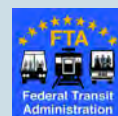


Capitol Expressway Corridor

Supplemental Draft Environmental Impact Statement and Draft Section 4 (f) Evaluation

March 2012



**CAPITOL EXPRESSWAY CORRIDOR
SAN JOSE, CALIFORNIA**

Supplemental Draft Environmental Impact Statement

PREPARED PURSUANT TO:

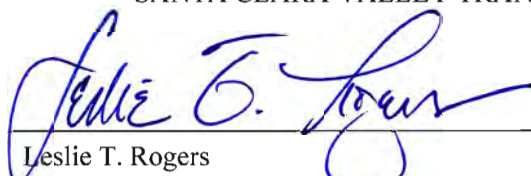
National Environmental Policy Act of 1969, §102, (42 U.S.C. §4332);
Federal Transit Law (49 U.S.C. §5301(e), §5323(b) and §5324 (b)); 49
USC §303 (formerly Department of Transportation Act of 1966,
§4(f)); and National Historic Preservation Act of 1966, §106 (16
U.S.C. §470f), Executive Order 12898 (Environmental Justice).

by the

FEDERAL TRANSIT ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION

and the

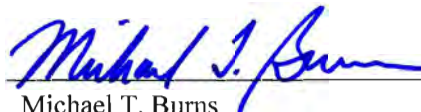
SANTA CLARA VALLEY TRANSPORTATION AUTHORITY



Leslie T. Rogers
Regional Administrator, Region IX
Federal Transit Administration

4/6/2012

Date of Approval



Michael T. Burns
General Manager
California/Santa Clara Valley Transportation Authority

03/28/2012

Date of Approval

ABSTRACT

The Santa Clara Valley Transportation Authority (VTA) proposes to construct an extension of the Capitol Light Rail system from the existing Alum Rock Station to the Eastridge Transit Center in the City of San Jose.

This Supplemental Draft Environmental Impact Statement (Supplemental DEIS or SDEIS) analyzes two alternatives: the No-Build Alternative and the Light Rail Alternative. The Light Rail Alternative would consist of a 2.3-mile extension of the existing Capitol Light Rail system. Light rail would operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. Property acquisition would be minimized through the removal of two High Occupancy Vehicle (HOV) lanes on Capitol Expressway. The project would include an elevated section north of Capitol Avenue and south of Story Road, and an elevated crossing of Tully Road. The project would include light rail stations at Story Road (aerial), Ocala Avenue (at-grade), and Eastridge Transit Center (at-grade). At Eastridge Mall, the existing park-and-ride lot will be modified and expanded to accommodate the project. The project will also include traction power substations at Ocala Avenue and Eastridge Transit Center.

Ridership is projected to be approximately 3,800 passengers in 2035.

This Supplemental DEIS evaluates and discloses the environmental effects of the alternatives. As identified during Environmental Scoping, the topics of concern are traffic, air quality and climate change, energy, environmental justice, noise and vibration, safety and security, and construction. Mitigation measures to reduce or avoid adverse effects are identified in this document.

FOR ADDITIONAL INFORMATION CONCERNING THIS DOCUMENT, CONTACT:

Mr. Eric Eidlin
U.S. Department of Transportation
Federal Transit Administration, Region IX
201 Mission Street, Suite 1650
San Francisco, CA 94105
Phone: (415) 744-2502
Eric.eidlin@dot.gov

Ms. Christina Jaworski
Santa Clara Valley Transportation Authority
Environmental Programs and Resources and
Management
3331 North First Street, Building B
San Jose, CA 95134-1927
Phone: (408) 321-5789
christina.jaworski@vta.org

A 45-day period has been established for comments on this document. The public comment period will end at 5:00 p.m. on July 3, 2012. Comments may be submitted in writing or may be made orally at the public hearings to be held on June 11, 2012, and June 14, 2012. Written comments should be submitted to Ms. Christina Jaworski at the address above. Comments may also be submitted by fax to (408) 321-5787 and by email at capitol.expressway.eis@vta.org. Information on the public hearings can be obtained from the project website http://www.vta.org/projects/capitol_rail_project/index.html.

This page intentionally left blank.

Table of Contents

	Page
Tables	iv
Figures.....	viii
Acronyms and Abbreviations	xi
Executive Summary.....	ES-1
Chapter 1 Purpose and Need	1-1
Section 1.1 Purpose	1-1
Section 1.2 Need	1-2
Chapter 2 Alternatives Analysis	2-1
Section 2.1 Introduction	2-1
Section 2.2 Identification of Alternatives	2-1
Section 2.3 Alternatives Evaluated in the Supplemental DEIS.....	2-9
Section 2.4 List of Federal Permits, Licenses, and Other Entitlements Needed.....	2-26
Chapter 3 Affected Environment, Environmental Consequences, and Mitigation Measures.....	3-1
Introduction.....	3-1
Scope of Supplemental DEIS	3-1
Resource Study Area.....	3-2
Technical Assumptions.....	3-2
Overview and Terminology of Impacts and Mitigation Measures.....	3-2
Types of Effects and Impacts.....	3-2
Mitigation Measures.....	3-3
Section 3.1 Transportation.....	3.1-1
Section 3.2 Air Quality and Climate Change.....	3.2-1
Section 3.3 Biological Resources	3.3-1
Section 3.4 Community Services	3.4-1
Section 3.5 Cultural Resources	3.5-1
Section 3.6 Electromagnetic Fields.....	3.6-1
Section 3.7 Energy	3.7-1
Section 3.8 Geology, Soils, and Seismicity.....	3.8-1
Section 3.9 Hazardous Materials	3.9-1

Section 3.10	Hydrology and Water Quality	3.10-1
Section 3.11	Land Use.....	3.11-1
Section 3.12	Noise and Vibration.....	3.12-1
Section 3.13	Safety and Security	3.13-1
Section 3.14	Socioeconomics.....	3.14-1
Section 3.15	Utilities	3.15-1
Section 3.16	Visual Quality	3.16-1
Section 3.17	Environmental Justice.....	3.17-1
Section 3.18	Construction.....	3.18-1
Section 3.19	Maintenance Facility	3.19-1
Chapter 4	Draft Section 4(f) Evaluation.....	4-1
Section 4.1	Introduction	4-1
Section 4.2	Environmental Consequences	4-6
Section 4.3	Impacts on Section 4(f) Resources.....	4-6
Section 4.4	Avoidance Alternatives	4-9
Section 4.5	Measures to Minimize Harm	4-9
Section 4.6	Consultation and Coordination.....	4-9
Section 4.7	Determination.....	4-10
Section 4.8	Section 6(f)(3) Considerations	4-10
Chapter 5	Financial Considerations	5-1
Section 5.1	Introduction	5-1
Section 5.2	Cost Summary	5-1
Section 5.3	Financial Feasibility and Local Financial Commitment	5-2
Chapter 6	Agency and Community Participation	6-1
Section 6.1	Summary of Scoping.....	6-1
Section 6.2	Summary of Public Agency Coordination.....	6-2
Section 6.3	Summary of Ongoing Public Involvement	6-3
Chapter 7	List of Preparers	7-1
Chapter 8	References	8-1

Appendices

Appendix A	Notice of Intent (NOI)
Appendix B	NOI Mailing List
Appendix C	Comments on NOI
Appendix D	State Historic Preservation Officer Concurrence Letter
Appendix E	Proposed Property Acquisitions
Appendix F	PM 2.5 Determination
Appendix G	Title VI Policy Statement
Appendix H	Noise and Vibration Study
Appendix I	Federal Aviation Administration (FAA) Determination
Appendix J	Public Meeting Summary

Tables

	Page
ES-1	Summary of Adverse Effects and Proposed Mitigation Measures ES-6
1-1	Population, Employment, and Housing Characteristics..... 1-2
1-2	Transit Dependency Characteristics 1-3
2-1	Downtown/East Valley Initial List of Candidate Conceptual Alternatives 2-3
2-2	Alternatives Eliminated from Further Detailed Analysis..... 2-4
2-3	Capitol Expressway/Evergreen Corridor Key Performance Measures 2-6
2-4	Preliminary Right-of-Way Requirements 2-22
2-5	Travel Time and Speed Data for Light Rail in 2018..... 2-26
3.1-1	Bus Service Hours/Headways..... 3.1-3
3.1-2	Average Weekday Bus Ridership by Route 3.1-4
3.1-3	Daily Passenger Activity at Selected Intersections and Transit Centers..... 3.1-4
3.1-4	Light Rail Services Hours and Headways 3.1-5
3.1-5	Signalized Intersections and Annual Average Daily Traffic 3.1-7
3.1-6	Existing Intersection Levels of Service, AM and PM Peak Hours 3.1-8
3.1-7	Intersections with Existing Level of Service E and F 3.1-9

3.1-8	Estimated Station Boarding by Mode in 2035	3.1-10
3.1-9	Estimated Future Passenger Mode of Access to Light Rail Stations	3.1-10
3.1-10	Estimated Demand and Supply for Park-and-Ride Spaces in 2035	3.1-11
3.1-11	Travel Time and Speed Data for Roadway, Bus, and Light Rail in 2018	3.1-15
3.1-12	Travel Time and Speed Data for Roadway, Bus, and Light Rail in 2035	3.1-17
3.1-13	CMP Level of Service Thresholds	3.1-19
3.1-14	Intersection Level of Service, Delay, and Volume-to-Capacity Ratio under the Light Rail Alternative, 2018 AM.....	3.1-20
3.1-15	Intersection Level of Service, Delay, and Volume-to-Capacity Ratio under the Light Rail Alternative, 2018 PM.....	3.1-21
3.1-16	Intersection Level of Service, Delay, and Volume-to-Capacity Ratio under the Light Rail Alternative, 2035 AM.....	3.1-22
3.1-17	Intersection Level of Service, Delay, and Volume-to-Capacity Ratio under the Light Rail Alternative, 2035 PM.....	3.1-23
3.2-1	Federal and State Ambient Air Quality Standards.....	3.2-2
3.2-2	Ambient Air Quality Monitoring Data Measured at the Tully Road Monitoring Station	3.2-7
3.2-3	Existing (2009), Interim (2018), and Design Year (2035) ADT along Capitol Expressway	3.2-11
3.2-4	Summary of MSAT Emissions (tons per year)	3.2-16
3.2-5	Modeled CO Concentrations for Existing (2009), Interim (2018), and Design Year (2030) Conditions.....	3.2-17
3.2-6	Summary of Operational Emissions (tons per year).....	3.2-19
3.2-7	Summary of GHG Emissions from Electricity Usage (metric tons CO ₂ e ^a per year) ^b	3.2-21

3.2-8	Total GHG Emissions Generated by Project Operations, Relative to the No-Build Alternative (metric tons CO ₂ e per year)	3.2-22
3.3-1	Biological Habitats within the Study Area.....	3.3-2
3.4-1	Inventory of Community Services and Facilities.....	3.4-2
3.7 1	Annual VMT (in millions) for Vehicle Operations by Mode (2035).....	3.7-5
3.7-2	Direct and Total Energy Use by Transit and Auto Mode (millions of VMT)	3.7-6
3.7-3	Annual Direct and Total Energy Use (in Million BTUs) for Vehicle Operations by Mode and Alternative	3.7-9
3.7-4	Net Annual Direct and Total Energy Use (in Million BTUs) for Vehicle Operations by Mode and Alternative	3.7-12
3.12-1	FTA Detailed Assessment Criteria for Construction Noise	3.12-2
3.12-2	FTA Construction Damage Vibration Criteria	3.12-3
3.12-3	Comparison of Previous and Current Ambient Noise Exposure Levels.....	3.12-4
3.12-4	Summary of Noise Criteria Along the Capitol Expressway Alignment—Allowable Project Noise Levels.....	3.12-5
3.12-5	Locations of Aerial/Median Soundwalls.....	3.12-6
3.12-6	Summary of Noise Impacts Under the No-Build Alternative in 2035	3.12-8
3.12-7	Summary of Noise Impacts Under the Light Rail Alternative in 2035	3.12-9
3.12-8	Summary of Vibration Impacts Under the Light Rail Alternative in 2035	3.12-11
3.12-9	Location of Tire-Derived Aggregate Sections.....	3.12-13
3.17-1	Racial and Ethnic Characteristics of City of San Jose and Study Area	3.17-5

3.17-2 Low Income Characteristics of City of San Jose and the Study Area 3.17-6

3.18-1 Summary of Construction Emissions (pounds per day) 3.18-5

4-1 Section 4(f) Resources: Public Parks and Recreation Areas..... 4-4

4-2 Section 4(f) Resources: Historic Sites..... 4-5

4-3 Impacts on Section 4(f) Resources: Public Parks and Recreation Areas 4-7

5-1 Estimated Annual Operating and Maintenance Costs of the Proposed Alternatives for 2018 (Year of Expenditure Dollars)..... 5-2

5-2 Estimated Annual Operating and Maintenance Costs of the Proposed Alternatives for 2018 (Base Dollars) 5-2

Figures

On or Follows Page

ES-1	Regional Location	ES-2
2-1	Alternatives Evaluated in the MIS	2-6
2-2	Baseline Alternative (2004 EIS/EIR)	2-8
2-3a	Light Rail Alternative (2004 EIS/EIR)	2-10
2-3b	Light Rail Alternative (2007 SEIR)	2-10
2-3c	Light Rail Alternative (Current).....	2-12
2-4	No-Build Alternative	2-12
2-5	Alum Rock Station	2-14
2-6	Eastridge Station	2-16
2-7	Overhead Contact System.....	2-18
2-8	Main Construction Staging Area	2-26
3-1	Capitol Expressway Study Area.....	3-2
3.1-1	Existing Transit Network	3.1-2
3.1-2	Daily Passenger Activity	3.1-2
3.1-3	Light Rail Station Street Locations.....	3.1-4
3.1-4	Study Intersections	3.1-6
3.1-5	Alum Rock Transit Center.....	3.1-12
3.1-6	Capitol Expressway/Story Road Intersection	3.1-26

3.3-1a–b	Biological Habitats in the Project Vicinity	3.3-2
3.3-2	Silver Creek	3.3-4
3.3-3	Thompson Creek	3.3-4
3.4-1	Existing Community Features	3.4-4
3.8-1	Geologic and Seismic Features	3.8-2
3.10-1	Watershed Areas and Flood Hazard Zones	3.10-2
3.11-1	Typical Land Uses	3.11-2
3.11-2	Reid-Hillview Airport	3.11-2
3.11-3	Lake Cunningham.....	3.11-2
3.11-4	Eastridge Transit Center	3.11-2
3.11-5	Eastridge Shopping Mall	3.11-2
3.12-1	Noise Impact Criteria	3.12-2
3.12-2	Noise Measurement Locations	3.12-4
3.12-3	Aerial Soundwall Along the Vasona Light Rail Line at Hamilton Ave	3.12-6
3.12-4a	Locations of Noise Impacts.....	3.12-10
3.12-4b	Locations of Noise Impacts.....	3.12-10
3.12-5	Locations of Vibration Impacts.....	3.12-10
3.12-6	Application of Tire-Derived Aggregate along the Vasona Light Rail Line	3.12-13
3.14-1	Neighborhood Boundaries Map	3.14-2
3.14-2	Census Tracts along the Capitol Expressway Corridor.....	3.14-2
3.15-1	Ocala Avenue to Tully Road	3.15-2
3.15-2a–b	Proposed Changes to Electrical Transmission Facilities.....	3.15-4

3.16-1	Existing Views of Capitol Expressway	3.16-2
3.16-2	Conceptual Visual Simulation 1, Capitol Avenue	3.16-2
3.16-3	Conceptual Visual Simulation 2, Highwood Drive	3.16-4
3.16-4	Conceptual Visual Simulation 3, Highwood Drive	3.16-4
3.16-5	Conceptual Visual Simulation 4, Aerial of Story Road	3.16-4
3.16-6	Conceptual Visual Simulation 5, Story Road	3.16-4
3.16-7	Conceptual Visual Simulation 6, Ocala Avenue.....	3.16-4
3.16-8	Conceptual Visual Simulation 7, Tully Road	3.16-6
3.16-9	Conceptual Visual Simulation 8, Thompson Creek.....	3.16-8
3.16-10	Conceptual Visual Simulation 9, Eastridge Transit Center	3.16-8
3.17-1	Environmental Justice and Minority Populations.....	3.17-4
4-1	Existing Section 4(f) Resources	4-4

Acronyms and Abbreviations

2005 FEIR	2005 Capitol Expressway Corridor Final EIR
2007 SEIR	2007 Capitol Expressway Draft Supplemental EIR
AADT	annual average daily traffic
AB32	Assembly Bill 32
ABAG	Association of Bay Area Governments
ADT	Average Daily Traffic
APE	Area of Potential Effect
ARB	California Air Resources Board
ATSC	auto-tensioned simple catenary
BRT	Bus Rapid Transit
BTU	British Thermal Unit
CAA	Clean Air Act
CAAA	Clean Air Act 1990 Amendments
CAAQS	California's ambient air quality standards
California CAA	California Clean Air Act of 1988
CCR	California Code of Regulations
CCTV	Close-circuit television
CED	California Electricity Demand
CEQ	Council on Environmental Quality
CIDH	Cast in Drilled Hole
City	City of San Jose
Clean Air Plan	air quality attainment plan
CMP	Congestion Management Plan
CO	carbon monoxide
County	Santa Clara County
CPUC	California Public Utilities Commission
dB	decibel

DC	direct current
DEIS	Draft Environmental Impact Statement
DHHS	Department of Health and Human Services
DOT	U.S. Department of Transportation
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources Report
EMF	electromagnetic field
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GWh	gigawatt hours
HFCs	hydroflourocarbons
HOT	High Occupancy Toll
HSP	health and safety plan
I-280, I-680	Interstate 280, Interstate 680
IAC	interagency consultation
ICF	ICF International
IOUs	investor-owned utilities
kWh	kilowatt hours
L _{dn}	Day-Night Level
L _{eq} [h]	Equivalent Sound Level
LOS	level of service
LRT	Light Rail Transit
mG	milligauss
MIS	Major Investment Study
mpg	miles per gallon
MSATs	mobile-source air toxics
MT	metric tons
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standards

NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
OCS	Overhead Contact System
PFCs	perfluorocarbons
PG&E	Pacific Gas & Electric Company
PM	particulate matter
PM10	particulate matter less than 10 microns
PM2.5	particulate matter less than 2.5 microns
POAQC	Project of Air Quality Concern
ROG	reactive organic gases
RTP	regional transportation plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
Section 106	Section 106 of the National Historic Preservation Act of 1966, as amended
SF ₆	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMWP	soil management work plan
SO ₂	sulfur dioxide
SPCC	spill prevention, containment, and clean-up
SR	State Route
TDA	Tire Derived Aggregates
TES	Traction Electrification System
TIP	transportation improvement program
TPSS	Traction Power System and Substation
TSM	Transportation System Management
TSPs	tubular steel poles
U.S. 101	United States Route or Highway 101
V/C	volume-to-capacity
VHT	vehicle hours traveled
VMT	vehicle miles traveled
VTP 2035	Valley Transportation Plan 2035

This page intentionally left blank.