

# Express Bus: Transit Signal Priority on SR 516 (Kent)

Project Number	S12
Subarea	South King
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

Transit signal priority (TSP) treatments in Kent and HOV queue bypass lane on the SR 167 northbound off-ramp to SR 516.

### Project Purpose:

To provide improved speed and reliability for buses operating between Kent Station and SR 167.

## Cost and Schedule

### Cost (in Millions of 2005\$)

Cost (in Millions)	Low	High
Agency Admin	\$0.1	\$0.1
Environmental Clearance and PE	\$0.1	\$0.2
Final Design, Specs, Permitting	\$0.1	\$0.2
ROW Acquisition	\$0.2	\$0.2
Construction	\$1.2	\$1.4
Vehicles	\$0.0	\$0.0
Contingency	\$0.2	\$0.2
<b>Total</b>	<b>\$2.0</b>	<b>\$2.2</b>

### Schedule

Proposed  
Schedule Not Yet Developed

### Design Basis

Conceptual

## Environmental Documentation Required

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

## Relationships to Other Projects

Relationship	Project
Impacts	Other potential ST2 projects (Sounder Shadow service and Route 565 extension) could utilize the project if implemented (see projects S10, S11, and S14)

## Project Partners

### Agency

WSDOT	
City of Kent	
King County Metro	

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## 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:

This project will construct an HOV queue bypass lane on the SR 167 northbound off-ramp to SR 516 to allow right-turning (eastbound) transit and HOV vehicles to bypass congestion at the intersection. TSP will be installed at 9 locations in downtown Kent to facilitate the movement of transit vehicles. This project will improve transit speed and reliability for ST Express routes operating in the City of Kent between SR 167 and Kent Station.

## Project Elements Included:

- HOV queue bypass lane on the northbound SR 167 NB off-ramp to SR 516 (Willis), including design, construction, and modifications to the signal
- TSP at nine signals (movements) affected):
  - SR 516 at SR 167 SB on ramp (WB left turn)
  - SR 516 at SR 167 SB off ramp (WB through lane)
  - SR 516 at 4th Avenue (EB left turn)
  - S 4th at W Smith (NB right and WB left turns)
  - Pioneer at Central Avenue N (EB left and SB right turns)
  - Central Avenue N at W James Street (NB and SB through lanes)
  - Central Avenue N at commercial access road (NB and SB through lanes)
  - Central Avenue N at SR 167 northbound on-ramp (NB right turns and SB through lane)
  - Central Avenue N at SR 167 westbound off-ramp (WB left turns)

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

## Utilities:

None

## Right-of-Way and Property Acquisition:

Allowances for permitting, etc.

## Mitigation:

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

## Exclusions:

- Utility relocation
- ROW and property acquisition
- 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:

Electrical, construction-related

## Agreements Required:

Agreement with WSDOT, City of Kent and King County Metro for operation of TSP

*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	N/A	
Capital Cost	\$2.0 - \$2.2	in Millions of 2005\$
Annual Operating Cost	<b>\$0.0</b>	in Millions of 2005\$
Travel Time & Reliability	<b>Low</b>	
Connectivity & Integration	Medium	# transit routes: 3 ST (including Sounder), 14 Metro
Land Use & Development	<b>High</b>	
Customer Experience	<b>Medium</b>	
Risk Avoidance	High	

### Key Issues and Benefits

**Issue:**

- Project included modifications to multiple intersections throughout downtown Kent. Careful coordination with the City of Kent would be necessary to minimize impacts to transit and traffic operations.

**Benefit:**

Improved speed and reliability for bus routes operating between Kent Station and the interchanges at SR 167