

# Enhanced Transit: Connection between Downtown Seattle and Capitol Hill Station via First Hill - Madison Corridor (Seattle)

Project Number	N7b
Subarea	North King
Primary Mode Impacted	Link
Facility Type	Link Service
Version Number	2.0
Date Last Modified	5/23/2006

Project Locator Map



## Short Project Description

Enhance transit service connections between First Hill, the Central Link light rail line, and downtown Seattle transit hubs with bus transit improvements in the Madison Street corridor.

**Project Purpose:** increase regional transit accessibility to First Hill.

## Cost and Schedule

Cost (in Millions of 2005\$)

Schedule

Option 1 - BAT Lanes	Low	High
Agency Admin	\$1.2	\$1.3
Environmental Clearance and PE	\$0.8	\$0.9
Final Design, Specs, Permitting	\$0.8	\$0.9
ROW Acquisition	\$0.8	\$1.0
Construction	\$6.6	\$7.5
Vehicles	\$8.8	\$10.1
Contingency	\$1.8	\$2.0
<b>Total</b>	<b>\$20.7</b>	<b>\$23.8</b>

Proposed Schedule Not Yet Developed

Annual O&M	\$2.5
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Option 2 - Reduce to 4 lanes	Low	High
Agency Admin	\$1.2	\$1.4
Environmental Clearance and PE	\$0.8	\$1.0
Final Design, Specs, Permitting	\$0.8	\$1.0
ROW Acquisition	\$0.9	\$1.0
Construction	\$7.0	\$8.0
Vehicles	\$8.8	\$10.1
Contingency	\$1.8	\$2.1
<b>Total</b>	<b>\$21.4</b>	<b>\$24.6</b>

Annual O&M	\$2.5
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Design Basis	Conceptual
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## Environmental Documentation Required

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

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## Relationships to Other Projects

**Relationship**

**Project**

Relationship	Project

## Project Partners

City of Seattle DOT

King County Metro

## 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 the revenue operations.*

This project would enhance transit service connections between First Hill, the Central Link light rail line, and downtown Seattle transit hubs with bus transit improvements in the Madison Street corridor. Two options were considered for this corridor:

1. Business Access Transit-only lanes 1st Avenue to Broadway, with eastbound bus-only contraflow lane from 1st Ave to 6th Ave
2. Removal of center two-way left-turn lane, wider travel lanes and sidewalks from 8th Ave to Summit Ave, with eastbound bus-only contraflow lane from 1st Ave to 6th Ave

### Project Elements Included:

- Removal of on-street parking from 1st Ave to Broadway
- Transit signal priority at 8 intersections
- Transit-only signal phase at one intersection
- 1 percent for art per ST policy
- 5 minute peak headways, 10 minute off-peak and weekends, 20 hours per day, 7 days per week
- 11 40-ft electric trolley coaches, including spares
- Enhanced shelters with real-time passenger information at all stops
- Bus-only eastbound contraflow lane from 1st Ave to 6th Ave
- Trolley wire extension one block each of Madison Street, Western Ave, and Marion Street, and on Madison Street from 1st Ave to 6th Ave
- Traction power system upgrade near Broadway and Madison
- Option 1 only: curbside BAT lanes from 6th Ave to Broadway
- Option 2 only: removal of center turn lane from 8th Ave to Broadway, with widened auto travel lanes and sidewalks

### Utilities:

- Electrical

### Right of-Way and Property Acquisition:

- Miscellaneous easements

### Mitigation:

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

### Exclusions:

- Non-structural architectural and aesthetic elements in excess of the ST art program
- Replacement of displaced on-street parking
- Grade-separated pedestrian crossings
- Other stop (station) and trackway components and amenities not specifically included
- Utility undergrounding
- Street, sidewalk and utility upgrades or betterments not directly needed to support bus facilities and operations
- Maintenance base expansion for fleet additions

### Permits Required:

- Building, electrical, mechanical, utility, construction-related

### Agreements Required:

- City of Seattle
- King County Metro

*ST has developed scope definitions for ST2 project proposals for the purposes of developing cost estimates, implementation schedules, 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.*

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## Evaluation Measures

<i>Measure</i>	<i>Measurement/ Rating</i>	<i>Notes</i>
Average Weekday Ridership	2,000	
Capital Cost (Option 1)	\$20.7 - \$23.8	in Millions of 2005\$
Capital Cost (Option 2)	\$21.4 - \$24.6	in Millions of 2005\$
Annual Operating Cost (Option 1)	\$2.5	in Millions of 2005\$
Annual Operating Cost (Option 2)	\$2.5	in Millions of 2005\$
Travel Time & Reliability	Medium	
Connectivity & Integration	Medium	
Land Use & Development	High	
Customer Experience	Medium	
Risk Avoidance	High	

## Key Issues and Benefits

### Issues

- Project scope includes adding service to an existing King County bus route (Route 12) to provide more capacity and greater frequency in the corridor. Estimated operating costs shown are incremental, including an assumed split from the Route 10 and use of a new turnaround in downtown Seattle via Western Avenue.
- Ridership forecast shown above is total daily boardings after adding more frequent service between new terminal on Western and existing turnback at 15th and Madison.
- Project capital cost is roughly split 50/50 across investments supporting higher service level and changes made to streets and signals to improve travel speed. Reliability is improved by both actions.

### Benefits

- Improves speed, reliability and service level of transit connections between the First Hill neighborhood and downtown Seattle, in lieu of a station on the regional light rail line.
- Ease of use may improve due to consolidating both directions of travel onto Madison Street in downtown.