MEMORANDUM

To: Kurt Triplett, City Manager

From: Kathy Brown, Public Works Director
Joel Pfundt, AICP CTP, Transportation Manager
Lisa Hodgson, P.E., Design Engineering Manager, I-405/SR 167 Program
Barrett Hanson, P.E., Engineering Manager, North End Projects
Cynthia Padilla, I-405 BRT Project Manager, Sound Transit

Date: March 8, 2018

Subject: WSDOT I-405/NE 132nd Interchange Project, NE 85th St Interchange and Inline Station Project

RECOMMENDATION:

That City Council hear a presentation from staff and the Washington State Department of Transportation regarding an update on the I-405/NE 132nd Street Interchange Project in the Totem Lake area. Sound Transit will also present an overview of the planned I-405 BRT system and the objectives and schedule for the NE 85th St Interchange and Inline Station Project.

BACKGROUND DISCUSSION:

The I-405/SR 167 Program team will provide a brief update on the preliminary design concept for the I-405/NE 132nd Street Interchange Project. The project builds a new half diamond interchange to and from the north at NE 132nd Street in Kirkland. The project is currently in the preliminary engineering and environmental review phase.

WSDOT and Sound Transit will also provide an overview of the I-405 BRT system and the NE 85th St Interchange and Inline Station Project, which has just started conceptual design.

Both of these projects were presented to the Kirkland Transportation Commission at its February 28, 2018 meeting. City staff is working with the Commission to prepare a summary of their comments on the two projects, which will be presented at the Study Session. Questions from the Council will be taken after the briefing.

The update will include a presentation prepared by the I-405 project team covering the following topics:

1. I-405 Master Plan
2. I-405/NE 132nd St Interchange Project overview
   a. Project history and timeline
   b. Preliminary engineering concepts
   c. Environmental review
d. Public outreach

Project staff from both WSDOT and Sound Transit will provide a brief update on the NE 85th St Interchange and Inline Station Project.

**Attachments**

Attachment A: I-405/NE 132nd Interchange Project presentation
Attachment B: I-405 BRT System and NE 85th Street Interchange and Inline Station presentation
I-405/NE 132nd Street Interchange Project

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Design Engineering Manager
I-405/SR 167 Program

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Engineering Manager
I-405/SR 167 Program

Karl Westby, Ph.D.
Traffic Manager
I-405/SR 167 Program

Kirkland City Council – Study Session
March 20, 2018
I-405 Master Plan

Regional Consensus
• EIS Record of Decision, 2002
• *Multimodal, multiagency plan*

Roadways
• 2 new lanes in each direction
• Local arterial improvements

Transit & Transportation Choices
• **Bus Rapid Transit system**
• New transit centers
• 50% transit service increase
• HOV direct access ramps and flyer stops
• Potential managed lanes system
• 5000 new Park & Ride spaces
• 1700 new vanpools

Environmental Enhancements
Project History

- Project identified in the I-405 Corridor Program EIS as a part of Preferred Alternative
- Plan developed to replace the mainline structures over 132nd overpass
- FHWA approval to leave existing structures in place, allowing interchange to be funded
- Project funded in Connecting Washington
- Start design development and coordination with City
- Bridge limitations
- Federal injunction for fish passage
I-405/NE 132nd Street Interchange Project

Description:
- Builds a new half interchange to and from the north at NE 132nd Street in Kirkland (Totem Lake area)
- Environmental enhancements

Estimated cost: $75 million funded by Connecting Washington

Project Goals:
- Improve access to Totem Lake regional growth center
- Reduce reliance on heavily congested Northeast 124th Street and Northeast 160th Street interchanges
A new half interchange to and from the north at NE 132nd Street to access I-405.

Sound Transit’s new 600 stall parking garage, which will provide 900 total stalls at Kingsgate P&R.

Totem Lake area designated as a Puget Sound Regional Council growth center.

Transit Oriented Development (TOD) is being studied in 2018 for the Kingsgate P&R site.

Local arterial improvements along NE 132nd Street.

A new Sound Transit BRT station at the existing Totem Lake Freeway station at Northeast 128th Street.
Project Timeline

- **2017**: Begin preliminary engineering, right-of-way, and environmental review
- **2018**: Begin right-of-way acquisition
- **2021**: Construction start (est. Spring 2021)
- **2023**: Open to traffic
Concepts evaluated - Signalized intersections

- Relocate access to Woodlake Apts with new signal
- ~100’ pedestrian crossing (6 lanes)
- Split traffic behind columns
- Delay and back up issues
- Underground fish culvert – potential fatal flaw
- 5 ft. wide bike lanes and 6 ft. wide sidewalk on north and south side
Cross sections - NE 132nd St under I-405 overpass

EXISTING SECTION
(FACING EAST)

SIGNALIZED SECTION
(FACING EAST)

NE 132nd Street at southbound I-405 overcrossing
Existing Conditions under I-405

NE 132rd St.

For reference: Richards Rd.

(Signalized Intersections)
Concepts evaluated - Roundabouts

- Maintains access location to Woodlake Apts
- Eliminates need for left turn lanes (4 lanes instead of 7)
- Eliminates need for new signalized intersection
- Improved traffic flow vs. signals
- Keeps all lanes within existing columns
- 10 foot sidewalk
- Stream channel
- 5 foot wide bike lanes on north and south side
- ~35’ pedestrian crossings
Cross sections - NE 132nd St under I-405 overpass

NE 132nd Street at southbound I-405 overcrossing
Roundabout Safety Benefits

For more information, visit: www.wsdot.wa.gov/Safety/Roundabouts
Roundabout Safety Benefits

- Better traffic flow
- One-way travel
- Safety performance

For more information, visit: www.wsdot.wa.gov/Safety/Roundabouts
Roundabouts in the region

- SR 522 and W Main St Interchange in Monroe
- NE 145th St/ Redmond-Woodinville Rd NE in Woodinville
Project Timeline

- **2017**: Begin preliminary engineering, right-of-way, and environmental review
- **2018**: Begin right-of-way acquisition
- **2021**: Construction start (est. Spring 2021)
- **2023**: Open to traffic
Questions?
Contact

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For more information, visit:
www.wsdot.wa.gov/Projects/ I405/NE132ndStInterchange
I-405 Bus Rapid Transit
Kirkland City Council Study Session
March 20, 2018
A new line of service

- Opens in 2024
- Two corridors (I-405 and SR 522/SR 523)
- Transit speed, reliability and access improvements
- BRT stations (signage, shelter, amenities)
- Parking facilities
- New BRT bus fleet
- Bus operations and maintenance facility
- Branding
- Rider information system
**Fast, frequent, reliable service**

*I-405 BRT infrastructure designed for fast, frequent and reliable service*

- 10-minute peak, 15-minute off-peak headways for I-405 BRT
- Up to 19 hours of service Monday through Saturday
- Up to 17 hours on Sunday
I-405 BRT Travel times

Travel time upon opening will be similar to 2040 travel time with use of Express Toll Lanes

- **Lynnwood to Bellevue**
  - 2016: 61 min
  - 2040: 42 min

- **Bellevue to South Renton**
  - 2016: 48 min
  - 2040: 25 min

- **South Renton to Burien**
  - 2016: 31 min
  - 2040: 20 min
Connecting the region

LINK connections

I-405 BRT
Redmond-Seattle-Lynnwood
  Lynnwood City Center & Bellevue Downtown
Issaquah-Bellevue-South Kirkland
  Bellevue Downtown
Everett-Seattle-West Seattle
  Lynnwood City Center
Ballard-Tacoma
  Tukwila International Boulevard Station

SR 522 BRT
Redmond-Seattle-Lynnwood
  Shoreline South/145th
Everett-Seattle-West Seattle
  Shoreline South/145th
I-405 BRT highlights

37-mile corridor: Lynnwood to Burien

- North Corridor: Lynnwood to Bellevue
- South Corridor: Bellevue to Burien, via Renton
- 11 BRT stations across 7 cities
- 3 parking facilities
- 1 transit center
**SR 522 BRT highlights**

8-mile corridor: Shoreline to Bothell/Woodinville

- Connects to light rail at South Shoreline/145th
- 8 miles of BRT
- Completes gaps in BAT lanes
- 9 Station pairs
- Expanded Transit Center UW Bothell
- Additional parking (Lake Forest Park, Kenmore, Bothell)
- Buses every 10 minutes on SR 522/523, 20 minutes to Woodinville
Operations & maintenance facility

- Supports BRT program
- Accommodate 60 buses, 80 in future
- Coordination with ST Express bus base

Project development activities
- Right-of-way and property acquisition
- Preserve option for Bothell/Canyon Park bus base

Facility amenities

- Maintenance
- Offices and support areas
- Repair shop
- Parts storage
- Fuel, wash, service areas
- Bus operations, dispatching, and employee facilities
- Bus parking
- Employee and visitor parking
- 1 percent for art
- Illumination
- Landscaping
**Project schedule**

24-month look-ahead

**Q4 2017**
- Consultant selection
- Key issue identification

**Q1 2018 - Q1 2019**
- Partnering agreements
- ST3 representative project refinement
- Facility siting
- Projects with WSDOT: NE 85th Street in Kirkland, NE 44th Street in Renton.

**2019 - Q4 2019**
- Environmental review and Conceptual Engineering

**Q1 2020**
- ST Board selects project to be built
- Preliminary Engineering begins

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**Overall schedule**

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<th>2018</th>
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**Advance design & determine project delivery method**

**PE consultant procurement**

**NTP Issued**
Partnering

Collaborative process

• Partnering agreements
• Elected leadership group
• Interagency group
• Stakeholder involvement
• Streamline permitting
• Land use approvals
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soundtransit.org/system
I-405 BRT Program

- Kingsgate TOD Feasibility Study
- I-405 NE 85th Street Interchange and Inline Station
Transit Oriented Development (TOD) is being studied in 2018 for the Kingsgate P&R site at the Totem Lake area which is designated as a Puget Sound Regional Council growth center.
Recap: Day 1 August 2017 Charrette

Day 1 workshop
August 17, 2017

Interagency participation:
• Sound Transit
• City of Kirkland
• King County Metro
• WSDOT

Objectives:
• All participants will have a good understanding of the I-405 Master Plan, Sound Transit and King County transit plans for the NE 85th Street area, and Kirkland’s land use and transportation vision.
• WSDOT will gather input on items of importance and priorities from stakeholders.
• Group will identify screening criteria to set up second session for evaluation of concepts.
Items of importance (from Aug 2017 charrette)

Transit Connectivity
- Provide transit connectivity between I-405 BRT and NE 85th Street transit routes
- Improve ST Express, King County Metro, and I-405 BRT Operations
- Maintain/enhance ability to connect to Cross-Kirkland Corridor
- Facilitate connectivity (ease of transfer between I-405 BRT and NE 85th Street routes)
- Rider experience/environment while waiting during transfers (lighting, shelter, etc.)
- Consider paratransit connections
- Facilitate connections to existing park and ride capacity (e.g. 70th)

Non-Motorized Mobility/Connectivity
- Provide non-motorized connectivity to major destinations east and west of I-405 (bike/walk combination)
- Minimize pedestrian travel time (all pedestrians in general area)
- Create safe, comfortable pedestrian experience/environment for all ages/abilities (art, experience, placemaking)
- Consider grades/gaps when planning for pedestrian facilities
- Incorporate bike lockers/racks
Items of importance

Kirkland Vision
- Be consistent with existing and future land use plans and facilitate future growth opportunities
- Provide Express Toll Lane access from NE 85th Street corridor
- Leverage/create partnership opportunities with local businesses/services re: transit/carpool operations and drop-off/pick-up locations
- Provide for flexibility and creativity through design options

Compatibility with Master Plans
- Do not preclude Master Plan alternatives and minimize added future cost
- Build toward the Master Plans

Vehicular Traffic Operations/Interchange Performance
- Maintain or improve I-405 express toll lane and general purpose operations
- Improve multimodal local area operations (e.g., NE 85th Street vicinity)
- Optimize transit movements

Cost
- Maximize project benefits within budget
- Be creative with ST budget proviso commitments (last mile)
- Pursue other funding opportunities if needed
- Meet schedule and minimize construction duration
# Next steps – Near term

## NE 85th Street Interchange and In-line Freeway Station

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Task Order Two
### Next steps – Long term

#### NE 85th Street Interchange and In-line Freeway Station

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