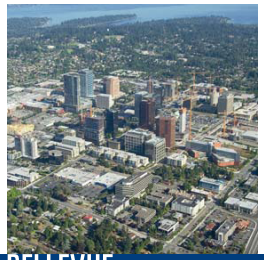
FINAL EIS

EAST LINK PROJECT

FINAL ENVIRONMENTAL IMPACT STATEMENT


SEATTLE


MERCER ISLAND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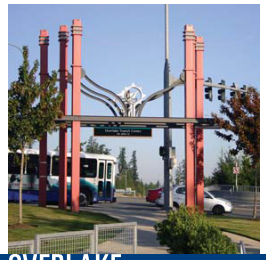
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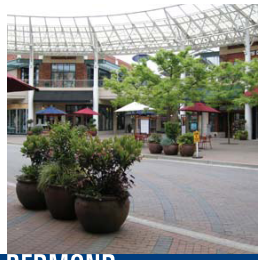
REDMOND

SOUNDTRANSIT
CENTRAL PUGET SOUND
REGIONAL TRANSIT AUTHORITY

Washington State Department of Transportation

U.S. Department of Transportation
Federal Transit Administration

July 2011

SOUNDTRANSIT

July 15, 2011

Dear Recipient:

The U.S. Department of Transportation Federal Transit Administration (FTA), Sound Transit (the Central Puget Sound Regional Transit Authority), and Washington State Department of Transportation (WSDOT) have prepared this Final Environmental Impact Statement (Final EIS) on the proposed East Link light rail transit project. This project is part of Sound Transit 2, the Regional Transit System Plan for Central Puget Sound. Sound Transit is the project proponent.

The Final EIS has been prepared pursuant to the National Environmental Policy Act (42 U.S.C 4321 to 4370e) and the State Environmental Policy Act (Ch. 43.21C RCW). It has been prepared to inform the public, agencies and decision makers about the environmental consequences of building and operating the East link extension of the light rail system from downtown Seattle to Mercer Island, Bellevue, and Redmond via Interstate 90. The Final EIS examines project route and station alternatives, including the preferred alternative identified by the Sound Transit Board.

The major choices for the project involve the route of the light rail line and station locations. The Sound Transit Board will consider the Final EIS and other information before selecting the route and station locations. After the Board selects the project to be built, FTA will issue a Record of Decision, which will state FTA's decision on the project and list Sound Transit mitigation commitments to reduce or avoid impacts.

The Final EIS includes a separately bound Executive Summary. Also available are separately bound appendices consisting of conceptual design drawings, technical reports, background materials, and responses to comments. Please see the Fact Sheet of this Final EIS regarding how to obtain these documents.

For additional information about this Final EIS, please contact Kent Hale, Senior Environmental Planner (206) 398-5103 or kent.hale@soundtransit.org.

Sincerely,

James Irish
Deputy Director
Office of Environmental Affairs and Sustainability

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St. • Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499 • www.soundtransit.org

EAST LINK LIGHT RAIL TRANSIT PROJECT
SEATTLE, WASHINGTON

FINAL ENVIRONMENTAL IMPACT STATEMENT

Submitted pursuant to
The National Environmental Policy Act (NEPA) (42 U.S.C. 4322 (2)(c))
and the State Environmental Policy Act (SEPA) (Ch. 43.21 C RCW)
by the

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
and

CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY (SOUND TRANSIT)

and

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
(For SEPA)

In cooperation with

FEDERAL HIGHWAY ADMINISTRATION
CITY OF SEATTLE
CITY OF MERCER ISLAND
CITY OF BELLEVUE
CITY OF REDMOND
KING COUNTY
U.S. ARMY CORPS OF ENGINEERS
U.S. COAST GUARD

6/15/2011
Date of approval

R. F. Krochalis, Regional Administrator
For Federal Transit Administration, Region 10

6/15/11
Date of approval

Perry Weinberg, Director, Office of Environmental
Affairs and Sustainability
For Central Puget Sound Regional Transit Authority

6/14/2011
Date of approval

Megan White, Director of Environmental Services
For Washington State Department of Transportation

See the Fact Sheet for persons who may be contacted for additional information concerning this document.

Abstract

Sound Transit proposes to construct and operate an eastern extension of the Link light rail system providing urban transportation improvements in the Central Puget Sound metropolitan region. The East Link project would connect to the existing light rail system in downtown Seattle and extend the system east to Mercer Island, Bellevue, and Redmond. Alternatives are considered in five geographic segments in this EIS. **Segment A, Interstate 90,** connects downtown Seattle to Mercer Island and South Bellevue via I-90. **Segment B, South Bellevue,** connects I-90 to approximately SE 6th Street along one of three corridors: Bellevue Way, 112th Avenue SE, or the BNSF Railway right-of-way**. Segment C, Downtown Bellevue,** would travel through downtown Bellevue between approximately SE 6th Street and an I-405 crossing at either NE 6th Street or NE 12th Street on either an at-grade, elevated, or tunnel profile. **Segment D, Bel-Red/Overlake,** would travel from the I-405 crossing to the Overlake Transit Center, either through the Bel-Red corridor or along SR 520. **Segment E, Downtown Redmond,** would travel from Overlake Transit Center to Downtown Redmond via the SR 520 corridor until West Lake Sammamish Parkway and then proceed through Downtown Redmond via either Redmond Way or in the former BNSF Railway corridor. Alternatives considered include a No Build Alternative, 24 build alternatives (one in Segment A, six in Segment B, ten in Segment C, four in Segment D, and three in Segment E), the No Build Alternative, and four maintenance facility alternatives (three in Segment D and one in Segment E). Each alternative route includes one to four stations; a total of 19 station alternatives, some with multiple location options, exist in the five segments.

Construction is expected to start in 2015, with operation under way between 2022 and 2023. The analysis and impact information in this EIS addresses potential long-term and short-term impacts of transportation; acquisitions, displacements and relocations; land use; economics; social impacts, community facilities, and neighborhoods; visual and aesthetic resources; air quality and greenhouse gas; noise and vibration; ecosystem resources; water resources; energy; geology and soils; hazardous materials; electromagnetic fields; public services; utilities; historic and archaeological resources; and parkland and open space. The analysis also considers issues related to environmental justice, protected park and historic resources, and the cost, funding, and cost-effectiveness of the alternatives.

Fact Sheet

Proposed Action

The Central Puget Sound Regional Transit Authority (Sound Transit) proposes to construct and operate an extension of its electric light rail transit system that would improve transportation connectivity between Seattle, Mercer Island, and the east side of Lake Washington to Bellevue and Redmond. The proposed light rail extension, known as the East Link Light Rail Transit Project (East Link Project), would cross Lake Washington in the center lanes of Interstate 90 (I-90) and would operate in a dedicated right-of-way between Seattle and Redmond. The East Link Light Rail Transit Project is included in Sound Transit 2: A Mass Transit Guide, The Regional Transit System Plan for Central Puget Sound (ST2), also known as the Mass Transit Expansion proposal, which was approved by the voters in November 2008.

The East Link corridor is approximately 18 miles long and has been divided into five segments along distinct geographic boundaries: Segment A, Interstate 90 (Seattle to Mercer Island and Bellevue via I-90); Segment B, South Bellevue; Segment C, Downtown Bellevue; Segment D, Bel-Red/Overlake (Downtown Bellevue to Overlake Transit Center); and Segment E, Downtown Redmond (Overlake Transit Center to Downtown Redmond). Alternatives considered include 24 build alternatives (one in Segment A, six in Segment B, ten in Segment C, four in Segment D, and three in Segment E), the No Build Alternative, and four maintenance facility alternatives (three in Segment D and one in Segment E). Each alternative route includes one to four stations; a total of 19 station alternatives, some with multiple location options, exist in the five segments. The segment alternatives would be linked to create a complete, operable light rail system that would connect with the Central Link light rail system at the Chinatown/International District Station in downtown Seattle. The East Link Project might be constructed in phases, depending on available funding or other factors. Sound Transit anticipates that any station including and beyond the last station in Segment C could be considered an interim station.

Project Proponent

Sound Transit (Central Puget Sound Regional Transit Authority)
Union Station
401 South Jackson Street
Seattle, Washington 98104
www.soundtransit.org

Dates of Construction and Opening

Sound Transit plans to begin construction of East Link by 2015, with operations underway between 2022 and 2023. Segment E to Downtown Redmond would be constructed after 2023.

State Environmental Policy Act (SEPA) Lead Agencies

Sound Transit: Nominal Lead Agency
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Seattle, Washington 98104
www.soundtransit.org

Washington State Department of Transportation (WSDOT): Co-Lead Agency
401 Second Avenue South, Suite 300
Seattle, Washington 98104
www.wsdot.wa.gov

National Environmental Policy Act (NEPA) Lead Agency

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Seattle, Washington 98174-1002
www.fta.dot.gov/office/regional/region10/

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Dylan Counts, Sound Transit Liaison
WSDOT Public Transportation Division
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Seattle, Washington 98104

Anticipated Permits and Approvals

Permit or Approval	Issuing Agency
Federal	
Section 106 Review	Federal Transit Administration
Section 4(f) Review	Federal Transit Administration, U.S. Department of Transportation
Section 6(f) Review	U.S. Department of the Interior
Clean Water Act, Section 404 and Section 10	U.S. Army Corps of Engineers
Federal Endangered Species Act Review	U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries Service
Interchange Justification Report	Federal Highway Administration
Airspace Lease for Use of Interstate Right-of-Way	Federal Highway Administration
Breaks-in-Limited Access	Federal Highway Administration
Conversion of highway travel lanes to transit only	Federal Highway Administration
State and County	
Hydraulic Project Approval	Washington Department of Fish and Wildlife
Aquatic Use Authorization: Aquatic Lease	Washington Department of Natural Resources
Public Utility Commission Permits	Washington Public Utility Commission
Section 106 Review	Washington State Department of Archaeology and Historic Preservation
National Pollution Discharge Elimination System Stormwater Discharge Permit	Washington State Department of Ecology
Coastal Zone Management Consistency Certification	Washington State Department of Ecology
Temporary Modification of Water Quality Criteria	Washington State Department of Ecology

Permit or Approval	Issuing Agency
Underground Storage Tank Notification Requirement	Washington State Department of Ecology
Water Quality Certification: Section 401	Washington State Department of Ecology
Air Space Lease: Interstate or State Routes	Washington State Department of Transportation
Cities	
Shoreline Permits	Cities of Seattle, Mercer Island, Bellevue, Redmond
Street Use Permits	Cities of Bellevue and Redmond
Construction Permits	Cities of Seattle, Mercer Island, Bellevue, Redmond
Right-of-Way Permits or Franchise for Use of City Right-of-Way	Cities of Bellevue, Redmond and Port of Seattle
Environmental Critical Areas/Sensitive Areas Review	Cities of Bellevue and Redmond
Development Permits	Cities of Bellevue and Redmond
Noise Variance	Cities of Seattle, Mercer Island, Bellevue and Redmond
Street Vacations	Cities of Bellevue and Redmond
Certificates of Approval	Cities of Seattle and Redmond Landmark Preservation Boards
Other	
Various Approvals: Planning, Design Review, and Arts Commissions	Cities of Bellevue, Redmond, Seattle, Mercer Island
Notification of Intent to Perform Demolition or Asbestos Removal	Puget Sound Clean Air Agency
Pipeline and Utility Crossing: Permits	Utility Providers
Utility Approvals: Easements and Use Agreements	Utility Providers

Principal Contributors

See Appendix A2, List of Preparers.

Date of Issue of the Final EIS

July 15, 2011

Next Actions

Following publication of the Final EIS, the Sound Transit Board of Directors will make a final decision on the route and station locations to be built for the project. Also, after the Final EIS is published, the Federal Transit Administration (FTA) is expected to issue its Record of Decision (ROD) on the project.

Related Documents

Environmental Documents

- 112th Avenue Light Rail Options Concept Design Report (Sound Transit, June 2010)
- Segment C – Evaluation of Hospital Station Options (Sound Transit, June 2010)
- Final Environmental Impact Statement, Transportation 2040: Metropolitan Transportation Plan for the Central Puget Sound Region (Puget Sound Regional Council, March 2010)
- Downtown Bellevue Light Rail Alternatives Concept Design Report (Sound Transit, February 2010)
- East Link Project Draft and Supplemental Draft EIS (Sound Transit, December 2008; November 2010)
- East Link Project Environmental Scoping Information Report Seattle to Bellevue to Redmond (Sound Transit, August 2006)
- North Link Final Supplemental EIS (Sound Transit, April 7, 2006)
- Regional Transit System Plan Final Supplemental EIS (Sound Transit, June 2005)
- Airport Link Environmental Assessment (EA)/SEPA Addendum (Sound Transit, May 26, 2005)

- I-90 Two-Way Transit and HOV Operations Project Final EIS/ROD (WSDOT and Sound Transit, May 2004)
- Central Link Light Rail Transit Project Environmental Assessment Initial Segment (Sound Transit, February 5, 2002)
- Central Link Light Rail Transit Project Final EIS Addendum Initial Segment (Sound Transit, November 16, 2001)
- Central Link Light Rail Transit Project Final Supplemental EIS, Tukwila Freeway Route (Sound Transit, November 16, 2001)
- Central Link Light Rail Transit Project Final EIS (Sound Transit, November 5, 1999)

Other Documents

- Sound Transit 2: A Mass Transit Guide, The Regional Transit System Plan for Central Puget Sound (Sound Transit, July 2008)
- VISION 2040, 2008 Update (PSRC, April 2008)
- Transportation 2040 (PSRC, May 2010)
- East Corridor High-Capacity Transit Mode Analysis History (Sound Transit, 2006)
- Regional Transit Long-Range Plan (Sound Transit, July 2005)
- East Link Project Sound Transit Board Briefing Book Light Rail Alternatives Seattle to Bellevue to Redmond (Sound Transit, November 2006)
- Coordination Plan, Updated December 2008 (Sound Transit, 2008)
- East Link Light Rail B7/C9T to NE 2nd Portal (B7 – Revised) Alternative: City of Bellevue RP03 – Interim Analysis Report (City of Bellevue, 2011)

Cost and Availability

This Final EIS is available for public review in a variety of formats and locations. The Final EIS is available on the Sound Transit website (www.soundtransit.org/eastlink). The Final EIS is also available on DVD or CD at no cost from Sound Transit. Paper copies of the Final EIS are available for the cost listed below:

- Executive Summary: FREE
- Final EIS: $25.00
- Appendices to Final EIS: $15.00 each
- Conceptual design drawings: $25.00
- Technical background reports: $15.00 each

Copies of the Final EIS and related documents listed above are available for review or purchase at the offices of Sound Transit, Union Station, 401 South Jackson Street, Seattle, Washington 98104. To request any of the documents, please contact Elma Borbe at (206) 398-5445. To review these documents, please call the Sound Transit librarian at (206) 398-5344 during normal business hours (weekdays from 8:00 a.m. to 5:00 p.m.) to arrange an appointment.

Paper copies of the Final EIS documents are also available for review at the following public places:

- Bellevue College Library
- King County Library System
  - Bellevue Regional Library
  - Mercer Island Public Library
  - Redmond Regional Library
- Seattle Public Library branches
  - Downtown Branch
  - International District /Chinatown Branch Library
  - Douglas Truth Branch Library
- University of Washington Library
- Washington State Department of Transportation Library
- Washington State Library

Appeals

Washington State Environmental Policy Act (SEPA) challenges to this Final EIS are governed by Sound Transit Resolution R7-1 and the SEPA rules and regulations (Ch. 43.21C RCW and WAC 197-11-680). Sound Transit Resolution R7-1 is available online at: http://www.soundtransit.org/About-Sound-Transit/Board-of-Directors/Board-archives/Resolutions-archive.xml. (1994-1997 Resolutions)

As provided in Resolution R7-1, appeals of SEPA determinations must be made in writing by filing a letter of appeal and paying the required fee within 14 days following the date the environmental document is issued. Letters of appeal should be addressed to Joni Earl, Chief Executive Officer, Sound Transit, Union Station, 401 South Jackson Street, Seattle, Washington 98104-2826.

For this Final EIS, appeals must be received by Sound Transit on or before 5:00 p.m. on July 29, 2011. Additional details about the appeals process and requirements are set out in Resolution R7-1 and in the SEPA rules and regulations.

Preface

Local, regional, and state agencies have been studying high-capacity transportation alternatives to connect Seattle with the Eastside of King County since the mid-1960s. In 1976, when expansion plans for Interstate 90 (I-90) were stalled, the affected entities of Seattle, Mercer Island, Bellevue, and the Washington State Highway Commission signed a Memorandum Agreement on the Design and Construction of the I-90 bridge, which called for conversion of the center roadway to dedicated transit usage in the future.

In 2004, the Puget Sound Regional Council (PSRC) prepared the *Central Puget Sound Regional High Capacity Transit Corridor Assessment* to establish a basis for more detailed planning studies and environmental analysis. Applying the adopted land use and metropolitan transportation plan, the report found that the cross-lake corridor, connecting the urban centers of Seattle, Bellevue, Overlake and Redmond, had the highest potential for near-term development of high-capacity transit (HCT) alternatives. Sound Transit's updated Long-Range Plan (2006) includes HCT across I-90 serving these urban centers, and the Sound Transit Board has adopted light rail as the mode for this corridor, now referred to as the East Link Project.

Today, much of Central Link is in operation, and Sound Transit is moving forward with the next phase of mass transit improvements in the Puget Sound region, Sound Transit 2 (ST2). ST2 includes construction of the East Link Project, which is an extension of light rail service from Seattle to Mercer Island, Bellevue, and Redmond via I-90. The ST2 plan funds East Link construction to the Overlake Transit Center in Redmond and provides for environmental review and preliminary engineering from Overlake Transit Center to Downtown Redmond.

Sound Transit, together with the Federal Transit Administration (FTA) and Washington State Department of Transportation (WSDOT), have prepared this Final Environmental Impact Statement (EIS) for the East Link Project in compliance with the National Environmental Policy Act (NEPA), and the Washington State Environmental Policy Act (SEPA). This Final EIS does the following:

- Describes the alternatives and their potential impacts

Aerial of East Link Corridor

- Provides environmental information to assist decision-makers in selecting the project to be built
- Identifies measures to avoid and minimize impacts and, when necessary, compensate for adverse impacts
- Considers cumulative impacts as part of the environmental review process
- Provides information for other environmental processes, including compliance with the following:
  - Endangered Species Act
  - Section 106 of the National Historic Preservation Act of 1966
  - Section 4(f) of the Department of Transportation Act of 1966, 49 United States Code (U.S.C.) 303
  - Section 6(f) of the Land and Water Conservation Funds Act
  - Executive Order 12898 – Environmental Justice

The scope of environmental review and the range of alternatives evaluated in the Final EIS respond to the following: public and agency comments received during the public scoping process that began in September 2006; public and agency comments received on the 2008 Draft EIS and the 2010 Supplemental Draft EIS (SDEIS); and feedback from the public and agencies received through community workshops, briefings, stakeholder presentations, and

agency coordination meetings held since the environmental review process began.

In order to comply with NEPA and SEPA and to enhance readability, this Final EIS focuses on the most relevant information regarding project definition, potential adverse impacts, and trade-offs among alternatives. The study area for the Final EIS varies by topic and is described within each section of the document, as appropriate. The Final EIS is organized as follows:

The **Executive Summary** is a separately bound condensed version of the overall document that briefly describes the purpose and need for the project, the project's goals and objectives, and the alternatives being considered. It presents the major impacts for each alternative and potential mitigation, reviews the project's financial characteristics, and provides a brief comparison of the different alternatives. The Executive Summary concludes by identifying the major conclusions, areas of uncertainty, and the project's next steps.

Chapter 1, Purpose and Need, describes the project's purpose and need, background, and goals and objectives.

Chapter 2, Alternatives Considered, describes the alternatives that are studied in this Final EIS. It also presents the history of selecting light rail as the mode of transit and identifies the process used to refine the range of potential project alternatives to the set studied in the Final EIS. This chapter provides a review of construction activities and a comparison of cost estimates by alternative. It concludes by explaining the project's planning and decision-making context, including the major steps in the environmental evaluation and project development process.

Chapter 3, Transportation Environment and Consequences, describes the potentially affected existing and future regional and local transportation system and identifies how the project alternatives could affect that system. It then describes potential strategies to reduce or eliminate transportation impacts. The transportation system elements include transit, highways, arterials, local streets, nonmotorized facilities, freight traffic, and navigable waterways.

Chapter 4, Affected Environment and Environmental Consequences, describes the potentially affected environmental conditions (built and natural) in the study area, explains the impacts from construction and operation of the project alternatives, and describes avoidance and minimization measures. Finally, when adverse impacts cannot be avoided, mitigation is identified as appropriate. This chapter includes the following environmental elements:

- Acquisitions, displacements, and relocations
- Land Use
- Economics
- Social impacts, community facilities, and neighborhoods
- Visual and aesthetic resources
- Air quality
- Noise and vibration
- Ecosystem resources (aquatic resources, vegetation and wildlife, and wetlands)
- Water resources
- Energy
- Geology and soils
- Hazardous materials
- Electromagnetic fields
- Public services
- Utilities
- Historic and archaeological resources
- Parklands and open space

Chapter 5, Cumulative Impacts, describes relevant past, present, and reasonably foreseeable actions and projects in or around the project vicinity and the cumulative impact of the proposed alternatives on each element of the environment.

Chapter 6, Alternatives Evaluation, compares the project alternatives in terms of how effectively they meet the project's goals and objectives.

Chapter 7, Comments and Responses, provides a summary of responses to public and agency comments received on the 2008 Draft EIS and the 2010 SDEIS and responses to common public and agency comments.

Appendices A to **K** provide additional details on the project and Final EIS process. **Appendices A** to **E** and **I**, attached to the main volume of the Final EIS, include document support information (references, lists of preparers and recipients, and acronyms and glossary), public involvement and agency coordination documentation, federally required reports on environmental justice and Section 4(f) and 6(f) resources (park and recreation areas, wildlife refuges, historic sites, and any facilities that have received Land and Water Conservation Act funding), and an operating plan summary; **Appendix I** presents the preliminary mitigation measures and environmental commitments that will be implemented for the

Preferred Alternative identified in the Final EIS. **Appendices F, G2,** and **G3** are separately bound technical appendices related to the affected environment and environmental consequences analyses (materials in **Appendix F** are numbered to match their corresponding environmental elements in **Chapter 4**). **Appendix G2** includes list and maps of all potentially affected parcels, and **Appendix G3** includes a list and maps with general locations for documented hazardous materials sites. **Appendix G1** is a separate large-format document containing conceptual design drawings. **Appendix H**, also bound in separate volumes, contains detailed technical reports prepared for transportation, noise and vibration, ecosystems, and historic and archeological resources. **Appendix J**, also bound in four separate volumes, contains copies of public and agency comments received on the 2008 Draft EIS and 2010 SDEIS and responses to those comments. Last, **Appendix K** includes several reports that evaluated various alignment and station configurations in South Bellevue and Downtown Bellevue. This appendix includes studies prepared jointly by Sound Transit and the City of Bellevue, as well as the City of Bellevue's analysis of their B7R option, which includes potential modifications to the B7 alternative.

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- F4.6 Washington State Intersection Screening Tool (Version 2.0) and Greenhouse Gas Estimating Methodologies and Results
- F4.9 Impervious Areas and Stormwater Facilities
- F4.11 Geologic Unit Summaries, Hazard Areas, and Boring Locations
- F4.17 Park and Recreational Resources Inventory
- F5 Reasonably Foreseeable Future Actions in Study Area

G East Link Maps and Drawings *(under separate cover)*

- G1 Conceptual Design Drawings *(under separate cover)*
- G2 Potentially Affected Parcels by Alternative
- G3 Hazardous Material Sites

H Technical Background Reports *(each under separate cover)*

- H1 Transportation Technical Report
- H2 Noise and Vibration Technical Report
- H3 Ecosystems Technical Report
- H4 Historic and Archaeological Resources Technical Report

I Mitigation Plan

J Comments and Responses *(under separate cover)*

K Design Reports for Alternatives in City of Bellevue *(under separate cover)*