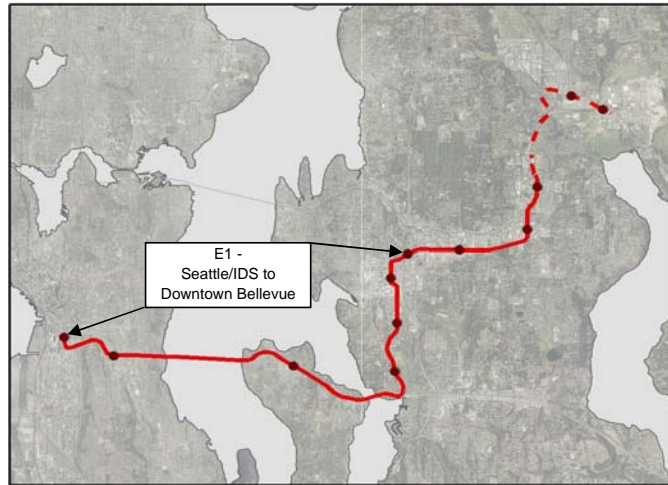


# Link LRT: Seattle to Downtown Bellevue

Project Number	E1
Subarea	East King
Primary Mode Impacted	Link
Facility Type	Link Service
Version Number	4.0
Date Last Modified	5/24/2007

Project Locator Map



## Short Project Description

Construct an East Link project from downtown Seattle to downtown Bellevue and Overlake Hospital via I-90. East Link would connect to Central Link at the International District Station in Seattle and provide stations on I-90 at Rainier Avenue and Mercer Island. In Bellevue, this segment of East Link would have three to four stations which would serve a regional park-and-ride, downtown Bellevue, and Overlake Hospital. The alignment and station locations will be determined through project level design and environmental review. Cost estimates for both aerial and underground alignments in downtown Bellevue are presented here. This project is an 11.4 mile component of the total proposed LRT line from Seattle to Redmond via I-90 and downtown Bellevue.

**Project Purpose:** Provide reliable High Capacity Transit (HCT) within its own ROW from Seattle to east of downtown Bellevue.

## Cost

*in Millions of 2006\$*

### Alignment incl. underground component cost

	Low	High
Agency Admin	\$97.0	\$111.6
Environmental Clearances and PE	\$60.5	\$69.6
Final Design, Specs, Permitting	\$151.2	\$173.9
ROW Acquisition	\$92.5	\$106.4
Construction	\$1,312.6	\$1,509.5
Vehicles	Not Included	Not Included
Contingency	\$162.0	\$186.3
<b>Total Cost</b>	<b>\$1,875.8</b>	<b>\$2,157.2</b>

### Alignment incl. aerial component cost

	Low	High
Agency Admin	\$75.9	\$87.3
Environmental Clearances and PE	\$41.8	\$48.0
Final Design, Specs, Permitting	\$104.4	\$120.1
ROW Acquisition	\$212.1	\$243.9
Construction	\$906.5	\$1,042.5
Vehicles	Not Included	Not Included
Contingency	\$124.6	\$143.2
<b>Total Cost</b>	<b>\$1,465.2</b>	<b>\$1,684.9</b>

## Design Basis

Conceptual

## Environmental Documentation Required

- Environmental Impact Statement Required
- Environmental Assessment Required
- Environmental Checklist Required

# Link LRT: Seattle to Downtown Bellevue

## Relationships to Other Projects

<i>Relationship</i>	<i>Project</i>
Dependent on	Construction and implementation of the I-90 R8-A Alternative
Dependent on	D2 Ramp Structural Modifications
Dependent on	I-90 Floating Bridge Structural Modifications
Dependent on	D2 Ramp and I-90 center roadway converted to exclusive light rail use
Dependent on	East Channel Bridge Structural Modifications
Dependent on	Completion of Central Link
Dependent on	Construction of the Maintenance Facility and Vehicle Purchase (SYS-LRT)
Impacted by	Ridership and bus service routing impact by the SR 520 Bridge Replacement Project

## Project Partners

### Agency

WSDOT
KC Metro
City of Bellevue
City of Seattle
City of Mercer Island

## Long Description

*This capital project scope and the companion capital cost estimate are intended to include the entire project development cycle (agency and project administration, environmental clearance, design, all aspects of property acquisition permits, agreements, construction, testing, commissioning and contingencies) from project initiation through the start-up of operations.*

At this stage of project development, a representative alignment was used to develop a cost estimate. The final alignment and station locations would be determined through project level design and environmental review. The base cost estimate includes design allowance contingency, construction change order contingency, and unallocated contingency.

### Assumptions:

- R-8A Project on I-90 will be completed
- Existing I-90 bridge structures can be modified to carry light rail operations
- D-2 ramp and I-90 center roadway are converted to exclusive light rail use
- Fire/life/safety systems and ventilation facilities will be constructed for light rail operations within existing I-90 tunnel and lids
- Existing Bellevue Transit Center provides bus transfer facilities in downtown Bellevue
- Track will be installed using direct fixation
- Modifications to Central Link are generally limited to track, signals, systems and signage work at International District Station
- Maintenance facility, LRT vehicles, and operations costs are included on project description SYS-LRT

### Representative Alignment Project Elements:

Alignment facilities between Seattle and South Bellevue:

- 6.9 miles of alignment on I-90

Alignment facilities between South Bellevue and Overlake Hospital:

- 4.3 miles of new aerial alignment for elevated alternative through downtown Bellevue; OR 2.7 miles of new aerial alignment and 1.8 miles new underground alignment for subway alternative through downtown Bellevue
- Lead track to the maintenance facility site

Station facilities:

- Two at-grade stations on I-90 center roadway at Rainier Avenue and Mercer Island
- Four new stations in Bellevue (four aerial with elevated alternative through downtown and two aerial and two underground with subway)
- up to 1,420 structured parking stalls built at existing surface park-and-ride
- kiss-and-ride facilities at up to three stations
- new local bus transfer facilities (four bays) at up to two stations
- 1% of station construction cost to be allocated for art

### Utilities:

Utility investigations have not been carried out. Relocation of standard utilities along the alignment has been assumed as part of the scope and has been estimated using an average per route-foot allowance.

### ROW:

Property interests required for the prototypical alignment include fee acquisitions, partial takes, easements and interagency agreements. Right-of-way requirements include construction staging and contractor laydown areas. No specific provisions are made for contractor parking. Cost estimates include associated relocation, administration and legal costs, and contingency.

## Link LRT: Seattle to Downtown Bellevue

### Mitigation:

The final project scope will include all mitigation(s) committed to by ST in pertinent, future project-level environmental documents.

### Exclusions:

- Maintenance facility, LRT vehicles, and operations will be costed separately (refer to project description SYS-LRT)
- Non-structural architectural and aesthetic elements in excess of the ST art program
- R8-A funding requirements
- Grade separated pedestrian crossings of arterials
- Costs for WSDOT-owned ROW

### Permits:

WSDOT agreements for:

- Transit operations along the D2 Ramps
- Transit operations on I-90 center guideway and associated bridges
- Transit operations on the I-90 East Channel Bridge
- Removal of the HOV connection from I-90 to South Bellevue Way
- Under or over crossing of I-405

BNSF easement:

- For aerial crossing of BNSF
- For underground crossing of BNSF
- Access to the maintenance facility right-of-way requirements

City of Bellevue agreements:

- Transitway agreement to operate within the city streets
- Station Permits

Others:

- Potential operating agreement with King County Metro
- City of Seattle permit for Rainier Avenue Station and connection to Central Link
- Mercer Island permit for Mercer Island Station

### Project Dependencies:

- Construction and implementation of the I-90 R8-A Alternative
- D2 Ramp structural modifications
- I-90 Floating Bridge structural modifications
- East Channel Bridge modifications
- Completion of Central Link
- Maintenance facility, LRT vehicles, and operations (refer to project description SYS-LRT)

*ST has developed scope definitions for ST2 project proposals for the purposes of developing cost estimates, phasing of investments, a financial plan, and the estimation of project benefits. This scope definition should not be construed as a commitment that all defined features will be included in the final developed project.*

## Evaluation Measures

<b>Measure</b>	<b>Measurement/ Rating</b>	<b>Notes</b>
Average Weekday Ridership	N/A	See light rail system ridership estimates
Capital Cost (Underground Align.)	\$1,875.8 - \$2,157.2	in Millions of 2006\$
Capital Cost (Aerial Align.)	\$1,465.2 - \$1,684.9	in Millions of 2006\$
Annual Operating Cost	N/A	See LRT maintenance base, vehicles and operations project (SYS-LRT)
Travel Time & Reliability	High	
Connectivity & Integration	High	
Land Use & Development	High	
Customer Experience	High	
Risk Avoidance	Low	

## Link LRT: Seattle to Downtown Bellevue

### Key Issues and Benefits

#### Issues:

- Alignment between I-90 and downtown Bellevue will be determined through project level design and environmental review
- Aerial or subway alignment through downtown Bellevue
- ROW along the alignment
- BNSF interface
- Conversion of D-2 ramp and I-90 center roadway to exclusive light rail use
- Park-and-ride capacity
- Potential wetland, parkland, and historic impacts
- Environmental mitigation

#### Benefits:

- Provide exclusive right-of-way transit between downtown Seattle and downtown Bellevue, which are the two highest density employment centers in the region
- Provides direct light rail service between the regional growth centers of Northgate, University District, Capitol Hill, downtown Seattle, and downtown Bellevue
- Supports long range transportation and land use plans
- Increases transit reliability, visibility, and simplicity
- Increases job accessibility, particularly from Seattle to the Eastside
- Increases accessibility to special events in Seattle and Bellevue