as Alternative 3 but would also be required to comply with all prescribed standards, requirements, and guidance hazards, and implement mitigation measures as necessary. As such, Alternative 3, in combination with past, present, and reasonably foreseeable projects, would not have a significant cumulative impact related to seismic risks or soil concerns.

Regarding paleontological resources, an automated TBM would excavate the tunnels for the underground portion of Alternative 3. The TBM would excavate sediments to the dimensions of the finished tunnel, remove the sediments from the forward portion of the TBM via an internal conveyer belt, and erect the concrete walls of the tunnel. Due to the nature of TBM operations, it would not be possible for a monitor to observe the sediments as they are excavated or the tunnel walls before the concrete lining is installed. Thus, Alternative 3 would create unavoidable significant impacts to paleontological resources in paleontologically sensitive geologic units. With exception to the Metro D Line Extension, a majority of the related projects identified in Table 7-5 do not involve deep excavations below existing artificial fill; therefore, a cumulative impact to paleontological resources is not anticipated. Related projects disturbing ground and subsurface areas would be required to mitigate potential impacts to paleontological resources in highly sensitive paleontological areas. However, Alternative 3, in combination with past, present, and reasonably foreseeable projects, would have a significant cumulative impact, because potential impacts to paleontological resources caused by the TBM would be significant and unavoidable. The significant unavoidable impacts potentially caused by Alternative 3 would have a cumulatively considerable incremental contribution to a cumulative impact related to paleontological resources.

7.3.11 Hazards and Hazardous Materials

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025k), it is not anticipated that substantial quantities of hazardous materials would be routinely transported, used, stored, or disposed of during operation of Alternative 3. Operation of stations and the guideway would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. As with all development, use and storage of such materials is heavily regulated and Alternative 3 would comply with all regulations and requirements related to transportation, use, and storage of hazardous materials. Any contaminated soils, building materials, or groundwater encountered during construction of Alternative 3 would be handled, disposed of and, if necessary, remediated consistent with regulatory requirements. Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area, as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as asbestos-containing material, lead-based paint, or polychlorinated biphenyls) during demolition activities; thus, impacts would be reduced to less than significant.

As described in Section 5.2.11, related projects would have similar potential to release or expose hazardous materials as Alternative 3; however, like Alternative 3, all related projects would be required to handle hazardous materials consistent with regulatory requirements and best practices. Therefore, Alternative 3 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hazardous materials.

7.3.12 Water Resources

As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025l), Alternative 3 would result in increased impervious surface area associated with stations and roadway modifications such as road realignments, columns in the median of I-405, and I-405 shoulder modifications. This increase in impervious surface area may affect or obstruct groundwater recharge. However, most of these facilities would be located in an urban area with substantial existing impervious surface area, and Alternative 3 would adhere to existing regulations and proper implementation of stormwater compliance requirements. As such, Alternative 3 impacts related to groundwater recharge and drainage would be less than significant. The Alternative 3 MSF and TPSS facilities would use products and materials that contain potential pollutants during maintenance that could contribute to water pollution if not properly dispensed, stored, or disposed. If not appropriately managed, uncontrolled discharge of runoff carrying these potential pollutants could result in significant impacts to water quality in groundwater and waterways, including the Pacoima Wash, Encino Creek, Ballona Creek, and the Los Angeles River.

Construction would expose soils in areas that are completely developed with impervious surfaces, which would increase the rate of runoff from these sites. Alternative 3 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. In accordance with mandated permitting requirements, Alternative 3 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Regional Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the best management practices that would be in place prior to the start of construction activities and during construction. Best

management practices categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or waste discharge requirements or substantial degradation of surface or groundwater quality during operation would be less than significant. As discussed in Section 5.2.12, related projects would be required to adhere to the same regulations and implementation requirements as Alternative 3. These regulations and requirements are the Los Angeles Regional Water Quality Control Board's and other water management regulatory agencies' primary tool for managing the water quality and hydrology impacts of development in the region and throughout California. As such, Alternative 3 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hydrology and water quality.

7.3.13 Energy

As described in Section 5.2.13, there is an existing cumulative impact related to energy resources. The cumulative setting is both regional and statewide. State, regional, and local agencies and jurisdictions have published a wide range of documents intended to reduce energy consumption and increase the use of renewable energy. The intent is typically to reduce the use of nonrenewable energy to reduce pollution that contributes to global warming. Alternative 3, combined with past, present, and reasonably probable future projects, could contribute to the existing cumulative impact. Regarding construction activities, as described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), a one-time expenditure of approximately 7,563,002 gallons of diesel fuel, 533,406 gallons of gasoline, and 536,969 megawatt-hours (MWh) of electricity over an approximate 6.5-year construction period would result from Alternative 3. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operation of Alternative 3 within approximately 7.5 years through transportation mode shift. The temporary additional transportation fuels consumption would not require additional capacity provided at the local or regional level. There are numerous state and regional regulatory measures designed to minimize excess transportation fuels consumption. As described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), operation of Alternative 3 in the horizon year of 2045 would result in a net annual increase in regional electricity demand of 78,813 MWh and would result in a net annual reduction of 4,039,407 gallons of gasoline, 997,980 gallons of diesel fuel, and 39,858 diesel gallon equivalent of natural gas. Converting each of these quantities to standardized units of million British Thermal Units (MMBtu), Alternative 3 operations would result in a net decrease of 379,965 MMBtu annually in 2045. The electricity consumption would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would power a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Therefore, implementation of Alternative 3 would result in a substantial decrease in overall regional energy consumption and would not have a significant cumulative impact on energy.

7.3.14 Cultural Resources and Tribal Cultural Resources

As discussed in Section 5.2.14, there is an existing potential cumulative effect related to the undiscovered archaeological resources and human remains. As described in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n), construction of Alternative 3 similarly has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the California Register of

Historical Resources or in a local register of historical resources. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts on unique archaeological resources, human remains, and Tribal Cultural Resources (TCR) would be reduced to less than significant for Alternative 3. Since it is presumed that current and future development would include similar mitigation and avoidance measures to address undiscovered buried archaeological resources or human remains, Alternative 3 would not result in a considerable contribution to potential cumulative archaeological resources or human remains impacts.

Potential impacts to two landscape features identified as possible TCRs, the Sepulveda Pass and Los Angeles River, would be visual, audible, and/or atmospheric intrusions as a result of operational and maintenance activities. MM TCR-2 was developed to mitigate operational and construction impacts to the Sepulveda Pass and the Los Angeles River by requiring incorporation of Native American cultural heritage in Project design elements.

MM CUL-1 through MM CUL-5 would address potential impacts to historic resources by requiring a cultural resources monitoring plan, design treatments building protection measures as applicable, and archival documentation. After implementation of MM CUL-1 through MM CUL-5, Alternative 3 would result in less than significant impacts, with mitigation on the following historical resources:

- Sherman Way Street Trees
- 15300 Ventura Boulevard
- UCLA Ackerman Hall
- 10811 Ambazac Way
- 10940 Weyburn Avenue
- Westwood Federal Building
- UCLA Veterans Rehabilitation Services
- Chatam Restaurant
- West Los Angeles VA Historic District

Alternative 3 would result in a significant and unavoidable impact on the Da Siani Ristorante, which would be acquired and demolished.

As discussed in Section 5.2.14, none of the related projects are presumed to result in significant impacts to a historic resource, and there would be no cumulative impacts to any of the historic districts identified within the Cumulative RSA for historic, archaeological, and tribal cultural resources. However, since Alternative 3 would result in a significant and unavoidable impact to a historic resource, and there is potential for loss of other historic resources due to development in the Cumulative RSA for historic, archaeological, and tribal cultural resources, Alternative 3 would result in a significant cumulative impact and would have a cumulatively considerable contribution to a significant cumulative impact on historic buildings.

7.3.15 Parklands

As described in the *Sepulveda Transit Corridor Project Parklands Technical Report* (Metro, 2025o), Alternative 3 would not directly result in an increase in the number of residents; thus, there would be no direct increase in demand for parks or recreational facilities.

Alternative 3 would not result in significant impacts to parks or recreational facilities related to construction or operational activities. However, Alternative 3 could indirectly affect population, housing, and employment growth as a result of and in combination with probable future projects in the region.

Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, since these growth projections are based on the General Plan land use designations of local jurisdictions. These projections, which include the Project and cumulative projects, are accounted for in population increases that affect planning for park facilities. Therefore, Alternative 3 would not result in significant cumulative impacts to parks and recreational facilities.

7.3.16 Safety and Security

Project measure (PM) SAF-1 requires compliance with California Health and Safety Code to ensure fire-life safety at all facilities proposed by Alternative 3. Alternative 3 does not include any housing component that would directly increase population, although some indirect concentration of growth may occur around some of the station areas due to the new transit access. As described in the *Sepulveda Transit Corridor Project Safety and Security Impacts Technical Report* (Metro, 2025p), funds are allocated to fire protection services during the annual monitoring and budgeting process to ensure that fire protection services are responsive to changes in the City of Los Angeles. Similarly, the Los Angeles Fire Department (LAFD) or Los Angeles County Flood Control District evaluate staffing levels during the annual budgetary process, and personnel are hired, as needed, to ensure that adequate fire protection and emergency response services are maintained. The LAFD would also evaluate Alternative 3 to ensure that adequate fire protection could be accommodated with project implementation. With regard to police protection, the Metro system is currently policed by the Los Angeles Police Department (LAPD) and Los Angeles County Sheriff Department (LASD). Metro has contracted the LASD and the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. In addition, Alternative 3 would be monitored by Metro, which has implemented a multi-policing model inclusive of Metro's Transit Security Officers and contract security personnel. Since the Project is within the jurisdiction of the City of Los Angeles, the LAPD would be the first responders for the Project in the event of an emergency requiring police protection. Alternative 3 is not anticipated to affect either fire or police protection response times or otherwise affect emergency services.

Related projects could have the potential to impact fire and police protection services within the Cumulative RSA by requiring temporary lane closures or drawing on emergency responders to respond to emergency incidents. None of the projects identified in Table 7-5 are anticipated to have overlapping construction periods such that cumulative construction activities could affect emergency response. If concurrent construction were to occur, it is reasonable to assume that the related projects would implement their own measures to reduce impacts to emergency services by implementing detours and appropriate notification of agencies, which Alternative 3 would implement to ensure construction-period impacts on emergency response would remain less than significant. Therefore, construction and operation of Alternative 3 in combination with past, present, and probable future projects would not result in a significant cumulative impact related to the provision of new or altered fire or police service.

Alternative 3 would be located within a designated Very High Fire Hazard Severity Zone within the Santa Monica Mountains. However, Alternative 3 would result in less than significant impacts related to wildfire issues, including exacerbated wildfire risks, interference with emergency response plans, and flooding in areas affected by wildfires, as the Alternative 3 alignment and associated facilities would be situated along the I-405 ROW where such risks would be low. In addition, MM SAF-1 and MM SAF-2 would minimize wildfire risks by avoiding fire hazards during high-risk conditions and by clearing construction areas of potential wildfire fuels. As discussed in Section 5.2.16, none of the related projects identified in Table 7-5 are anticipated to exacerbate wildfire risks. The state, county, and city Fire Code regulations would be incorporated into legally required health and safety plans for all construction

workers and visitors associated with related projects. As such, Alternative 3 would not result in a significant cumulative impact related to wildfire risks.

7.4 Mitigation Measures

The mitigation measures identified for each environmental discipline address both project-specific impacts and cumulative impacts of Alternative 3.

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

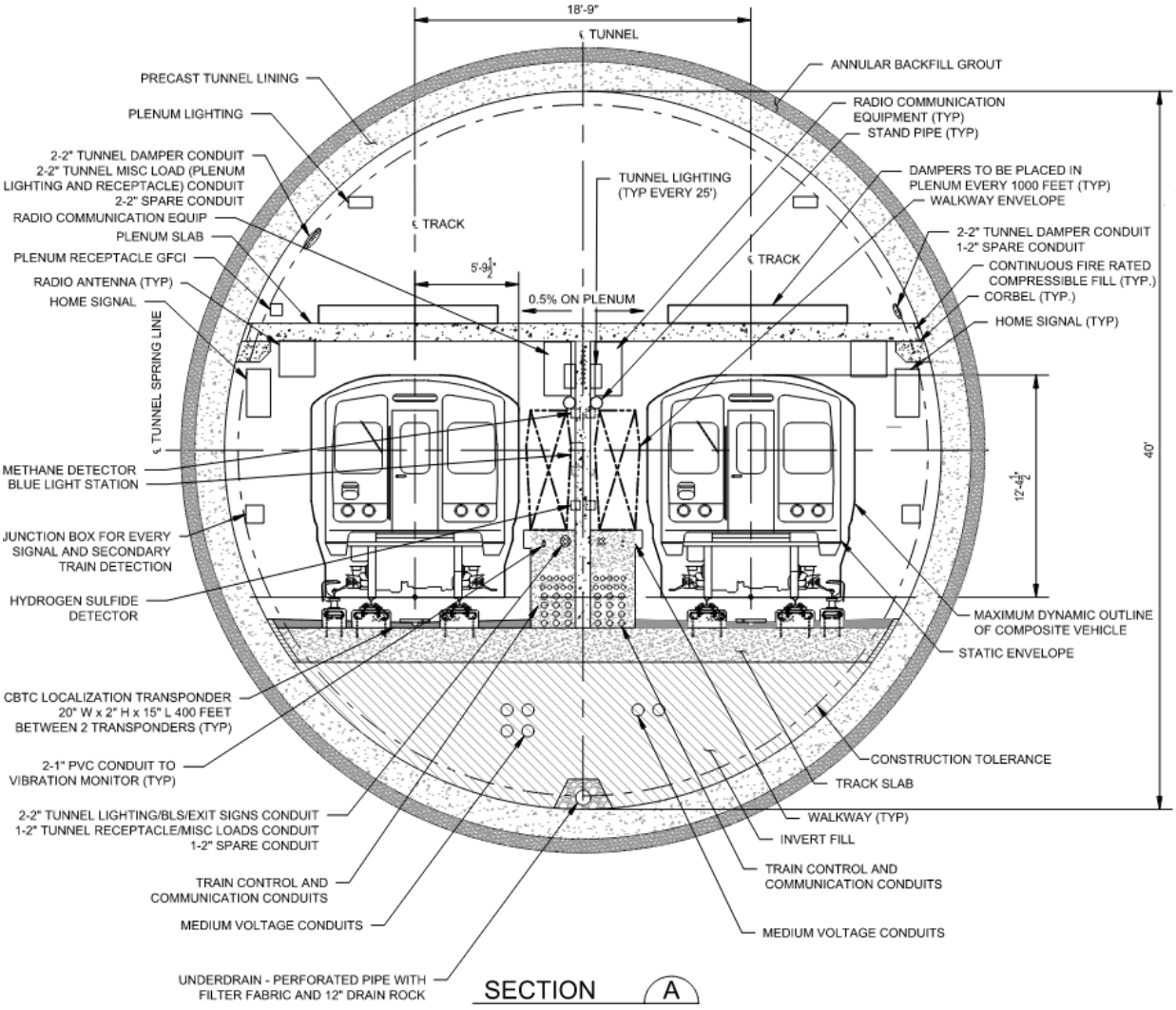
Station located over Dickens Street, immediately west of the Sepulveda Boulevard and Dickens Street intersection. North of the station, the aerial guideway would transition to the center median of Sepulveda Boulevard. The aerial guideway would continue north on Sepulveda Boulevard and cross over U.S. 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

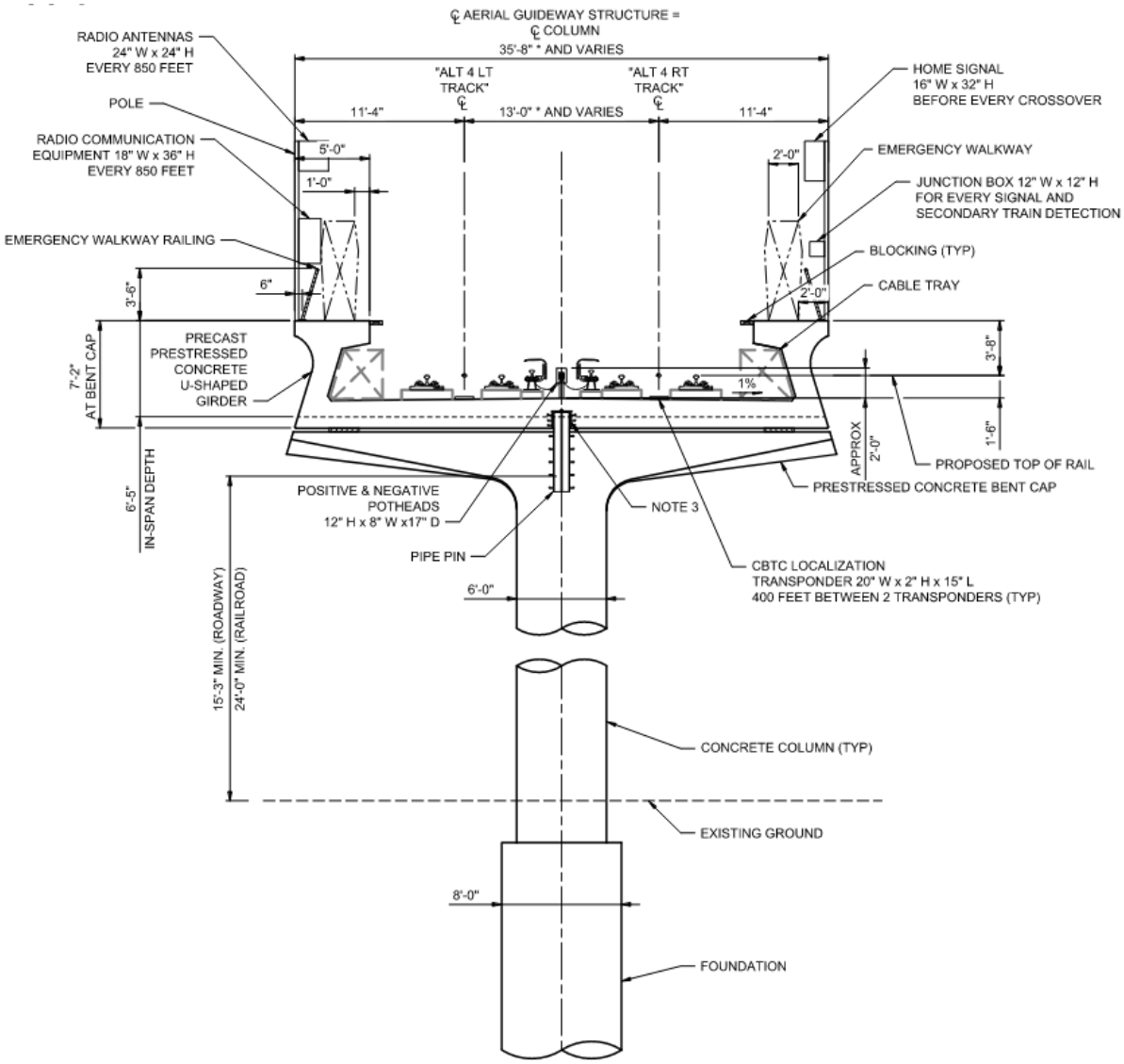


Source: STCP, 2024

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.

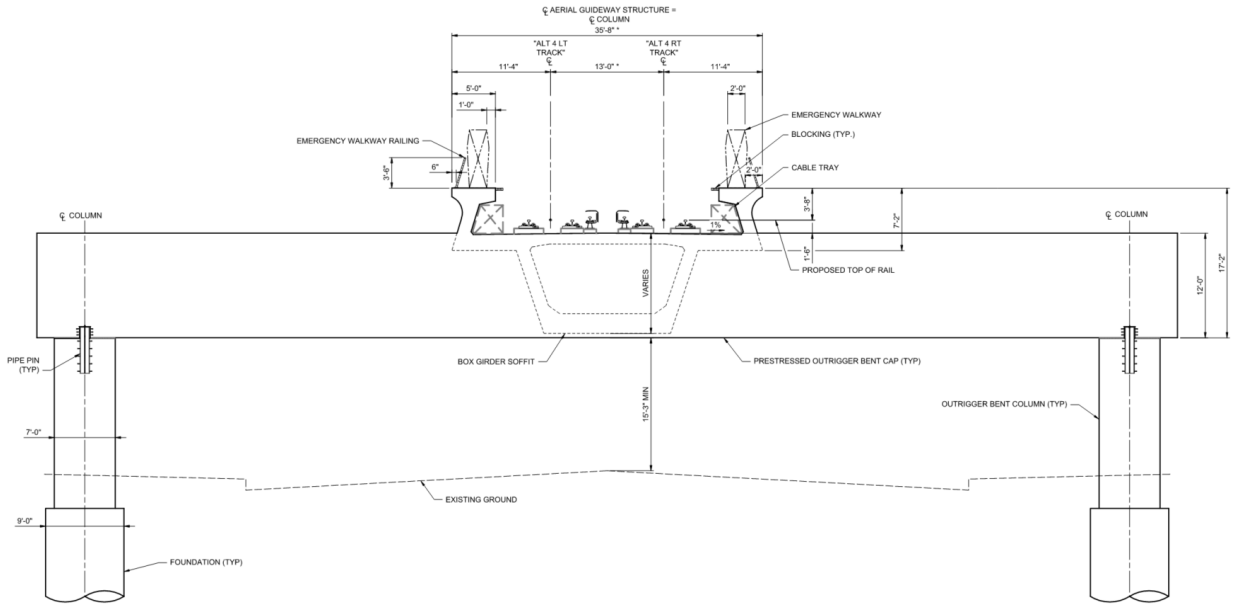
Figure 8-3. Typical Aerial Guideway Cross-Section



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.

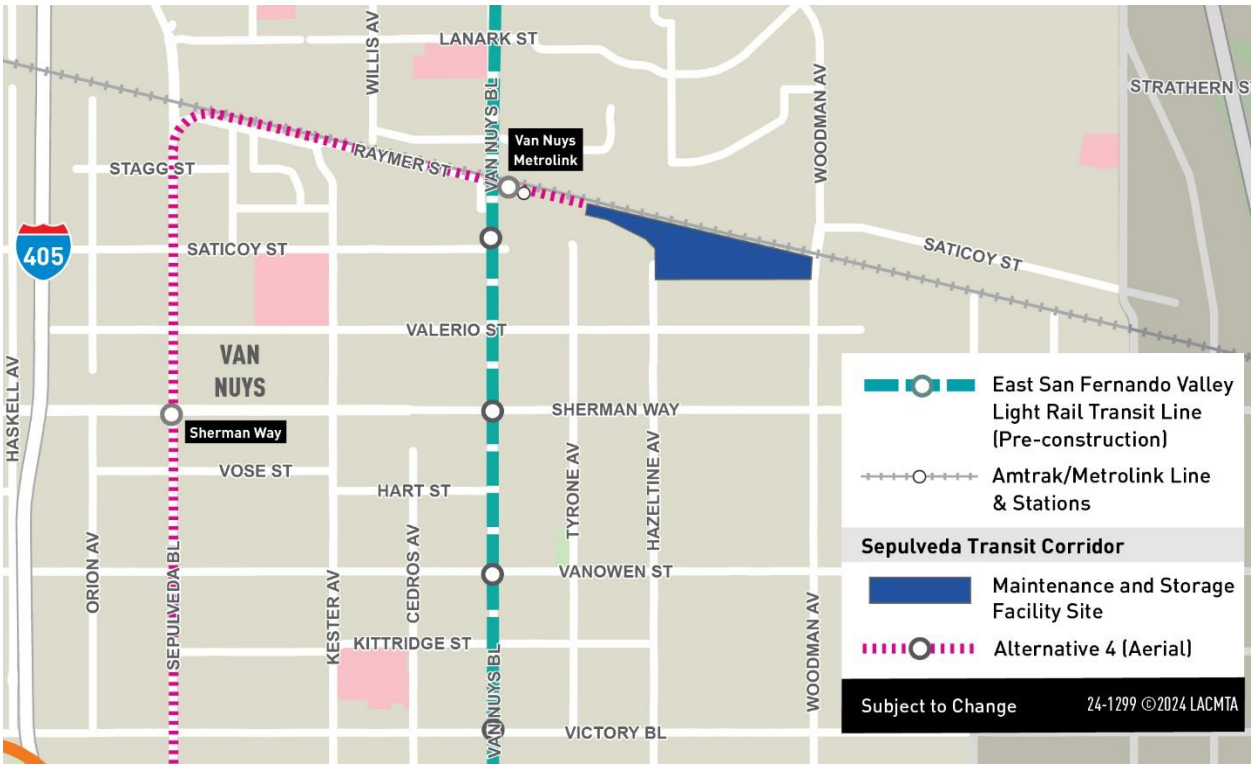
The site would include the following facilities:

- 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)

TPSS No.	Location Description	Configuration
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

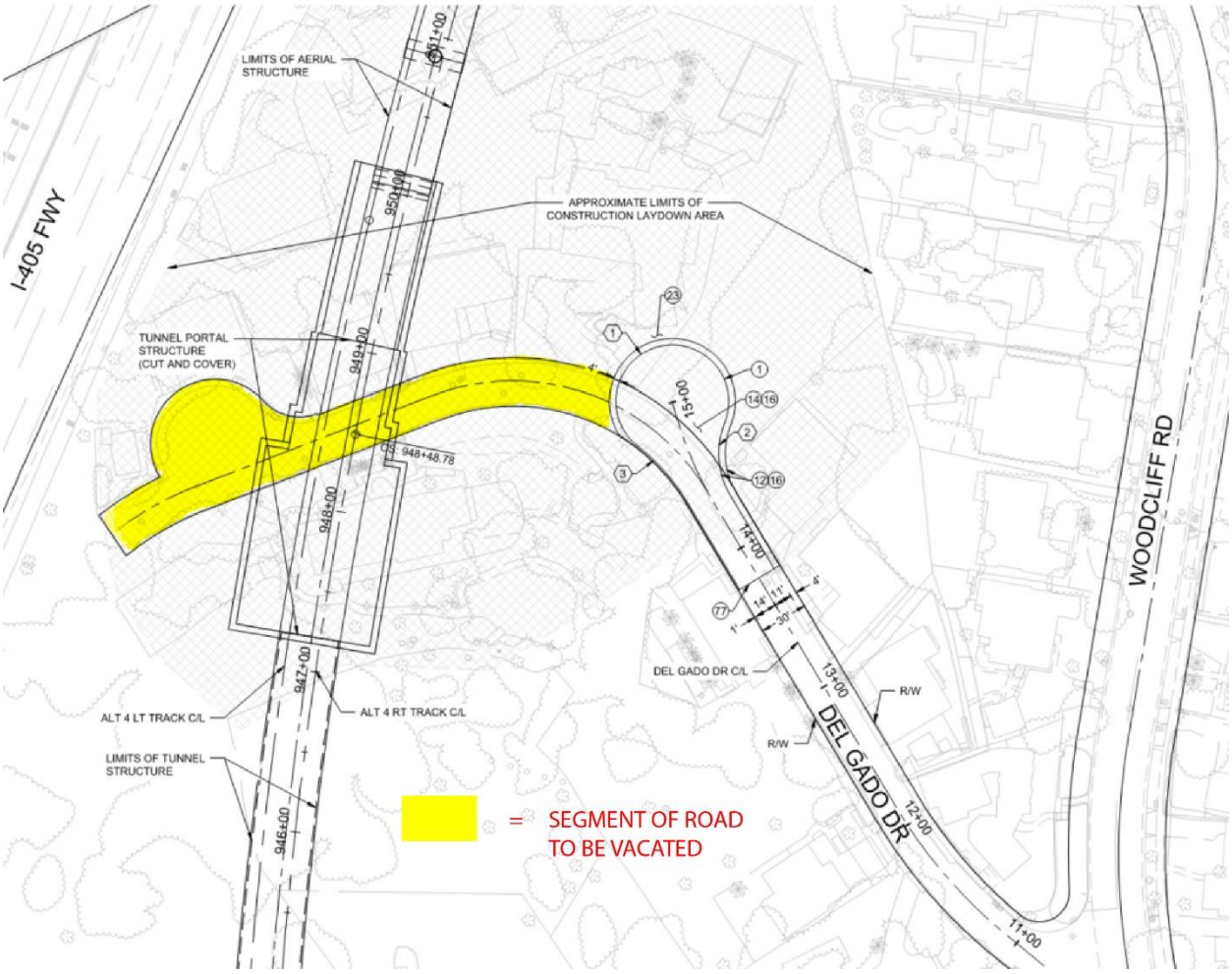
Location	From	To	Description of Change
Del Gado Drive	Woodcliff Road	Not Applicable	Vacation of approximately 325 feet of Del Gado Drive east of I-405 to accommodate tunnel portal
Sepulveda Boulevard	Ventura Boulevard	Raymer Street	Construction of raised median and removal of all on-street parking on 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 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 Cumulative Conditions

CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires Environmental Impact Reports to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

8.2.1 Study Area

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for the evaluation of cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area.

For purposes of the cumulative analysis, the geographic area for identifying related projects is the Project Study Area. The Project Study Area lies within the jurisdictions of the Cities of Los Angeles and Santa Monica and the unincorporated Sawtelle VA community of Los Angeles County. Communities identified within the City of Los Angeles include the communities of North Hills, Panorama City, Sun Valley, Lake Balboa, Van Nuys, North Hollywood, Encino, North Sherman Oaks, Sherman Oaks, Brentwood, Bel Air, Beverly Crest, Westwood, West Los Angeles, Mar Vista, and Palms.

8.2.2 Related Projects

Related projects considered in the cumulative impact analysis are those projects that may occur in the project site's vicinity within the same timeframe as Alternative 4 and include past, present, and reasonably probable future projects. Related projects include regional transportation improvement projects, commercial developments of at least 50,000 square feet, and residential developments of 20 units or more. Related projects associated with this growth and located within the Project Study Area are listed in Table 8-6 and identified on Figure 8-11 and Figure 8-12. A total of 100 related projects was identified and includes nine regional projects, 81 City of Los Angeles projects, and 10 City of Santa Monica projects. Of the regional projects identified, eight are transportation or transit improvements. All of the City of Los Angeles and City of Santa Monica projects identified consist of development projects, including residential, commercial, and mixed-use developments.

Table 8-6. Alternative 4: Related Projects List

Map ID	Project Name	Location	Description	Status
Regional				
1	Metro North San Fernando Valley Bus Rapid Transit Project	East-west across the northern San Fernando Valley	18-mile bus rapid transit connecting to the East San Fernando Valley Transit Corridor Project, Chatsworth Metrolink Station, and North Hollywood Metro B/G Line Station.	Planned completion 2025
NA	Metro NextGen Bus Plan	Los Angeles County	Metro bus plan to adjust bus routes and schedules based on existing origin/destination ridership data.	Phase 2 implemented 2021.
2	Metro East San Fernando Valley Light Rail Transit Project	San Fernando Valley	9.2-mile light rail transit connecting the Metro G Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station.	Construction planned to begin 2027
3	City of Los Angeles Orange (G) Line Transit Neighborhood Plan	San Fernando Valley	Long-range planning effort around three Metro G Line stations in the Eastern San Fernando Valley to regulate land uses, zoning, and design of new development.	Planning process, planned adoption 2025
4	Metro G Line Bus Rapid Transit Improvements Project	San Fernando Valley	18 miles of Metro G Line bus rapid transit improvements, including up to 35 railroad-style gates at intersections and new grade separated structures at Van Nuys Boulevard and Sepulveda Boulevard.	Planned completion 2027
5	Metro Purple Line Extension Transit Project	City of Los Angeles	2.56-mile extension of the Metro D Line and two new stations at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.	Planned completion 2027
6	Metro G Line Conversion to Light Rail	City of Los Angeles, Van Nuys	Metro G Line conversion of the 18-mile Bus Rapid Transit to Light Rail Transit service.	Planned completion 2057
7	I-405 ExpressLanes	I-405 from I-10 to US 101	Installation of new ExpessLanes between the San Fernando Valley and the Westside along I-405.	Planned completion 2030
8	I-405 Dynamic Corridor Ramp Metering System	I-405 from I-10 to US 101	System-wide adaptive ramp metering strategy to coordinate with arterial traffic-signal operation.	Completed construction 2023

Map ID	Project Name	Location	Description	Status
City of Los Angeles				
9	Multi-Family Development	14541 & 14547 Gilmore Street	31 units	Under construction, anticipated completion 2024
10	Multi-Family Development	14629 Erwin Street	20 units	Planning process
11	Mixed-Use Development	6569 N. Van Nuys Boulevard	174-unit mixed use	Under construction since 2022 (near complete)
12	Multi-Family Development	6500 Sepulveda Boulevard	45 units	Approved December 2020, pre-construction
13	Multi-Family Development	14400-14412 Vanowen Street	45 units	Approved January 2021, pre-construction
14	Multi-Family Development	14303-14313 Friar Street	30 units	Planning process
15	Multi-Family Development	14553 Friar Street	42 units	Planning process
16	Mixed-Use Development	7002-7004 Van Nuys Boulevard	170-unit mixed use	Not constructed as of November 2020
17	One Westside / Google	10800 Pico Boulevard	584,000 sf office space	Under construction 2024
18	West End	Pico Boulevard & Overland Avenue	Renovation to 230,000 sf office space	Under construction 2024
19	West Los Angeles Veterans Affairs Center	West Los Angeles Veterans Affairs Medical Center Campus	1,200 units	Construction ongoing
20	Martin Expo Town Center	12101 W. Olympic Boulevard	600-unit mixed use, 150,000 sf office space	Under construction, planned completion 2023
21	Multi-Family Development	11950 W. Missouri Avenue	74 units	Planned completion summer 2021
22	Mixed-Use Development	12001-12021 W. Pico Boulevard	80-unit mixed use	Planning approved April 2020, no construction as of October 2024
23	Mission Gateway	8811-8845 Sepulveda Boulevard	356 units	Under construction 2024
24	ICON at Panorama	14665 Roscoe Boulevard	350-unit mixed use, 250,000 sf commercial space	Planned completion 2022, no construction as of October 2024
25	Mixed-Use Development	3443 S. Sepulveda Boulevard	409-unit mixed use, 60,000 sf retail space	Planned completion 2024
26	Multi-Family Development	2136-2140 Westwood Boulevard	77 units	Pre-construction

Map ID	Project Name	Location	Description	Status
27	Multi-Family Development	2600-2616 Sepulveda Boulevard	43 units	Approved February 2020, pre-construction
28	Multi-Family Development	2117-2121 Westwood Boulevard	109 units	Planning process, pre-construction as of December 2020
29	Multi-Family Development	10822 Wilshire Boulevard	54-unit eldercare facility	Planning process
30	Mixed-Use Development	11628 W. Santa Monica Boulevard	99-unit mixed use, 12,121 sf commercial space	Approved April 2021, planning/pre-construction as of December 2020
31	Multi-Family Development	2444-2456 S. Barry Avenue	61 units	Approved August 2020, pre-construction as of December 2020
32	Multi-Family Development	1656 S. Sawtelle Boulevard	33 units	Approved August 2020, pre-construction as of December 2020
33	Department of Water and Power Office Space	11761-12300 W. Nebraska Avenue	92,000 sf office building	Approved 2020
34	Via Avanti	4827 N. Sepulveda Boulevard	325 units, 44,000 sf retail space	Under construction
35	Multi-Family Development	16015 Sherman Way	46-unit supportive housing	Under construction
36	Mixed-Use Development	8141 Van Nuys Boulevard	200-unit mixed use, 2,450 sf retail space	Planning process
37	Multi-Family Development	7700 N. Woodman Avenue	239-unit senior affordable housing	Under construction
38	Multi-Family Development	888 S. Devon Avenue	21 units	Approved February 2020, no construction as of October 2024
39	Multi-Family Development	1300 S. Westwood Boulevard	31 units	Approved September 2020, no construction as of October 2024
40	Multi-Family Development	1427 S. Greenfield Avenue	29 units	Approved September 2020, revised plans submitted May 2021. No construction as of October 2024
41	Multi-Family Development	15027-15033 W. Ventura Boulevard	33 units	Approved August 2020, pre-construction as of 2019
42	Mixed-Use Development	13716 W. Victory Boulevard	32-unit mixed use, 1,000 sf commercial space	Approved June 2020, pre-construction
43	Multi-Family Development	1721 S. Colby Avenue	34 units	Approved January 2020, pre-construction as of December 2020

Map ID	Project Name	Location	Description	Status
44	Commercial Development	6001 Van Nuys Boulevard	82,273 sf commercial space (Keyes Honda Auto Dealership)	Planned completion 2020, but pre-construction as of November 2020
45	Commercial Development	5746 Sepulveda Boulevard	75-unit hotel	Approved June 2018, pre-construction as of 2019
46	Berggruen Institute Campus	1901 Sepulveda Boulevard. & 2100, 2101, 2132, 2139, 2141, 2187 N. Canyonback Road	160,880 sf office space, temporary dwelling units, studios	Planned completion 2028
47	Girls Athletic Leadership School	14203 W. Valerio Street	Public charter middle school campus, 330 students grades 6-8	Planning process, pre-construction
48	UCLA Lot 15 Residence Hall	UCLA Lot 15	1,781 beds (student housing)	Under construction
49	UCLA Southwest Campus Apartments	900 Weyburn Place North	2,279 beds (student housing)	Under construction
50	UCLA 10995 Le Conte Avenue Apartments	10995 Le Conte Avenue	1,167 beds (student housing)	Under construction, expected completion 2021
51	Multi-Family Development	10460 W. Santa Monica Boulevard	68 units	Planning process
52	Multi-Family Development	11261 Santa Monica Boulevard	119 units	Approved June 2019, pre-construction
53	West Los Angeles Civic Center	1645 Corinth Avenue	926-unit mixed use, 114,400 sf commercial and office space	Planning process
54	Multi-Family Development	12300 W. Pico Boulevard	65 units	Approved October 2018, pre-construction as of December 2020
55	Multi-Family Development	11001 Pico Boulevard	89 units	Approved November 2019, pre-construction as of December 2020
56	Barringway Place	11701 Gateway Boulevard	73 units mixed use, 5,900 sf commercial space	Revised plans submitted May 2021
57	Multi-Family Development	11857-11861 Santa Monica Boulevard	52 units	Approved November 2021, pre-construction as of December 2020
58	Multi-Family Development	16243 W. Chase Street	25 beds (congregate living health facility)	Planning process
59	Multi-Family Development	10915 W. Strathmore Drive	37 units	Planning process
60	Multi-Family Development	10841 N. Sepulveda Boulevard	52 units	Pre-construction
61	Commercial Development	10768 Bellagio Drive	Demolition and reconstruction of the Bel Air Country Club House (approximately 62,615 sf)	Revised plans submitted January 2021, pre-construction

Map ID	Project Name	Location	Description	Status
62	Trident Center Expansion	11355 & 11377 W. Olympic Boulevard	Additional 120,000 sf of office and retail space	Planned completion 2022
63	Mixed-Use Development	14130 and 14154 Riverside Drive	249-unit mixed use, 27,000 sf commercial	Approved, pre-construction
64	Multi-Family Development	11010 Santa Monica Boulevard.	50-unit affordable housing	Planning process
65	Multi-Family Development	11272 Nebraska Avenue	24 units	Approved April 2018, under construction December 2020 (near completion)
66	On Butler	11421 W. Olympic Boulevard	77-unit mixed use, 6,575 sf commercial	Under construction as of December 2020 (near completion)
67	Multi-Family Development	11434 W. Pico Boulevard	102 units	Planning approved June 2019, pre-construction as of December 2020
68	Mixed-Use Development	11460 W. Gateway Boulevard.	129-unit mixed use, 5,241 sf commercial space	Planning process, not constructed as of 2019
69	Multi-Family Development	11600-11618 W. Santa Monica Boulevard	100 units	Under construction
70	Mixed-Use Development	11650-11674 Santa Monica Boulevard.	180-unit mixed use, 64,759 sf grocery store and amenities	Approved October 2019, pre-construction as of December 2020
71	Mixed-Use Development	11701 Santa Monica Boulevard.	53-unit mixed use, 1,500 sf retail	Updated plans approved 2020, pre-construction as of December 2020
72	Mixed-Use Development	11750-11770 Wilshire Boulevard.	376-unit mixed use	Planned completion 2022
73	West Edge	12101 W. Olympic Boulevard	600-unit mixed use, 200,000 sf office and amenities	Planned completion 2022
74	Multi-Family Development	1402 S. Veteran Avenue	23 units	Planning process
75	Multi-Family Development	14142 Vanowen Street	64 units	Planned completion 2024
76	Multi-Family Development	14534-14536 W. Burbank Boulevard.	55 units	Planned completion September 2021
77	Commercial Development	15005 W. Oxnard Street	98,458 sf storage facility	Planning process, pre-construction

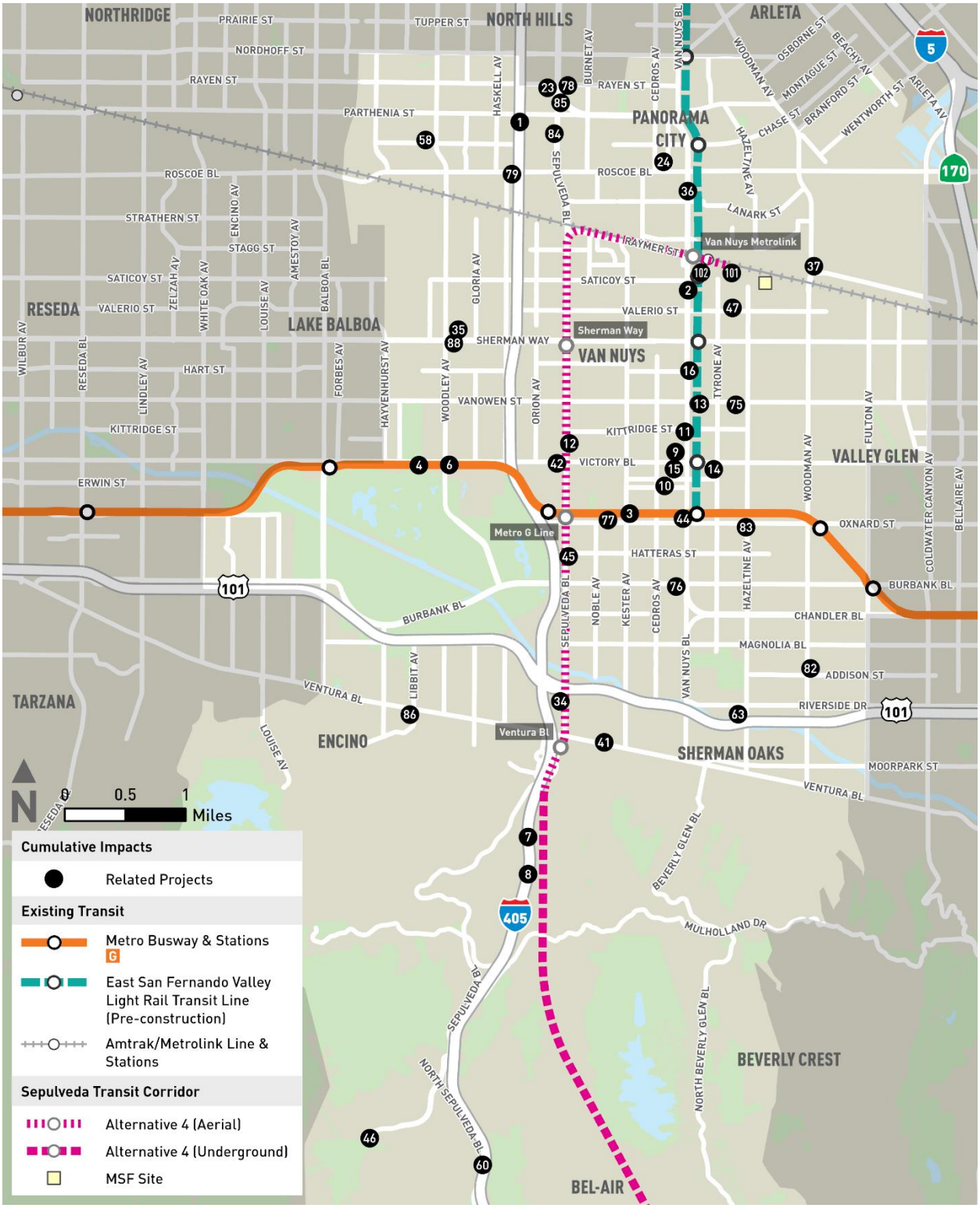
Map ID	Project Name	Location	Description	Status
78	Multi-Family Development	15314 W. Rayen Street	64 units	Planning process
79	Commercial Development	15640 W. Roscoe Boulevard	123,950 sf self-storage facility	Under construction
80	Commercial Development	2255 Sawtelle Boulevard & 2222 Corinth Avenue	135,000 sf office building	Approved March 2021, pre-construction
81	Multi-Family Development	2415-2419 S. Barrington Avenue	38 units	Approved January 2020, pre-construction as of December 2020
82	Multi-Family Development	5020 Woodman Avenue	51 units	Under construction
83	Multi-Family Development	5943-5953 N. Hazeltine Avenue	61 units	Planning process
84	Angel Apartments	8547-8549 N. Sepulveda Boulevard	54 units	Approved October 2019, pre-construction as of November 2020
85	Multi-Family Development	8750 N. Sepulveda Boulevard	43 units	Approved January 2020, pre-construction as of November 2020
86	Multi-Family Development	4741 N. Libbit Avenue	46 units	Approved April 2019, pre-construction
87	Multi-Family Development	1855-1871 Westwood Boulevard.	60 units	Under construction as of December 2020
88	Mixed-Use Development	16030 W. Sherman Way	54-unit mixed use	Under construction as of November 2020
89	Multi-Family Development	3357 S. Overland Avenue	41 units	Under construction, planned completion 2021
100	Mixed-Use Development	10955 Wilshire Boulevard	250-unit mixed use.	Preconstruction
101	Mid-Valley Water Facility Project	South of LOSSAN Corridor	New Water System District Yard	Construction anticipated to begin 2027
102	Multi-Family Development	7650 Van Nuys Boulevard	124-unit	Construction completed 2024, occupancy expected 2025
City of Santa Monica				
90	Commercial Development	1633 26th Street	129,265 sf commercial space	Planning process
91	Mixed-Use Development	2906 Santa Monica Boulevard	88-unit mixed use, 12,400 sf retail pace	Planning process
92	Providence Saint John's Health Center South Campus	2121 Santa Monica Boulevard	799,000 sf health care facilities	Planning process

Map ID	Project Name	Location	Description	Status
93	Mixed-Use Development	2901 Santa Monica Boulevard	60-unit mixed use, 5,100 sf retail space	Approved, pre-construction
94	Multi-Family Development	1450 Cloverfield Boulevard	34 units	Approved, under construction
95	Mixed-Use Development	2822 Santa Monica Boulevard	50-unit mixed use, 10,347 sf commercial space	Approved, under construction
96	Mixed-Use Development	1707 Cloverfield Boulevard	63-unit mixed use, 74,665 sf commercial space	Approved, pre-construction
97	Mixed-Use Development	1618 Stanford	50-unit mixed use, 15,548 sf commercial space	Approved, pre-construction
98	Mixed-Use Development	3223 Wilshire Boulevard	53-unit mixed use, 5,831 sf commercial space	Approved, pre-construction
99	Mixed-Use Development	3030 Nebraska Avenue	177-unit mixed use, 66,100 sf creative office space	Approved, pre-construction

Source: Bel-Air-Beverly Crest Neighborhood Council, n.d.; City of Santa Monica, n.d.; Curbed Los Angeles, n.d.; Encino Neighborhood Council, n.d.; LA Geohub, 2015a, 2015b; DCP, 2019a, 2019b, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e); LADOT, n.d.; Lake Balboa Neighborhood Council, n.d.; Los Angeles Department of Building & Safety, 2020a, 2020b, 2020c, 2021a, 2021b; Mar Vista Community Council, n.d.; Metro, 2020a, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); North Hills West Neighborhood Council, n.d.; North Valley Area Planning Commission, n.d.; North Westwood Neighborhood Council, n.d.; Palms Neighborhood Council, n.d.; Panorama City Neighborhood Council, n.d.; SCAG, 2020b, 2021b; Sherman Oaks Homeowners Association, n.d.; Sherman Oaks Neighborhood Council, n.d.; South Valley Area Planning Commission, n.d.; UCLA, n.d.; Urbanize LA, n.d.; Van Nuys Neighborhood Council Planning and Land Use Committee, n.d.; Veterans Affairs Greater Los Angeles Healthcare System, 2018; West Los Angeles Area Planning Commission, n.d.; West Los Angeles Sawtelle Neighborhood Council, n.d.; Westside Neighborhood Council, n.d.; Westwood Neighborhood Council, n.d.

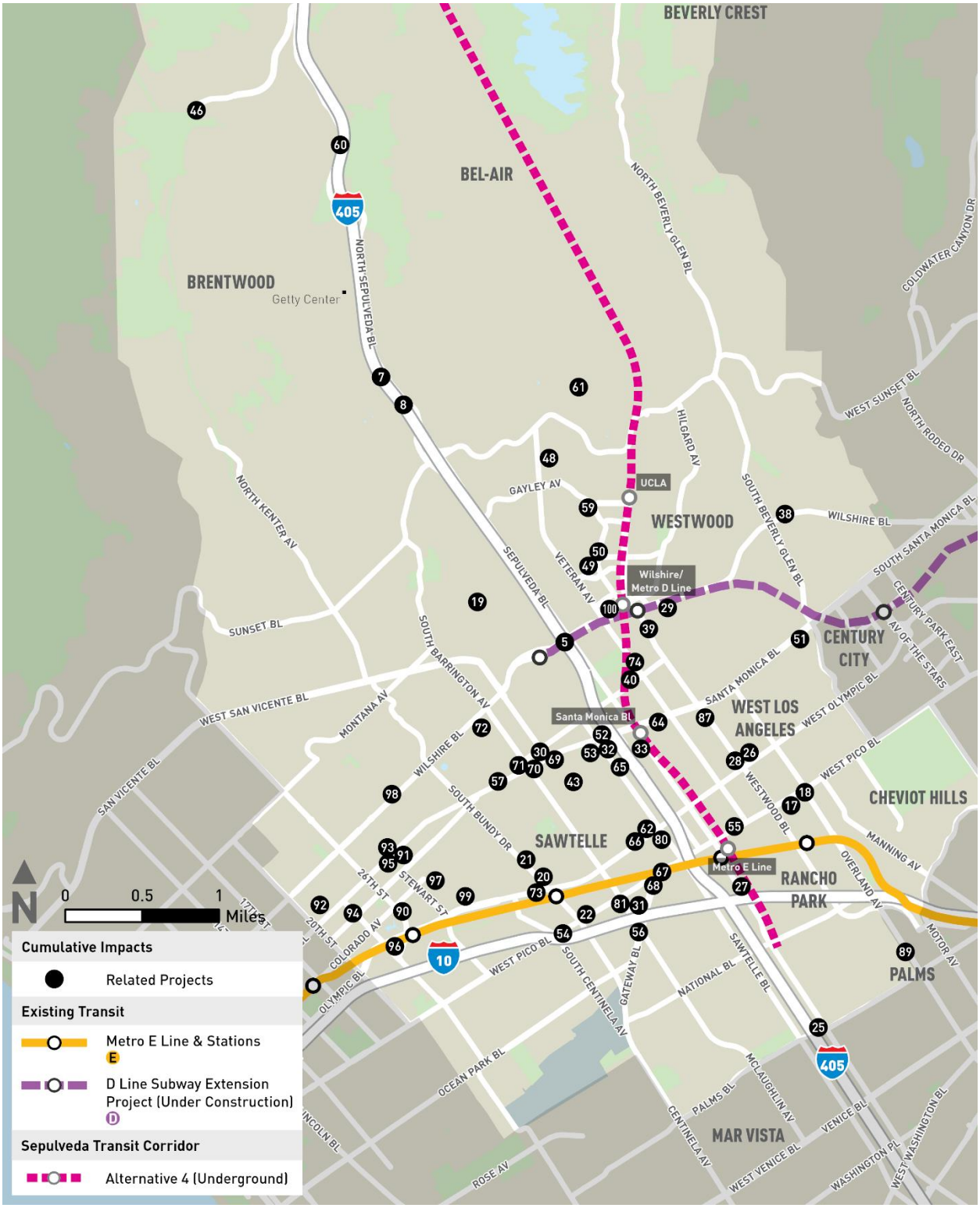
NA = not applicable
sf = square feet

Figure 8-11. Alternative 4: Related Projects Identified in the Project Study Area - North



Source: HTA, 2024

Figure 8-12. Alternative 4: Related Projects Identified in the Project Study Area - South



Source: HTA, 2024

8.3 Impacts Evaluation

8.3.1 Transportation Impacts

Alternative 4 would expand regional transportation choices and is aimed at improving overall regional mobility and would result in decreases in vehicle miles traveled (VMT) and travel time due to the increased use of transit. Alternative 4 would, therefore, result in a beneficial cumulative effect on area-wide traffic conditions. In addition, Alternative 4 would not affect local transit operations and circulation, as there would be minimal impacts to individual bus lines or stops, and transit service would be improved overall by implementation of Alternative 4. The Alternative 4 aerial viaduct would be in physical conflict with an existing pedestrian bridge over the LOSSAN rail corridor and would require the bridge's removal. The existing pedestrian bridge (the "Willis Avenue Pedestrian Overhead," Federal Railroad Administration crossing ID 921721T) directly connects Willis Avenue and Raymer Street, and removal of the facility would conflict with *Mobility Plan 2035* (DCP, 2016). Mitigation measure (MM) TRA-7 would require the replacement of the crossing to maintain pedestrian circulation between Willis Avenue and Raymer Street.

None of the transportation projects listed in Table 8-6 intersect the Alternative 4 alignment other than at proposed station locations. As such, Alternative 4 would not result in cumulative geometric hazards or obstructed visibility or reduce emergency access. However, the queues resulting from the peak-hour passenger flow into the East San Fernando Valley (ESFV) Light Rail Transit (LRT) Van Nuys Metrolink Station are forecast to exceed the available queueing space at the fare gates and would create a hazard to passengers. Passenger queues at other station transfers would have adequate space and would not create a hazard to passengers. Implementation of MM TRA-1 would replace the fare gates at the ESFV LRT Van Nuys Metrolink Station with stand-alone validators (SAV) allowing passengers to enter the fare-paid zone without interacting with a fare gate to prevent queue lengths from exceeding the available queueing space. Therefore, implementation of MM TRA-1 would reduce impacts to less than significant, and Alternative 4 would not have a cumulatively considerable contribution to a significant cumulative transportation hazard impact.

Construction impacts would be temporary and intermittent during the overall construction period for Alternative 4. As continued development is planned throughout the Project Study Area, individual development projects may occur simultaneously adjacent to the Alternative 4 alignment. This may result in a short-term cumulatively considerable adverse effect during construction. Alternative 4 includes transportation-related mitigation measures such as MM TRA-4 and MM TRA-5 to minimize the anticipated traffic disruptions during construction. Alternative 4 construction in combination with past, present, and foreseeable future projects would not result in a significant cumulative impact.

8.3.2 Land Use and Development

The related projects identified in Table 8-6, are subject to land use regulation by local jurisdictions, including the City of Los Angeles and UCLA. Simultaneous construction of related projects and Alternative 4 could occur, potentially resulting in short-term and temporary construction disruptions to the existing built environment and circulation through temporary roadway or sidewalk closures or construction laydown areas. Projects proposed in close proximity to Alternative 4 have the potential to be disruptive to the adjacent land uses if construction occurred concurrently, but given it is not anticipated that any of the transportation projects listed in Table 8-6 would have overlapping construction periods, substantial cumulative construction-related disruptions would not occur. Additionally, the Alternative 4 roadway closures and laydown areas in conjunction with related projects

would not divide existing communities, as access within and out of the affected communities would generally be required to be maintained through their respective construction traffic management plans. Alternative 4 would implement MM TRA-4, which requires a transportation management plan to address construction-related traffic and access disruptions. Therefore, construction of Alternative 4 in combination with past, present, and reasonably probable future projects is not expected to result in a cumulatively considerable contribution to a cumulative impact related to the physical division of an established community.

As described in the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025b), operation of Alternative 4 would not divide the existing community in conjunction with the related projects, as access within and out of the communities would be unchanged or changed very little by these the related projects. Alternative 4 would place an aerial HRT alignment along Sepulveda Boulevard within the City of Los Angeles communities of Van Nuys and Sherman Oaks. While access to and from all land uses along Sepulveda Boulevard would be maintained, the addition of such substantial infrastructure has the potential to contribute to a cumulative division of the community if other related projects also placed similar linear transportation infrastructure in these communities. However, no such projects are proposed in the vicinity of the Alternative 4 alignment along Sepulveda Boulevard; therefore, Alternative 4 would not have a considerable contribution to a cumulative division of an established community. Therefore, Alternative 4, combined with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact to land use and planning during construction or operation.

8.3.3 Real Estate and Acquisitions

A project may have cumulatively considerable impacts associated with displacement of housing units, even when mitigated, if it would contribute cumulatively to displacement of the residential land uses in the Cumulative RSA such that replacement housing would need to be constructed. According to the *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report* (Metro, 2025c), Alternative 4 would result in the displacement of 212 housing units. As required by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 United States Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.), all displaced residents would be entitled to relocation assistance, and it is anticipated residential displacements associated with Alternative 4 would be relocated in the Cumulative RSA or region. Due to the magnitude of anticipated residential relocations associated with Alternative 4, it is anticipated that the relocation process would occur over multiple years in a phased manner to avoid disruption to the local housing market and allow adequate time for Metro's real estate specialists to fairly relocate all displaced residents. Numerous projects listed in Table 8-6 include development of new housing, and related transportation projects are not anticipated to result in substantial residential displacements, though some may be required. As with Alternative 4, any housing displacements resulting from related projects would be expected to relocate displaced residents. The projects listed in Table 8-6, in combination with Alternative 4, would result in a substantial number of housing displacements. It is anticipated that any additional property acquisitions would also be relocated within the Cumulative RSA or region. Thus, cumulative impacts due to the displacement of housing or people would not be significant, and Alternative 4 would not have a cumulatively considerable contribution to a significant cumulative impact.

8.3.4 Communities and Neighborhoods

Alternative 4 would not construct any new housing units and, therefore, would not generate direct population growth within the Project Study Area. Instead, Alternative 4 is anticipated to accommodate planned growth for the affected communities and potentially redirect growth to the Alternative 4 station areas. Potential indirect effects as a result of Alternative 4 would include the future planning and development of transit-oriented development within the proposed station areas. Such growth would not be unplanned, as Alternative 4 is already located in a part of the region that has been planned to receive additional growth through the designation of priority growth areas. Therefore, Alternative 4 would support regional planning efforts to focus growth in areas served by transit, and related transportation projects would similarly support these regional growth plans. Alternative 4 would not induce substantial unplanned population growth, and there would not be a cumulatively considerable contribution to a significant cumulative impact related to population and housing.

Construction of Alternative 4 would not require substantial consumption of potable water or generate substantial wastewater. During construction water use would occur primarily related to water trucks required for dust control. This short-term use would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Alternative 4 would not include a significant long-term, permanent source of water use or wastewater generation. Alternative 4 would include an MSF, which would use water for cleaning transit vehicles and to support offices at the facility. As part of Metro's *Moving Beyond Sustainability Plan* (Metro, 2020b) goal to reduce water consumption, it has implemented pilot program low flow nozzles in some existing MSFs, resulting in a 40 percent reduction in water use per wash cycle. These features are anticipated to be installed for the MSF to meet Metro's sustainability goals. As such, this minimal water consumption would not interfere with the existing and planned capacity of the water supply or wastewater treatment capacity. Alternative 4 would not have a cumulatively considerable contribution to cumulative water and wastewater impacts.

Alternative 4 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 4 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor for Alternative 4 would comply with Assembly Bill (AB) 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Alternative 4 would not have a cumulatively considerable contribution to cumulative solid waste impacts.

8.3.5 Visual Quality and Aesthetics

As discussed in Section 5.2.5, there is an existing significant cumulative visual impact within the Sepulveda Pass portion of the Project Study Area. The primary visual elements included as part of Alternative 4 would be the proposed aerial guideway, four at-grade station entrances, four aerial stations, MSF site, and changes in parking, lanes, and sidewalks. The new at-grade station entrances along the outside edge of the roadway would present new vertical features in the landscape and may limit views directly adjacent to or within the stations; however, views in the corridor as a whole would not be substantially affected by the proposed at-grade station entrances, because the visual changes would be localized around station areas. Sidewalks would be narrowed in some areas, but this would not be expected to substantially affect views along the corridor. The additional project components would primarily be located underground and would not block views of scenic vistas.

Motorists driving northbound and southbound on Sepulveda Boulevard would experience interruption in views while driving to due to the presence of the aerial guideway; however, the viewing duration would be intermittent because the aerial guideway would be located above the roadway and motorists would be focused on the road. Pedestrians walking on nearby sidewalks would have views interrupted from certain locations — such as Sepulveda Boulevard and directly adjacent to one of the aerial stations — but would be able to easily walk away from that location.

The proposed aerial guideway, columns, straddle bents, and aerial stations would present new vertical features in the landscape that would be highly visible; however, views of the San Gabriel Mountains and Santa Monica Mountains would not be substantially obscured and would continue to be limited by the surrounding urban development. As such, views of scenic vistas as a whole would not be substantially affected. Therefore, the vertical elements proposed under Alternative 4 would not substantially alter views or sightlines from scenic vistas, and operation of Alternative 4 would result in a less than significant impact to scenic vistas.

Operation of Alternative 4 would represent an overall change in views and visual quality and character as compared to existing conditions. However, Alternative 4 would be in an urban area that currently has a mix of architectural styles and building materials and colors. Although viewer groups may have varying sensitivities to the visual change associated with Alternative 4 for each of the Landscape Units, Alternative 4 would be consistent with applicable zoning and other regulations governing scenic quality for the portions of the Alternative 4 alignment south of Sherman Oaks. Within the Sherman Oaks and Van Nuys communities, the Alternative 4 aerial guideway may conflict with local policies regarding visual character and quality, including the *Citywide Design Guidelines* (DCP, 2019a). As such, the aerial facilities would not be visually similar to infrastructure that already exists in the urban landscape. Alternative 4 would partially conflict with applicable zoning or other regulations governing scenic quality, resulting in a significant impact. There are no feasible mitigation measures to reduce this impact; therefore, it is significant and unavoidable. The Metro G Line Conversion to Light Rail project may introduce additional new aerial infrastructure in the Van Nuys community that would affect views along Sepulveda Boulevard and may conflict with the *Citywide Design Guidelines* as well. As such, the combination of Alternative 4 with other transportation projects in the Van Nuys and Sherman Oaks communities would result in a significant cumulative impact, and Alternative 4 would have a cumulatively considerable contribution to the cumulative visual impact.

Regarding light and glare, new nighttime light would primarily emanate from station areas (e.g., station plazas, entryways, and platforms) and the MSF, which would not substantially increase the amount of lighting in the immediate area, because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The aerial guideway would also emit light during nighttime hours; however, lighting from transit vehicles on aerial structures is not expected to extend beyond the aerial guideway or roadway ROW. Per the Metro Rail Design Criteria (MRDC) or equivalent, all light sources at the surface parking lots and proposed stations would be directed downward to minimize potential spillover onto surrounding properties, including light-sensitive uses. All light generated by Alternative 4 would be consistent with the urban light setting, which typically involves street lighting and light emanating from dense development throughout the cumulative Resource Study Area (Cumulative RSA). Since Alternative 4 would follow the equivalent of MRDC and the Systemwide Station Design Standards Policy, and light emitted by Alternative 4 would be consistent with existing light levels. As described in the Section 4, related land development projects' light and glare profiles would similarly be consistent with existing light levels. Therefore, Alternative 4 in combination with past, present, and probable future projects would not result in significant cumulative lighting impacts.

8.3.6 Air Quality

Alternative 4 is included in the Southern California Association of Governments (SCAG) *Connect SoCal, 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024-2050 RTP/SCS) (SCAG, 2024). The 2024-2050 RTP/SCS is Southern California's long-range Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which serves as the foundation for estimating the region's transportation sector air pollutant emissions through 2050. The SCAG General Council adopted the plan on April 4, 2024. The Federal Highway Administration and Federal Transit Administration (FTA) found the plan to conform to the State Implementation Plan on May 10, 2024. Transportation projects identified in a conforming RTP are consistent with the emissions reduction strategies outlined in the applicable regional Air Quality Management Plan.

As described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), South Coast Air Quality Management District's (SCAQMD) cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 4 net operational emissions would not exceed the applicable SCAQMD's regional operational significance thresholds, Alternative 4 operational emissions would not be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 4's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Alternative 4 construction emissions would exceed the SCAQMD regional significance thresholds for nitrogen oxides (NO_X) and carbon monoxide (CO) emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 4 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 4 construction emissions would be cumulatively considerable. Mitigation measures MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 4 NO_X and CO emissions below SCAQMD significance thresholds. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 4's contribution of pollutant emissions may result in measurable human health impacts on a regional scale.

Because Alternative 4 construction emissions would exceed the respirable particulate matter of diameter less than 10 microns (PM_{10}) localized significance threshold, Alternative 4 would cause or contribute to a violation of any health-protective CAAQS and NAAQS. Given that diesel particulate matter (DPM) emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources. The construction analysis for Alternative

4 conservatively assumed all equipment would be diesel powered; however, the Metro *Green Construction Policy* (Metro, 2011) contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power. There are no feasible mitigation measures that would reduce Alternative 4 PM_{10} emissions below SCAQMD localized significance thresholds. A significant cumulative impact would occur if other related projects would generate construction emissions that would cause or contribute to a violation of health-protective standards. It is anticipated that multiple projects listed in Table 8-6 would generate DPM emissions that could affect the same sensitive receptors as those affected by Alternative 4. Although MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, including localized PM_{10} and $PM_{2.5}$ emissions, mitigation measures would not reduce Alternative 4 PM_{10} and $PM_{2.5}$ emissions below SCAQMD localized significance thresholds. As such, construction-related emissions of DPM from Alternative 4 would have a considerable contribution to a significant cumulative impact related to violations of health-protective CAAQS and NAAQS.

8.3.7 Climate Change and Greenhouse Gas Emissions

As noted in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), greenhouse gases (GHG) and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA, 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) also serves as the cumulative impact analysis. This analysis includes projected future VMT and associated GHG emissions resulting from all of the background development in the Project Study Area, described in in Sections 4.1 through 4.3.

Implementation of Alternative 4 would result in a net reduction of annual GHG emissions compared to existing conditions, due to the displacement of VMT resulting from the improved transit service associated with Alternative 4. Alternative 4 would support state, regional and local efforts to reduce GHG emissions by providing an efficient transit system as an alternative mode of transportation for commuters traveling between the Valley and Westside. Overall, Alternative 4 would not result in an incremental increase in GHG emissions that would contribute to climate change, but rather would result in an environmental benefit by reducing GHG emissions; therefore, cumulative impacts of GHG emissions associated with Alternative 4 would be less than significant.

8.3.8 Noise and Vibration

As noted in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h), construction of Alternative 4 would require heavy earth-moving equipment, generators, cranes, pneumatic tools, and other similar machinery. The existing cumulative noise condition is characterized by existing traffic noise, which was captured by existing ambient noise measurements. Construction noise levels for Alternative 4 would exceed FTA noise standards and, where applicable, the standards established by the local noise ordinances due to the intensive nature of Alternative 4 construction activities and the proximity of sensitive land uses to the corridor. Implementation of MM NOI-4.2 (Noise Control Plan) would reduce construction noise levels by implementing a noise control plan that would include various noise reduction strategies such as scheduling noisy activities during daytime hours, reducing concurrent use of multiple pieces of noise-generating equipment, and noise monitoring at sensitive receptors, among others. However, there may still be temporary or periodic exceedances of

the FTA construction noise criteria and local standards resulting in temporary significant impacts related to construction noise.

As with Alternative 4, construction of related projects would likely include the use of heavy construction equipment that would generate elevated construction noise levels. Projected future projects would go through their own environmental clearance process and would include mitigation for construction noise to reduce impacts. Related projects within 500 feet of Alternative 4 construction could result in a cumulative construction noise impact at sensitive receptors. Currently, there have not been any related projects identified with construction schedules determined to overlap with Alternative 4. Although it is not possible to predict which related projects would result in a cumulative construction noise scenario, the construction noise levels associated with Alternative 4 could temporarily increase ambient noise levels. Therefore, Alternative 4, when combined with noise generated by past, present and probable future projects, would result in a significant cumulative noise impact during construction, and the incremental contribution of Alternative 4 to that significant cumulative impact would be cumulatively considerable.

The noise environment in the vicinity of the Alternative 4 alignment and MSF is dominated by traffic noise, including freeways such as I-405, I-10, US-101, arterial roads such as Sepulveda Boulevard and Wilshire Boulevard, and other local roadways. Aircraft flyovers are also contributors to the existing noise environment in most of the Cumulative RSA. Cumulative growth and development in the Cumulative RSA could result in increases in roadway traffic volumes over time that would also increase ambient noise levels in the vicinity of Alternative 4, including the proposed MSF. Alternative 4 would result in significant operational noise impacts at sensitive receptors along the Alternative 4 alignment, primarily within the Sherman Oaks and Van Nuys communities. Implementation of MM NOI-4.1, would require installation of soundwalls. This mitigation measure would reduce the significant impacts of Alternative 4 related to operational noise to a less than significant level. Therefore, Alternative 4, in combination with future traffic noise, is not anticipated to result in a significant cumulative impact. Alternative 4 would not have a cumulatively considerable contribution to a cumulative noise impact.

Regarding vibration, construction of Alternative 4 would result in significant and unavoidable vibration impacts, even with implementation of MM VIB-4.2, which would implement a vibration control plan to limit construction-generated vibration. However, it is not anticipated that vibration-generating equipment from past, present, and probable future projects would operate at the same time and in the same location as the construction equipment for Alternative 4. Operation of Alternative 4 would generate ground-borne vibration at various locations along the Alternative 4 alignment. Implementation of MM VIB-4.1 would reduce vibration levels associated with Alternative 4 to a less than significant level. It is not anticipated that any related projects in the vicinity of Alternative 4 would generate substantial vibration that could combine with Alternative 4 operational vibration such that a significant cumulative vibration impact would occur. Therefore, Alternative 4, combined with past, present, and reasonably foreseeable projects, would not result in significant cumulative vibration impacts.

8.3.9 Ecosystems and Biological Resources

According to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), nine special-status wildlife and plant species were identified as present, and 15 had medium or high potential to occur within the Alternative 4 Resource Study Area (RSA). Based on habitat requirements for these 24 species, they are most likely to occur in the Santa Monica Mountains, in or proximate to work areas along I-405 from the tunnel portal at Del Gado Drive north, or in Sepulveda Basin, in or proximate to work areas along I-405 or in N1 and N2 construction staging

locations. Since Alternative 4 would be an underground alignment between 80 and 500 feet from the southern terminus to the tunnel portal south of Ventura Boulevard in the Valley (i.e., Del Gado Drive), no operational impacts to special-status species are anticipated for this section and cumulative impacts are not anticipated. Clearing and grading of native vegetation would be required for construction of the structural support beams for the guideway track, tunnel portal, staging yards, aerial HRT stations, and "cut-and-cover" construction for underground stations. Although vegetation that would be impacted is predominantly non-native and/or ornamental landscaping, native vegetation is present in the N2 staging yard, at the tunnel portal by Del Gado Drive, and could be present in remnant patches within the developed areas. Other construction disturbances such as noise and vibration generated by construction equipment can disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. MM BIO-4 through MM BIO-10, MM BIO-12, and MM BIO-15 through MM BIO-27would be implemented to reduce Alternative 4 construction-related impacts to special-status plant and wildlife species and their habitats to a less than significant level.

The Alternative 4 aerial guideway also presents a potential hinderance to avian movement. Most bird species would migrate above the height of the aerial structure (45 to 55 feet above the existing ground level), so disruptions are expected to be minimal. Dispersing local resident or younger, recently fledged birds have potential to collide with the guideway track or vehicles while flying along local movement corridors. The Metro G Line Conversion to Light Rail project (Map ID 6) may involve an aerial alignment, or other raised infrastructure with transit vehicles that could combine for a cumulative impact to migratory birds. However, like Alternative 4, it is not anticipated that the Metro G Line alignment would be at a height that would hinder avian movement. As such, with regard to avian movement, Alternative 4, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impact.

Related projects in the vicinity of the aboveground portions of the Alternative 4 alignment consist primarily of urban infill development within a heavily urbanized part of the City of Los Angeles, where there is limited habitat availability or wildlife. Since Alternative 4 would address potential construction impacts to sensitive species with MM BIO-4 through MM BIO-10, MM BIO-12, and MM BIO-14 through MM BIO-27 and the limited available habitat in the areas surrounding the aboveground portion of the Alternative 4 alignment, Alternative 4 would not result in a significant cumulative impact on ecosystems and biological resources.

8.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources

As described in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report* (Metro, 2025j), during both construction and operation, Alternative 4 has the potential to expose people or structures to seismic risks, including the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides. Alternative 4 would also not result in impacts related to soil erosion, unstable or expansive soils, or adequacy of soils to support septic tanks. Alternative 4 would comply with all applicable state and local guidelines and mandatory design requirements related to geologic, subsurface, and seismic hazards. MM GEO-1 through MM GEO-5 are proposed to ensure that compliance with geotechnical requirements and design recommendations are implemented, including implementation of a construction management plan that would address geologic constraints, and minimize or avoid geologic hazards during construction. Projected future projects would also be subject to the same seismic risks as Alternative 4 but would also be required to comply with all prescribed standards, requirements, and guidance hazards, and implement mitigation measures as necessary. As such, Alternative 4, in combination with past, present,

and reasonably foreseeable projects, would not have a significant cumulative impact related to seismic risks or soil concerns.

Regarding paleontological resources, an automated TBM would excavate the tunnels for the underground portion of Alternative 4. The TBM would excavate sediments to the dimensions of the finished tunnel, remove the sediments from the forward portion of the TBM via an internal conveyer belt, and erect the concrete walls of the tunnel. Due to the nature of TBM operations, it would not be possible for a monitor to observe the sediments as they are excavated or the tunnel walls before the concrete lining is installed. Thus, Alternative 4 would create unavoidable significant impacts to paleontological resources in paleontologically sensitive geologic units. With exception to the Metro D Line Extension, a majority of the related projects identified in Table 8-6 do not involve deep excavations below existing artificial fill; therefore, a cumulative impact to paleontological resources is not anticipated. Related projects disturbing ground and subsurface areas would be required to mitigate potential impacts to paleontological resources in highly sensitive paleontological areas. However, Alternative 4, in combination with past, present, and reasonably foreseeable projects, would have a significant cumulative impact, because potential impacts to paleontological resources caused by the TBM would be significant and unavoidable. The significant unavoidable impacts potentially caused by Alternative 4 would have a cumulatively considerable incremental contribution to a cumulative impact related to paleontological resources.

8.3.11 Hazards and Hazardous Materials

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025k), it is not anticipated that substantial quantities of hazardous materials would be routinely transported, used, stored, or disposed of during operation of Alternative 4. Operation of stations and the guideway would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. As with all development, use and storage of such materials is heavily regulated and Alternative 4 would comply with all regulations and requirements related to transportation, use, and storage of hazardous materials. Any contaminated soils, building materials, or groundwater encountered during construction of Alternative 4 would be handled, disposed of and, if necessary, remediated consistent with regulatory requirements. Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. MM HAZ-1 through MM HAZ-5 would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as asbestos-containing material, lead-based paint, or polychlorinated biphenyls) during demolition activities; thus, impacts would be reduced to less than significant.

As described in Section 5.2.11, related projects would have similar potential to release or expose hazardous materials as Alternative 4; however, like Alternative 4, all related projects would be required to handle hazardous materials consistent with regulatory requirements and best practices. Therefore, Alternative 4 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hazardous materials.

8.3.12 Water Resources

As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025l), Alternative 4 would result in increased impervious surface area associated with stations and roadway

modifications such as road realignments and columns and straddle bents along Sepulveda Boulevard. This increase in impervious surface area may affect or obstruct groundwater recharge. However, most of these facilities would be located in an urban area with substantial existing impervious surface area, and Alternative 4 would adhere to existing regulations and proper implementation of stormwater compliance requirements. As such, Alternative 4 impacts related to groundwater recharge and drainage would be less than significant. The Alternative 4 MSF and TPSS facilities would use products and materials that contain potential pollutants during maintenance that could contribute to water pollution if not properly dispensed, stored, or disposed. If not appropriately managed, uncontrolled discharge of runoff carrying these potential pollutants could result in significant impacts to water quality in groundwater and waterways, including the Pacoima Wash, Encino Creek, Ballona Creek, and the Los Angeles River.

Construction would expose soils in areas that are completely developed with impervious surfaces, which would increase the rate of runoff from these sites. Alternative 4 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. In accordance with mandated permitting requirements, Alternative 4 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Regional Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the best management practices that would be in place prior to the start of construction activities and during construction. Best management practices categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or waste discharge requirements or substantial degradation of surface or groundwater quality during operation would be less than significant. As discussed in Section 5.2.12, related projects would be required to adhere to the same regulations and implementation requirements as Alternative 4. These regulations and requirements are the Los Angeles Regional Water Quality Control Board's and other water management regulatory agencies' primary tool for managing the water quality and hydrology impacts of development in the region and throughout California. As such, Alternative 4 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hydrology and water quality

8.3.13 Energy

As described in Section 5.2.13, there is an existing cumulative impact related to energy resources. The cumulative setting is both regional and statewide. State, regional, and local agencies and jurisdictions have published a wide range of documents intended to reduce energy consumption and increase the use of renewable energy. The intent is typically to reduce the use of nonrenewable energy to reduce pollution that contributes to global warming. Alternative 4 combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact. Regarding construction activities, as described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), a one-time expenditure of approximately 16,198,435 gallons of diesel fuel, 1,106,877 gallons of gasoline, and 393,824 megawatt-hours (MWh) of electricity over an approximate 8.25-year construction period would result from Alternative 4. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operation of Alternative 4 within approximately 9 years through transportation mode shift. The temporary additional transportation fuels consumption would not require additional capacity provided at the local or regional level. There are numerous state and regional

regulatory measures designed to minimize excess transportation fuels consumption. As described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), operation of Alternative 4 in the horizon year of 2045 would result in a net annual increase in regional electricity demand of 125,053 MWh and would result in a net annual reduction of 6,981,355 gallons of gasoline, 1,743,320 gallons of diesel fuel, and 68,887 diesel gallon equivalent of natural gas. Converting each of these quantities to standardized units of million British thermal units (MMBtu), Alternative 4 operations would result in a net decrease of 697,343 MMBtu annually in 2045. The electricity consumption would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would power a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Therefore, implementation of Alternative 4 would result in a substantial decrease in overall regional energy consumption and would not have a significant cumulative impact on energy.

8.3.14 Cultural Resources and Tribal Cultural Resources

As discussed in Section 5.2.14, there is an existing potential cumulative effect related to the undiscovered archaeological resources and human remains. As described in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n), construction of Alternative 4 similarly has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts on unique archaeological resources, human remains, and Tribal Cultural Resources (TCR) would be reduced to less than significant for Alternative 4. Since it is presumed that current and future development would include similar mitigation and avoidance measures to address undiscovered buried archaeological resources or human remains, Alternative 4 would not result in a considerable contribution to potential cumulative archaeological resources or human remains impacts.

Potential impacts to two landscape features identified as possible TCRs, the Sepulveda Pass and Los Angeles River, would be visual, audible, and/or atmospheric intrusions as a result of operational and maintenance activities. MM TCR-2 was developed to mitigate operational and construction impacts to the Sepulveda Pass and the Los Angeles River by requiring incorporation of Native American cultural heritage in Project design elements.

MM CUL-1 through MM CUL-5 would address potential impacts to historic resources by requiring a cultural resources monitoring plan, design treatments building protection measures as applicable, and archival documentation. After implementation of MM CUL-1 through MM CUL-5, Alternative 4 would result in less than significant impacts, with mitigation on the following historical resources:

- Sherman Way Street Trees
- Van Nuys Boulevard Street Trees
- Air Raid Siren No. 117
- UCLA Ackerman Hall
- Cathedral of St. Mary Church
- 4700 Sepulveda Boulevard
- 777 Motel
- Lt. Patrick H. Daniels United States Army Reserve Center
- 5450 Sepulveda Boulevard
- 5724 Sepulveda Boulevard

- El Cortez Motel
- Cabana Motel
- 6160 Sepulveda Boulevard
- Barn Furniture Mart
- 6833 Sepulveda Boulevard
- Valley Animal Hospital
- The Performing Arts Center

Alternative 4 would result in a significant and unavoidable impact on 15300 Ventura Boulevard and parking garage, the latter of which would be demolished.

As discussed in Section 5.2.14, none of the related projects are presumed to result in significant impacts to a historic resource, and there would be no cumulative impacts to any of the historic districts identified within the Cumulative RSA for historic, archaeological, and tribal cultural resources. However, since Alternative 4 would result in a significant and unavoidable impact to a historic resource, and there is potential for loss of other historic resources due to development in the Cumulative RSA for historic, archaeological, and tribal cultural resources, Alternative 4 would result in a significant cumulative impact and would have a cumulatively considerable contribution to a significant cumulative impact on historic buildings.

8.3.15 Parklands

As described in the *Sepulveda Transit Corridor Project Parklands Technical Report* (Metro, 2025o), Alternative 4 would not directly result in an increase in the number of residents; thus, there would be no direct increase in demand for parks or recreational facilities.

Alternative 4 would not result in significant impacts to parks or recreational facilities related to construction or operational activities. However, Alternative 4 could indirectly affect population, housing, and employment growth as a result of and in combination with probable future projects in the region. Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, since these growth projections are based on the General Plan land use designations of local jurisdictions. These projections, which include the Project and cumulative projects, are accounted for in population increases that affect planning for park facilities. Therefore, Alternative 4 would not result in significant cumulative impacts to parks and recreational facilities.

8.3.16 Safety and Security

Project measure (PM) SAF-1 requires compliance with California Health and Safety Code to ensure fire-life safety at all facilities proposed by Alternative 4. Alternative 4 does not include any housing component that would directly increase population, although some indirect concentration of growth may occur around some of the station areas due to the new transit access. As described in the *Sepulveda Transit Corridor Project Safety and Security Impacts Technical Report* (Metro, 2025p), funds are allocated to fire protection services during the annual monitoring and budgeting process to ensure that fire protection services are responsive to changes in the City of Los Angeles. Similarly, the Los Angeles Fire Department (LAFD) or Los Angeles County Flood Control District evaluates staffing levels during the annual budgetary process, and personnel are hired, as needed, to ensure that adequate fire protection and emergency response services are maintained. The LAFD would also evaluate Alternative 4 to ensure that adequate fire protection could be accommodated with project implementation. With regard to police protection, the Metro system is currently policed by the Los Angeles Police Department

(LAPD) and Los Angeles County Sheriff Department (LASD). Metro has contracted the LASD and the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. In addition, Alternative 4 would be monitored by Metro, which has implemented a multi-policing model inclusive of Metro's Transit Security Officers and contract security personnel. Since Alternative 4 is within the jurisdiction of the City of Los Angeles, the LAPD would be the first responders for Alternative 4 in the event of an emergency requiring police protection. Alternative 4 is not anticipated to affect either fire or police protection response times or otherwise affect emergency services.

Related projects could have the potential to impact fire and police protection services within the Cumulative RSA by requiring temporary lane closures or drawing on emergency responders to respond to emergency incidents. None of the projects identified in Table 8-6 are anticipated to have overlapping construction periods such that cumulative construction activities could affect emergency response. If concurrent construction were to occur, it is reasonable to assume that the related projects would implement their own measures to reduce impacts to emergency services by implementing detours and appropriate notification of agencies, which Alternative 4 would implement to ensure construction-period impacts on emergency response would remain less than significant. Therefore, construction and operation of Alternative 4, in combination with past, present, and probable future projects would not result in a significant cumulative impact related to the provision of new or altered fire or police service.

Alternative 4 would be located within a designated Very High Fire Hazard Severity Zone within the Santa Monica Mountains. However, Alternative 4 would result in less than significant impacts related to wildfire issues, including exacerbated wildfire risks, interference with emergency response plans, and flooding in areas affected by wildfires, as the Alternative 4 alignment and associated facilities would be situated along the I-405 ROW where such risks would be low. In addition, MM SAF-1 and MM SAF-2 would minimize wildfire risks by avoiding fire hazards during high-risk conditions and by clearing construction areas of potential wildfire fuels. As discussed in Section 5.2.16, none of the related projects identified in Table 8-6 are anticipated to exacerbate wildfire risks. The state, county, and city Fire Code regulations would be incorporated into legally required health and safety plans for all construction workers and visitors associated with related projects. As such, Alternative 4 would not result in a significant cumulative impact related to wildfire risks.

8.4 Mitigation Measures

The mitigation measures identified for each environmental discipline address both project-specific impacts and cumulative impacts of Alternative 4.

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

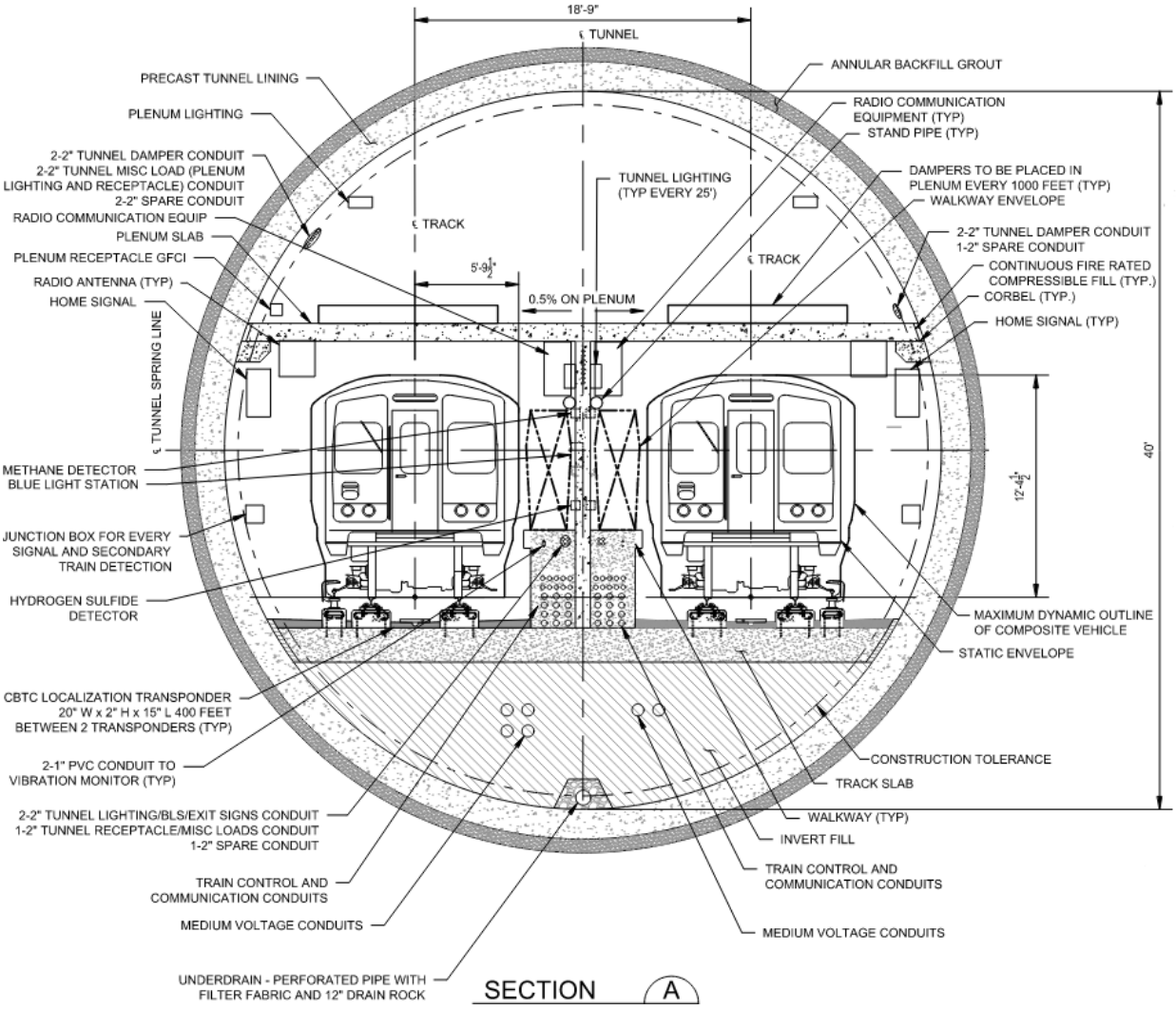
From the UCLA Gateway Plaza Station, the alignment would turn to the northwest beneath the Santa Monica Mountains to the east of Interstate 405 (I-405). South of Mulholland Drive, the alignment would curve to the north, aligning with Saugus Avenue south of Valley Vista Boulevard. The Ventura Boulevard 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.

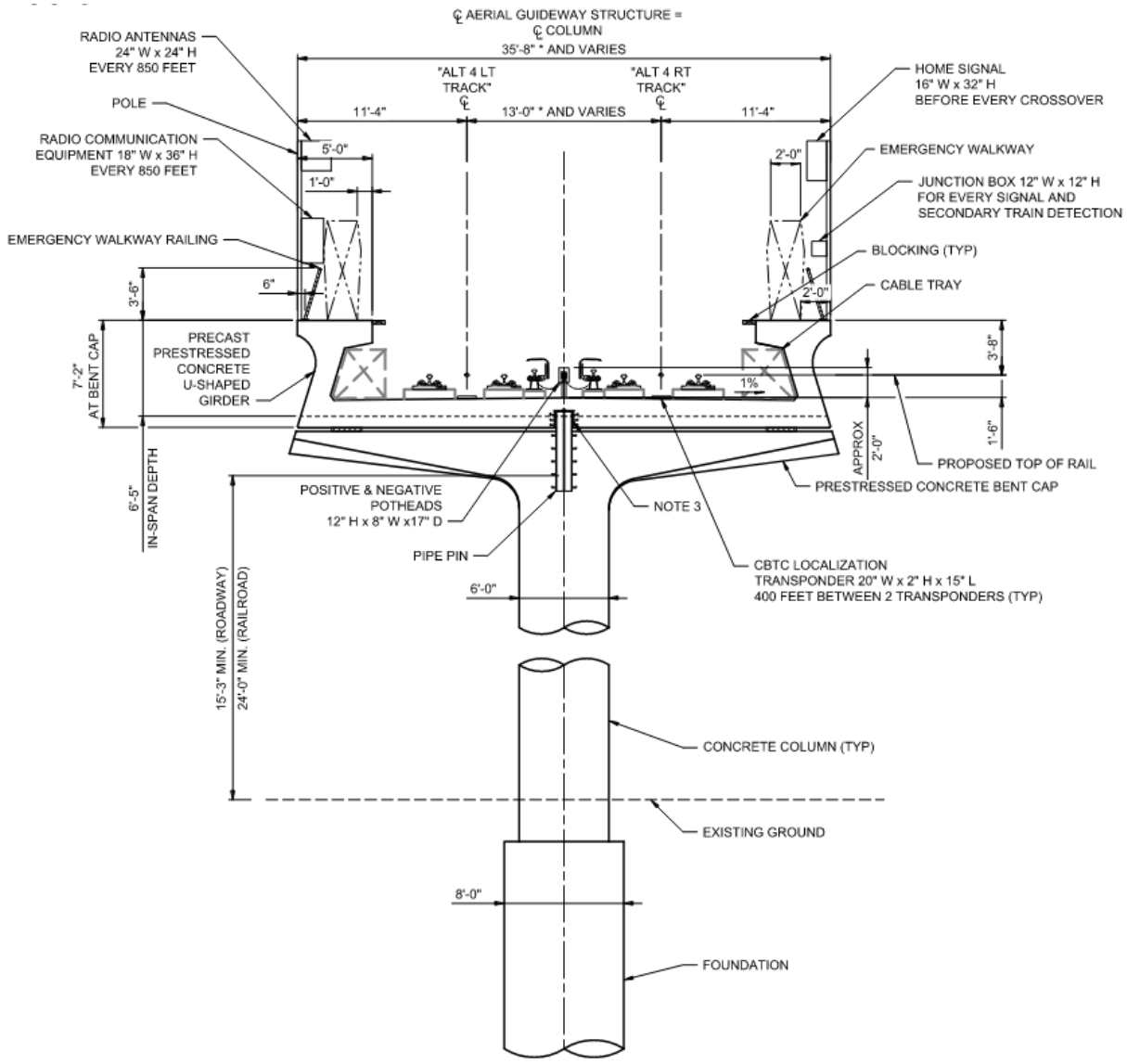
Figure 9-2. Typical Underground Guideway Cross-Section



Source: STCP, 2024

In aerial sections adjacent to Raymer Street and the LOSSAN rail corridor, the guideway would consist of single-column piers. The single-column piers 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. 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

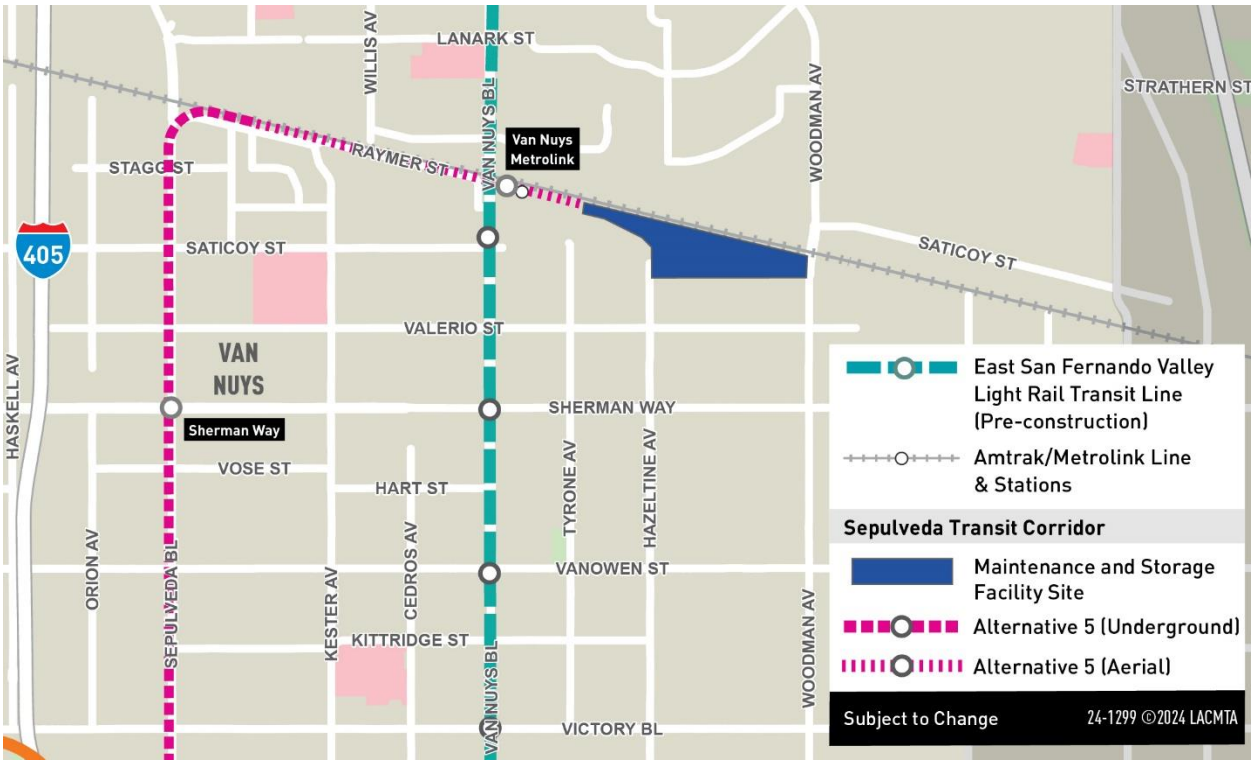
The MSF for Alternative 5 would be located east of the Van Nuys Metrolink Station and would encompass approximately 46 acres. The MSF would be designed to accommodate 184 rail cars and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue on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

LADWP = Los Angeles Department of Water and Power

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 Cumulative Conditions

California Environmental Quality Act (CEQA) Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires Environmental Impact Reports to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

9.2.1 Study Area

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for the evaluation of cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area.

For purposes of the cumulative analysis, the geographic area for identifying related projects is the Project Study Area. The Project Study Area lies within the jurisdictions of the Cities of Los Angeles and Santa Monica and the unincorporated Sawtelle VA community of Los Angeles County. Communities identified within the City of Los Angeles include the communities of North Hills, Panorama City, Sun Valley, Lake Balboa, Van Nuys, North Hollywood, Encino, North Sherman Oaks, Sherman Oaks, Brentwood, Bel Air, Beverly Crest, Westwood, West Los Angeles, Mar Vista, and Palms.

9.2.2 Related Projects

Related projects considered in the cumulative impact analysis are those projects that may occur in the Project site's vicinity within the same timeframe as Alternative 5 and includes past, present, and reasonably probable future projects. Related projects include regional transportation improvement projects, commercial developments of at least 50,000 square feet, and residential developments of 20 units or more. Related projects associated with this growth and located within the Project Study Area are listed in Table 9-6 and identified on Figure 9-9 and Figure 9-10. A total of 100 related projects was identified and includes nine regional projects, 81 City of Los Angeles projects, and 10 City of Santa Monica projects. Of the regional projects identified, eight are transportation or transit improvements. All of the City of Los Angeles and City of Santa Monica projects identified consist of development projects, including residential, commercial, and mixed-use developments.

Table 9-6. Alternative 5: Related Projects List

Map ID	Project Name	Location	Description	Status
Regional				
1	Metro North San Fernando Valley Bus Rapid Transit Project	East-west across the northern San Fernando Valley	18-mile bus rapid transit connecting to the East San Fernando Valley Transit Corridor Project, Chatsworth Metrolink Station, and North Hollywood Metro B/G Line Station.	Planned completion 2025
NA	Metro NextGen Bus Plan	Los Angeles County	Metro bus plan to adjust bus routes and schedules based on existing origin/destination ridership data.	Phase 2 implemented 2021.
2	Metro East San Fernando Valley Light Rail Transit Project	San Fernando Valley	9.2-mile light rail transit connecting the Metro G Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station.	Construction planned to begin 2027
3	City of Los Angeles Orange (G) Line Transit Neighborhood Plan	San Fernando Valley	Long-range planning effort around three Metro G Line stations in the Eastern San Fernando Valley to regulate land uses, zoning, and design of new development.	Planning process, planned adoption 2025
4	Metro G Line Bus Rapid Transit Improvements Project	San Fernando Valley	18 miles of Metro G Line bus rapid transit improvements, including up to 35 railroad-style gates at intersections and new grade separated structures at Van Nuys Boulevard and Sepulveda Boulevard.	Planned completion 2027
5	Metro Purple Line Extension Transit Project	City of Los Angeles	2.56-mile extension of the Metro D Line and two new stations at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.	Planned completion 2027
6	Metro G Line Conversion to Light Rail	City of Los Angeles, Van Nuys	Metro G Line conversion of the 18-mile Bus Rapid Transit to Light Rail Transit service.	Planned completion 2057
7	I-405 ExpressLanes	I-405 from I-10 to US 101	Installation of new ExpessLanes between the San Fernando Valley and the Westside along I-405.	Planned completion 2030
8	I-405 Dynamic Corridor Ramp Metering System	I-405 from I-10 to US 101	System-wide adaptive ramp metering strategy to coordinate with arterial traffic-signal operation.	Completed construction 2023

Map ID	Project Name	Location	Description	Status
City of Los Angeles				
9	Multi-Family Development	14541 & 14547 Gilmore Street	31 units	Under construction, anticipated completion 2024
10	Multi-Family Development	14629 Erwin Street	20 units	Planning process
11	Mixed-Use Development	6569 N. Van Nuys Boulevard	174-unit mixed use	Under construction since 2022 (near complete)
12	Multi-Family Development	6500 Sepulveda Boulevard	45 units	Approved December 2020, pre-construction
13	Multi-Family Development	14400-14412 Vanowen Street	45 units	Approved January 2021, pre-construction
14	Multi-Family Development	14303-14313 Friar Street	30 units	Planning process
15	Multi-Family Development	14553 Friar Street	42 units	Planning process
16	Mixed-Use Development	7002-7004 Van Nuys Boulevard	170-unit mixed use	Not constructed as of November 2020
17	One Westside / Google	10800 Pico Boulevard	584,000 sf office space	Under construction 2024
18	West End	Pico Boulevard & Overland Avenue	Renovation to 230,000 sf office space	Under construction 2024
19	West Los Angeles Veterans Affairs Center	West Los Angeles Veterans Affairs Medical Center Campus	1,200 units	Construction ongoing
20	Martin Expo Town Center	12101 W. Olympic Boulevard	600-unit mixed use, 150,000 sf office space	Under construction, planned completion 2023
21	Multi-Family Development	11950 W. Missouri Avenue	74 units	Planned completion summer 2021
22	Mixed-Use Development	12001-12021 W. Pico Boulevard	80-unit mixed use	Planning approved April 2020, no construction as of October 2024
23	Mission Gateway	8811-8845 Sepulveda Boulevard	356 units	Under construction 2024
24	ICON at Panorama	14665 Roscoe Boulevard	350-unit mixed use, 250,000 sf commercial space	Planned completion 2022, no construction as of October 2024
25	Mixed-Use Development	3443 S. Sepulveda Boulevard	409-unit mixed use, 60,000 sf retail space	Planned completion 2024
26	Multi-Family Development	2136-2140 Westwood Boulevard	77 units	Pre-construction

Map ID	Project Name	Location	Description	Status
27	Multi-Family Development	2600-2616 Sepulveda Boulevard	43 units	Approved February 2020, pre-construction
28	Multi-Family Development	2117-2121 Westwood Boulevard	109 units	Planning process, pre-construction as of December 2020
29	Multi-Family Development	10822 Wilshire Boulevard	54-unit eldercare facility	Planning process
30	Mixed-Use Development	11628 W. Santa Monica Boulevard	99-unit mixed use, 12,121 sf commercial space	Approved April 2021, planning/pre-construction as of December 2020
31	Multi-Family Development	2444-2456 S. Barry Avenue	61 units	Approved August 2020, pre-construction as of December 2020
32	Multi-Family Development	1656 S. Sawtelle Boulevard	33 units	Approved August 2020, pre-construction as of December 2020
33	Department of Water and Power Office Space	11761-12300 W. Nebraska Avenue	92,000 sf office building	Approved 2020
34	Via Avanti	4827 N. Sepulveda Boulevard	325 units, 44,000 sf retail space	Under construction
35	Multi-Family Development	16015 Sherman Way	46-unit supportive housing	Under construction
36	Mixed-Use Development	8141 Van Nuys Boulevard	200-unit mixed use, 2,450 sf retail space	Planning process
37	Multi-Family Development	7700 N. Woodman Avenue	239-unit senior affordable housing	Under construction
38	Multi-Family Development	888 S. Devon Avenue	21 units	Approved February 2020, no construction as of October 2024
39	Multi-Family Development	1300 S. Westwood Boulevard	31 units	Approved September 2020, no construction as of October 2024
40	Multi-Family Development	1427 S. Greenfield Avenue	29 units	Approved September 2020, revised plans submitted May 2021. No construction as of October 2024
41	Multi-Family Development	15027-15033 W. Ventura Boulevard	33 units	Approved August 2020, pre-construction as of 2019
42	Mixed-Use Development	13716 W. Victory Boulevard	32-unit mixed use, 1,000 sf commercial space	Approved June 2020, pre-construction
43	Multi-Family Development	1721 S. Colby Avenue	34 units	Approved January 2020, pre-construction as of December 2020

Map ID	Project Name	Location	Description	Status
44	Commercial Development	6001 Van Nuys Boulevard	82,273 sf commercial space (Keyes Honda Auto Dealership)	Planned completion 2020, but pre-construction as of November 2020
45	Commercial Development	5746 Sepulveda Boulevard	75-unit hotel	Approved June 2018, pre-construction as of 2019
46	Berggruen Institute Campus	1901 Sepulveda Boulevard and 2100, 2101, 2132, 2139, 2141, 2187 N. Canyonback Road	160,880 sf office space, temporary dwelling units, studios	Planned completion 2028
47	Girls Athletic Leadership School	14203 W. Valerio Street	Public charter middle school campus, 330 students grades 6-8	Planning process, pre-construction
48	UCLA Lot 15 Residence Hall	UCLA Lot 15	1,781 beds (student housing)	Under construction
49	UCLA Southwest Campus Apartments	900 Weyburn Place North	2,279 beds (student housing)	Under construction
50	UCLA 10995 Le Conte Avenue Apartments	10995 Le Conte Avenue	1,167 beds (student housing)	Under construction, expected completion 2021
51	Multi-Family Development	10460 W. Santa Monica Boulevard	68 units	Planning process
52	Multi-Family Development	11261 Santa Monica Boulevard	119 units	Approved June 2019, pre-construction
53	West Los Angeles Civic Center	1645 Corinth Avenue	926-unit mixed use, 114,400 sf commercial and office space	Planning process
54	Multi-Family Development	12300 W. Pico Boulevard	65 units	Approved October 2018, pre-construction as of December 2020
55	Multi-Family Development	11001 Pico Boulevard	89 units	Approved November 2019, pre-construction as of December 2020
56	Barringway Place	11701 Gateway Boulevard	73 units mixed use, 5,900 sf commercial space	Revised plans submitted May 2021
57	Multi-Family Development	11857-11861 Santa Monica Boulevard	52 units	Approved November 2021, pre-construction as of December 2020
58	Multi-Family Development	16243 W. Chase Street	25 beds (congregate living health facility)	Planning process
59	Multi-Family Development	10915 W. Strathmore Drive	37 units	Planning process
60	Multi-Family Development	10841 N. Sepulveda Boulevard	52 units	Pre-construction
61	Commercial Development	10768 Bellagio Drive	Demolition and reconstruction of the Bel Air Country Club House (approximately 62,615 sf)	Revised plans submitted January 2021, pre-construction

Map ID	Project Name	Location	Description	Status
62	Trident Center Expansion	11355 and 11377 W. Olympic Boulevard	Additional 120,000 sf of office and retail space	Planned completion 2022
63	Mixed-Use Development	14130 and 14154 Riverside Drive	249-unit mixed use, 27,000 sf commercial	Approved, pre-construction
64	Multi-Family Development	11010 Santa Monica Boulevard.	50-unit affordable housing	Planning process
65	Multi-Family Development	11272 Nebraska Avenue	24 units	Approved April 2018, under construction December 2020 (near completion)
66	On Butler	11421 W. Olympic Boulevard	77-unit mixed use, 6,575 sf commercial	Under construction as of December 2020 (near completion)
67	Multi-Family Development	11434 W. Pico Boulevard	102 units	Planning approved June 2019, pre-construction as of December 2020
68	Mixed-Use Development	11460 W. Gateway Boulevard.	129-unit mixed use, 5,241 sf commercial space	Planning process, not constructed as of 2019
69	Multi-Family Development	11600-11618 W. Santa Monica Boulevard	100 units	Under construction
70	Mixed-Use Development	11650-11674 Santa Monica Boulevard.	180-unit mixed use, 64,759 sf grocery store and amenities	Approved October 2019, pre-construction as of December 2020
71	Mixed-Use Development	11701 Santa Monica Boulevard.	53-unit mixed use, 1,500 sf retail	Updated plans approved 2020, pre-construction as of December 2020
72	Mixed-Use Development	11750-11770 Wilshire Boulevard.	376-unit mixed use	Planned completion 2022
73	West Edge	12101 W. Olympic Boulevard	600-unit mixed use, 200,000 sf office and amenities	Planned completion 2022
74	Multi-Family Development	1402 S. Veteran Avenue	23 units	Planning process
75	Multi-Family Development	14142 Vanowen Street	64 units	Planned completion 2024
76	Multi-Family Development	14534-14536 W. Burbank Boulevard.	55 units	Planned completion September 2021
77	Commercial Development	15005 W. Oxnard Street	98,458 sf storage facility	Planning process, pre-construction

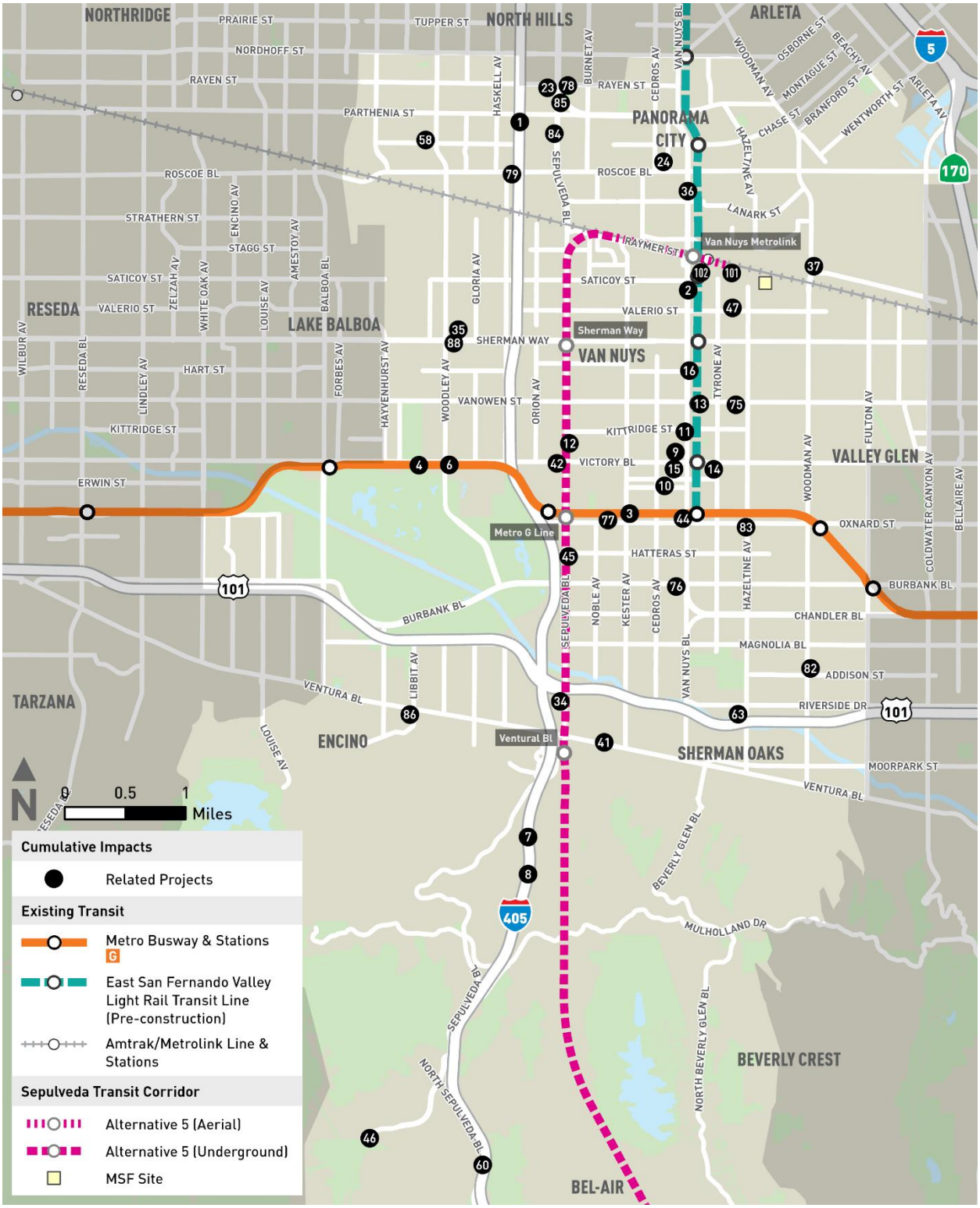
Map ID	Project Name	Location	Description	Status
78	Multi-Family Development	15314 W. Rayen Street	64 units	Planning process
79	Commercial Development	15640 W. Roscoe Boulevard	123,950 sf self-storage facility	Under construction
80	Commercial Development	2255 Sawtelle Boulevard & 2222 Corinth Avenue	135,000 sf office building	Approved March 2021, pre-construction
81	Multi-Family Development	2415-2419 S. Barrington Avenue	38 units	Approved January 2020, pre-construction as of December 2020
82	Multi-Family Development	5020 Woodman Avenue	51 units	Under construction
83	Multi-Family Development	5943-5953 N. Hazeltine Avenue	61 units	Planning process
84	Angel Apartments	8547-8549 N. Sepulveda Boulevard	54 units	Approved October 2019, pre-construction as of November 2020
85	Multi-Family Development	8750 N. Sepulveda Boulevard	43 units	Approved January 2020, pre-construction as of November 2020
86	Multi-Family Development	4741 N. Libbit Avenue	46 units	Approved April 2019, pre-construction
87	Multi-Family Development	1855-1871 Westwood Boulevard.	60 units	Under construction as of December 2020
88	Mixed-Use Development	16030 W. Sherman Way	54-unit mixed use	Under construction as of November 2020
89	Multi-Family Development	3357 S. Overland Avenue	41 units	Under construction, planned completion 2021
100	Mixed-Use Development	10955 Wilshire Boulevard	250-unit mixed use.	Preconstruction
101	Mid-Valley Water Facility Project	South of LOSSAN Corridor	New Water System District Yard	Construction anticipated to begin 2027
102	Multi-Family Development	7650 Van Nuys Boulevard	124-unit	Construction completed 2024, occupancy expected 2025
City of Santa Monica				
90	Commercial Development	1633 26th Street	129,265 sf commercial space	Planning process
91	Mixed-Use Development	2906 Santa Monica Boulevard	88-unit mixed use, 12,400 sf retail pace	Planning process
92	Providence Saint John's Health Center South Campus	2121 Santa Monica Boulevard	799,000 sf health care facilities	Planning process

Map ID	Project Name	Location	Description	Status
93	Mixed-Use Development	2901 Santa Monica Boulevard	60-unit mixed use, 5,100 sf retail space	Approved, pre-construction
94	Multi-Family Development	1450 Cloverfield Boulevard	34 units	Approved, under construction
95	Mixed-Use Development	2822 Santa Monica Boulevard	50-unit mixed use, 10,347 sf commercial space	Approved, under construction
96	Mixed-Use Development	1707 Cloverfield Boulevard	63-unit mixed use, 74,665 sf commercial space	Approved, pre-construction
97	Mixed-Use Development	1618 Stanford	50-unit mixed use, 15,548 sf commercial space	Approved, pre-construction
98	Mixed-Use Development	3223 Wilshire Boulevard	53-unit mixed use, 5,831 sf commercial space	Approved, pre-construction
99	Mixed-Use Development	3030 Nebraska Avenue	177-unit mixed use, 66,100 sf creative office space	Approved, pre-construction

Source: Bel-Air-Beverly Crest Neighborhood Council, n.d.; City of Santa Monica, n.d.; Curbed Los Angeles, n.d.; Encino Neighborhood Council, n.d.; LA Geohub, 2015a, 2015b; DCP, 2019a, 2019b, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e); LADOT, n.d.; Lake Balboa Neighborhood Council, n.d.; Los Angeles Department of Building & Safety, 2020a, 2020b, 2020c, 2021a, 2021b; Mar Vista Community Council, n.d.; Metro, 2020a, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); North Hills West Neighborhood Council, n.d.; North Valley Area Planning Commission, n.d.; North Westwood Neighborhood Council, n.d.; Palms Neighborhood Council, n.d.; Panorama City Neighborhood Council, n.d.; SCAG, 2020b, 2021b; Sherman Oaks Homeowners Association, n.d.; Sherman Oaks Neighborhood Council, n.d.; South Valley Area Planning Commission, n.d.; UCLA, n.d.; Urbanize LA, n.d.; Van Nuys Neighborhood Council Planning and Land Use Committee, n.d.; Veterans Affairs Greater Los Angeles Healthcare System, 2018; West Los Angeles Area Planning Commission, n.d.; West Los Angeles Sawtelle Neighborhood Council, n.d.; Westside Neighborhood Council, n.d.; Westwood Neighborhood Council, n.d.

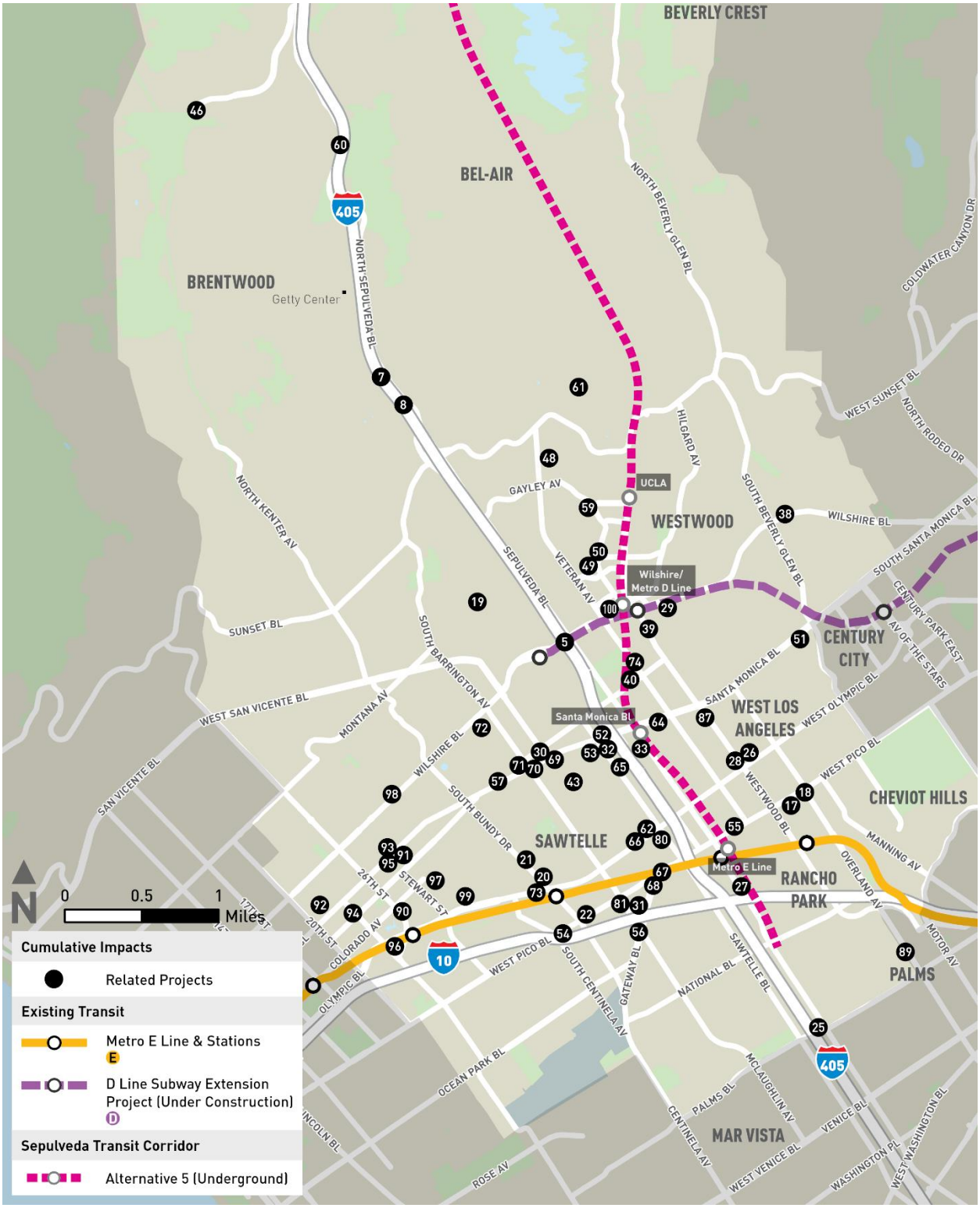
NA = not applicable
sf = square feet

Figure 9-9. Alternative 5: Related Projects Identified in the Project Study Area - North



Source: HTA, 2024

Figure 9-10. Alternative 5: Related Projects Identified in the Project Study Area - South



Source: HTA, 2024

9.3 Impacts Evaluation

9.3.1 Transportation Impacts

Alternative 5 would expand regional transportation choices and is aimed at improving overall regional mobility and would result in decreases in vehicle miles traveled (VMT) and travel time due to the increased use of transit. Alternative 5 would, therefore, result in a beneficial cumulative effect on area-wide traffic conditions. In addition, Alternative 5 would not affect local transit operations and circulation, as there would be minimal impacts to individual bus lines or stops, and transit service would be improved overall by implementation of Alternative 5. None of the transportation projects listed in Table 9-6 intersect the Alternative 5 alignment other than at proposed station locations. As such, Alternative 5 would not result in cumulative geometric hazards, obstructed visibility, or reduce emergency access. However, the queues resulting from the peak-hour passenger flow into the East San Fernando Valley (ESFV) Light Rail Transit (LRT) Van Nuys Metrolink Station are forecast to exceed the available queueing space at the fare gates and would create a hazard to passengers. Passenger queues at other station transfers would have adequate space and would not create a hazard to passengers. Implementation of mitigation measure (MM) TRA-1 would replace the fare gates at the ESFV LRT Van Nuys Metrolink Station with stand-alone validators (SAV) allowing passengers to enter the fare-paid zone without interacting with a fare gate to prevent queue lengths from exceeding the available queueing space. Therefore, implementation of MM TRA-1 would reduce impacts to less than significant, and Alternative 5 would not have a cumulatively considerable contribution to a significant cumulative transportation hazard impact.

Construction impacts would be temporary and intermittent during the overall construction period for Alternative 5. As continued development is planned throughout the Project Study Area, individual development projects may occur simultaneously adjacent to the Alternative 5 alignment. This may result in a short-term cumulatively considerable adverse effect during construction. Alternative 5 includes transportation-related mitigation measures such as MM TRA-4 and MM TRA-5 to minimize the anticipated traffic disruptions during construction, which would reduce the Alternative 5 contribution to cumulative construction effects by implementing a transportation management plan and maintaining transit service during construction. Alternative 5 construction in combination with past, present, and foreseeable future projects would not result in a significant cumulative impact.

9.3.2 Land Use and Development

The related projects identified in Table 9-6 are subject to land use regulation by local jurisdictions, including the City of Los Angeles and University of California, Los Angeles (UCLA). Simultaneous construction of related projects and Alternative 5 could occur, potentially resulting in short-term and temporary construction disruptions to the existing built environment and circulation through temporary roadway or sidewalk closures or construction laydown areas. Projects proposed in close proximity to Alternative 5 have the potential to be disruptive to the adjacent land uses if construction occurred concurrently, but given it is not anticipated that any of the transportation projects listed in Table 9-6 would have overlapping construction periods, substantial cumulative construction-related disruptions would not occur. Additionally, the Alternative 5 roadway closures and laydown areas, in conjunction with related projects, would not divide existing communities, as access within and out of the affected communities would generally be required to be maintained through their respective construction traffic management plans. Alternative 5 would implement MM TRA-4, which requires a transportation management plan to address construction-related traffic and access disruptions. Therefore, construction of Alternative 5, in combination with past, present, and reasonably probable future

projects, is not expected to result in a cumulatively considerable contribution to a cumulative impact related to the physical division of an established community.

As described in the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025b), operation of Alternative 5 would not divide the existing community in conjunction with the related projects, as access within and out of the communities would be unchanged or changed very little by these the related projects. The Alternative 5 alignment would be located underground in a bored tunnel. Therefore, there is no potential for Alternative 5 to result in new physical barriers that could divide an established community, and there is no potential for Alternative 5, combined with past, present, and reasonably foreseeable future projects, to result in a significant cumulative impact to land use and planning.

9.3.3 Real Estate and Acquisitions

A project may have cumulatively considerable impacts associated with displacement of housing units, even when mitigated, if it would contribute cumulatively to displacement of the residential land uses in the Project Study Area such that replacement housing would need to be constructed. According to the *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report* (Metro, 2025c), Alternative 5 would result in the displacement of 34 housing units. As required by 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.) all displaced residents would be entitled to relocation assistance and it is anticipated residential displacements associated with Alternative 5 would be relocated in the Cumulative RSA or region. Thus, cumulative impacts due to the displacement of housing or people would not be significant, and the Alternative 5 would not have a cumulatively considerable contribution to a significant cumulative impact.

9.3.4 Communities and Neighborhoods

Alternative 5 would not construct any new housing units and, therefore, would not generate direct population growth within the Project Study Area. Instead, Alternative 5 is anticipated to accommodate planned growth for the affected communities and potentially redirect growth to the Alternative 5 station areas. Potential indirect effects as a result of Alternative 5 include the future planning and development of transit-oriented development within the proposed station areas. Such growth would not be unplanned, as Alternative 5 is already located in a part of the region that has been planned to receive additional growth through the designation of priority growth areas. Therefore, Alternative 5 would support regional planning efforts to focus growth in areas served by transit, and related transportation projects would similarly support these regional growth plans. Alternative 5 would not induce substantial unplanned population growth, and there would not be a cumulatively considerable contribution to a significant cumulative impact related to population and housing.

Construction of Alternative 5 would not require substantial consumption of potable water or generate substantial wastewater. During construction, water use would occur primarily related to water trucks required for dust control. This short-term use would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Alternative 5 does not include a significant long-term, permanent source of water use or wastewater generation. Alternative 5 would include an MSF, which would use water for cleaning transit vehicles and to support offices at the facility. As part of Metro's *Moving Beyond Sustainability Plan* (Metro, 2020b) goal to reduce water consumption, it has implemented pilot program low flow nozzles in some existing MSFs, resulting in a 40 percent reduction in water use per wash cycle. These features are

anticipated to be installed for the MSF to meet Metro's sustainability goals. As such, this minimal water consumption would not interfere with the existing and planned capacity of the water supply or wastewater treatment capacity. Alternative 5 would not have a cumulatively considerable contribution to cumulative water and wastewater impacts.

Alternative 5 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 5 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor for Alternative 5 would comply with Assembly Bill (AB) 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Alternative 5 would not have a cumulatively considerable contribution to cumulative solid waste impacts.

9.3.5 Visual Quality and Aesthetics

As discussed in Section 5.2.5, there is an existing significant cumulative visual impact within the Sepulveda Pass portion of the cumulative Resource Study Area (Cumulative RSA) for visual impacts. The Alternative 5 alignment would be located underground in a tunnel through most of the Cumulative RSA for visual impacts and would not be visible. The primary visual elements included as part of Alternative 5 would be the seven at-grade entrances, the aerial guideway section from Raymer Street and Noble Avenue to the aerial Van Nuys Station, and changes in parking, lanes, and sidewalks. The new at-grade station entrances along the outside edge of the roadway would present new vertical features in the landscape and may limit views directly adjacent to or within the stations; however, views in the corridor as a whole would not be substantially affected by the proposed at-grade station entrances, because the visual changes would be localized around station areas. Sidewalks would be narrowed in some areas, but this would not be expected to substantially affect views along the corridor. The additional project components would primarily be located underground and would not block views of scenic vistas. Related projects in the vicinity of Alternative 5 would consist mainly of typical urban infill development, which would be consistent with existing development in the Cumulative RSA for visual impacts. As such, the addition of transit station entrances in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact.

Regarding light and glare, new nighttime light would primarily emanate from station areas (e.g., station plazas, entryways, and platforms) and the MSF, which would not substantially increase the amount of lighting in the immediate area, because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The aerial guideway along the LOSSAN corridor would also emit light during nighttime hours; however, lighting from transit vehicles on aerial structures is not expected to extend beyond the aerial guideway or roadway right-of-way (ROW). Per the Metro Rail Design Criteria (MRDC) or equivalent, all light sources at the surface parking lots and proposed stations would be directed downward to minimize potential spillover onto surrounding properties, including light-sensitive uses. All light generated by Alternative 5 would be consistent with the urban light setting, which typically involves street lighting and light emanating from dense development throughout the Cumulative RSA for visual impacts. Since Alternative 5 would follow the equivalent of MRDC and the Systemwide Station Design Standards Policy, and light emitted by Alternative 5 would be consistent with existing light levels. As described in Section 4, related land development projects' light and glare profiles would similarly be consistent with existing light levels. Therefore, Alternative 5, in combination with past, present, and probable future projects, would not result in significant cumulative lighting impacts.

9.3.6 Air Quality

Alternative 5 is included in the Southern California Association of Governments (SCAG) *Connect SoCal, 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024 RTP/SCS) (SCAG, 2024). The 2024-2050 RTP/SCS is Southern California's long-range Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which serves as the foundation for estimating the region's transportation sector air pollutant emissions through 2050. The SCAG General Council adopted the plan on April 4, 2024. The Federal Highway Administration and the Federal Transit Administration (FTA) found the plan to conform to the State Implementation Plan on May 10, 2024. Transportation projects identified in a conforming RTP are consistent with the emissions reduction strategies outlined in the applicable regional Air Quality Management Plan.

As described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), South Coast Air Quality Management District's (SCAQMD) cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 5 net operational emissions would not exceed the applicable SCAQMD's regional operational significance thresholds, Alternative 5 operational emissions would not be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 5's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Alternative 5 construction emissions would exceed the SCAQMD regional significance thresholds for nitrogen oxides (NO_X) and carbon monoxide (CO) emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 5 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 5 construction emissions would be cumulatively considerable. MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 5 NO_X and CO emissions below SCAQMD significance thresholds. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 5's contribution of pollutant emissions may result in measurable human health impacts on a regional scale.

Because Alternative 5 construction emissions would exceed the respirable particulate matter of diameter less than 10 microns (PM_{10}) localized significance threshold, Alternative 5 would cause or contribute to a violation of any health-protective CAAQS and NAAQS. Given that diesel particulate matter (DPM) emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources. The construction analysis for Alternative

5 conservatively assumed all equipment would be diesel powered; however, the Metro *Green Construction Policy* (Metro, 2011) contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power. There are no feasible mitigation measures that would reduce Alternative 5 PM_{10} emissions below SCAQMD localized significance thresholds. A significant cumulative impact would occur if other related projects would generate construction emissions that would cause or contribute to a violation of health-protective standards. It is anticipated that multiple projects listed in Table 9-6 would generate DPM emissions that could affect the same sensitive receptors as those affected by Alternative 5. Although MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, including localized PM_{10} and $PM_{2.5}$ emissions, mitigation measures would not reduce Alternative 5 PM_{10} and $PM_{2.5}$ emissions below SCAQMD localized significance thresholds. As such, construction-related emissions of DPM from Alternative 5 would have a considerable contribution to a significant cumulative impact related to violations of health-protective CAAQS and NAAQS.

9.3.7 Climate Change and Greenhouse Gas Emissions

As noted in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), greenhouse gases (GHG) and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA, 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) also serves as the cumulative impact analysis. This analysis includes projected future VMT and associated GHG emissions resulting from all of the background development in the Project Study Area, described in in Sections 4.1 through 4.3.

Implementation of Alternative 5 would result in a net reduction of annual GHG emissions compared to existing conditions due to the displacement of VMT resulting from the improved transit service associated with Alternative 5. Alternative 5 would support state, regional and local efforts to reduce GHG emissions by providing an efficient transit system as an alternative mode of transportation for commuters traveling between the Valley and Westside. Overall, Alternative 5 would not result in an incremental increase in GHG emissions that would contribute to climate change, but rather would result in an environmental benefit by reducing GHG emissions; therefore, cumulative impacts of GHG emissions associated with Alternative 5 would be less than significant.

9.3.8 Noise and Vibration

As noted in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h), construction of Alternative 5 would require heavy earth-moving equipment, generators, cranes, pneumatic tools, and other similar machinery. The existing cumulative noise condition is characterized by existing traffic noise, which was captured by existing ambient noise measurements. Construction noise levels for Alternative 5 would exceed FTA noise standards and, where applicable, the standards established by the local noise ordinances due to the intensive nature of Alternative 5 construction activities and the proximity of sensitive land uses to the corridor. Implementation of MM NOI-5.1 (Noise Control Plan) would reduce construction noise levels by implementing a noise control plan that would include various noise reduction strategies such as scheduling noisy activities during daytime hours, reducing concurrent use of multiple pieces of noise-generating equipment, and noise monitoring at sensitive receptors, among others. However, there may still be temporary or periodic exceedances of

the FTA construction noise criteria and local standards resulting in temporary significant impacts related to construction noise.

Similar to Alternative 5, construction of related projects would likely include the use of heavy construction equipment that would generate elevated construction noise levels. Projected future projects would go through their own environmental clearance process and would include mitigation for construction noise to reduce impacts. Related projects within 500 feet of Alternative 5 construction could result in a cumulative construction noise impact at sensitive receptors. Currently, there have not been any related projects identified with construction schedules determined to overlap with Alternative 5. Although it is not possible to predict which related projects would result in a cumulative construction noise scenario, the construction noise levels associated with Alternative 5 could temporarily increase ambient noise levels. Therefore, when combined with noise generated by past, present and probable future projects, Alternative 5 would result in a significant cumulative noise impact during construction, and Alternative 5 would have a considerable contribution to a cumulative construction noise impact.

Alternative 5 would be a mostly underground rail alignment, which would not produce noise during operations. The only aboveground facility that would generate noise would be the proposed MSF. The noise environment in the vicinity of the Alternative 5 alignment is dominated by traffic noise, including freeways such as I-405, Interstate 10 (I-10), US-101, arterial roads such as Sepulveda Boulevard and Wilshire Boulevard, and other local roadways. Aircraft flyovers are also contributors to the existing noise environment in most of the Project Study Area. Cumulative growth and development in the Project Study Area could result in increases in roadway traffic volumes over time that would also increase ambient noise levels in the vicinity of Alternative 5, including the proposed MSF. Alternative 5 would result in less than significant impacts related operational noise. Therefore, Alternative 5, in combination with future traffic noise, is not anticipated to result in a significant cumulative impact.

Regarding vibration, construction of Alternative 5 would result in significant and unavoidable vibration impacts, even with implementation of MM VIB-5.2, which would implement a vibration control plan to limit construction-generated vibration. However, it is not anticipated that vibration-generating equipment from past, present, and probable future projects would operate at the same time and in the same location as the construction equipment for Alternative 5. Operation of Alternative 5 would generate ground-borne vibration at various locations along the Alternative 5 alignment. Implementation of MM VIB-5.1 would reduce vibration levels associated with Alternative 5 to a less than significant level. It is not anticipated that any related projects in the vicinity of Alternative 5 would generate substantial vibration that could combine with Alternative 5 operational vibration such that a significant cumulative vibration impact would occur. Therefore, the Alternative 5, combined with past, present, and reasonably foreseeable projects would not result in significant cumulative vibration impacts.

9.3.9 Ecosystems and Biological Resources

According to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), nine special-status wildlife and plant species were identified as present and 15 had medium or high potential to occur within the Alternative 5 Resource Study Area (RSA). Based on habitat requirements for these 24 species, they are most likely to occur in the Santa Monica Mountains or in Sepulveda Basin or at work areas in or proximate to the N1 and N2 construction staging locations. Other construction disturbances such as noise and vibration generated by construction equipment can disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. MM BIO-4 through MM BIO-25 would be implemented to reduce Alternative 5 construction-related impacts to special-status plant and wildlife species and their habitats to a less than

significant level. Since Alternative 5 would be an underground alignment between 80 to 500 feet from the southern terminus to the tunnel portal east of Sepulveda Boulevard and south of Raymer Street, no operational impacts to special-status species are anticipated for this section. Alternative 5 would have no potential to result in a significant cumulative impact on ecosystems and biological resources.

9.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources

As described in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report* (Metro, 2025j), during both construction and operation, Alternative 5 has the potential to expose people or structures to seismic risks, including the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides. Alternative 5 would also not result in impacts related to soil erosion, unstable or expansive soils, or adequacy of soils to support septic tanks. Alternative 5 would comply with all applicable state and local guidelines and mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future projects would also be subject to the same seismic risks as Alternative 5 but would also be required to comply with all prescribed standards, requirements, and guidance hazards, and implement mitigation measures as necessary. As such, Alternative 5, in combination with past, present, and reasonably foreseeable projects, would not have a significant cumulative impact related to seismic risks or soil concerns.

Regarding paleontological resources, an automated TBM would excavate the tunnels for the underground portion of Alternative 5. The TBM would excavate sediments to the dimensions of the finished tunnel, remove the sediments from the forward portion of the TBM via an internal conveyer belt, and erect the concrete walls of the tunnel. The operation of the TBM would not allow the monitor to view the sediments as they are being excavated or the walls of the tunnel following removal of excess sediments and prior to the installation of the tunnel's concrete walls. For these reasons, monitoring paleontological resources adjacent to the TBM is not possible. Thus, Alternative 5 would create unavoidable significant impacts to paleontological resources in paleontologically sensitive geologic units. Since a majority of the related projects identified in Table 9-6 do not involve deep excavations below existing artificial fill, a cumulative impact to paleontological resources is not anticipated. Related projects disturbing ground and subsurface areas would be required to mitigate potential impacts to paleontological resources in highly sensitive paleontological areas. However, Alternative 5, in combination with past, present, and reasonably foreseeable projects, would have a significant cumulative impact, because potential impacts to paleontological resources caused by the TBM would be significant and unavoidable. The significant unavoidable impacts potentially caused by Alternative 5 would have a cumulatively considerable incremental contribution to a cumulative impact related to paleontological resources.

9.3.11 Hazards and Hazardous Materials

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025k), it is not anticipated that substantial quantities of hazardous materials would be routinely transported, used, stored, or disposed of during operation of Alternative 5. Operation of stations and the guideway would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. As with all development, use and storage of such materials is heavily regulated and Alternative 5 would comply with all regulations and requirements related to transportation, use, and storage of hazardous materials. Any contaminated soils, building materials, or groundwater encountered during construction of Alternative 5 would be handled, disposed of and, if necessary, remediated consistent with regulatory requirements.

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. MM HAZ-1 through MM HAZ-5 would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as asbestos-containing material, lead-based paint, or polychlorinated biphenyls) during demolition activities; thus, impacts would be reduced to less than significant.

As described in Section 5.2.11, related projects would have similar potential to release or expose hazardous materials as Alternative 5; however, like Alternative 5, all related projects would be required to handle hazardous materials consistent with regulatory requirements and best practices. Therefore, Alternative 5 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hazardous materials.

9.3.12 Water Resources

As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025l), Alternative 5 would result in increased impervious surface area associated with stations. This increase in impervious surface area may affect or obstruct groundwater recharge. However, most of these facilities would be located in an urban area with substantial existing impervious surface area, and Alternative 5 would adhere to existing regulations and proper implementation of stormwater compliance requirements. As such, Alternative 5 impacts related to groundwater recharge and drainage would be less than significant. The Alternative 5 MSF and TPSS facilities would use products and materials that contain potential pollutants during maintenance that could contribute to water pollution if not properly dispensed, stored, or disposed. If not appropriately managed, uncontrolled discharge of runoff carrying these potential pollutants could result in significant impacts to water quality in groundwater and waterways, including the Pacoima Wash, Encino Creek, Ballona Creek, and the Los Angeles River.

Construction would expose soils in areas that are completely developed with impervious surfaces, which would increase the rate of runoff from these sites. Alternative 5 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. In accordance with mandated permitting requirements, Alternative 5 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Regional Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the best management practices that would be in place prior to the start of construction activities and during construction. Best management practices categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or waste discharge requirements or substantial degradation of surface or groundwater quality during operation would be less than significant. As discussed in Section 5.2.12, related projects would be required to adhere to the same regulations and implementation requirements as Alternative 5. These regulations and requirements are the Los Angeles Regional Water Quality Control Board's and other water management regulatory agencies' primary tool for managing the water quality and hydrology impacts of development in the region and throughout California. As such, Alternative 5 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hydrology and water quality.

9.3.13 Energy

As described in Section 5.2.13, there is an existing cumulative impact related to energy resources. The cumulative setting is both regional and statewide. State, regional, and local agencies and jurisdictions have published a wide range of documents intended to reduce energy consumption and increase the use of renewable energy. The intent is typically to reduce the use of nonrenewable energy to reduce pollution that contributes to global warming. Alternative 5 combined with past, present, and reasonably probable future projects could contribute to the existing cumulative impact. Regarding construction activities, as described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), a one-time expenditure of approximately 19,369,362 gallons of diesel fuel, 1,182,417 gallons of gasoline, and 605,367 megawatt-hours (MWh) of electricity over an approximate 8.25-year construction period would result from Alternative 5. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operation of Alternative 5 within approximately 11 years through transportation mode shift. The temporary additional transportation fuels consumption would not require additional capacity provided at the local or regional level. There are numerous state and regional regulatory measures designed to minimize excess transportation fuels consumption. As described in *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), operation of Alternative 5 in the horizon year of 2045 would result in a net annual increase in regional electricity demand of 142,363 MWh and would result in a net annual reduction of 7,048,203 gallons of gasoline, 1,760,055 gallons of diesel fuel, and 69,547 diesel gallon equivalent of natural gas. Converting each of these quantities to standardized units of million British thermal units (MMBtu), Alternative 5 operations would result in a net decrease of 649,049 MMBtu annually in 2045. The electricity consumption would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would power a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Therefore, implementation of Alternative 5 would result in a substantial decrease in overall regional energy consumption and would not have a significant cumulative impact on energy.

9.3.14 Cultural Resources and Tribal Cultural Resources

As discussed in Section 5.2.14, there is an existing potential cumulative effect related to the undiscovered archaeological resources and human remains. As described in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n), construction of Alternative 5 similarly has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts on unique archaeological resources, human remains, and Tribal Cultural Resources (TCR) would be reduced to less than significant for Alternative 5. Since it is presumed that current and future development would include similar mitigation and avoidance measures to address undiscovered buried archaeological resources or human remains, Alternative 5 would not result in a considerable contribution to potential cumulative archaeological resources or human remains impacts.

Potential impacts to two landscape features identified as possible TCRs, the Sepulveda Pass and Los Angeles River, would be visual, audible, and/or atmospheric intrusions as a result of operational and maintenance activities. MM TCR-2 was developed to mitigate operational and construction impacts to the Sepulveda Pass and the Los Angeles River by requiring incorporation of Native American cultural heritage in Project design elements.

MM CUL-1 through MM CUL-5 would address potential impacts to historic resources by requiring a cultural resources monitoring plan, design treatments building protection measures as applicable, and archival documentation. After implementation of MM CUL-1 through MM CUL-5, Alternative 5 would result in less than significant impacts with mitigation on the following historical resources:

- Sherman Way Street Trees
- Van Nuys Boulevard Street Trees
- Air Raid Siren No. 110
- Air Raid Siren No. 117
- UCLA Ackerman Hall
- 4506 Saugus Avenue

As discussed in Section 5.2.14, none of the related projects are presumed to result in significant impacts to a historic resource, and there would be no cumulative impacts to any of the historic districts identified within the Cumulative RSA for historic, archaeological, and tribal cultural resources. As such, Alternative 5 would not result in a significant cumulative impact on historic buildings.

9.3.15 Parklands

As described in the *Sepulveda Transit Corridor Project Parklands Technical Report* (Metro, 2025o), Alternative 5 would not directly result in an increase in the number of residents; thus, there would be no direct increase in demand for parks or recreational facilities.

Alternative 5 would not result in significant impacts to parks or recreational facilities related to construction or operational activities. However, Alternative 5 could indirectly affect population, housing, and employment growth as a result of and in combination with probable future projects in the region. Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, since these growth projections are based on the General Plan land use designations of local jurisdictions. These projections, which include the Project and cumulative projects, are accounted for in population increases that affect planning for park facilities. Therefore, Alternative 5 would not result in significant cumulative impacts to parks and recreational facilities.

9.3.16 Safety and Security

Project measure (PM) SAF-1 requires compliance with California Health and Safety Code to ensure fire-life safety at all facilities proposed by Alternative 5. Alternative 5 does not include any housing component that would directly increase population, although some indirect concentration of growth may occur around some of the station areas due to the new transit access. As described in the *Sepulveda Transit Corridor Project Safety and Security Impacts Technical Report* (Metro, 2025p), funds are allocated to fire protection services during the annual monitoring and budgeting process to ensure that fire protection services are responsive to changes in the City of Los Angeles. Similarly, the Los Angeles Fire Department (LAFD) or Los Angeles County Flood Control District evaluate staffing levels during the annual budgetary process, and personnel are hired, as needed, to ensure that adequate fire protection and emergency response services are maintained. The LAFD would also evaluate Alternative 5 to ensure that adequate fire protection could be accommodated with project implementation. With regard to police protection, the Metro system is currently policed by the Los Angeles Police Department (LAPD) and Los Angeles County Sheriff Department (LASD). Metro has contracted the LASD and the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. In addition, Alternative 5 would be monitored by Metro, which has implemented a multi-policing model

inclusive of Metro's Transit Security Officers and contract security personnel. Since Alternative 5 is within the jurisdiction of the City of Los Angeles, the LAPD would be the first responders for Alternative 5 in the event of an emergency requiring police protection. Alternative 5 is not anticipated to affect either fire or police protection response times or otherwise affect emergency services.

Related projects could have the potential to impact fire and police protection services within the Cumulative RSA by requiring temporary lane closures or drawing on emergency responders to respond to emergency incidents. None of the projects identified in Table 9-6 are anticipated to have overlapping construction periods such that cumulative construction activities could affect emergency response. If concurrent construction were to occur, it is reasonable to assume that the related projects would implement their own measures to reduce impacts to emergency services by implementing detours and appropriate notification of agencies, which Alternative 5 would implement to ensure construction-period impacts on emergency response would remain less than significant. Therefore, construction and operation of Alternative 5, in combination with past, present, and probable future projects would not result in a significant cumulative impact related to the provision of new or altered fire or police service.

Alternative 5 would be underground through the Santa Monica Mountains and would not be located within a wildfire hazard zone. Therefore, Alternative 5 has no potential to result in significant cumulative wildfire risks.

9.4 Mitigation Measures

The mitigation measures identified for each environmental discipline address both project-specific impacts and cumulative impacts of Alternative 5.

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

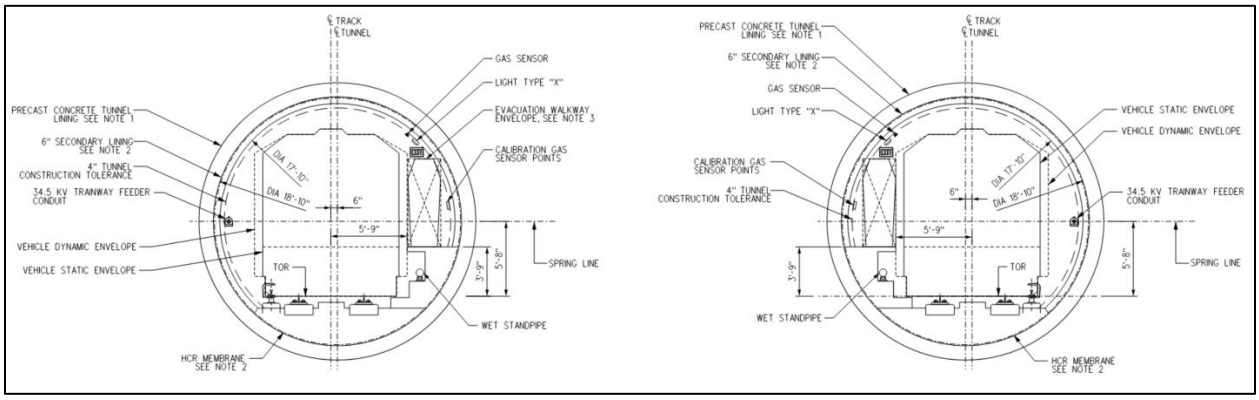
After leaving the UCLA Gateway Plaza Station, the alignment would continue to the north and travel under the Santa Monica Mountains. While still under the mountains, the alignment would shift slightly to the west to travel under the City of Los Angeles Department of Water and Power (LADWP) Stone Canyon 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	—
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

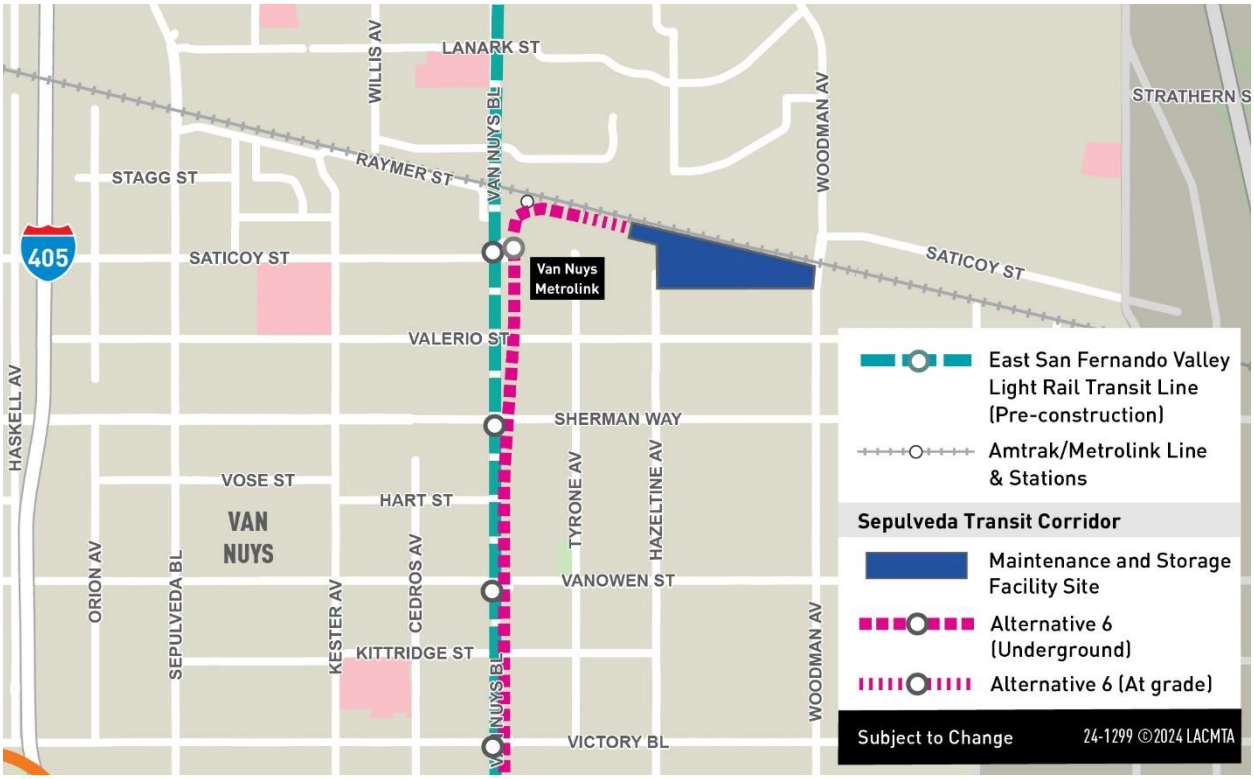
The MSF for Alternative 6 would be located east of the Van Nuys Metrolink Station and would encompass approximately 41 acres. The MSF would be designed to accommodate 94 vehicles and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue to the 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 the 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:

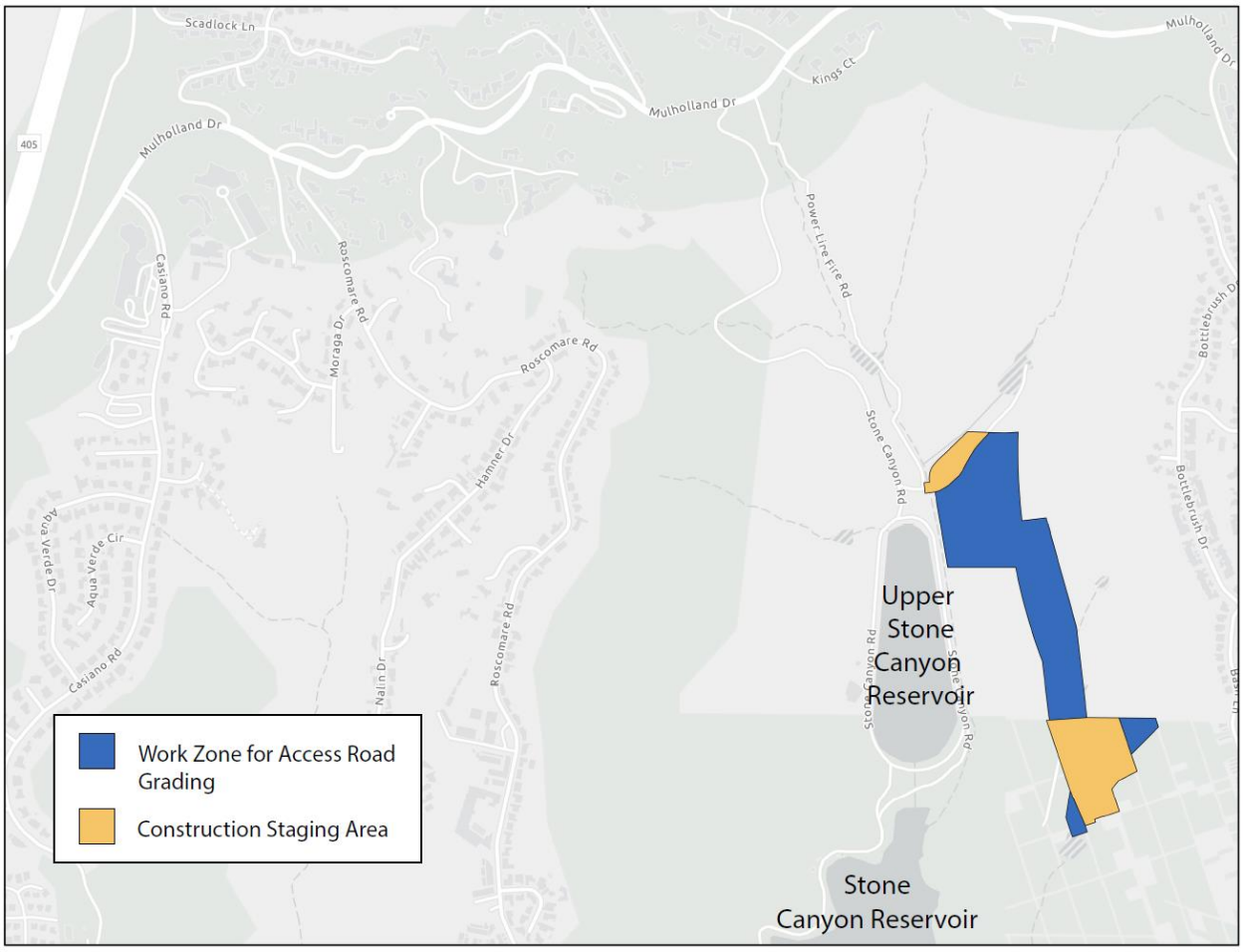
- Contractors' equipment
- Receiving deliveries
- Testing of soils for minerals or hazards
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and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

Additional vent shafts would be located at each station with one potential intermediate vent shaft where stations are spaced apart. These vent shafts would be constructed using the typical cut-and-cover method, with lateral bracing as the excavation proceeds. During station construction, the shafts would likely be used for construction crew, material, and equipment access.

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 Cumulative Conditions

California Environmental Quality Act (CEQA) Guidelines Section 15355 defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. CEQA requires Environmental Impact Reports to discuss the cumulative impacts of a project when the project's incremental effect is significant when viewed in connection with the effects of other projects. A cumulative impact analysis should provide a reasonable forecast of future environmental conditions to more accurately gauge the effects of proposed projects.

10.2.1 Study Area

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for the evaluation of cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area.

For purposes of the cumulative analysis, the geographic area for identifying related projects is the Project Study Area. The Project Study Area lies within the jurisdictions of the Cities of Los Angeles and Santa Monica and the unincorporated Sawtelle VA community of Los Angeles County. Communities identified within the City of Los Angeles include the communities of North Hills, Panorama City, Sun Valley, Lake Balboa, Van Nuys, North Hollywood, Encino, North Sherman Oaks, Sherman Oaks, Brentwood, Bel Air, Beverly Crest, Westwood, West Los Angeles, Mar Vista, and Palms.

10.2.2 Related Projects

Related projects considered in the cumulative impact analysis are those projects that may occur in the Project site's vicinity within the same timeframe as Alternative 6 and includes past, present, and reasonably probable future projects. Related projects include regional transportation improvement projects, commercial developments of at least 50,000 square feet, and residential developments of 20 units or more. Related projects associated with this growth and located within the Project Study Area are listed in Table 10-3 and identified on Figure 10-6 and Figure 10-7. A total of 100 related projects was identified and includes nine regional projects, 81 City of Los Angeles projects, and 10 City of Santa Monica projects. Of the regional projects identified, eight are transportation or transit improvements. All of the City of Los Angeles and City of Santa Monica projects identified consist of development projects, including residential, commercial, and mixed-use developments.

Table 10-3. Alternative 6: Related Projects List

Map ID	Project Name	Location	Description	Status
Regional				
1	Metro North San Fernando Valley Bus Rapid Transit Project	East-west across the northern San Fernando Valley	18-mile bus rapid transit connecting to the East San Fernando Valley Transit Corridor Project, Chatsworth Metrolink Station, and North Hollywood Metro B/G Line Station.	Planned completion 2025
NA	Metro NextGen Bus Plan	Los Angeles County	Metro bus plan to adjust bus routes and schedules based on existing origin/destination ridership data.	Phase 2 implemented 2021.
2	Metro East San Fernando Valley Light Rail Transit Project	San Fernando Valley	9.2-mile light rail transit connecting the Metro G Line Van Nuys Station to the Sylmar/San Fernando Metrolink Station.	Construction planned to begin 2027
3	City of Los Angeles Orange (G) Line Transit Neighborhood Plan	San Fernando Valley	Long-range planning effort around three Metro G Line stations in the Eastern San Fernando Valley to regulate land uses, zoning, and design of new development.	Planning process, planned adoption 2025
4	Metro G Line Bus Rapid Transit Improvements Project	San Fernando Valley	18 miles of Metro G Line bus rapid transit improvements, including up to 35 railroad-style gates at intersections and new grade separated structures at Van Nuys Boulevard and Sepulveda Boulevard.	Planned completion 2027
5	Metro Purple Line Extension Transit Project	City of Los Angeles	2.56-mile extension of the Metro D Line and two new stations at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.	Planned completion 2027
6	Metro G Line Conversion to Light Rail	City of Los Angeles, Van Nuys	Metro G Line conversion of the 18-mile Bus Rapid Transit to Light Rail Transit service.	Planned completion 2057
7	I-405 ExpressLanes	I-405 from I-10 to US 101	Installation of new ExpessLanes between the San Fernando Valley and the Westside along I-405.	Planned completion 2030
8	I-405 Dynamic Corridor Ramp Metering System	I-405 from I-10 to US 101	System-wide adaptive ramp metering strategy to coordinate with arterial traffic-signal operation.	Completed construction 2023

Map ID	Project Name	Location	Description	Status
City of Los Angeles				
9	Multi-Family Development	14541 & 14547 Gilmore Street	31 units	Under construction, anticipated completion 2024
10	Multi-Family Development	14629 Erwin Street	20 units	Planning process
11	Mixed-Use Development	6569 N. Van Nuys Boulevard	174-unit mixed use	Under construction since 2022 (near complete)
12	Multi-Family Development	6500 Sepulveda Boulevard	45 units	Approved December 2020, pre-construction
13	Multi-Family Development	14400-14412 Vanowen Street	45 units	Approved January 2021, pre-construction
14	Multi-Family Development	14303-14313 Friar Street	30 units	Planning process
15	Multi-Family Development	14553 Friar Street	42 units	Planning process
16	Mixed-Use Development	7002-7004 Van Nuys Boulevard	170-unit mixed use	Not constructed as of November 2020
17	One Westside / Google	10800 Pico Boulevard	584,000 sf office space	Under construction 2024
18	West End	Pico Boulevard & Overland Avenue	Renovation to 230,000 sf office space	Under construction 2024
19	West Los Angeles Veterans Affairs Center	West Los Angeles Veterans Affairs Medical Center Campus	1,200 units	Construction ongoing
20	Martin Expo Town Center	12101 W. Olympic Boulevard	600-unit mixed use, 150,000 sf office space	Under construction, planned completion 2023
21	Multi-Family Development	11950 W. Missouri Avenue	74 units	Planned completion summer 2021
22	Mixed-Use Development	12001-12021 W. Pico Boulevard	80-unit mixed use	Planning approved April 2020, no construction as of October 2024
23	Mission Gateway	8811-8845 Sepulveda Boulevard	356 units	Under construction 2024
24	ICON at Panorama	14665 Roscoe Boulevard	350-unit mixed use, 250,000 sf commercial space	Planned completion 2022, no construction as of October 2024
25	Mixed-Use Development	3443 S. Sepulveda Boulevard	409-unit mixed use, 60,000 sf retail space	Planned completion 2024
26	Multi-Family Development	2136-2140 Westwood Boulevard	77 units	Pre-construction

Map ID	Project Name	Location	Description	Status
27	Multi-Family Development	2600-2616 Sepulveda Boulevard	43 units	Approved February 2020, pre-construction
28	Multi-Family Development	2117-2121 Westwood Boulevard	109 units	Planning process, pre-construction as of December 2020
29	Multi-Family Development	10822 Wilshire Boulevard	54-unit eldercare facility	Planning process
30	Mixed-Use Development	11628 W. Santa Monica Boulevard	99-unit mixed use, 12,121 sf commercial space	Approved April 2021, planning/pre-construction as of December 2020
31	Multi-Family Development	2444-2456 S. Barry Avenue	61 units	Approved August 2020, pre-construction as of December 2020
32	Multi-Family Development	1656 S. Sawtelle Boulevard	33 units	Approved August 2020, pre-construction as of December 2020
33	Department of Water and Power Office Space	11761-12300 W. Nebraska Avenue	92,000 sf office building	Approved 2020
34	Via Avanti	4827 N. Sepulveda Boulevard	325 units, 44,000 sf retail space	Under construction
35	Multi-Family Development	16015 Sherman Way	46-unit supportive housing	Under construction
36	Mixed-Use Development	8141 Van Nuys Boulevard	200-unit mixed use, 2,450 sf retail space	Planning process
37	Multi-Family Development	7700 N. Woodman Avenue	239-unit senior affordable housing	Under construction
38	Multi-Family Development	888 S. Devon Avenue	21 units	Approved February 2020, no construction as of October 2024
39	Multi-Family Development	1300 S. Westwood Boulevard	31 units	Approved September 2020, no construction as of October 2024
40	Multi-Family Development	1427 S. Greenfield Avenue	29 units	Approved September 2020, revised plans submitted May 2021. No construction as of October 2024
41	Multi-Family Development	15027-15033 W. Ventura Boulevard	33 units	Approved August 2020, pre-construction as of 2019
42	Mixed-Use Development	13716 W. Victory Boulevard	32-unit mixed use, 1,000 sf commercial space	Approved June 2020, pre-construction
43	Multi-Family Development	1721 S. Colby Avenue	34 units	Approved January 2020, pre-construction as of December 2020

Map ID	Project Name	Location	Description	Status
44	Commercial Development	6001 Van Nuys Boulevard	82,273 sf commercial space (Keyes Honda Auto Dealership)	Planned completion 2020, but pre-construction as of November 2020
45	Commercial Development	5746 Sepulveda Boulevard	75-unit hotel	Approved June 2018, pre-construction as of 2019
46	Berggruen Institute Campus	1901 Sepulveda Boulevard. & 2100, 2101, 2132, 2139, 2141, 2187 N. Canyonback Road	160,880 sf office space, temporary dwelling units, studios	Planned completion 2028
47	Girls Athletic Leadership School	14203 W. Valerio Street	Public charter middle school campus, 330 students grades 6-8	Planning process, pre-construction
48	UCLA Lot 15 Residence Hall	UCLA Lot 15	1,781 beds (student housing)	Under construction
49	UCLA Southwest Campus Apartments	900 Weyburn Place North	2,279 beds (student housing)	Under construction
50	UCLA 10995 Le Conte Avenue Apartments	10995 Le Conte Avenue	1,167 beds (student housing)	Under construction, expected completion 2021
51	Multi-Family Development	10460 W. Santa Monica Boulevard	68 units	Planning process
52	Multi-Family Development	11261 Santa Monica Boulevard	119 units	Approved June 2019, pre-construction
53	West Los Angeles Civic Center	1645 Corinth Avenue	926-unit mixed use, 114,400 sf commercial and office space	Planning process
54	Multi-Family Development	12300 W. Pico Boulevard	65 units	Approved October 2018, pre-construction as of December 2020
55	Multi-Family Development	11001 Pico Boulevard	89 units	Approved November 2019, pre-construction as of December 2020
56	Barringway Place	11701 Gateway Boulevard	73 units mixed use, 5,900 sf commercial space	Revised plans submitted May 2021
57	Multi-Family Development	11857-11861 Santa Monica Boulevard	52 units	Approved November 2021, pre-construction as of December 2020
58	Multi-Family Development	16243 W. Chase Street	25 beds (congregate living health facility)	Planning process
59	Multi-Family Development	10915 W. Strathmore Drive	37 units	Planning process
60	Multi-Family Development	10841 N. Sepulveda Boulevard	52 units	Pre-construction
61	Commercial Development	10768 Bellagio Drive	Demolition and reconstruction of the Bel Air Country Club House (approximately 62,615 sf)	Revised plans submitted January 2021, pre-construction

Map ID	Project Name	Location	Description	Status
62	Trident Center Expansion	11355 & 11377 W. Olympic Boulevard	Additional 120,000 sf of office and retail space	Planned completion 2022
63	Mixed-Use Development	14130 and 14154 Riverside Drive	249-unit mixed use, 27,000 sf commercial	Approved, pre-construction
64	Multi-Family Development	11010 Santa Monica Boulevard.	50-unit affordable housing	Planning process
65	Multi-Family Development	11272 Nebraska Avenue	24 units	Approved April 2018, under construction December 2020 (near completion)
66	On Butler	11421 W. Olympic Boulevard	77-unit mixed use, 6,575 sf commercial	Under construction as of December 2020 (near completion)
67	Multi-Family Development	11434 W. Pico Boulevard	102 units	Planning approved June 2019, pre-construction as of December 2020
68	Mixed-Use Development	11460 W. Gateway Boulevard.	129-unit mixed use, 5,241 sf commercial space	Planning process, not constructed as of 2019
69	Multi-Family Development	11600-11618 W. Santa Monica Boulevard	100 units	Under construction
70	Mixed-Use Development	11650-11674 Santa Monica Boulevard.	180-unit mixed use, 64,759 sf grocery store and amenities	Approved October 2019, pre-construction as of December 2020
71	Mixed-Use Development	11701 Santa Monica Boulevard.	53-unit mixed use, 1,500 sf retail	Updated plans approved 2020, pre-construction as of December 2020
72	Mixed-Use Development	11750-11770 Wilshire Boulevard.	376-unit mixed use	Planned completion 2022
73	West Edge	12101 W. Olympic Boulevard	600-unit mixed use, 200,000 sf office and amenities	Planned completion 2022
74	Multi-Family Development	1402 S. Veteran Avenue	23 units	Planning process
75	Multi-Family Development	14142 Vanowen Street	64 units	Planned completion 2024
76	Multi-Family Development	14534-14536 W. Burbank Boulevard.	55 units	Planned completion September 2021
77	Commercial Development	15005 W. Oxnard Street	98,458 sf storage facility	Planning process, pre-construction

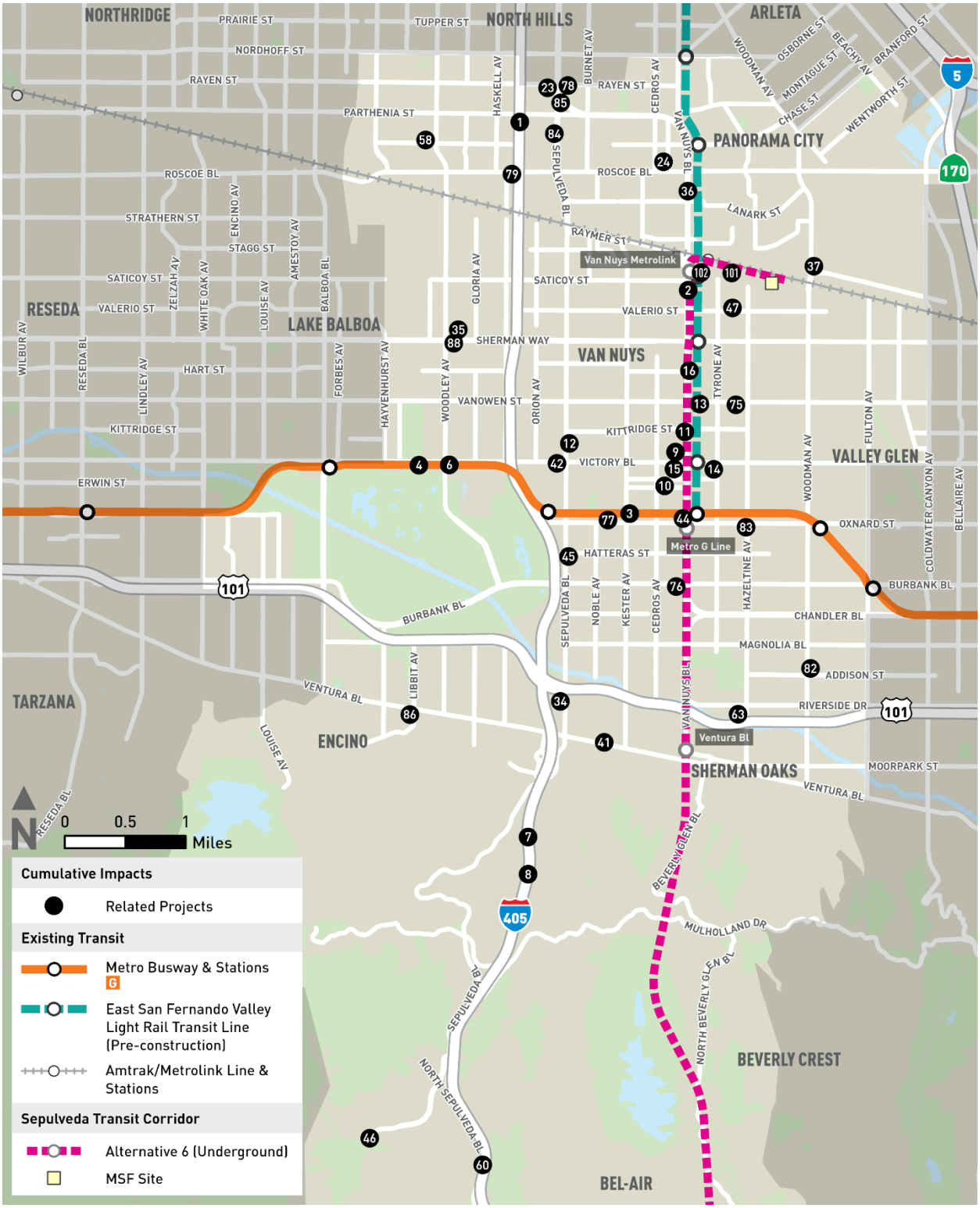
Map ID	Project Name	Location	Description	Status
78	Multi-Family Development	15314 W. Rayen Street	64 units	Planning process
79	Commercial Development	15640 W. Roscoe Boulevard	123,950 sf self-storage facility	Under construction
80	Commercial Development	2255 Sawtelle Boulevard & 2222 Corinth Avenue	135,000 sf office building	Approved March 2021, pre-construction
81	Multi-Family Development	2415-2419 S. Barrington Avenue	38 units	Approved January 2020, pre-construction as of December 2020
82	Multi-Family Development	5020 Woodman Avenue	51 units	Under construction
83	Multi-Family Development	5943-5953 N. Hazeltine Avenue	61 units	Planning process
84	Angel Apartments	8547-8549 N. Sepulveda Boulevard	54 units	Approved October 2019, pre-construction as of November 2020
85	Multi-Family Development	8750 N. Sepulveda Boulevard	43 units	Approved January 2020, pre-construction as of November 2020
86	Multi-Family Development	4741 N. Libbit Avenue	46 units	Approved April 2019, pre-construction
87	Multi-Family Development	1855-1871 Westwood Boulevard.	60 units	Under construction as of December 2020
88	Mixed-Use Development	16030 W. Sherman Way	54-unit mixed use	Under construction as of November 2020
89	Multi-Family Development	3357 S. Overland Avenue	41 units	Under construction, planned completion 2021
100	Mixed-Use Development	10955 Wilshire Boulevard	250-unit mixed use.	Preconstruction
101	Mid-Valley Water Facility Project	South of LOSSAN Corridor	New Water System District Yard	Construction anticipated to begin 2027
102	Multi-Family Development	7650 Van Nuys Boulevard	124-unit	Construction completed 2024, occupancy expected 2025
City of Santa Monica				
90	Commercial Development	1633 26th Street	129,265 sf commercial space	Planning process
91	Mixed-Use Development	2906 Santa Monica Boulevard	88-unit mixed use, 12,400 sf retail pace	Planning process
92	Providence Saint John's Health Center South Campus	2121 Santa Monica Boulevard	799,000 sf health care facilities	Planning process

Map ID	Project Name	Location	Description	Status
93	Mixed-Use Development	2901 Santa Monica Boulevard	60-unit mixed use, 5,100 sf retail space	Approved, pre-construction
94	Multi-Family Development	1450 Cloverfield Boulevard	34 units	Approved, under construction
95	Mixed-Use Development	2822 Santa Monica Boulevard	50-unit mixed use, 10,347 sf commercial space	Approved, under construction
96	Mixed-Use Development	1707 Cloverfield Boulevard	63-unit mixed use, 74,665 sf commercial space	Approved, pre-construction
97	Mixed-Use Development	1618 Stanford	50-unit mixed use, 15,548 sf commercial space	Approved, pre-construction
98	Mixed-Use Development	3223 Wilshire Boulevard	53-unit mixed use, 5,831 sf commercial space	Approved, pre-construction
99	Mixed-Use Development	3030 Nebraska Avenue	177-unit mixed use, 66,100 sf creative office space	Approved, pre-construction

Source: Bel-Air-Beverly Crest Neighborhood Council, n.d.; City of Santa Monica, n.d.; Curbed Los Angeles, n.d.; Encino Neighborhood Council, n.d.; LA Geohub, 2015a, 2015b; DCP, 2019a, 2019b, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e); LADOT, n.d.; Lake Balboa Neighborhood Council, n.d.; Los Angeles Department of Building & Safety, 2020a, 2020b, 2020c, 2021a, 2021b; Mar Vista Community Council, n.d.; Metro, 2020a, n.d.(a), n.d.(b), n.d.(c), n.d.(d), n.d.(e), n.d.(f), n.d.(g), n.d.(h), n.d.(i); North Hills West Neighborhood Council, n.d.; North Valley Area Planning Commission, n.d.; North Westwood Neighborhood Council, n.d.; Palms Neighborhood Council, n.d.; Panorama City Neighborhood Council, n.d.; SCAG, 2020b, 2021b; Sherman Oaks Homeowners Association, n.d.; Sherman Oaks Neighborhood Council, n.d.; South Valley Area Planning Commission, n.d.; UCLA, n.d.; Urbanize LA, n.d.; Van Nuys Neighborhood Council Planning and Land Use Committee, n.d.; Veterans Affairs Greater Los Angeles Healthcare System, 2018; West Los Angeles Area Planning Commission, n.d.; West Los Angeles Sawtelle Neighborhood Council, n.d.; Westside Neighborhood Council, n.d.; Westwood Neighborhood Council, n.d.

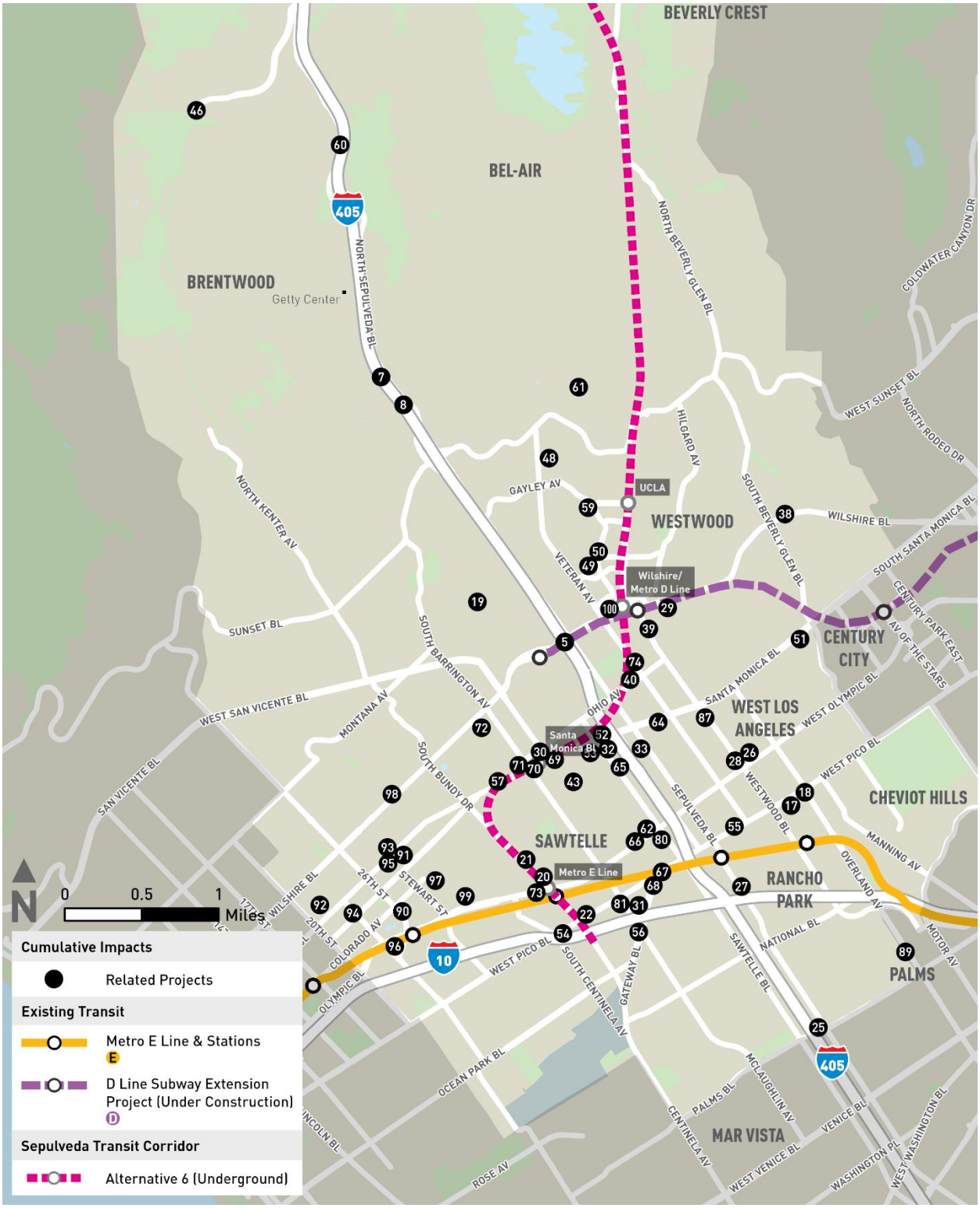
NA = not applicable
sf = square feet

Figure 10-6. Alternative 6: Related Projects Identified in the Project Study Area - North



Source: HTA, 2024

Figure 10-7. Alternative 6: Related Projects Identified in the Project Study Area - South



Source: HTA, 2024

10.3 Impacts Evaluation

10.3.1 Transportation Impacts

Alternative 6 would expand regional transportation choices and is aimed at improving overall regional mobility and would result in decreases in vehicle miles traveled (VMT) and travel time due to the increased use of transit. Alternative 6 would, therefore, result in a beneficial cumulative effect on area-wide traffic conditions. In addition, Alternative 6 would not affect local transit operations and circulation, as there would be minimal impacts to individual bus lines or stops, and transit service would be improved overall by implementation of Alternative 6. None of the transportation projects listed in Table 10-3 intersect the Alternative 6 alignment other than at proposed station locations. As such, Alternative 6 would not result in cumulative geometric hazards or obstructed visibility, or reduce emergency access.

As part of the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), an analysis of passenger queues at fare gates was conducted to evaluate compliance with Metro service standards for maximum queueing times. Alternative 6 would result peak-hour station queueing that is forecast to exceed the available queueing space at the fare gates at the ESFV LRT Van Nuys Metrolink Station. Implementation of MM TRA-1 would require an evaluation of passenger flow at the ESFV LRT Van Nuys Metrolink Station to determine appropriate design solutions such as removal of fare gates or installation of stand-alone validators to prevent queue lengths from exceeding the available queueing space. In addition, the Alternative 6 Metro E Line Expo/Bundy Station peak-hour passenger flows to the existing Metro E Line Expo/Bundy Station are forecast to exceed the available queueing space at the fare gates. Implementation of MM TRA-10 would redesign the west entrance of the Metro E Line Expo/Bundy Station to allow for transfers to a station within a single-fare-paid zone. With implementation of MM TRA-1 and MM TRA-10, Alterative 6 would have a less than significant impact regarding transportation safety. Therefore, Alternative 6 in combination with past, present, and probably future projects would not result in a significant cumulative impact.

10.3.2 Land Use and Development

The related projects identified in Table 10-3, are subject to land use regulation by local jurisdictions, including the City of Los Angeles and University of California, Los Angeles (UCLA). Simultaneous construction of related projects and Alternative 6 could occur, potentially resulting in short-term and temporary construction disruptions to the existing built environment and circulation through temporary roadway or sidewalk closures or construction laydown areas. Projects proposed in close proximity to Alternative 6 have the potential to be disruptive to the adjacent land uses if construction occurred concurrently, but given it is not anticipated that any of the transportation projects listed in Table 10-3 would have overlapping construction periods, substantial cumulative construction-related disruptions would not occur. Additionally, the Alternative 6 roadway closures and laydown areas in conjunction with related projects would not divide existing communities, as access within and out of the affected communities would generally be required to be maintained through their respective construction traffic management plans. Alternative 6 would implement MM TRA-4, which requires a Transportation Management Plan to address construction-related traffic and access disruptions.

As described in the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025b), operation of Alternative 6 would not divide the existing community in conjunction with the related projects, as access within and out of the communities would be unchanged or changed very little by these the related projects. The Alternative 6 alignment would be located underground in a

bored tunnel. Therefore, there is no potential for Alternative 6 to result in new physical barriers that could divide an established community, and there is no potential for Alternative 6, combined with past, present, and reasonably foreseeable future projects to result in a significant cumulative impact to land use and planning.

10.3.3 Real Estate and Acquisitions

A project may have cumulatively considerable impacts associated with displacement, even when mitigated, if it would contribute cumulatively to displacement of the same land uses or important resources. According to the *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report* (Metro, 2025c), Alternative 6 would result in the displacement of 127 housing units. As required by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 United States Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.), all displaced residents would be entitled to relocation assistance, and it is anticipated residential displacements associated with Alternative 6 would be relocated in the Cumulative RSA or region. Thus, cumulative impacts due to the displacement of housing or people would not be significant, and Alternative 6 would not have a cumulatively considerable contribution to a significant cumulative impact.

10.3.4 Communities and Neighborhoods

Alternative 6 would not construct any new housing units and, therefore, would not generate direct population growth within the Project Study Area. Instead, Alternative 6 is anticipated to accommodate planned growth for the affected communities and potentially redirect growth to the Alternative 6 station areas. Potential indirect effects as a result of Alternative 6 include the future planning and development of transit-oriented development within the proposed station areas. Such growth would not be unplanned, as Alternative 6 is already located in a part of the region that has been planned to receive additional growth through the designation of priority growth areas. Therefore, Alternative 6 would support regional planning efforts to focus growth in areas served by transit, and related transportation projects would similarly support these regional growth plans. Alternative 6 would not induce substantial unplanned population growth, and it would not have a cumulatively considerable contribution to a significant cumulative impact related to population and housing.

Construction of Alternative 6 would not require substantial consumption of potable water or generate substantial wastewater. During construction, water use would occur primarily related to water trucks required for dust control. This short-term use would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Alternative 6 does not include a significant long-term, permanent source of water use or wastewater generation. Alternative 6 would include an MSF, which would use water for cleaning transit vehicles and to support offices at the facility. As part of Metro's *Moving Beyond Sustainability Plan* (Metro, 2020b) goal to reduce water consumption, it has implemented pilot program low flow nozzles in some existing MSFs, resulting in a 40 percent reduction in water use per wash cycle. These features are anticipated to be installed for the MSF to meet Metro's sustainability goals. As such, this minimal water consumption would not interfere with the existing and planned capacity of the water supply or wastewater treatment capacity. Alternative 6 would not have a cumulatively considerable contribution to cumulative water and wastewater impacts.

Alternative 6 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 6

would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor for Alternative 6 would comply with Assembly Bill (AB) 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Alternative 6 would not have a cumulatively considerable contribution to cumulative solid waste impacts.

10.3.5 Visual Quality and Aesthetics

As discussed in Section 5.2.5, there is an existing significant cumulative visual impact within the Sepulveda Pass portion of the cumulative Resource Study Area (Cumulative RSA). The Alternative 6 alignment would be located underground in a tunnel through most of the Project Study Area and would not be visible. The primary visual elements included as part of Alternative 6 would be the seven at-grade entrances, the mid-mountain vent shaft and associated graded access road, and changes in parking, lanes, and sidewalks. The new at-grade station entrances along the outside edge of the roadway would present new vertical features in the landscape and may limit views directly adjacent to or within the stations; however, views in the corridor as a whole would not be substantially affected by the proposed at-grade station entrances because the visual changes would be localized around station areas. Sidewalks would be narrowed in some areas, but this would not be expected to substantially affect views along the corridor. The additional project components would primarily be located underground and would not block views of scenic vistas. Related projects in the vicinity of Alternative 6 would consist mainly of typical urban infill development, which would be consistent with existing development in the Project Study Area. However, the Metro East San Fernando Valley Light Rail Transit Project place new transportation infrastructure along Van Nuys Boulevard, including the light rail alignment, stations, and catenary power supply. Such infrastructure would be consistent with existing development along Van Nuys Boulevard, and the presence of Alternative 6 station entrances would not worsen visual effects associated with the East San Fernando Valley Light Rail Transit project facilities. As such, the addition of transit station entrances, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impact.

Regarding light and glare, new nighttime light would primarily emanate from station areas (e.g., station plazas, entryways, and platforms) and the MSF, which would not substantially increase the amount of lighting in the immediate area, because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. All light generated by Alternative 6 would be consistent with the urban light setting, which typically involves street lighting and light emanating from dense development throughout the Cumulative RSA for visual impacts. Since Alternative 6 would follow the equivalent of MRDC and the Systemwide Station Design Standards Policy, and light emitted by Alternative 6 would be consistent with existing light levels. As described in Section 4, related land development projects' light and glare profiles would similarly be consistent with existing light levels. Therefore, Alternative 6, in combination with past, present, and probable future projects, would not have significant cumulative lighting impacts.

10.3.6 Air Quality

Alternative 6 is included in the Southern California Association of Governments (SCAG) *Connect SoCal 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024-2050 RTP/SCS) (SCAG, 2024). The 2024-2050 RTP/SCS is Southern California's long-range Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which serves as the foundation for estimating the region's transportation sector air pollutant emissions through 2050. The SCAG General Council adopted the plan on April 4, 2024. The Federal Highway Administration and the Federal Transit Administration (FTA)

found the plan to conform to the State Implementation Plan on May 10, 2024. Transportation projects identified in a conforming RTP are consistent with the emissions reduction strategies outlined in the applicable regional Air Quality Management Plan.

As described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), South Coast Air Quality Management District's (SCAQMD) cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 6 net operational emissions would not exceed the applicable SCAQMD's regional operational significance thresholds, Alternative 6 operational emissions would not be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 6's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Alternative 6 construction emissions would exceed the SCAQMD regional significance thresholds for nitrogen oxides (NO_X) and carbon monoxide (CO) emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because Alternative 6 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 6 construction emissions would be cumulatively considerable. MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 6 NO_X emissions below SCAQMD significance thresholds. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 6's contribution of pollutant emissions may result in measurable human health impacts on a regional scale.

Because Alternative 6 construction emissions would exceed the respirable particulate matter of diameter less than 10 microns (PM_{10}) localized significance threshold, Alternative 6 would cause or contribute to a violation of any health-protective CAAQS and NAAQS. Given that diesel particulate matter (DPM) emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources. A significant cumulative impact would occur if other related projects would generate construction emissions that would cause or contribute to a violation of health-protective standards. It is anticipated that multiple projects listed in Table 10-3 would generate DPM emissions that could affect the same sensitive receptors as those affected by Alternative 6. Although mitigation measures MM AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, including localized PM_{10} emissions, mitigation measures would not reduce Alternative 6 PM_{10} emissions below SCAQMD localized significance thresholds. As such, construction-related emissions of DPM from Alternative 6 would have a considerable contribution to a significant cumulative impact related to violations of health-protective CAAQS and NAAQS.

10.3.7 Climate Change and Greenhouse Gas Emissions

As noted in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g), greenhouse gases (GHG) and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA, 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis presented in the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025g) also serves as the cumulative impact analysis.

Implementation of Alternative 6 would result in a net reduction of annual GHG emissions compared to existing conditions, due to the displacement of VMT resulting from the improved transit service associated with Alternative 6. Alternative 6 would support state, regional, and local efforts to reduce GHG emissions by providing an efficient transit system as an alternative mode of transportation for commuters traveling between the Valley and Westside. Overall, Alternative 6 would not result in an incremental increase in GHG emissions that would contribute to climate change, but rather would result in an environmental benefit by reducing GHG emissions; therefore, cumulative impacts of GHG emissions associated with Alternative 6 would be less than significant.

10.3.8 Noise and Vibration

As noted in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h), construction of Alternative 6 would require heavy earth-moving equipment, generators, cranes, pneumatic tools, and other similar machinery. The existing cumulative noise condition is characterized by existing traffic noise, which was captured by existing ambient noise measurements. Construction noise levels for Alternative 6 would exceed FTA noise standards and, where applicable, the standards established by the local noise ordinances due to the intensive nature of Alternative 6 construction activities and the proximity of sensitive land uses to the corridor. Implementation of MM NOI-6.2 (Noise Control Plan) would reduce construction noise levels, but there may still be temporary or periodic exceedances of the FTA construction noise criteria and local standards resulting in temporary significant impacts related to construction noise.

Similar to Alternative 6, construction of related projects would likely include the use of heavy construction equipment that would generate elevated construction noise levels. Projected future projects would go through their own environmental clearance process and would include mitigation for construction noise to reduce impacts. Related projects within 500 feet of Alternative 6 construction could result in a cumulative construction noise impact at sensitive receptors. Currently, there have not been any related projects with construction schedules determined to overlap with Alternative 6. Although it is not possible to predict which related projects would result in a cumulative construction noise scenario, the construction noise levels associated with Alternative 6 could increase ambient noise levels. Therefore, when combined with noise generated by past, present, and probable future projects, Alternative 6 would result in a significant cumulative noise impact during construction, and Alternative 6 would have a cumulatively considerable contribution to a cumulative construction noise impact.

Alternative 6 would be an underground rail alignment, which would not produce noise during operations. The only aboveground facility that would generate noise would be the proposed MSF. The noise environment in the vicinity of the Alternative 6 alignment is dominated by traffic noise, including freeways such as I-405, I-10, U.S. Highway 101 (US-101), arterial roads such as Van Nuys Boulevard and Wilshire Boulevard, and other local roadways. Aircraft flyovers are also contributors to the existing noise

environment in most of the Cumulative RSA. Cumulative growth and development in the Cumulative RSA could result in increases in roadway traffic volumes over time that would also increase ambient noise levels in the vicinity of Alternative 6, including the proposed MSF. However, future increases in roadway noise are expected to be minimal in the vicinity of the proposed MSF due to limited roadway capacity. Alternative 6 would result in significant operational noise impacts at sensitive receptors near the proposed TPSS facilities in the Sherman Oaks and Van Nuys communities. Implementation of MM NOI-6.1 would require installation of noise reduction measures at these TPSS locations. This mitigation measure would reduce the significant impacts of Alternative 6 related to operational noise generated at the TPSS locations to a less than significant level. Therefore, Alternative 6, in combination with future traffic noise, is not anticipated to result in a significant cumulative impact. Alternative 6 would not have a cumulatively considerable contribution to a cumulative noise impact.

Regarding vibration, construction of Alternative 6 would result in significant and unavoidable vibration impacts, even with implementation of MM VIB-6.1, which would implement a vibration control plan to limit construction-generated vibration. However, it is not anticipated that vibration-generating equipment from past, present, and probable future projects would operate at the same time and in the same location as the construction equipment for Alternative 6. Alternative 6 would implement the use of high resilient fasteners, pads below the rail, and floating slabs at select locations throughout the project alignment. Based on the results of the vibration analysis presented in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025h), there would be Project groundborne vibration levels, and/or groundborne noise levels would not meet or exceed the applicable impact thresholds at sensitive receptors along the alignment. It is not anticipated that any related projects in the vicinity of Alternative 6 would generate substantial vibration that could combine with Alternative 6 operational vibration such that a significant cumulative vibration impact would occur. Therefore, Alternative 6, combined with past, present, and reasonably foreseeable projects, would not result in significant cumulative vibration impacts.

10.3.9 Ecosystems and Biological Resources

According to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025i), six special-status wildlife and plant species were identified as present and 18 had medium or high potential to occur within the Alternative 6 Resource Study Area (RSA). Based on habitat requirements for these 24 species, they are most likely to occur near Stone Canyon Reservoir, near the mid-mountain vent shaft and associated access road. Since Alternative 6 would be an underground alignment that transitions to at-grade after the northern terminus at Van Nuys Metrolink Station to enter the MSF, no impacts to special-status species are anticipated outside of Stone Canyon. Grading and clearing of native vegetation would be required for the mid-mountain ventilation shaft installation and could be required for construction of stations and use of staging yards. Vegetation outside of the mid-mountain shaft is predominantly non-native and/or ornamental landscaping, although native vegetation could be present in remnant patches within the developed areas. Clearing of native vegetation could result in loss of suitable habitat that could be used for nesting, breeding, shelter, and/or foraging for special-status species. MM BIO-4 through MM BIO-10 and MM BIO-13 through MM BIO-27 would be implemented to reduce construction-related impacts to special-status species plant and wildlife species and their habitats to a less than significant level.

There are no related projects located within the vicinity of the mid-mountain vent shaft, which is located on LADWP property and unlikely to undergo any development other than Alternative 6. As such, Alternative 6 would have no potential to contribute to a cumulative impact on ecosystems and biological resources.

10.3.10 Geotechnical, Subsurface, Seismic, and Paleontological Resources

As described in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report* (Metro, 2025j), during both construction and operation, Alternative 6 has the potential to expose people or structures to seismic risks, including the risk of loss, injury, or death involving fault rupture or seismic hazards, including liquefaction or landslides. Alternative 6 would also not result in impacts related to soil erosion, unstable or expansive soils, or adequacy of soils to support septic tanks. Alternative 6 would comply with all applicable state and local guidelines and mandatory design requirements related to geologic, subsurface, and seismic hazards. Projected future projects would also be subject to the same seismic risks as Alternative 6 but would also be required to comply with all prescribed standards, requirements, and guidance hazards, and implement mitigation measures as necessary. As such, Alternative 6, in combination with past, present, and reasonably foreseeable projects, would not have a significant cumulative impact related to seismic risks or soil concerns.

Regarding paleontological resources, an automated TBM would excavate the tunnels for the underground portion of Alternative 6. The TBM would excavate sediments to the dimensions of the finished tunnel, remove the sediments from the forward portion of the TBM via an internal conveyer belt, and erect the concrete walls of the tunnel. The operation of the TBM would not allow the monitor to view the sediments as they are being excavated or the walls of the tunnel following removal of excess sediments and prior to the installation of the tunnel's concrete walls. For these reasons, monitoring paleontological resources adjacent to the TBM is not possible. Thus, Alternative 6 would create unavoidable significant impacts to paleontological resources in paleontologically sensitive geologic units. Since a majority of the related projects identified in Table 10-3 do not involve deep excavations below existing artificial fill, a cumulative impact to paleontological resources is not anticipated. Related projects disturbing ground and subsurface areas would be required to mitigate potential impacts to paleontological resources in highly sensitive paleontological areas. However, Alternative 6, in combination with past, present, and reasonably foreseeable projects, would have a significant cumulative impact, because potential impacts to paleontological resources caused by the TBM would be significant and unavoidable. The significant unavoidable impacts potentially caused by Alternative 6 would have a cumulatively considerable incremental contribution to a cumulative impact related to paleontological resources.

10.3.11 Hazards and Hazardous Materials

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025k), it is not anticipated that substantial quantities of hazardous materials would be routinely transported, used, stored, or disposed of during operation of Alternative 6. Operation of stations and the guideway would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. As with all development, use and storage of such materials is heavily regulated and Alternative 6 would comply with all regulations and requirements related to transportation, use, and storage of hazardous materials. Any contaminated soils, building materials, or groundwater encountered during construction of Alternative 6 would be handled, disposed of and, if necessary, remediated consistent with regulatory requirements. Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. MM HAZ-1 through MM HAZ-5 would minimize potential exposure to construction workers and the public to hazardous

conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as asbestos-containing material, lead-based paint, or polychlorinated biphenyls) during demolition activities; thus, impacts would be reduced to less than significant.

As described in Section 5.2.11, related projects would have similar potential to release or expose hazardous materials as Alternative 6; however, like Alternative 6, all related projects would be required to handle hazardous materials consistent with regulatory requirements and best practices. Therefore, Alternative 6 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hazardous materials.

10.3.12 Water Resources

As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025l), Alternative 6 would result in increased impervious surface area associated with stations. This increase in impervious surface area may affect or obstruct groundwater recharge. However, most of these facilities would be located in an urban area with substantial existing impervious surface area, and Alternative 6 would adhere to existing regulations and proper implementation of stormwater compliance requirements. As such, Alternative 6 impacts related to groundwater recharge and drainage would be less than significant. The Alternative 6 MSF and TPSS facilities would use products and materials that contain potential pollutants during maintenance that could contribute to water pollution if not properly dispensed, stored, or disposed. If not appropriately managed, uncontrolled discharge of runoff carrying these potential pollutants could result in significant impacts to water quality in groundwater and waterways, including the Pacoima Wash, Encino Creek, Ballona Creek, and the Los Angeles River.

Construction would expose soils in areas that are completely developed with impervious surfaces, which would increase the rate of runoff from these sites. Alternative 6 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. In accordance with mandated permitting requirements, Alternative 6 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Regional Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the best management practices that would be in place prior to the start of construction activities and during construction. Best management practices categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or waste discharge requirements or substantial degradation of surface or groundwater quality during operation would be less than significant. As discussed in Section 5.2.12, related projects would be required to adhere to the same regulations and implementation requirements as Alternative 6. These regulations and requirements are the Los Angeles Regional Water Quality Control Board's and other water management regulatory agencies' primary tool for managing the water quality and hydrology impacts of development in the region and throughout California. As such, Alternative 6 in combination with past, present, and reasonably foreseeable projects would not result in a significant cumulative impact related to hydrology and water quality.

10.3.13 Energy

As described in Section 5.2.13, there is an existing cumulative impact related to energy resources. The cumulative setting is both regional and statewide. State, regional, and local agencies and jurisdictions

have published a wide range of documents intended to reduce energy consumption and increase the use of renewable energy. The intent is typically to reduce the use of nonrenewable energy to reduce pollution that contributes to global warming. Alternative 6, combined with past, present, and reasonably probable future projects, could contribute to the existing cumulative impact. Regarding construction activities, as described in the *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), a one-time expenditure of approximately 7,809,150 gallons of diesel fuel, 1,324,088 gallons of gasoline, and 471,395 megawatt-hours (MWh) of electricity over an approximate 7.5-year construction period would result from Alternative 6. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operation of Alternative 6 within approximately 5 years through transportation mode shift. The temporary additional transportation fuels consumption would not require additional capacity provided at the local or regional level. There are numerous state and regional regulatory measures designed to minimize excess transportation fuels consumption. As described in *Sepulveda Transit Corridor Project Energy Technical Report* (Metro, 2025m), operation of Alternative 6 in the horizon year of 2045 would result in a net annual increase in regional electricity demand of 56,136 MWh and would result in a net annual reduction of 6,230,810 gallons of gasoline, 1,559,846 gallons of diesel fuel, and 61,481 diesel gallon equivalent of natural gas. Converting each of these quantities to standardized units of million British thermal units (MMBtu), Alternative 6 operations would result in a net decrease of 812,192 MMBtu annually in 2045. The electricity consumption would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would power a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Therefore, implementation of Alternative 6 would result in a substantial decrease in overall regional energy consumption and would not have a significant cumulative impact on energy.

10.3.14 Cultural Resources and Tribal Cultural Resources

As discussed in Section 5.2.14, there is an existing potential cumulative effect related to the undiscovered archaeological resources and human remains. As described in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n), construction of Alternative 6 similarly has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts on unique archaeological resources, human remains, and Tribal Cultural Resources (TCR) would be reduced to less than significant for Alternative 6. Since it is presumed that current and future development would include similar mitigation and avoidance measures to address undiscovered buried archaeological resources or human remains, Alternative 6 would not result in a considerable contribution to potential cumulative archaeological resources or human remains impacts.

After implementation of MM CUL-1 through MM CUL-5, Alternative 6 would result in less than significant impacts, with mitigation on the following historical resources:

- Linde Medical Building
- Tishman Building
- Laemmle Theater
- UCLA Ackerman Hall
- UCLA Historic District

Alternative 6 would result in a significant and unavoidable impact to Bill's Valley Car Wash, which would be demolished.

As discussed in Section 5.2.14, none of the related projects are presumed to result in significant impacts to a historic resource, and there would be no cumulative impacts to any of the historic districts identified within the Cumulative RSA for historic, archaeological, and tribal cultural resources. However, since Alternative 6 would result in a significant and unavoidable impact to a historic resource, and there is potential for loss of other historic resources due to development in the Cumulative RSA for historic, archaeological, and tribal cultural resources, Alternative 6 would result in a significant cumulative impact and would have a cumulatively considerable contribution to a significant cumulative impact on historic buildings.

10.3.15 Parklands

As described in the *Sepulveda Transit Corridor Project Parklands Technical Report* (Metro, 2025o), Alternative 6 would not directly result in an increase in the number of residents; thus, there would be no direct increase in demand for parks or recreational facilities.

Alternative 6 would not result in significant impacts to parks or recreational facilities related to construction or operational activities. However, Alternative 6 could indirectly affect population, housing, and employment growth as a result of and in combination with probable future projects in the region. Changes in demographics associated with new development opportunities are anticipated to be consistent with the SCAG-adopted growth projections, since these growth projections are based on the General Plan land use designations of local jurisdictions. These projections, which include the Project and cumulative projects, are accounted for in population increases that affect planning for park facilities. Therefore, Alternative 6 would not result in significant cumulative impacts to parks and recreational facilities.

10.3.16 Safety and Security

Project measure (PM) SAF-1 requires compliance with California Health and Safety Code to ensure fire-life safety at all facilities proposed by Alternative 6. Alternative 6 does not include any housing component that would directly increase population, although some indirect concentration of growth may occur around some of the station areas due to the new transit access. As described in the *Sepulveda Transit Corridor Project Safety and Security Impacts Technical Report* (Metro, 2025p), funds are allocated to fire protection services during the annual monitoring and budgeting process to ensure that fire protection services are responsive to changes in the City of Los Angeles. Similarly, the Los Angeles Fire Department (LAFD) or Los Angeles County Flood Control District evaluates staffing levels during the annual budgetary process, and personnel are hired, as needed, to ensure that adequate fire protection and emergency response services are maintained. The LAFD would also evaluate Alternative 6 to ensure that adequate fire protection could be accommodated with project implementation. With regard to police protection, the Metro system is currently policed by the Los Angeles Police Department (LAPD) and Los Angeles County Sheriff Department (LASD). Metro has contracted the LASD and the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. In addition, Alternative 6 would be monitored by Metro, which has implemented a multi-policing model inclusive of Metro's Transit Security Officers and contract security personnel. Since the Project is within the jurisdiction of the City of Los Angeles, the LAPD would be the first responders for the Project in the event of an emergency requiring police protection. Alternative 6 is not anticipated to affect either fire or police protection response times or otherwise affect emergency services.

Related projects could have the potential to impact fire and police protection services within the Cumulative RSA by requiring temporary lane closures or drawing on emergency responders to respond to emergency incidents. None of the projects identified in Table 10-3 are anticipated to have overlapping construction periods such that cumulative construction activities could affect emergency response. If concurrent construction were to occur, it is reasonable to assume that the related projects would implement their own measures to reduce impacts to emergency services by implementing detours and appropriate notification of agencies, which Alternative 6 would implement to ensure construction-period impacts on emergency response would remain less than significant. Therefore, construction and operation of Alternative 6, in combination with past, present, and probable future projects would not result in a significant cumulative impact related to the provision of new or altered fire or police service.

The Alternative 6 alignment would be underground through the Santa Monica Mountains and would generally have no potential for wildfire risks. However, the proposed ventilation shaft and access road would be located on LADWP property east of Stone Canyon Reservoir in the Santa Monica Mountains within a designated Very High Fire Hazard Severity Zone. The ventilation shaft structure does not include combustible elements and is a fire line safety requirement, which includes fire suppression and pollutant capturing elements. In addition, MM SAF-1 and MM SAF-2 would minimize wildfire risks by avoiding fire hazards during high-risk conditions and by clearing construction areas of potential wildfire fuels. Alternative 6 would result in less than significant impacts related to wildfire, including exacerbated wildfire risks, interference with emergency response plans, and flooding in areas affected by wildfires. As discussed in Section 5.2.16, none of the related projects identified in Table 10-3 are anticipated to exacerbate wildfire risks. The state, county, and city Fire Code regulations would be incorporated into legally required health and safety plans for all construction workers and visitors associated with related projects. As such, Alternative 6 would not result in a significant cumulative wildfire impact.

10.4 Mitigation Measures

The mitigation measures identified for each environmental discipline address both project-specific impacts and cumulative impacts of Alternative 6.

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