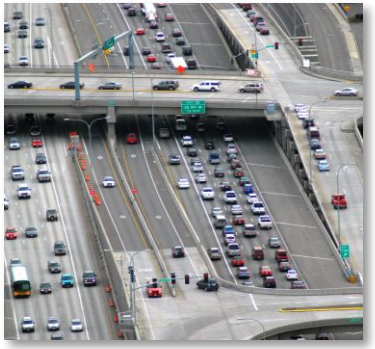
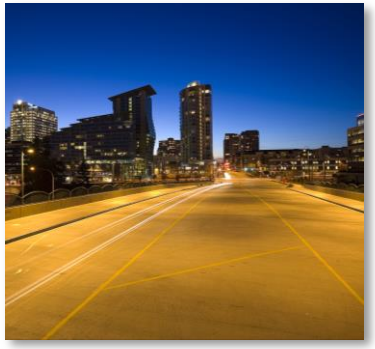
I-405/SR 167 Corridor

Executive Advisory Group

I-405/SR 167 Executive Advisory Group
Bellevue City Hall
June 18, 2015

Washington State
Department of Transportation

Introductions and Agenda

Craig Stone, P.E.
Assistant Secretary, Toll Division

Agenda

- Introductions
- I-405 Master Plan Progress
- I-405 Express Toll Lanes
- Public Comment

2013: I-405/SR 167 Executive Advisory Group

Carpool Policy Recommendation:
3+ Carpool Free Peak
2+ Carpool Free Off-peak

Funding and Phasing Recommendation:
Prefer High Traditional Funding scenario ($1,175 m), however understanding competing statewide needs, the committee endorsed the Medium Funding scenario ($960 m)

Cities
- Bothell – Mayor Mark Lamb
- Kirkland – Mayor Joan McBride
- Bellevue – Councilmember Kevin Wallace
- Newcastle – Mayor Rich Crispo
- Renton – Councilmember Randy Corman
- Tukwila – Mayor Jim Haggerton
- Kent – Mayor Suzette Cooke
- Auburn – Mayor Pete Lewis
- Sumner – Mayor Dave Enslow
- Puyallup – Mayor Rick Hansen
- Algona – Mayor David Hill
- Pacific – Vacant

Agencies
- Community Transit – Carol Thompson
- Sound Transit – Board member Fred Butler
- King County Metro Transit – Harold Taniguchi
- Puget Sound Regional Council – Dave Gossett
- Washington State Transportation Commission – Charlie Royer
- Federal Highway Administration – Dan Mathis
- Federal Transit Authority – Rick Krochalis
- Washington State Department of Transportation

Counties
- Snohomish County – Councilmember Dave Gossett
- King County – Councilmember Reagan Dunn
- Pierce County – Councilmember Jim McCune

All Corridor State Legislators (Invited)

Welcome

Lynn Peterson
Secretary of Transportation

I-405 Master Plan Update

Kim Henry, P.E.
I-405/SR 167 Corridor Program Director

I-405 Traffic Is Getting Worse

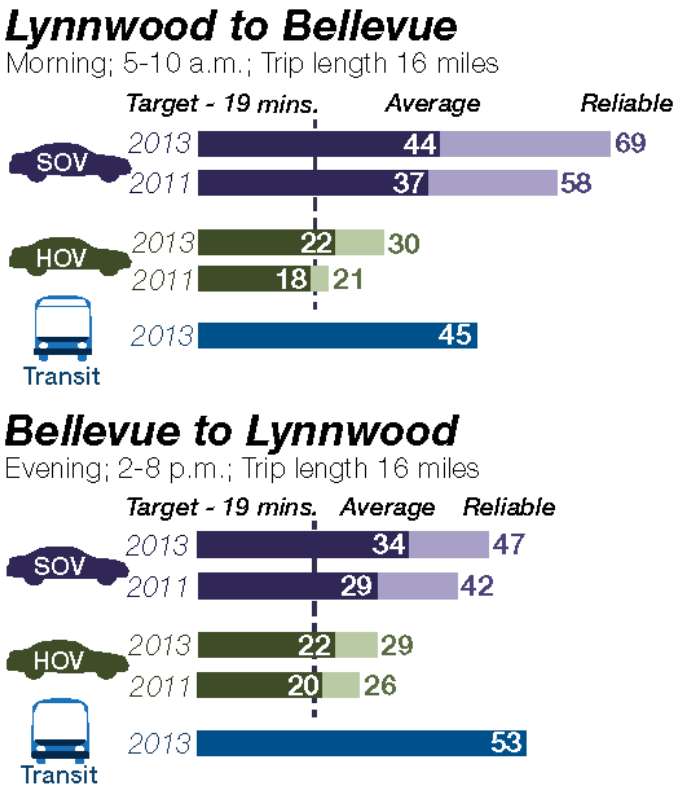
- **Bad traffic**
  - Drivers on I-405 experience some of the worst traffic in the state, up to eight hours of congestion each day
  - Today the southbound I-405 HOV lane drops below 45 mph 200 days out of the year and I-405 HOV lanes are congested 60 percent of weekdays
  - By 2030, employment will grow by 50 percent and the area will see 25 percent more residents

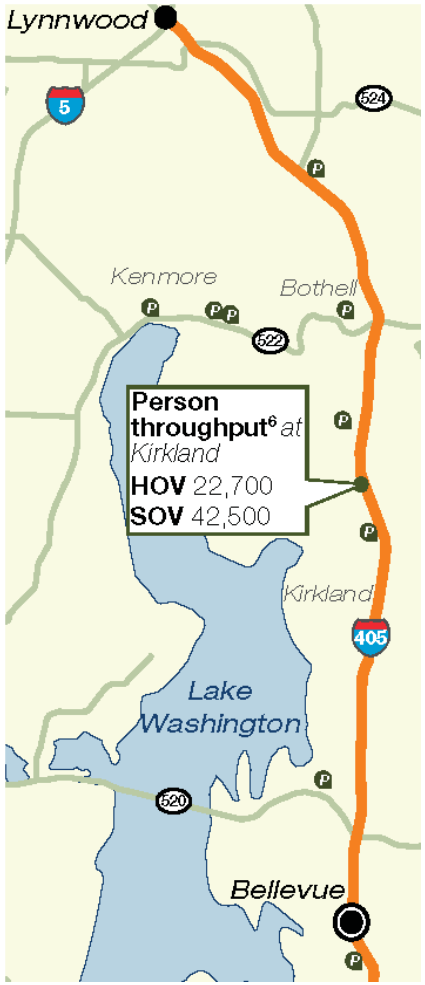
- **Crowded HOV Lanes**
  - I-405 HOV lanes are not meeting state and federal requirements to operate at 45 mph 90 percent of the time during peak hours
  - I-405 HOV lanes are often just as congested as the regular lanes

- **Transit Suffers**
  - Congested lanes significantly delay transit trips and reduce reliability

I-405 HOV and SOV travel times are increasing

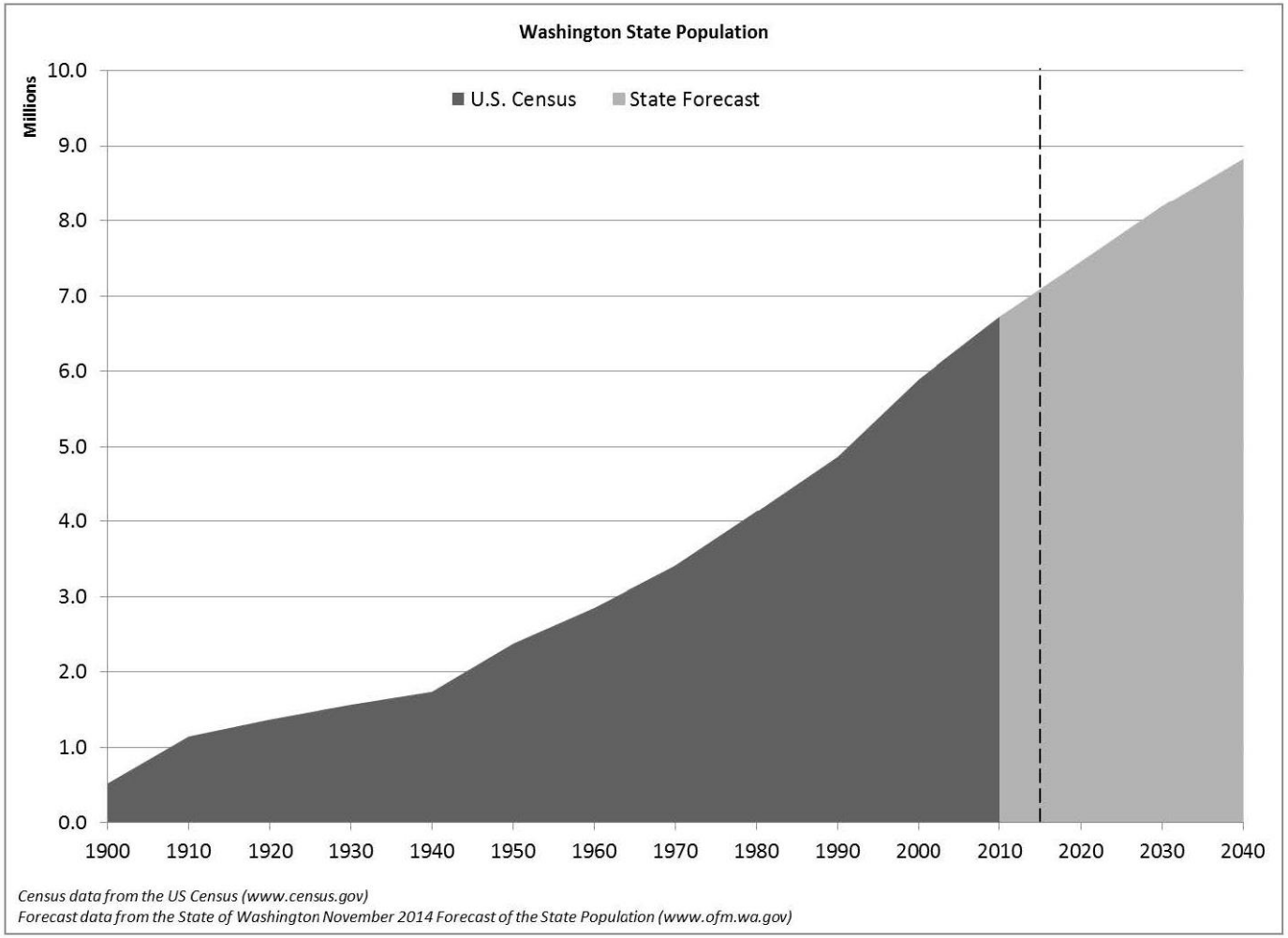
- Annual vehicle delay on I-405 is up 39 percent in two years.
- In order to plan for a reliable trip, carpools need to increase their planned travel time by 50 percent.
- A reliable trip for an SOV driver requires setting aside almost 70 minutes for a 19 minute trip.





Washington State Population Growth

Rapid population growth leads to more traffic



Early partnerships on I-405 Master Plan

1999-2002 I-405 Executive Committee

Cities

- Bothell – Councilmember Dick Paylor
- Kirkland – Councilmember Joan McBride
- Redmond – Mayor Rosemary Ives
- Bellevue – Councilmember Connie Marshall
- Newcastle – Mayor Sonny Putter
- Renton – Councilmember Randy Corman
- Tukwila – Mayor Steve Mullet

Agencies

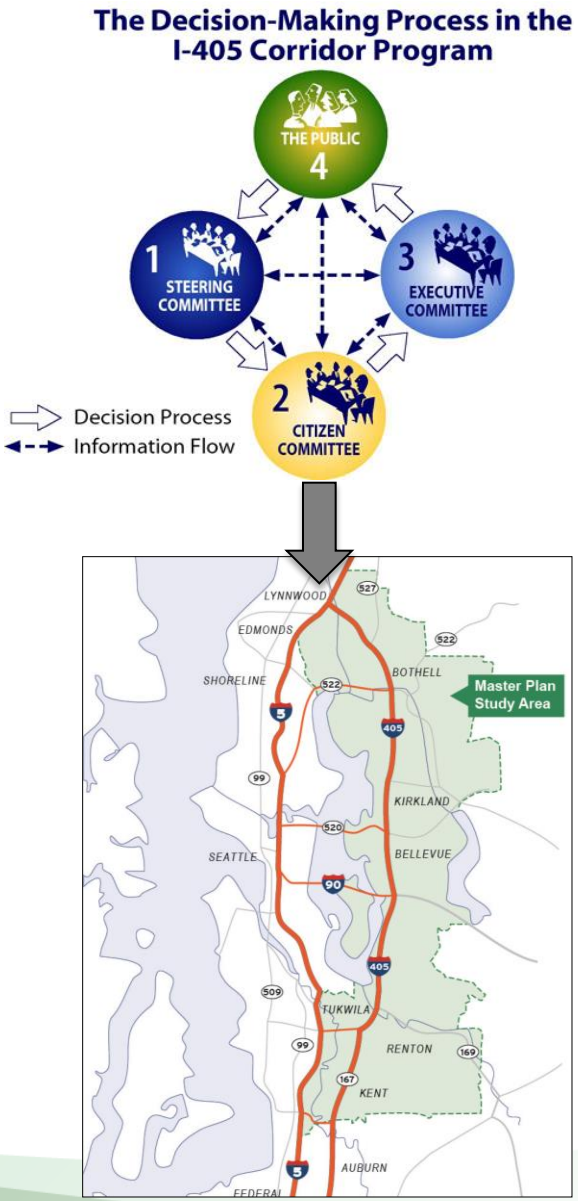
- King County Metro Transit – Executive Ron Sims
- Puget Sound Regional Council – Board President Bob Edwards
- Washington State Transportation Commission – George Kargianis
- Federal Highway Administration – Dan Mathis
- Federal Transit Authority – Rick Krochalis
- Washington State Department of Transportation – John Okamoto

Counties

- Snohomish County – Councilmembers Barbara Cothern and Dave Somers
- King County – Councilmember Rob McKenna

State Legislators

- Rep. Christopher Hurst
- Rep. Cheryl Pflug
- Sen. Jim Horn
- Sen. Margarita Prentice



I-405 Master Plan

Regional Consensus

- EIS Record of Decision, 2002

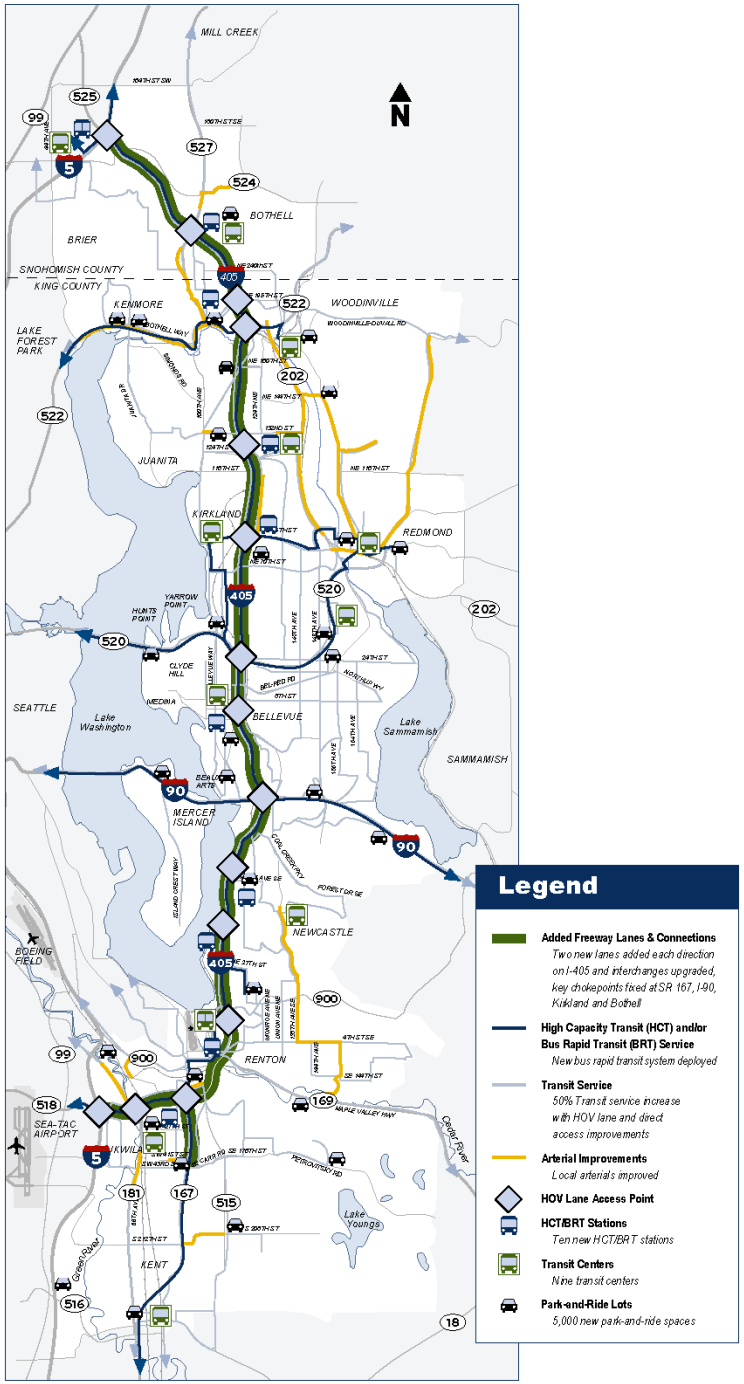
Roadways

- 2 new lanes in each direction
- Local arterial improvements

Transit & Transportation Choices

- Bus Rapid Transit system
- 9 new transit centers added
- 50% transit service increase
- HOV direct access ramps and flyer stops
- ***Potential managed lanes system***
- 5,000 new Park & Ride spaces
- 1,700 new vanpools

Environmental Enhancements



Washington State Department of Transportation

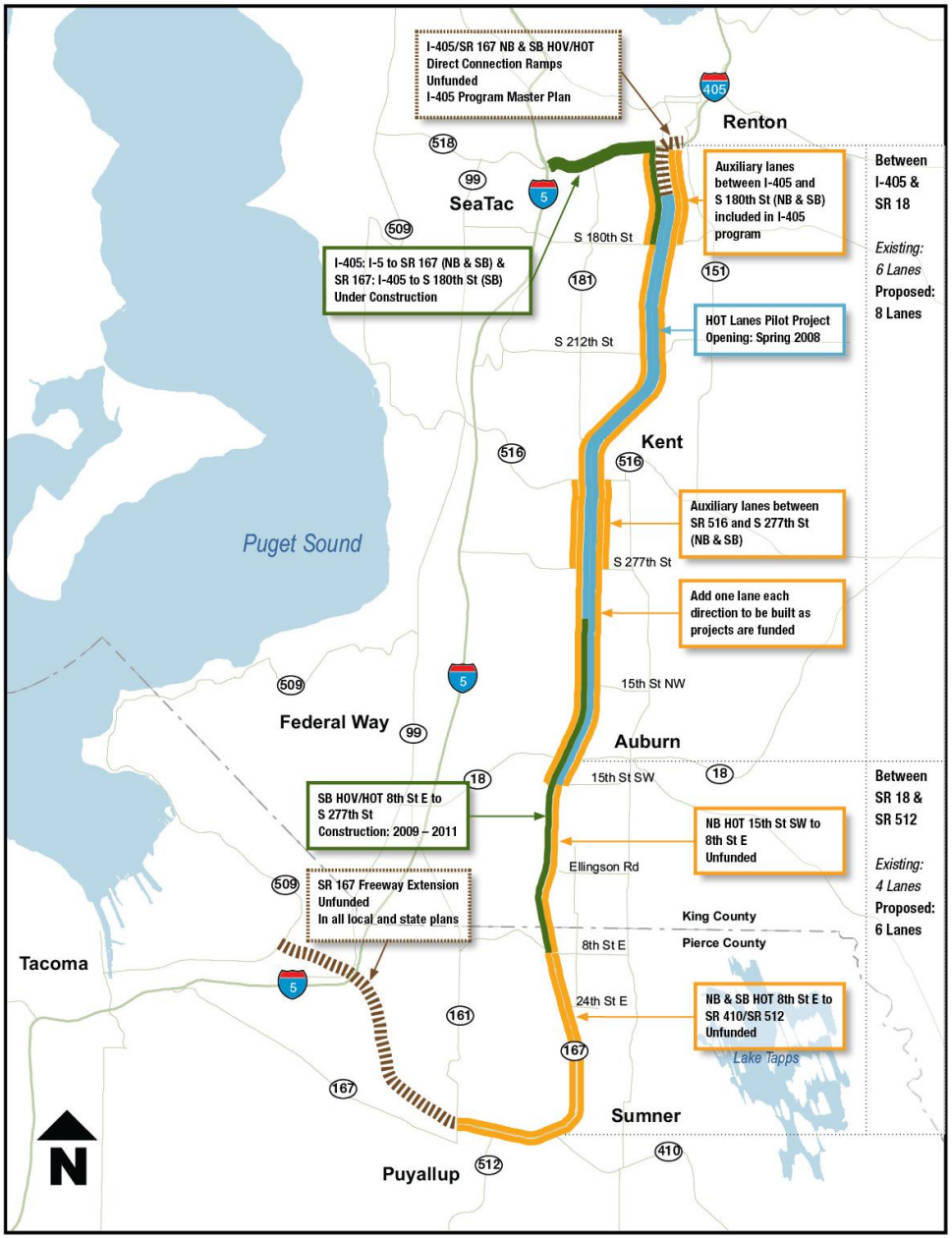
SR 167 Corridor Plan

Regional Consensus
- Corridor plan published in early 2009

Roadways
- Adds one to two lanes corridor wide

Transit & Transportation Choices
- Includes corridor-wide HOT lanes

Environmental Enhancements
- Environmental mitigation projects



I-405/SR 167 Executive Advisory Group for Express Toll Lanes (2009 – 2013)

Cities
- Bothell – Mayor Mark Lamb
- Kirkland – Mayor Joan McBride
- Bellevue – Mayor Grant Degginger
- Newcastle – Mayor Ben Varon
- Renton – Councilmember Randy Corman
- Tukwila – Mayor Jim Haggerton
- Kent – Mayor Suzette Cooke
- Auburn – Mayor Pete Lewis
- Sumner – Mayor Dave Enslow
- Puyallup – Mayor Don Malloy
- Algona – Mayor David Hill
- Pacific – Mayor Richard Hildreth

Agencies
- Sound Transit – Board member Mary-Alyce Burleigh
- King County Metro Transit – Harold Taniguchi
- Puget Sound Regional Council – Sue Singer
- Washington State Transportation Commission – Dick Ford
- Federal Highway Administration – Dan Mathis
- Federal Transit Authority – Rick Krochalis
- Washington State Department of Transportation

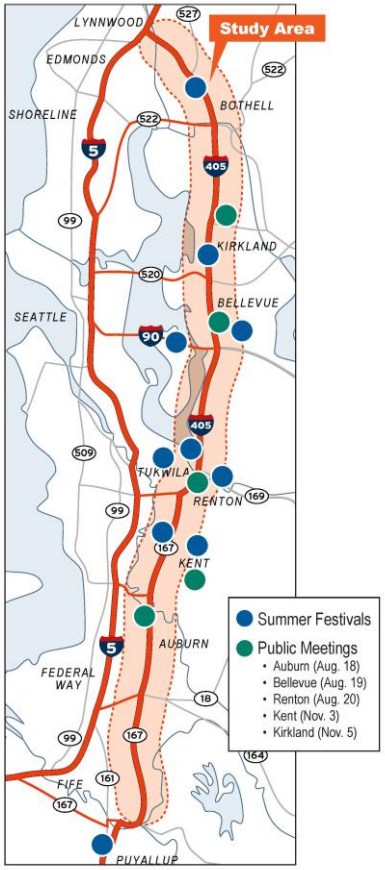
Counties
- Snohomish County – Councilmember Dave Gossett
- King County – Councilmember Reagan Dunn
- Pierce County – Council chair Roger Bush

State Legislators
- Legislators from the following districts: 31, 41, 45 and 48

Public Involvement

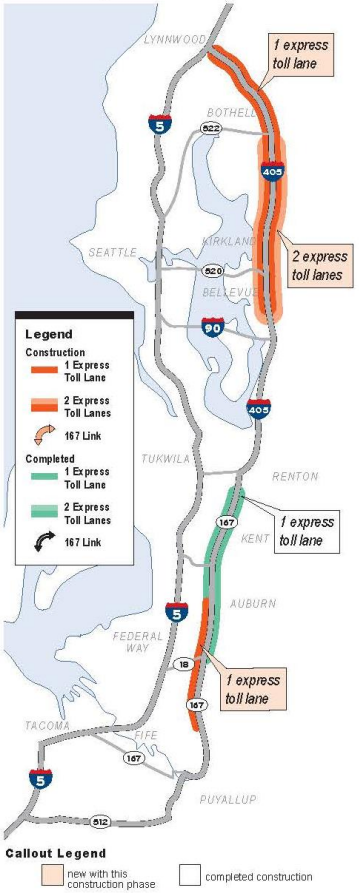
Outreach between 2009-2013 regarding express toll lanes:

- Convened **11 public meetings** of the I-405/SR 167 Executive Advisory Group
- Consulted a technical Interagency Working Group comprised of city/county public works representatives and transit agencies
- Hosted **booths at 10+ summer festivals**
- Received **comments from 1,105 people** through comment forms and email correspondence
- Hosted **eight public open houses** throughout the corridor
- Provided **200+ briefings or presentations** to community groups, planning organizations, elected officials, and agencies
- Facilitated **12+ corridor focus groups** (two with I-405 users and two with SR 167 users, 48 total participants)
- Fielded **2,584 online surveys**
- Conducted two **statistically valid phone survey** of 1,000 I-405 or SR 167 users
- Mailed **220,000 postcards** to households in the I-405 and SR 167 corridor to advertise the online survey and open houses

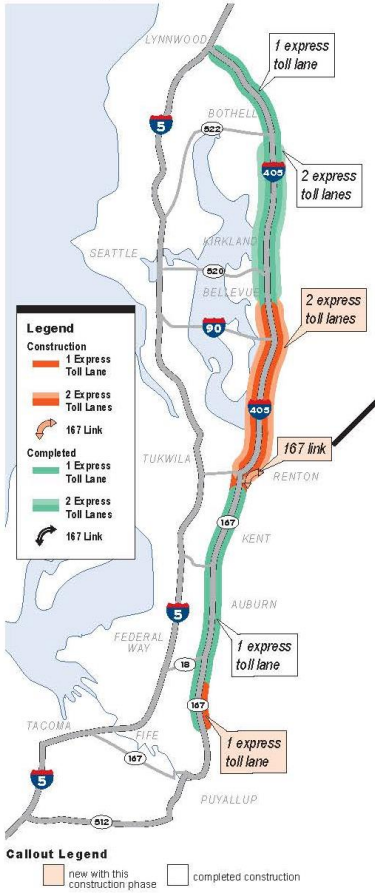


I-405 Master Plan - 10 Year Implementation Strategy

40-mile System - Phase 1 **$ .4 billion**



40-mile System - Phase 2 **$1.2 billion**



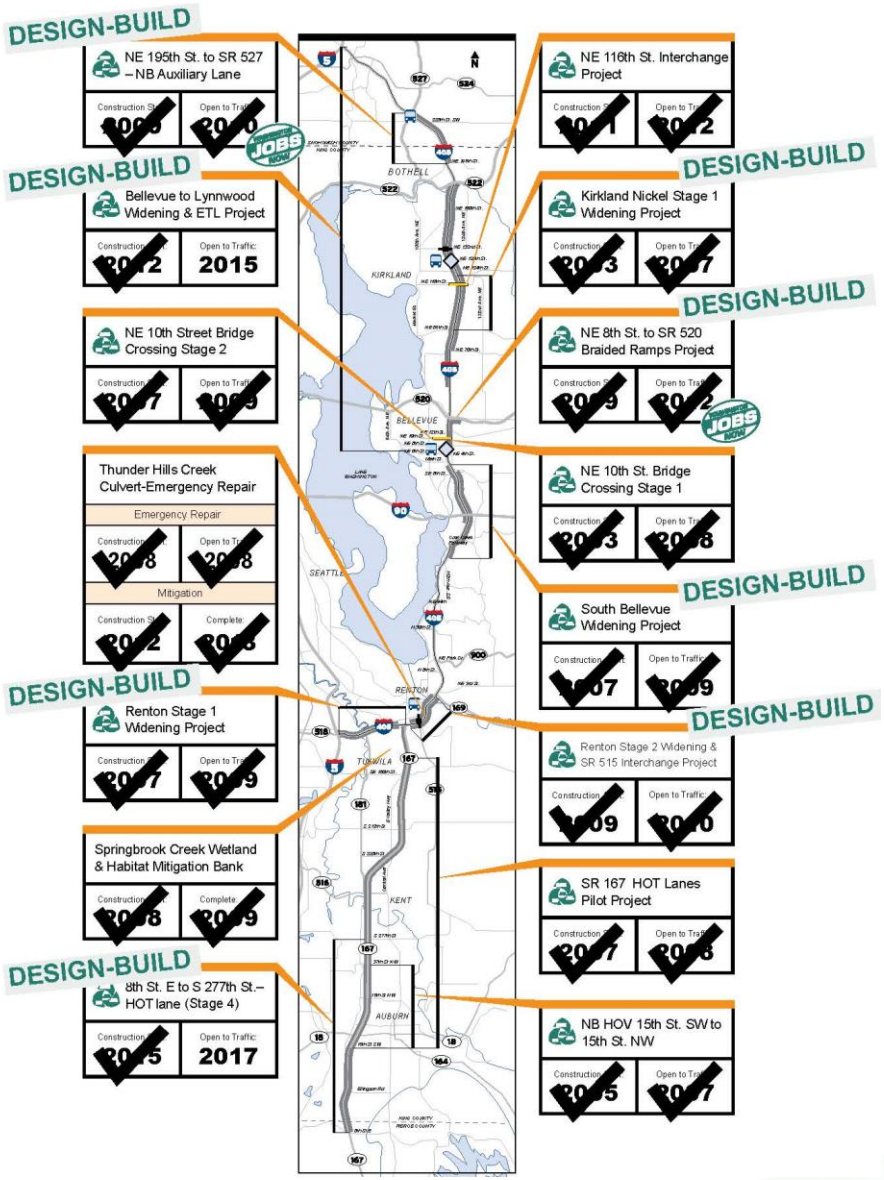
I-405/SR 167 Interchange Direct Connector

40-mile System - Complete **$1.6 billion**

Washington State Department of Transportation

We've delivered 13 projects throughout the corridor on time, under budget

- Initial program investments addressed high-priority chokepoints in Bellevue, Bothell, Kirkland and Renton
- Bellevue to Lynnwood project (expected completion in 2015) is the second step towards a 40-mile corridor managed lanes system
- $1.3 billion delivered on schedule, under budget



Washington State Department of Transportation

I-405 Master Plan: Multimodal and making progress

Add 2 lanes in each direction
30% complete

Local arterial improvements
50% complete

Transit station and BRT expansions
70% complete

Park and Ride expansions
80% complete

Transit service increase
40% complete

Direct access ramps
45% complete

Vanpool service increase
30% complete

Managed lanes system
40% complete

Pedestrian/bicycle improvements
25% complete

Next Steps: Completing the 40-mile system

The back bone to Bus Rapid Transit

Phase 1: Funded

- **Bellevue to Lynnwood Widening and Express Toll Lanes** – under construction, open mid to late 2015
- **SR 167 Stage 4** – PE/RW/Construction funded, open 2017

Phase 2: Unfunded

Benefit/Cost: 4.7

- **Renton to Bellevue Widening and Express Toll Lanes** – $890 m
- **I-405/SR 167 Direct Connector** – $285 m
- **SR 167 Stage 5**
  - $35 m PE/ROW/CN unfunded

Sound Transit Update

David Beal and Andrea Tull
Sound Transit

Developing Sound Transit's New System Plan: I-405 Executive Advisory Group

System Plan (ST3) Timeline:

2015

- **Draft Priority Projects List** — May 2015
- **Public Input on Draft Priority Projects List** — June – July 2015 — Public Involvement
- **Board Advances Priority Projects List** — Aug. 2015
- **Detailed Testing and Evaluation of Priority Projects List** — Aug. – Dec. 2015

2016

- **Draft System Plan and Public Involvement** — Jan – Mar. 2016 — Public Involvement
- **Final System Plan Development** — Apr.– May 2016
- **Adopt System Plan** — June 2016
- **Possible Public Vote on System Plan** — Nov. 2016

Draft Priority Projects List Categories

- **Deferred Projects**
  - Capital projects that were voter-approved in Sound Move and ST2 but were deferred due to funding limitations. These projects, depending on schedules, could be prioritized by the Board and funded out of existing tax levels.

- **Enhancements Supporting the Existing System**
  - Projects that can provide opportunities for improved or additional service along the existing ST HCT system

- **Corridors from ST2 High-Capacity Transit Studies:**
  - Both the LRT Spine and additional corridors

- **System-wide programs and studies from the 2014 Long-Range Plan (LRP)**
  - Programs to fund system-wide enhancements and 2014 LRP listed studies

- **Supporting System Expansion**
  - Facilities and services to support the ST HCT system as it expands

I-405 BRT

The I-405 Master Plan (2002) identified Bus Rapid Transit as the preferred high capacity transit mode in the corridor.

BRT projects and service were to be developed incrementally as funds were secured.

Sound Transit has implemented many projects in the I-405 Corridor.

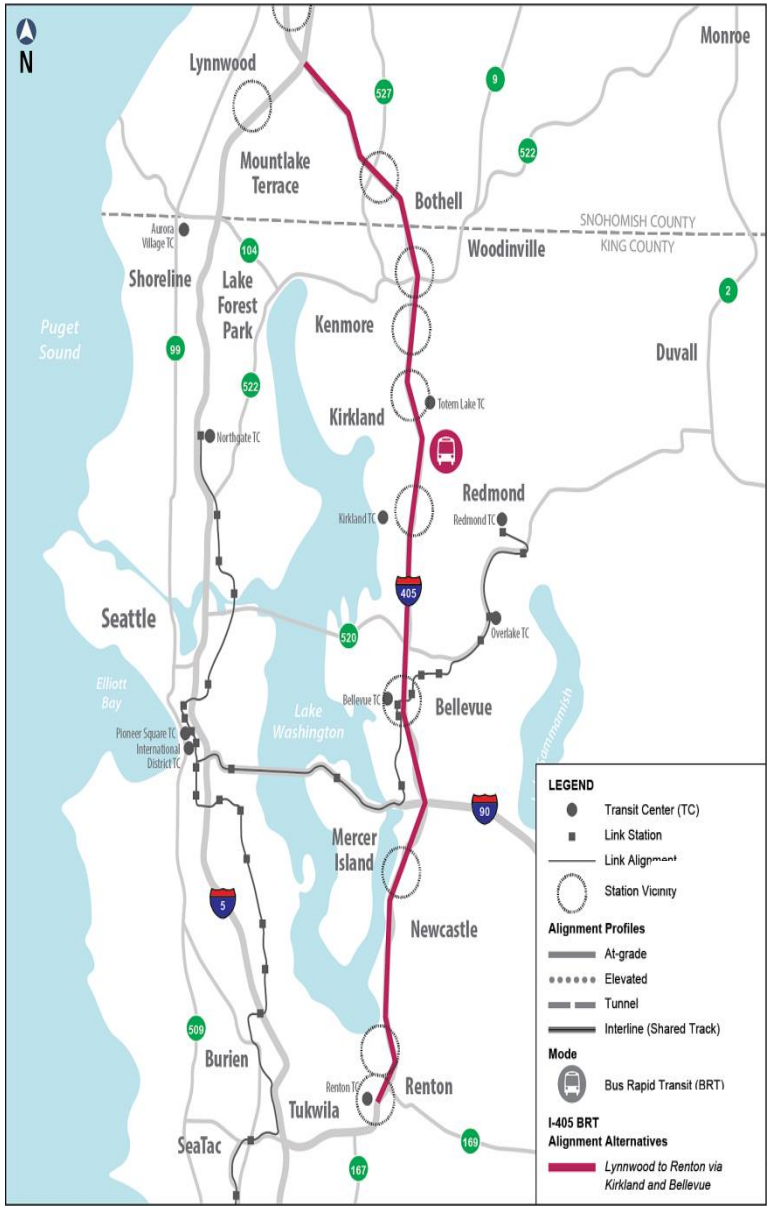
WSDOT is in the process of implementing Express Toll Lanes between Bellevue and I-5.

ST Investments in I-405 Corridor

Sound Transit Projects completed in the I-405 Corridor

- Ash Way park and ride
- Ash Way transit access
- Lynnwood HOV direct access ramp
- Lynnwood Transit Center/Park and Ride
- Canyon Park freeway station
- Totem Lake Transit Station/direct access ramps
- Totem Lake Transit Center
- Bellevue NE 6th HOV direct access ramp
- Bellevue Transit Center
- Tukwila Sounder Station

I-405 Bus Rapid Transit—HCT Corridor Study



With full build out of WSDOT I-405 Master Plan transit-supportive elements

- Single route BRT
- Trunk and branch BRT

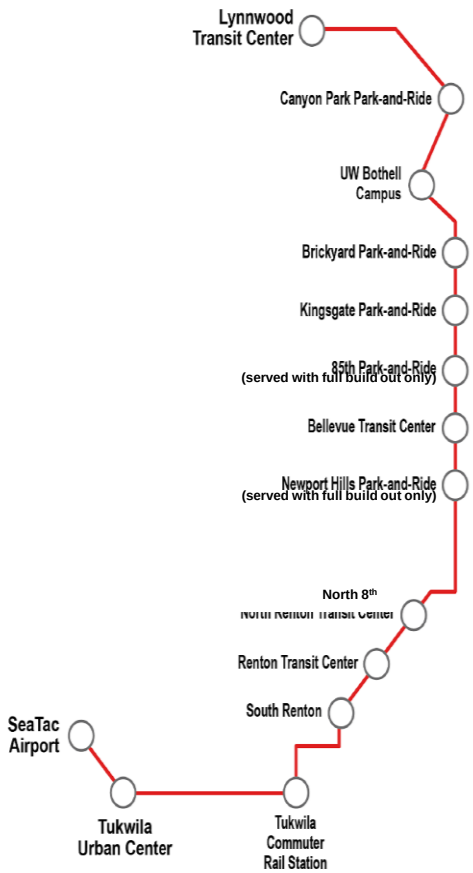
With WSDOT I-405 Master Plan Phased Plan

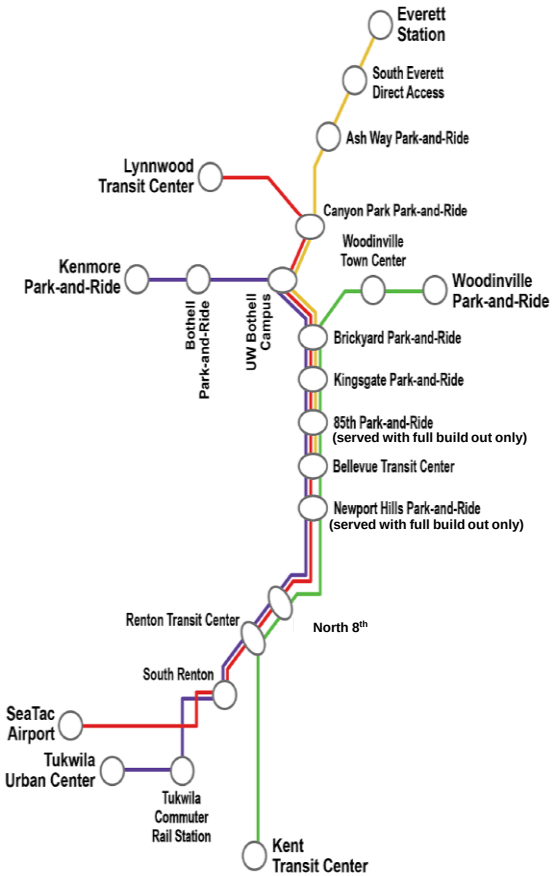
- Single route BRT
- Trunk and Branch BRT

I-405 Master Plan Elements

Projects	Full Build-Out	Next Phase of Full Build out Plan
Freeway to freeway direct connectors	I-405 to I-90 I-405 to SR 167 SR 520 to I-405 I-405 to I-5 (Tukwila and Lynnwood)	I-405 to I-90 (WB to SB, NB to EB, WB to NB, SB to EB) I-405 to SR167 (SB to SB, NB to NB) SR 520 to I-405 (WB to SB, NB to EB)
Express toll lanes	Two lanes each direction	2 lanes south of SR 522, 1 lane north of SR 522
Direct access ramps	Canyon Park 240th Street SE SR 522 NE 160th Street (Brickyard) NE 85th Street NE 6th Street Extension N 8th Street (Renton) Rainier Ave Tukwila Sounder station	-- -- Planned by WSDOT -- -- Planned by WSDOT and Bellevue Planned by WSDOT and ST -- --
In-line BRT station	112th Ave SE	--

BRT Service Options





Single Route Service

- 10 minute headways all day
- Operates in Express Toll Lanes
- 85th and Newport Hills not served under With WSDOT I-405 Master Plan Phased Plan

Trunk and Branch Service

- 5-7 minute trunk headways, 20 minute branch headways
- Operates in Express Toll Lanes on I-405, in mixed traffic on arterial streets
- 85th and Newport Hills not served under WSDOT I-405 Master Plan Phased Plan

General Findings

- Daily riders ranged from 14,000 to 25,000
- Reliance on WSDOT implementation of I-405 Master Plan elements and 45 MPH operation of Express Toll Lanes
- Strong access to activity centers and development potential, especially in Bellevue and Renton
- Cost to operate trunk and branch service substantially higher than single route service due to increased bus platform hours
- Cost sharing opportunities

ST3 Next Steps

- August 27: ST Board will update the Priority Projects List based on public and jurisdictional input
- Fall/Winter: Evaluate projects and create templates
  - Includes representative projects and corridors
  - Specific alignments, station locations, access improvements, and other design decisions occur later during project development/ full environmental review process
- Templates will be completed for each project with forecasted ridership range, conceptual cost ranges and other criteria based on the Core Priorities once final list is advanced

Discussion
I-405 Master Plan Progress

Facilitated by:
Craig Stone, P.E.
Assistant Secretary, Toll Division

I-405 Master Plan: Multimodal and making progress

Add 2 lanes in each direction
30% complete

Local arterial improvements
50% complete

Transit station and BRT expansions
70% complete

Park and Ride expansions
80% complete

Transit service increase
40% complete

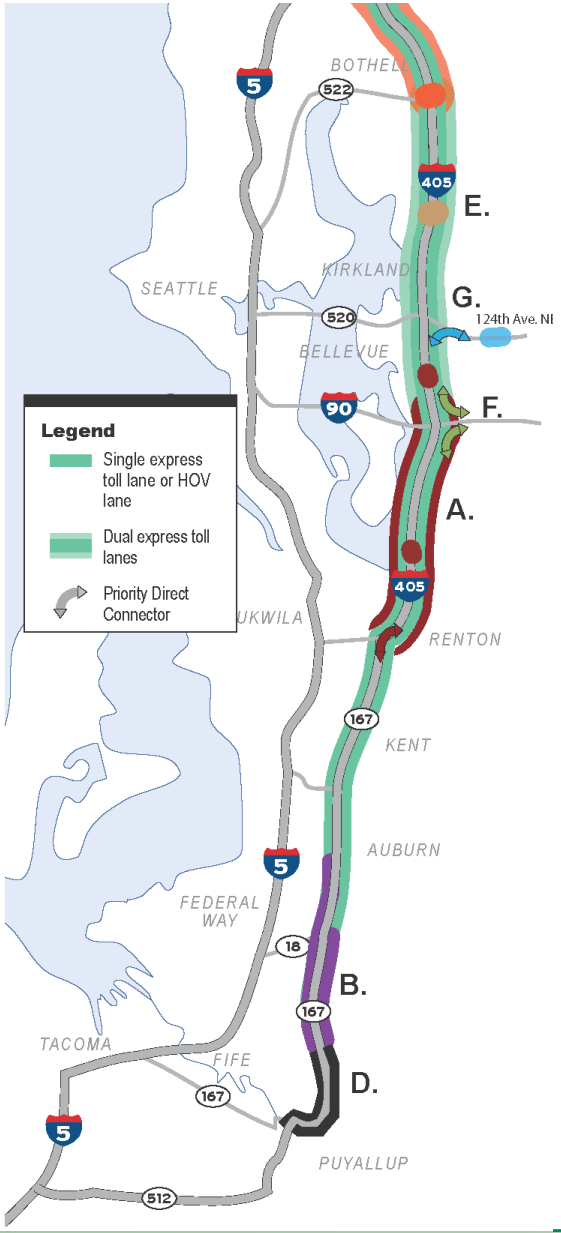
Direct access ramps
45% complete

Vanpool service increase
30% complete

Managed lanes system
40% complete

Pedestrian/bicycle improvements
25% complete

What are the next priorities?



Completing the 40-mile system

A. Tukwila to Bellevue - $1,353* million (WSDOT: $1,215 m; others: $138 m)

Benefits • Benefit/Cost: 4.7 • Approximately 50,000 vehicle hours of delay reduced every day which equates to $276 M in annual travel time savings by drivers.	Renton to Bellevue (Option 4)	$890	• Adds one lane in each direction
	SR 167 Direct Connector	$325 ($40M in PE/RW funded)	• Builds a flyover ramp connecting the I-405 express toll lanes to the SR 167 HOT lanes
	Sound Transit: N 8th St Direct Access	$78*	• Builds a direct access ramp at N. 8th St.
	City of Bellevue: NE 6th St Extension Bellevue Share	$60*	• Extends NE 6th St. east across I-405 to 120th Ave. NE

B. SR 167 Express Toll Lanes Extension - $117 million

Benefits • Benefit/Cost: 2.3 • Increases capacity over 50% and extends the reliability and traffic benefits of the SR 167 HOT lanes.	Stage 4 (SB)	**$82 (Funded)**	• Extends the existing southbound HOT lane to the King / Pierce County line.
	Stage 5 (NB)	$35	• Starts the northbound HOT lane at the King/Pierce County.

Future I-405 Corridor priorities

C. Bothell to Lynnwood Dual Express toll Lanes - $570 million

Benefits • Benefit/Cost: 1.7 • 36,000 vehicle hours of delay reduced every day ($211 M annual travel time savings). Provides a new direct access connection between SR 522 and I-405 express toll lanes eliminating weaving and improving operations for the general purpose lanes.	SR 522 Interchange	$315	• Builds a new direct access connection to SR 522 and redesigns a new interchange. • Replaces the northbound I-405 bridge over the Sammamish River and SR 522.
	SR 522 to I-5 Dual Express Toll Lanes	$255	• Adds a new lane in each direction between SR 522 and I-5 in Lynnwood to be paired with the existing HOT lane to form a dual express toll lane system.

D. SR 167 Stage 6 - $300 m

• Benefit/Cost: 2:5 • Reduces vehicle delay by 32,000 vehicles daily. • Project connects regional facilities of SR 410, SR 512, and future SR 167 extension.	SR 167 Stage 6	$300m	• Extends the SR 167 HOT lanes northbound and southbound to SR 410 / SR 512 interchange.

E. I-405/NE 132nd St. Interchange – Prior TPA project commitment

Benefits • Benefit/Cost: 1.1 • Provides new access to and from north Kirkland area and complements 116th interchange which has recently been rebuilt.	NE 132nd St. Interchange	$75	• Builds a new half-diamond interchange at NE 132nd St. in Kirkland.

Projects on other corridors with direct **benefits to** I-405 (system to system connections)

F. I-90/I-405 Interchange Direct Connectors - $535 million

Benefits • Benefit/Cost: 1.6 • Reduces daily delay by 22,000 vehicle hours of $112M in annual travel time savings. Reduces weaving and provides high speed reliable trips between the two interstate systems.	I-405 / I-90 Renton to Issaquah Direct Connector	$270	• Builds a new flyover ramp between the express toll lanes on I-405 and the HOV lanes on I-90. • The ramp would connect Renton to Issaquah.
	I-405 / I-90 Bellevue to Issaquah Direct Connector	$265	• Builds a new flyover ramp between the express toll lanes on I-405 and the HOV lanes on I-90. • The ramp would connect Bellevue to Issaquah.

G. SR 520/I-405 Interchange and SR 520/124th Ave NE Interchange - $550 million

Benefits • Benefit/Cost: 1.6 • Reduces delay by 24,000 vehicle hours daily or $136 M in annual travel time savings. Provides direct connection between I-405 and SR 520 and eliminates weaving in the general purpose lanes.	SR 520 / 124th Ave NE New Interchange	$235	• Rebuilds the SR 520/124th Ave NE interchange to Master Plan configuration
	I-405 / SR 520 Direct Connectors	$315	• Builds flyover ramps connecting the express toll lanes on I-405 to the HOV lane on SR 520. Ramps will connect Bellevue to Redmond traffic.

Future corridor planning for I-405/SR 167

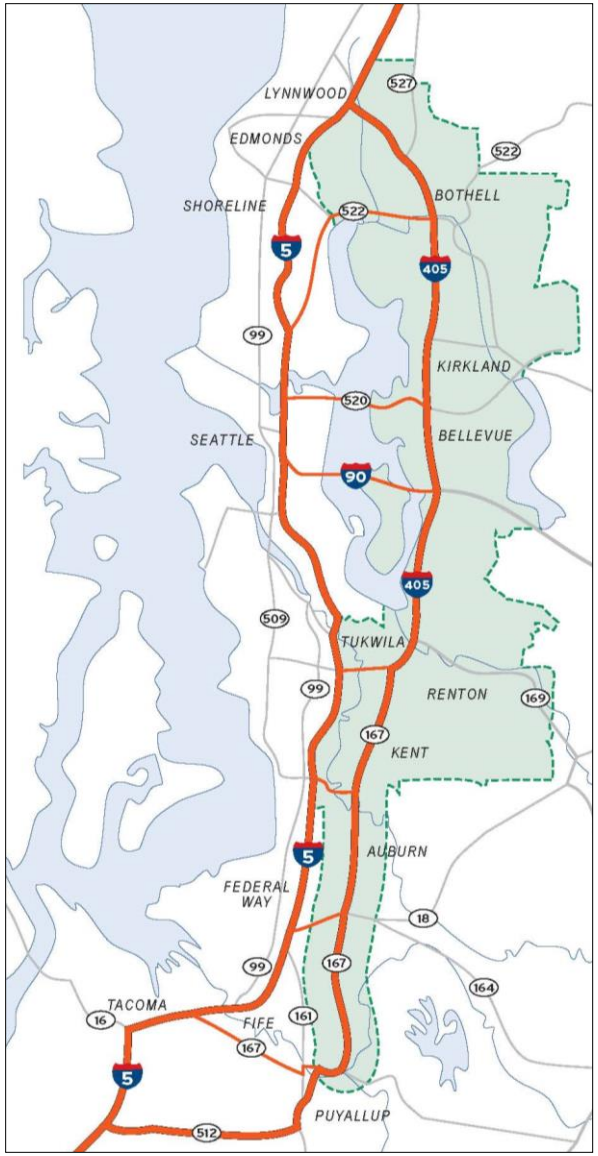
In 2015, WSDOT invited the following stakeholders to join a reconvening of the I-405/SR 167 Executive Advisory Group and begin planning for future corridor improvements:

Cities
Algona
Auburn
Bellevue
Bothell
Fife
Kent
Newcastle
Puyallup
Redmond
Renton
Sumner
Tukwila
Woodinville

Agencies
Community Transit
Federal Transit Agency
King County Metro
Sound Transit
Washington State Transportation Commission

Counties
King County
Pierce County

State Legislators
Legislators from the following districts: 1, 4, 11, 21, 25, 30, 31, 32, 33, 37, 41, 45, 47, 48



Go Live! Expectations

Patty Rubstello, P.E.
Toll Operations Director, Toll Division

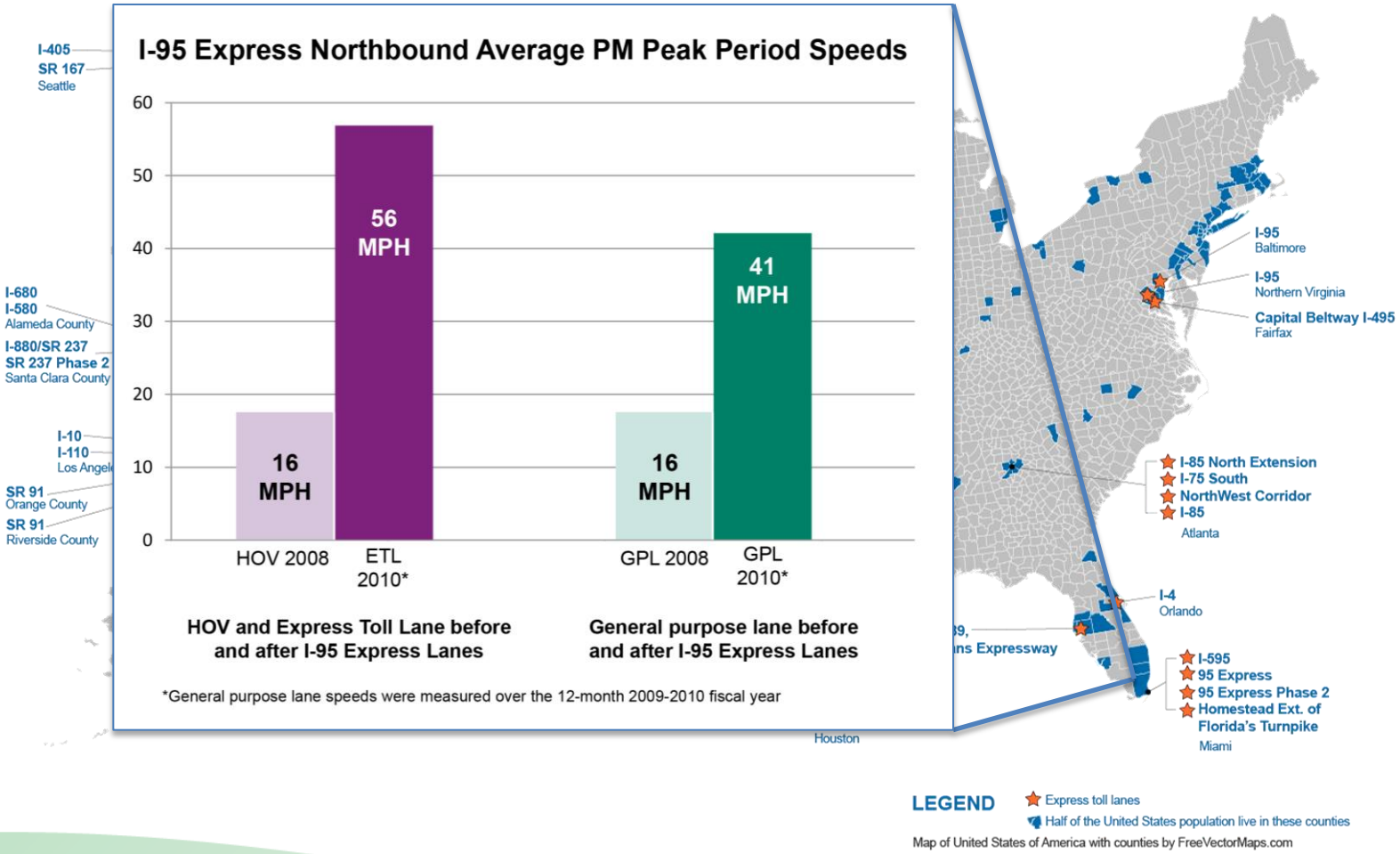
Animated Video

https://www.youtube.com/watch?v=8tzocP4UfZk

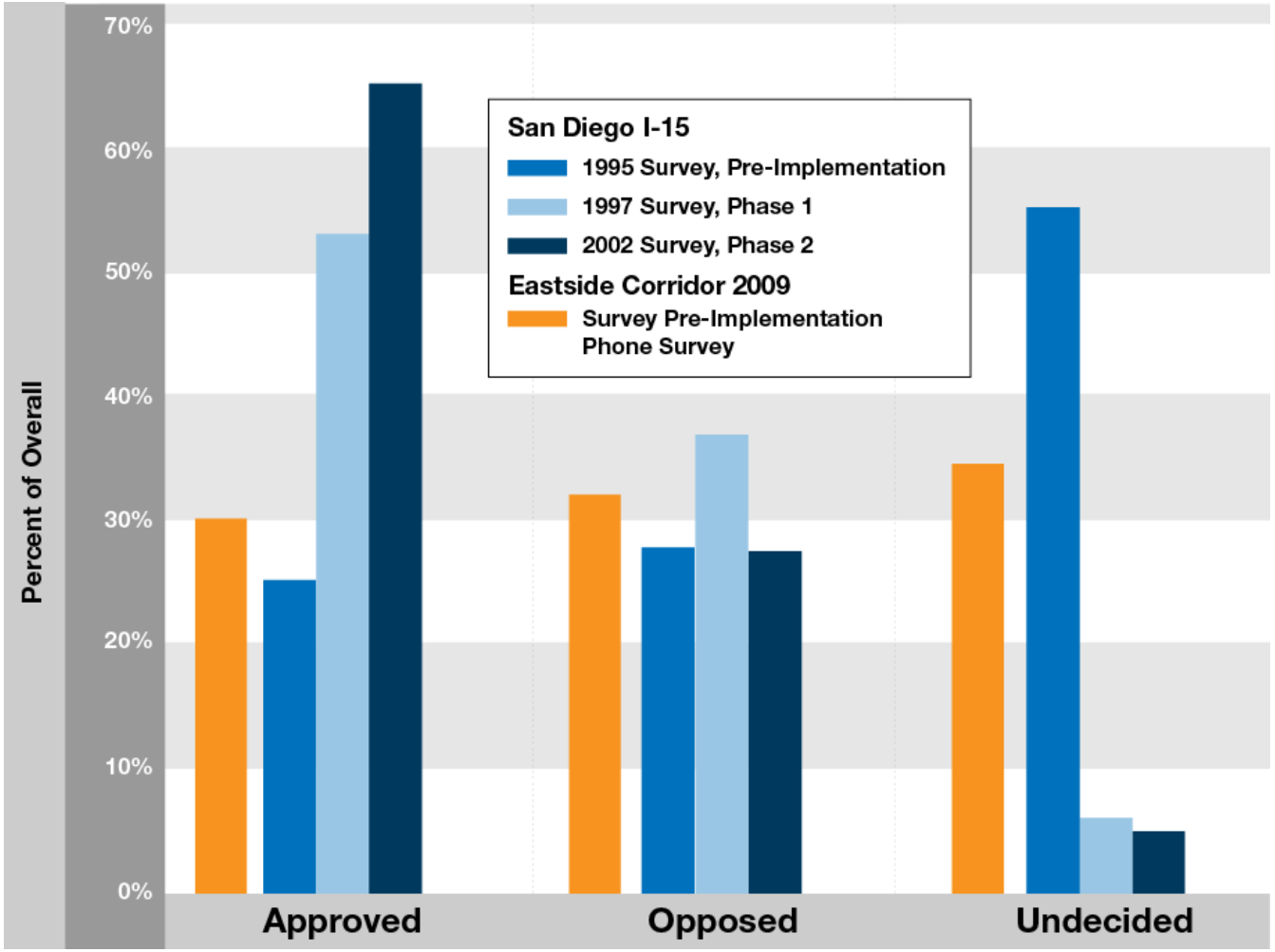
What You Need to Know to Use the ETLs

- **The express toll lanes will operate 24/7**
- **Toll Rates**
  - Typical Toll Range $1 - $4.00
  - Minimum Toll Rate $ 0.75
  - Maximum Toll Rate $ 10.00
  - Pay By Mail Toll Increment $ 2.00
- **Exemptions**
  - Transit, vanpools, motorcycles and carpools travel free with a Good To Go! pass
    - Transit – Any *Good To Go!* pass will work
    - Vanpools – Any *Good To Go!* pass will work
    - Carpools – Need a Flex Pass set to HOV mode to use the lanes for free
    - Motorcycles – Need a *Good To Go!* pass (Motorcycle, license plate, sticker)
  - In-service emergency vehicles, maintenance, enforcement, and incident management vehicles, including private tow-trucks when directed by WSP, pass required
- **Carpool Policy**
  - 3+ carpools exempt at all times
  - 2+ carpools exempt except 5-9 a.m. and 3-7 p.m. on weekdays

Expectations for Opening – Improved Performance



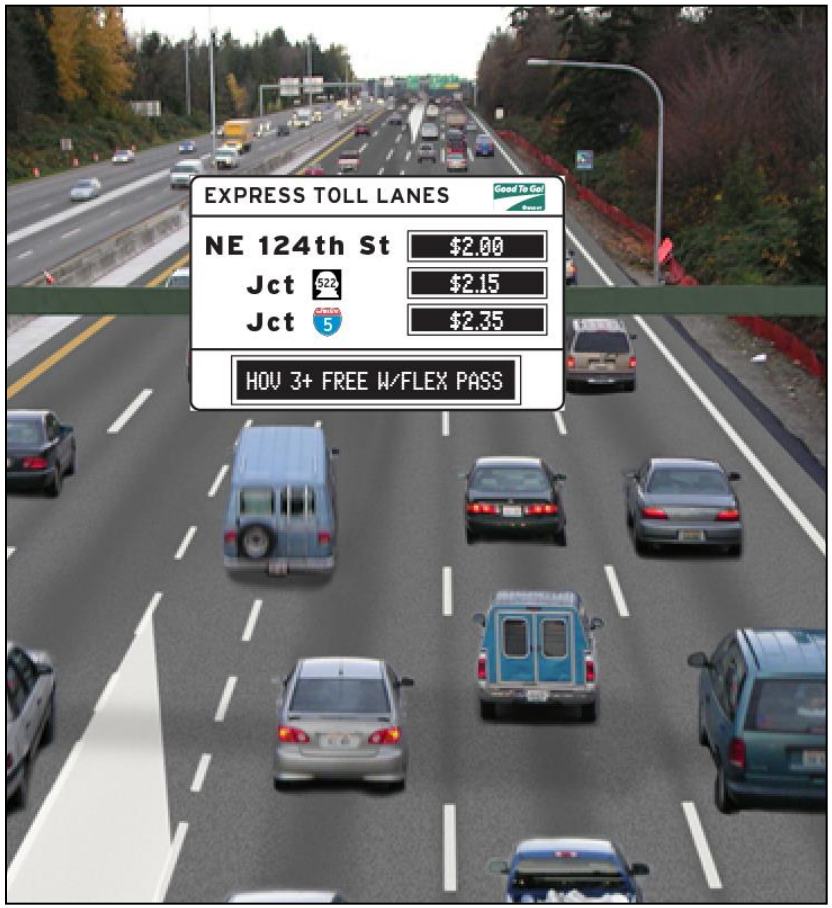
Expectations for Opening – Public Acceptance

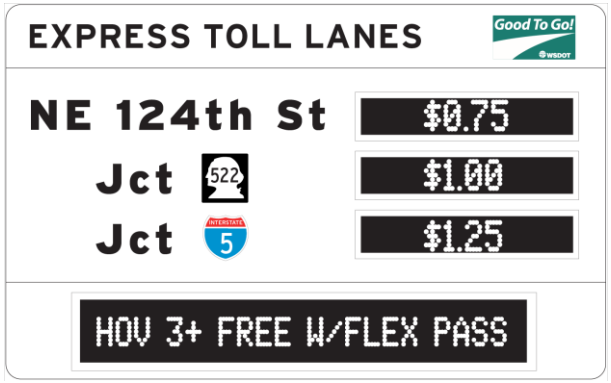


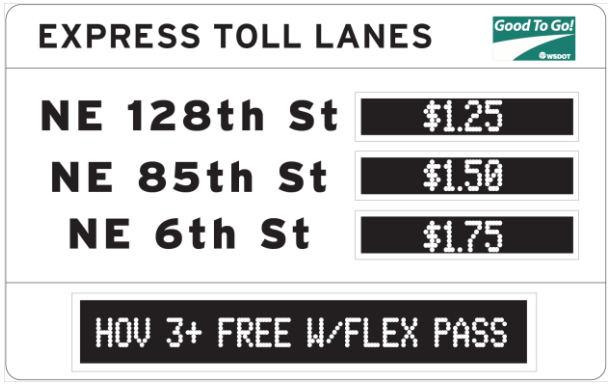
Expectations for Opening – Driver Confusion

- 2+/3+ carpool requirement
- Confusion associated with the access points
- Confusion associated with lane striping
- Repurposed auxiliary lanes

Expectations for Opening - Variable Toll Rates and Zones







Expectations for Opening – Empty ETLs

I-495 in Washington DC

I-495 in Washington DC
Photo Credit: Beyond DC

Expectations for Opening – Congested GP Lanes

I-85 in Georgia
Photo Credit: Jason Braverman

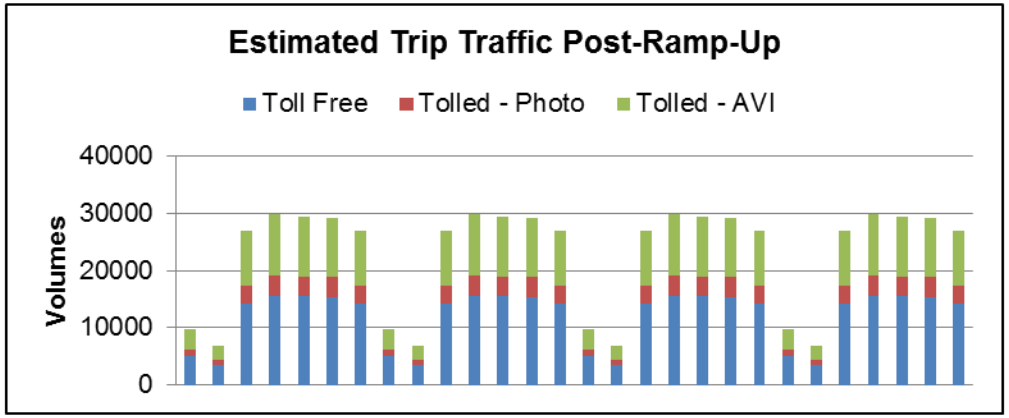
Traffic Monitoring Plan

- **Similar to other tolling projects, WSDOT will be collecting traffic data before and after the 405 express toll lanes open**

- **Traffic Performance in ETLs and GP Lanes**
  - Speeds
  - Travel Times
  - Vehicle Throughput (vehicles/hour)

- **Compare Projections**
  - Carpool and Non-Carpool Trips
  - Transponder and Photo Split

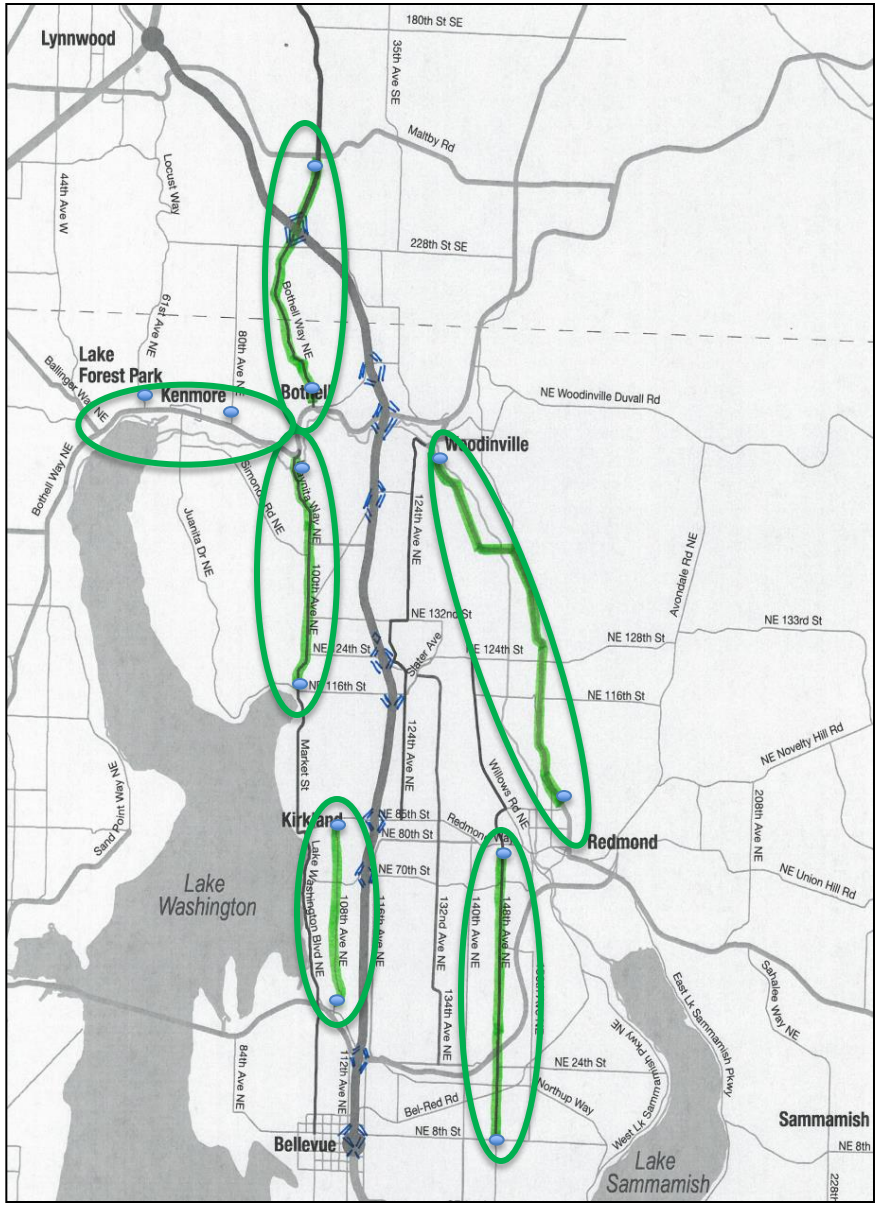
- **Transit Ridership**
  - ST, CT, and KCM
  - Number of Vanpools



Traffic Monitoring Plan

- **Impacts on Local Arterials**
  - Travel times – temporary Bluetooth readers
  - Volumes – temporary tube counters

- **Data Collection Schedule**
  - May 2015 (Pre Go-Live)
  - August 2015 (Pre Go-Live)
  - October 2015
  - May 2016
  - October 2016



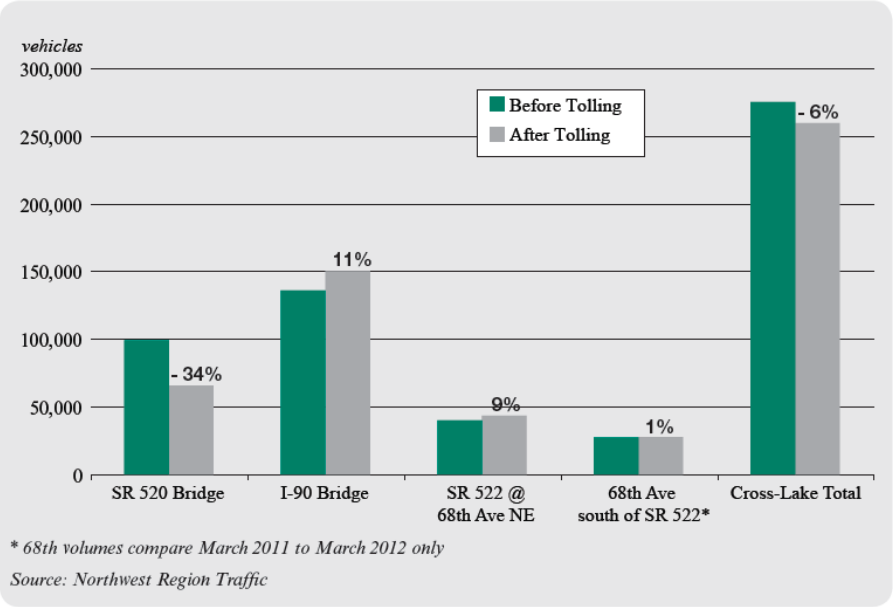
Traffic Monitoring Plan

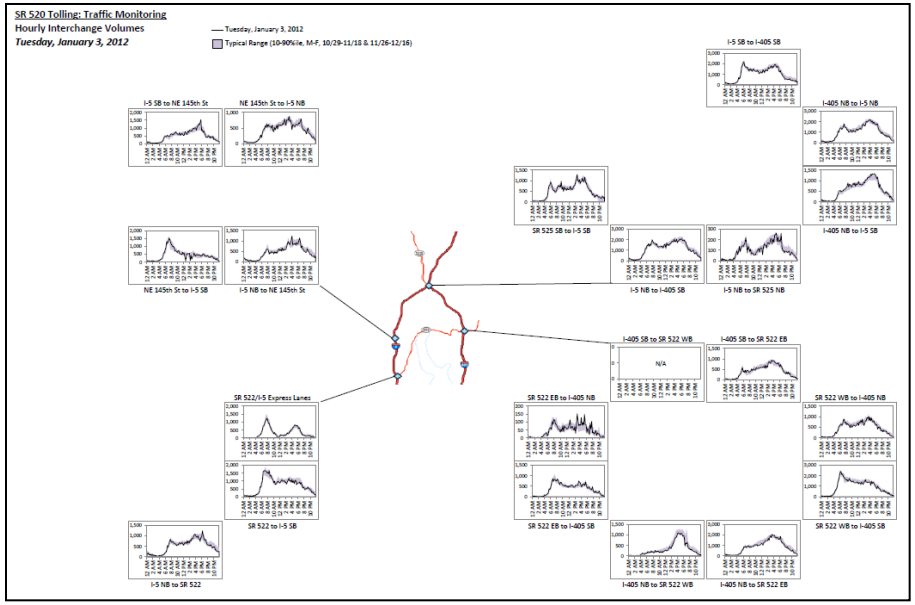
- **Safety and Enforcement Data**
  - Enforcement Along Project Corridor
  - Collision Data
- **Customer Opinion Data**
  - *Good To Go!* Account Holders
  - Trip Purpose
  - HOV Patterns
  - Demographics
- **HOV Patterns**
  - Vehicle Occupancy / People Throughput

Go-Live Reporting Activity

- **I-405 Express Toll Lanes Reporting**
  - Currently finalizing reporting plan
  - Saturday or Sunday launch event to prepare drivers before the Monday commute
  - Emergency Operations Center staffing and media reports similar to SR 520 & SR 167
  - Daily status updates with neighboring jurisdictions and media

Figure 1: Cross-lake average daily volume comparison





Public Education Update

Patricia Michaud
Communications Manager, Toll Division

Challenges

- Express toll lanes are too complex
- Upset carpoolers: Occupancy changes, must have Flex Pass
- Upset motorcycle drivers: Must have active pass
- Skepticism express toll lanes will work
- Fairness
- Tolling a roadway already paid for with gas tax
- Differences with SR 167 HOT Lanes
- Public will wait to engage until the last minute

Schedule

	2014			2015										
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Creative development														
Speaker bureau														
Earned media														
Paid media														

Grassroots outreach

Total Briefings 71 **People Reached 1,853**

As of June 16, 2015

Incentive Program Data

"It is very thoughtful of you to provide such services to commuters like myself, very much appreciated"
– Amir from Snohomish

Carpool incentive:

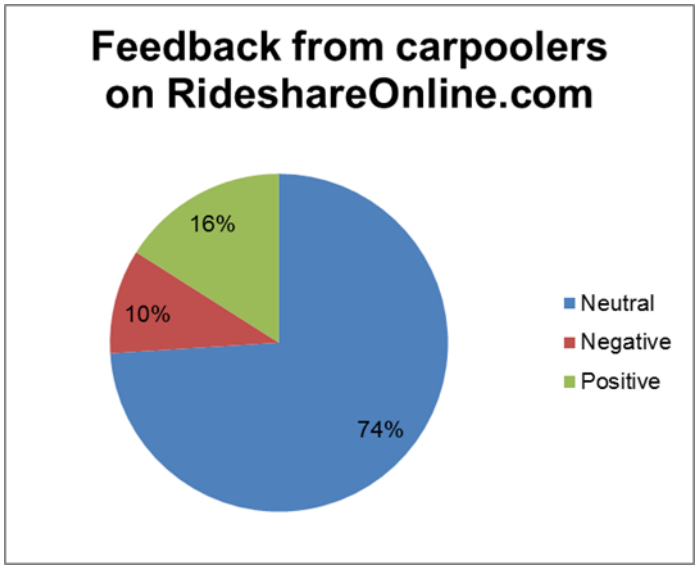
- 8,900 free passes distributed
- 1,140 comments received

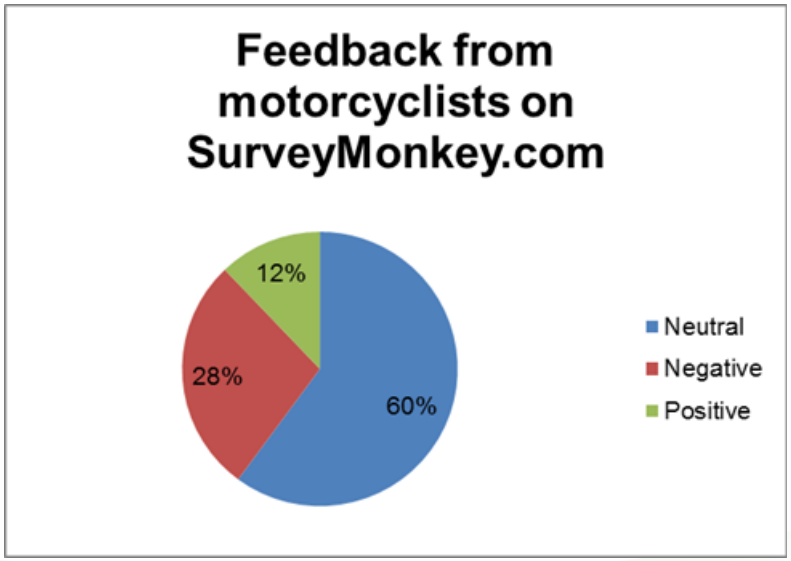
Motorcycle Pass incentive:

- 1,900 free passes requested
- 170 comments received

Conversations:

- Via phone: 340 people
- Via email: 475 emails





Discussion

Express Toll Lanes Go Live!

Facilitated by:

Craig Stone, P.E.

Assistant Secretary, Toll Division

For more information

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