

Express Bus: Transit Signal Priority on SR 161, New Meridian/South Hill Park & Ride, and New Bus Route Serving the Sounder South Corridor

Project Number	S10
Subarea	South King/Pierce
Primary Mode Impacted	ST Express
Facility Type	ST Express Service
Version Number	2.0
Date Last Modified	5/12/2006

Project Locator Map



Short Project Description

New ST Express route connecting South Hill area of Pierce County with SeaTac. The route can also provide access to Sounder stations in Pierce and South King Counties. Service will be supported by transit signal priority treatments along SR 161 and a new park-and-ride facility at SR 161 and 176th.

Project Purpose:

To provide direct regional express bus service from SR 161 to Sounder Stations and Seattle via Airport Link Station.

Cost and Schedule

Cost (in Millions of 2005\$)

<i>TSP Along SR 161</i>	Low	High
Agency Admin	\$0.0	\$0.0
Environmental Clearance and PE	\$0.1	\$0.1
Final Design, Specs, Permitting	\$0.1	\$0.1
ROW Acquisition	\$0.0	\$0.0
Construction	\$0.5	\$0.6
Vehicles	\$0.0	\$0.0
Contingency	\$0.1	\$0.1
Total TSP	\$0.8	\$0.9

Schedule

Proposed Schedule Not Yet Developed

<i>New P & R Lot (SR 161/176th St)</i>	Low	High
Agency Admin	\$0.5	\$0.6
Environmental Clearance and PE	\$0.6	\$0.7
Final Design, Specs, Permitting	\$0.6	\$0.7
ROW Acquisition	\$1.8	\$2.0
Construction	\$5.3	\$6.1
Vehicles	\$0.0	\$0.0
Contingency	\$0.8	\$1.0
Total PNR Lot	\$9.7	\$11.2

Design Basis Conceptual

Buses	\$5.0	\$5.0
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* - Assumes \$500K/bus

Total Capital Items	\$15.5	\$17.0
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Annual O&M*	\$5.8
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* In Millions, 2005\$

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Environmental Documentation Required

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

Relationships to Other Projects

<i>Relationship</i>	<i>Project</i>
Dependent on	
Impacted by	

Project Partners

<i>Agency</i>	
KC Metro	
Pierce Transit	

Long Description

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

Description
 The new route will provide direct (no transfer) service between SR 161 (Meridian)/176th St and SeaTac (Airport Link Station). The route can also provide access to Sounder stations thereby providing a regional link to these stations, including midday's when Sounder is not operating. The new route would serve Sounder stations at Puyallup, Sumner, Auburn, Kent, and Tukwila.

The capital projects supporting the service include transit signal priority (TSP) treatments along SR 161 and a new 300-stall park-and-ride lot located at 176th St and SR 161.

Project Elements Included - Service:
Headways
 Weekday: Peak 30 min/ Midday 30 min/ Evening 30 min / Night 75 min

Annual Service Hours: 55,800

Project Elements Included - Capital:
Bus Needs
 Peak Buses: 8
 Midday Buses: 7
 Spares: 2
 Total Buses: 10

Additional vehicles will be acquired to support the service extension along with required additional maintenance and operations capacity.

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TSP Treatments

Treatments will be at the following six intersections: - 176th / 116th; 160th / 39th; 144th / 37th; 132nd / 35th; 128th / 104th; 120th / 47th.

Transit Signal Priority projects include the following: Signal timing study; design and engineering costs; controller and controller foundation replacement; conduit installation to detector locations; all TSP equipment.

New PNR Lot

New surface park-and-ride lot with up to 300 stalls.

- Park-and-ride lot will be located at the intersection of Meridian E (SR 161) and 176th Street E/Sunrise Boulevard E in the southwest quadrant.
- Access to and from 176th Street E only; no connection to Meridian E.
- Removal of several existing large, mature trees on the site
- New traffic signal on 176th Street E to allow access to the park-and-ride lot.
- Roadway modifications of 176th Street E for left-turn lanes
- Illumination modification of 176th Street E at park-and-ride access
- New illumination system for park-and-ride lot
- Bike storage, lockers and racks
- Curb, gutter and sidewalk along property frontage
- A bus loading area, with shelters and benches for waiting passengers. The bus loading area will accommodate four buses.
- Landscaping
- 1 percent for art per ST policy

Utilities:

For new park-and-ride lot, new drainage system, including water retention and water quality.

Right-of-Way and Property Acquisition:

- For park-and-ride lot, new drainage system including water retention and water quality

Mitigation

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

Exclusions

- Non-structural architectural and aesthetic elements in excess of the ST art program
- Reconstruction of local streets
- Access management plan along project corridor
- Public restrooms at park-and-ride lot
- Expenses for any annual or periodic operating and maintenance of the new facilities; others (e.g. city, county, etc.) will incur these costs.

Permits Required:

Building, electrical, mechanical, utility, land use, and construction-related

Agreements Required:

Pierce Transit, Pierce County

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	1,500	
Capital Cost	\$15.5 - \$17.0	in Millions of 2005\$
Annual Operating Cost	\$5.8	in Millions of 2005\$
Travel Time & Reliability	Medium	
Connectivity & Integration	High	# transit routes: 2 PT, 1 ST (with this project)
Land Use & Development	High	
Customer Experience	Medium	
Risk Avoidance	Medium	

Key Issues and Benefits

Issues:

- Potential site of park-and-ride lot is identified for costing purposes. The site is in an undeveloped parcel currently containing a use that can be difficult to locate (a rifle range.) However, further analysis may produce alternative parcels.

Benefits:

- Routing to Sea-Tac Airport station via Sounder stations provides alternative service for Sounder riders during non-Sounder operation periods by transfer to/from Central Link. Another option for providing this alternative Sounder bus service is described in project S11 - *New Bus Route Serving All Sounder Stations between Tacoma Dome and King Street during Off-Peak Periods.*
- New ST Express service to area currently not served (i.e., area along SR 161 south of Puyallup) a well as new direct connection to airport for Sounder station communities (Kent, Auburn, Sumner and Puyallup) that is not currently available.
- Park-and-ride lot provides access to Pierce Transit bus service and potential new ST Express route, and could act as additional parking for Sounder riders.
- TSP improves speed and reliability for existing Pierce Transit service and for potential future ST Express service operating along SR 161