

**SOUND TRANSIT  
STAFF REPORT**

**MOTION NO. M2006-87**

**Identify East Link Light Rail Route Alternatives to be Studied in a Draft EIS**

<b>Meeting:</b>	<b>Date:</b>	<b>Type of Action:</b>	<b>Staff Contact:</b>	<b>Phone:</b>
Board Meeting	12/14/06	Discussion/Possible Action	Ahmad Fazel, Link Director Mike Williams, Project Development Manager <b>Don Billen, East Link Project Manager</b>	(206) 398-5389 (206) 398-5145  (206) 398-5052

<b>Contract/Agreement Type:</b>	✓	<b>Requested Action:</b>	✓
Competitive Procurement		Execute New Contract/Agreement	
Sole Source		Amend Existing Contract/Agreement	
Agreement with Other Jurisdiction(s)		Budget Amendment	
Real Estate		Property Acquisition	

**PROJECT NAME**

East Corridor Phase 2 Planning

**PROPOSED ACTION**

Identify the light rail routes, stations, and maintenance facility alternatives to be studied in detail in the East Link draft Environmental Impact Statement

**KEY FEATURES of PROPOSED ACTION**

- This action seeks Board identification of the light rail routes, stations, and maintenance facility alternatives to study in detail in the draft Environmental Impact Statement (draft EIS). At the November 9, 2006 Board meeting, staff briefed the Board on the evaluation of route alternatives and maintenance facility locations for the East Link project. Staff also briefed the Board on the results of the public and agency scoping process.
- Alternatives identified for further study will generally be developed to a conceptual engineering level of design, 5% to 10% and analyzed in the draft EIS. During conceptual engineering, alignment, station, and maintenance facility locations will be refined within the general routes and station areas identified in the November 2006 East Link Project Sound Transit Board Briefing Book: Light Rail Alternatives.
- During the design and environmental review of the routes advanced, route and station development workshops will be held to engage affected communities in the project development process and get feedback on alignment and station location design issues. Sound Transit will also seek to avoid, minimize, or mitigate potential impacts of the project as design progresses.
- The routes, stations and maintenance facility alternatives for consideration are:

## **Segment A**

There is one route alternative between downtown Seattle and Bellevue. The route begins in the existing Downtown Seattle Transit Tunnel and connects to the Central Link light rail system at the Chinatown/International District Station. It enters I-90 via the existing D2 roadway, a high occupancy vehicle (HOV) ramp between downtown Seattle and Rainier Avenue. The route is in the center reversible lanes of I-90 across Lake Washington and Mercer Island.

## **Segment B: I-90 to Downtown Bellevue:**

Options to identify for detailed study in the draft EIS & conceptual engineering:

- Alternative B1: Bellevue Way
- Alternative B2-A: Bellevue Way SE/112<sup>th</sup> Avenue SE At-grade
- Alternative B2-E: Bellevue Way SE/112<sup>th</sup> Avenue SE Elevated
- Alternative B3: Bellevue Way/I-405
- Alternative B4: 118<sup>th</sup>/112<sup>th</sup>
- Alternative B5: 118<sup>th</sup>/I-405
- Alternative B6: BNSF/112<sup>th</sup>
- Alternative B7: BNSF/I-405

## **Segment C: Downtown Bellevue to Overlake Hospital**

Options to identify for detailed study in the draft EIS & conceptual engineering:

- Alternative C1-T: Bellevue Way/NE 6<sup>th</sup> Street Tunnel
- Alternative C2-T: 106<sup>th</sup> Avenue NE Tunnel
- Alternative C3-T: Bellevue 108<sup>th</sup> Avenue NE Tunnel
- Alternative C4-A: 108<sup>th</sup> and 110<sup>th</sup> Avenues NE At-Grade Couplet
- Alternative C7-E: 112<sup>th</sup> Avenue NE Elevated
- Alternative C8-E: 110<sup>th</sup> Avenue NE Elevated

The following alternatives were studied but precluded during early project development by construction starting on a 400,000 square foot residential tower in the path of the route and are not recommended for further study:

- Alternative C5-E: 110<sup>th</sup> Avenue NE/NE 7<sup>th</sup> Street Elevated
- Alternative C6-A: 110<sup>th</sup> Avenue NE At-Grade/NE 7<sup>th</sup> Street Elevated

## **Segment D: Downtown Bellevue to Overlake Transit Center**

Options to identify for detailed study in the draft EIS & conceptual engineering:

- Alternative D1: NE Bellevue-Redmond Road
- Alternative D2-A: NE 16<sup>th</sup> Street/SR 520 to Overlake At-Grade\*
- Alternative D2-E: NE 16<sup>th</sup> Street/SR 520 to Overlake Elevated\*

- Alternative D3: NE 16<sup>th</sup> Street/NE 20<sup>th</sup> Street to Overlake\*
- Alternative D4: NE 16<sup>th</sup> Street/Bel-Red Road to Overlake\*
- Alternative D5: BNSF/SR 520 to Overlake

\* A potential station at NE 16<sup>th</sup>/122<sup>nd</sup> is recommended for study with Alternatives D2, D3, and D4.

### **Segment E: Overlake Transit Center to Downtown Redmond**

Options to identify for detailed study in the draft EIS & conceptual engineering:

- Alternative E1: Redmond Way
- Alternative E2: Marymoor Park\*
- Alternative E3: Bear Creek
- Alternative E4: Leary Way

\*An option to terminate at the Redmond Town Center Station, rather than continuing to the Redmond Park-and-Ride, is recommended for study with Alternative E2 in order to increase cost-effectiveness and reduce impacts.

### **Maintenance Facility**

Options to identify for detailed study in the draft EIS & conceptual engineering:

- MF-1: 116<sup>th</sup> Avenue NE
- MF-2: BNSF
- MF-3: SR 520
- MF-4: NE 136<sup>th</sup> Place
- MF-5: Redmond

### **BUDGET IMPACT SUMMARY**

Identification of the light rail alternatives does not create an immediate budget impact. However, beginning preparation of the draft EIS for East Link is dependent upon approval of the 2007 Budget with a new Transit Vision project titled East Corridor Phase 2 Planning; within the East King County subarea. Assuming approval of the East Corridor Phase 2 Planning budget, staff will return to the Board in January 2007 to seek authority for consultant support required for conceptual engineering and preparation of the draft EIS. The amount of contract authority requested will be affected by the number of alternatives identified for further study in this action.

### **M/W/DBE – SMALL BUSINESS PARTICIPATION**

Not applicable to this action.

## **PROJECT DESCRIPTION and BACKGROUND for PROPOSED ACTION**

The East Link project is a potential ST2 project to provide light rail transit between Seattle, Bellevue, and Redmond via I-90 and Mercer Island. Within ST2, the eastern limits of the project may be in Bellevue or Redmond. The project also includes a light rail operations and maintenance facility.

On June 1, 2005, Sound Transit released a Supplemental Environmental Impact Statement (Supplemental EIS) to update its plan-level environmental analysis and to inform regional transit project decisions. Like the 1993 EIS which it supplements, the 2005 Supplemental EIS provides plan-level environmental review to be followed, as appropriate, by more detailed project-level environmental review for specific project elements.

In July 2005 following the completion of appropriate planning studies, the Sound Transit Board designated Seattle to Redmond via I-90 and Bellevue as a light rail or rail convertible bus rapid transit corridor in the Regional Transit Long Range Vision. In September 2005, Sound Transit and the Washington State Department of Transportation (WSDOT) conducted a load test on the I-90 Bridge over three days. This full-scale test was launched to provide additional information to complement and affirm modeling work and structural analyses prepared by WSDOT consulting engineers in 2001 which showed that the bridge is capable of carrying Sound Transit's light rail system. Results of this load test confirmed previous findings.

In addition to the load test, several other studies were prepared, including a planning level analysis on the feasibility of the "rail joint" necessary for the construction and operation of light rail on the I-90 floating bridge, a WSDOT report detailing future congestion on I-90 and the projected traffic effects on I-90 resulting from converting the center roadway to exclusive transit use, and a high-level historical review of the more than 40 years of planning studies and agreements relevant to the I-90 corridor between the Eastside and Seattle.

In May 2006, the Finance Committee authorized the chief executive officer to execute a contract with CH2M Hill to provide engineering, environmental, and public outreach services for the Phase II East Corridor High Capacity Transit planning. Subsequently, staff initiated NEPA/SEPA project-level environmental review, route, station, and maintenance facility screening, and project-level public involvement in the corridor.

In July 2006 following the review of the planning and other studies described above, the Board identified light rail as the preferred mode in the Seattle to Redmond via I-90 corridor. Light rail provides the highest level of ridership and the shortest travel time of all the modes evaluated in the corridor and provides a higher level of system integration, because East Link light rail will be interlined with northbound Central Link light rail in downtown Seattle.

Evaluation of the alternative project routes, stations, and maintenance facility locations identified by the Board will be conducted in cooperation with the Federal Transit Administration (FTA). Before committing federal funds to the East Link project, the FTA is required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA). As the public agency proposing the East Link project, Sound Transit is required to comply with the State Environmental Policy Act (SEPA). The FTA, as the federal lead agency under NEPA, and Sound Transit, as the state lead agency under SEPA, have determined that alternative routes and stations in the project may have probable significant adverse environmental impacts. The Washington State Department of Transportation (WSDOT) is also expected to be a SEPA co-

lead agency. To satisfy both NEPA and SEPA requirements, the agencies are preparing a combined NEPA/SEPA EIS for the project.

For this project-level EIS, a scoping process took place to receive comments on the project's proposed purpose and need, range of alternatives and impacts to be discussed in the draft EIS. The scoping comment period for the East Link project ended October 2, 2006. The process involved a 30-day comment period, four scoping open houses, and an agency scoping meeting, where the public had the opportunity to review possible route alternatives and provide comments. Those comments were considered in further defining the route alternatives being brought before the Board for consideration.

At the November 9, 2006 Board meeting, staff briefed the Board on the evaluation of route alternatives and maintenance facility locations for the East Link project. Staff has also provided the Board with information on cost factors, environmental impacts, and transportation service of the various route and maintenance facility alternatives. This action seeks Board identification of the light rail routes, stations, and maintenance facility alternatives to study in detail in the draft EIS.

#### **Prior Board/Committee Actions on this Project and Relevant Board Policies**

<b>Motion or Resolution Number</b>	<b>Summary of Action</b>	<b>Date of Action</b>
R2006-15	Identifying light rail as the preferred high capacity transit mode in the Seattle to Bellevue to Redmond via I-90 corridor	7/13/06
M2006-39	Authorizing the Chief Executive Officer to execute a contract to provide the first portion of engineering, environmental, and public outreach services of a multi-part project with CH2M Hill for the Phase II East Corridor High Capacity Transit project	5/4/06
M2005-86	Task Order with Washington Department of Transportation for light rail simulation on the I-90 Floating Bridge	7/28/05
R2005-18	Amending the Adopted 2005 Budget for High Capacity Transit Phase 2 Planning for payment to the Washington State Department of Transportation for light rail simulation on the I-90 Floating Bridge	7/28/05
R2005-14	Adoption of the Regional Transit Long-Range Plan designating Seattle to Redmond via I-90 and Bellevue as light rail or rail convertible bus rapid transit	7/7/05
M2005-19	Executed Agreement GCA 3536 Task Order #12 with the Washington State Department of Transportation for design services for Stage 1 of the I-90 Two-Way Transit and HOV Operations project.	5/18/05
M2004-63	Authorized the Chief Executive Officer to enter into an amendment to the I-90 Memorandum Agreement.	8/12/04
R2004-09	Amended Sound Move to provide for Two-Way Transit and HOV Operations in the outer roadways of I-90 and to select Alternative R-8A as the project to be built.	8/12/04
M2003-120	Directed staff to negotiate an amendment to the Memorandum Agreement for I-90 to define the guiding principles for the ultimate configuration of the I-90 roadway with HCT in the center roadway.	11/13/03
M2003-99	Identified Alternative R-8A as the preferred alternative for the I-90 Two-Way Transit and HOV Operations Project.	11/13/03
Resolution 73	Adoption of the Regional Transit Long-Range Vision identifying the I-90/East Corridor as a potential rail extension	5/31/96

## **CONSEQUENCES of DELAY**

A delay would lead staff to defer the start of detailed study of light rail routes, stations and maintenance facility alternatives until the Board identifies which alternatives to study.

## **PUBLIC INVOLVEMENT**

The scoping comment period for the East Link project EIS ended on October 2, 2006. The process involved a comment period, four scoping open houses, and an agency scoping meeting where the public had the opportunity to review possible route alternatives and provide comments. Two of the scoping meetings were held in conjunction with ST2 open houses in Seattle and Bellevue. Sound Transit also held a public meeting at Bellevue City Hall on September 27, 2006 to further inform Bellevue neighborhoods about the South Bellevue routes and solicit public comments.

A summary report of all scoping comments has been provided to the Board. Those comments were considered in further defining the route alternatives being brought before the Board for consideration and will also be used to refine designs during conceptual engineering. In some cases, routes were suggested that after review did not meet project objectives or Sound Transit tunneling criteria. While considered, these routes were generally not developed to the same level of design as the routes presented in the November 2006 East Link Project Sound Transit Board Briefing Book: Light Rail Alternatives.

Since briefing the Board on November 9, 2006, on the evaluation of route alternatives and maintenance facility locations for the East Link project, staff has also offered briefings to local jurisdiction staff, elected officials, neighborhood groups, and other project stakeholders.

When conceptual engineering begins on the alternatives identified for further study, route and station development workshops will be held to engage affected communities in the project development process and get feedback on alignment and station location design issues.

## **ENVIRONMENTAL COMPLIANCE**

Jl, 12/12/06

## **LEGAL REVIEW**

JW, 12/12/06

## **SOUND TRANSIT**

### **MOTION NO. M2006-87**

A motion of the Board of the Central Puget Sound Regional Transit Authority identifying the light rail routes, stations, and maintenance facility alternatives to be studied in detail in the East Link draft Environmental Impact Statement

#### **Background:**

The East Link project is a potential ST2 project to provide light rail transit between Seattle, Bellevue, and Redmond via I-90 and Mercer Island. Within ST2, the eastern limits of the project may be in Bellevue or Redmond. The project also includes a light rail operations and maintenance facility.

Evaluation of the alternative project routes, stations, and light rail maintenance facility locations identified by the Board will be conducted in cooperation with the Federal Transit Administration (FTA). Before committing federal funds to the East Link project, the FTA is required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA). As the public agency proposing the East Link project, Sound Transit is required to comply with the State Environmental Policy Act (SEPA). The FTA, as the federal lead agency under NEPA, and Sound Transit, as the state lead agency under SEPA, have determined that alternative routes and stations in the project may have probable significant adverse environmental impacts. The Washington State Department of Transportation (WSDOT) is also expected to be a SEPA co-lead agency. To satisfy both NEPA and SEPA requirements, the agencies are preparing a combined NEPA/SEPA EIS for the project.

For this project-level EIS, a scoping process took place to receive comments on the project's proposed purpose and need, range of alternatives and impacts to be discussed in the Draft EIS. The scoping comment period for the East Link project ended October 2, 2006. The process involved a 30-day comment period, four scoping open houses, and an agency scoping meeting where the public had the opportunity to review possible route alternatives and provide comments. Those comments were considered in further defining the route alternatives being brought before the Board for consideration.

At the November 9, 2006 Board meeting, staff briefed the Board on the evaluation of route alternatives and maintenance facility locations for the East Link project. Staff has also provided the Board with information on cost factors, environmental impacts, and transportation service of the various route and maintenance facility alternatives.

#### **Motion:**

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority to study in detail in the draft Environmental Impact Statement the following light rail routes, stations, and maintenance facility alternatives:

## **Segment A**

The route beginning in the existing Downtown Seattle Transit Tunnel and connecting to the Central Link light rail system at the Chinatown/International District Station, which enters I-90 via the existing D2 roadway, a high occupancy vehicle (HOV) ramp between downtown Seattle and Rainier Avenue and in the center reversible lanes of I-90 across Lake Washington and Mercer Island.

## **Segment B: I-90 to Downtown Bellevue:**

- Alternative B1: Bellevue Way
- Alternative B2-A: Bellevue Way SE/112th Avenue SE At-grade
- Alternative B2-E: Bellevue Way SE/112th Avenue SE Elevated
- Alternative B3: Bellevue Way SE/I-405
- Alternative B7: BNSF/I-405

## **Segment C: Downtown Bellevue to Overlake Hospital**

- Alternative C1-T: Bellevue Way SE/NE 6th Street Tunnel
- Alternative C2-T: 106th Avenue NE Tunnel
- Alternative C3-T: 108th Avenue NE Tunnel
- Alternative C4-A: 108th and 110th Avenues NE At-Grade Couplet
- Alternative C7-E: 112th Avenue NE Elevated
- Alternative C8-E: 110th Avenue NE Elevated

## **Segment D: Downtown Bellevue to Overlake Transit Center**

- Alternative D2-A: NE 16th Street/SR 520 to Overlake At-Grade\*
- Alternative D2-E: NE 16th Street/SR 520 to Overlake Elevated\*
- Alternative D3: NE 16th Street/NE 20th Street to Overlake\*
- Alternative D5: BNSF/SR 520 to Overlake

\* A potential station at NE 16th/122nd is added for study with Alternatives D2, D3, and D4.

## **Segment E: Overlake Transit Center to Downtown Redmond**

- Alternative E1: Redmond Way
- Alternative E2: Marymoor Park\*
- Alternative E4: Leary Way

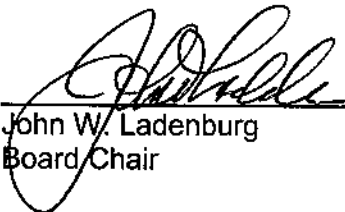
\*An option to terminate at the Redmond Town Center Station, rather than continuing to the Redmond Park-and-Ride, is included for study with Alternative E2.



**Maintenance Facility**

- MF-1: 116th Avenue NE
- MF-2: BNSF
- MF-3: SR 520
- MF-5: Redmond

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on December 14, 2006.



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John W. Ladenburg  
Board Chair

ATTEST:



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Marcia Walker  
Board Administrator