

I-405/SR 167 Corridor

Bellevue City Council

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Council Conference Room

Jan. 23, 2017

Agenda

- Introductions
- Express Toll Lanes one year update
- North end projects update
- Renton to Bellevue Widening and Express Toll Lanes
- Project Schedule

I-405 Master Plan

Regional Consensus

- EIS Record of Decision, 2002

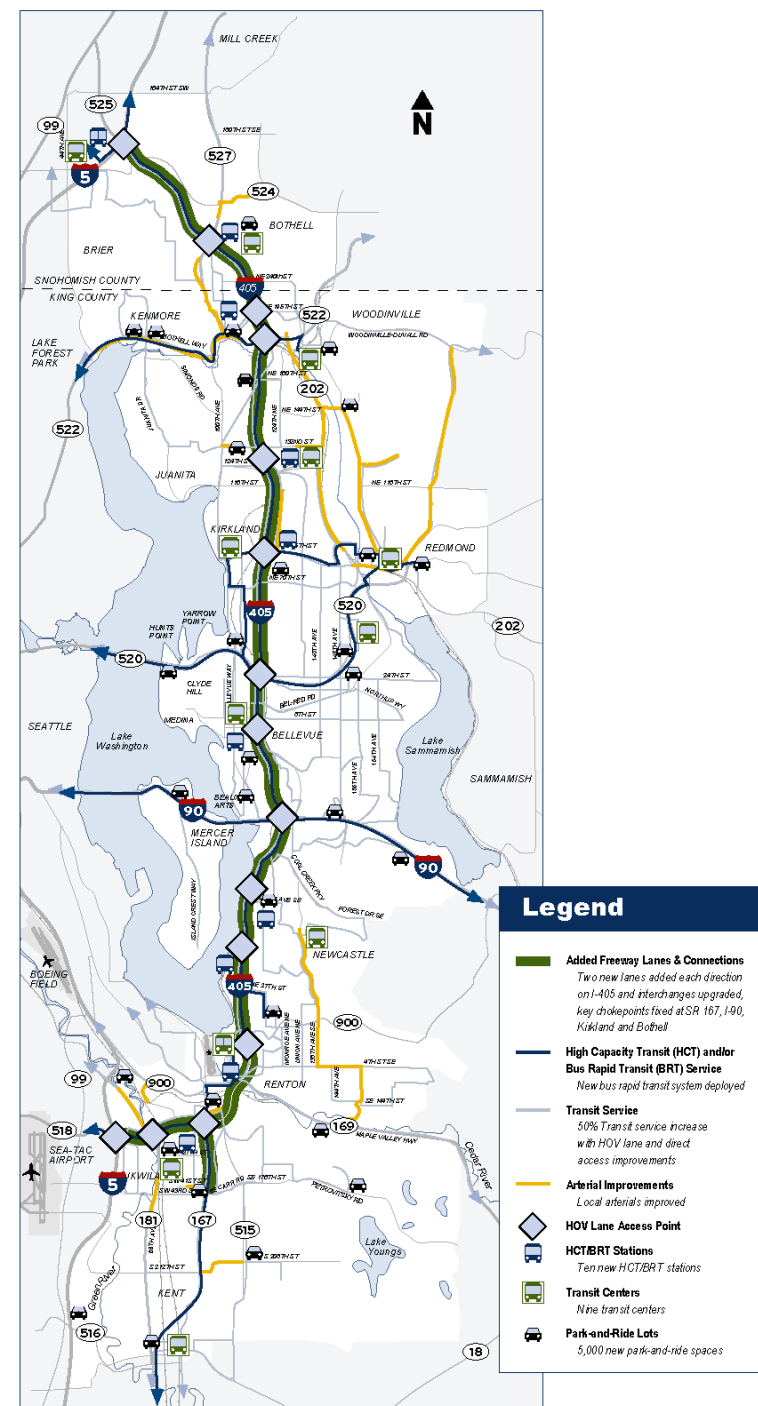
Roadways

- 2 new lanes in each direction
- Local arterial improvements

Transit & Transportation Choices

- Bus Rapid Transit system
- 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



I-405 Master Plan: Multimodal and making progress

Park and Ride expansions
80% complete or funded



Transit center expansions
70% complete



Bus Rapid Transit stations
70% complete



Local arterial improvements
50% complete



Add 2 lanes in each direction
45% complete or funded



Transit service increase
40% complete



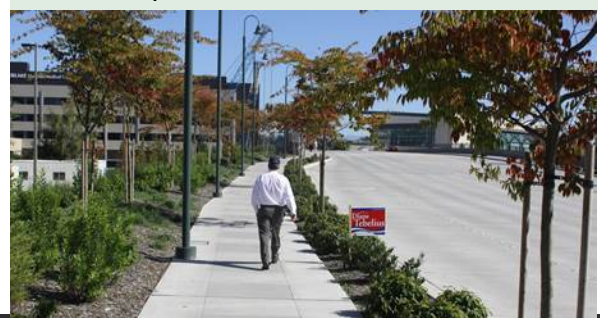
Direct Access
12% complete



Vanpool service increase
30% complete



Pedestrian/bicycle improvements
25% complete



I-405 express toll lanes

Quick facts

- Opened Sept. 27, 2015
- 17 miles of express toll lanes
- Operation hours: **5 a.m. to 7 p.m. Mon – Fri**
- Toll Rates
 - Minimum Toll Rate \$ 0.75
 - Maximum Toll Rate \$ 10.00
- Carpool Policy
 - 3+ carpools with Flex Pass exempt at all times
 - 2+ carpools exempt except 5-9 a.m. and 3-7 p.m. on weekdays



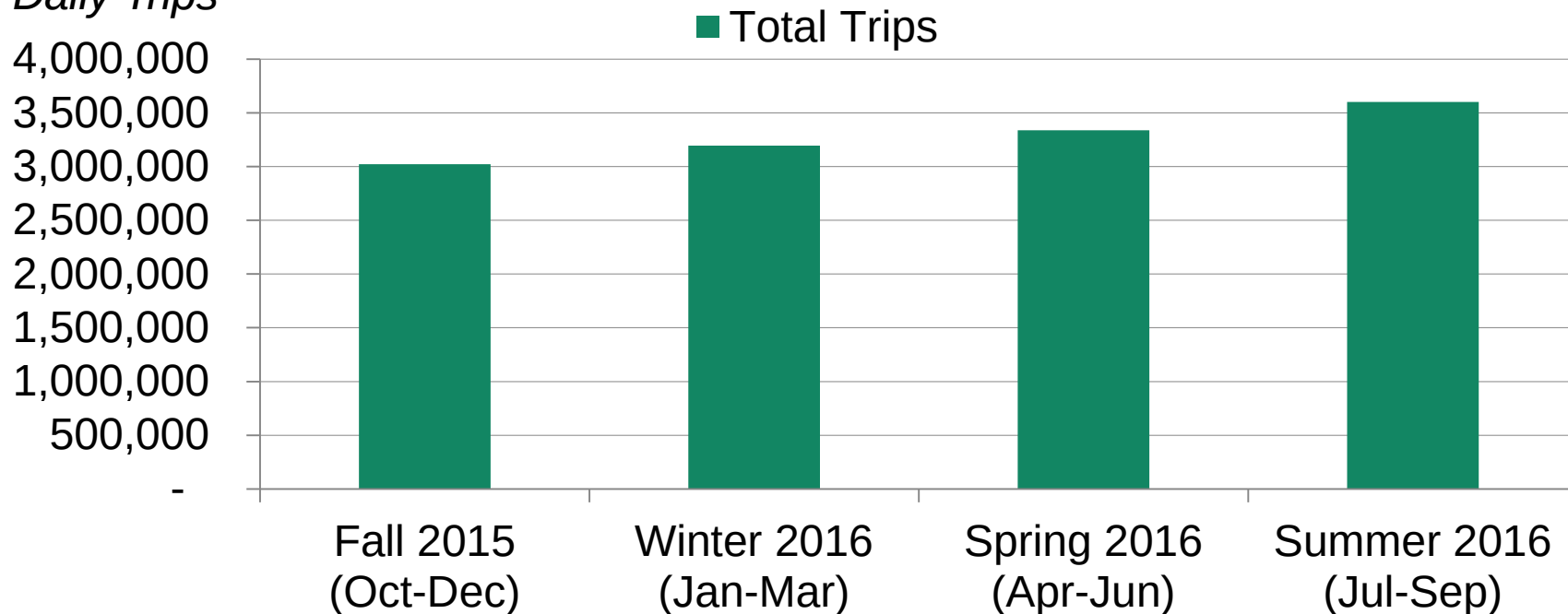
What we're seeing:

Drivers made 14.5 million trips in the first year

Total trips in the express toll lanes continue to increase, quarter over quarter.

Total Weekday Trips (October 1, 2015 to September 30, 2016)

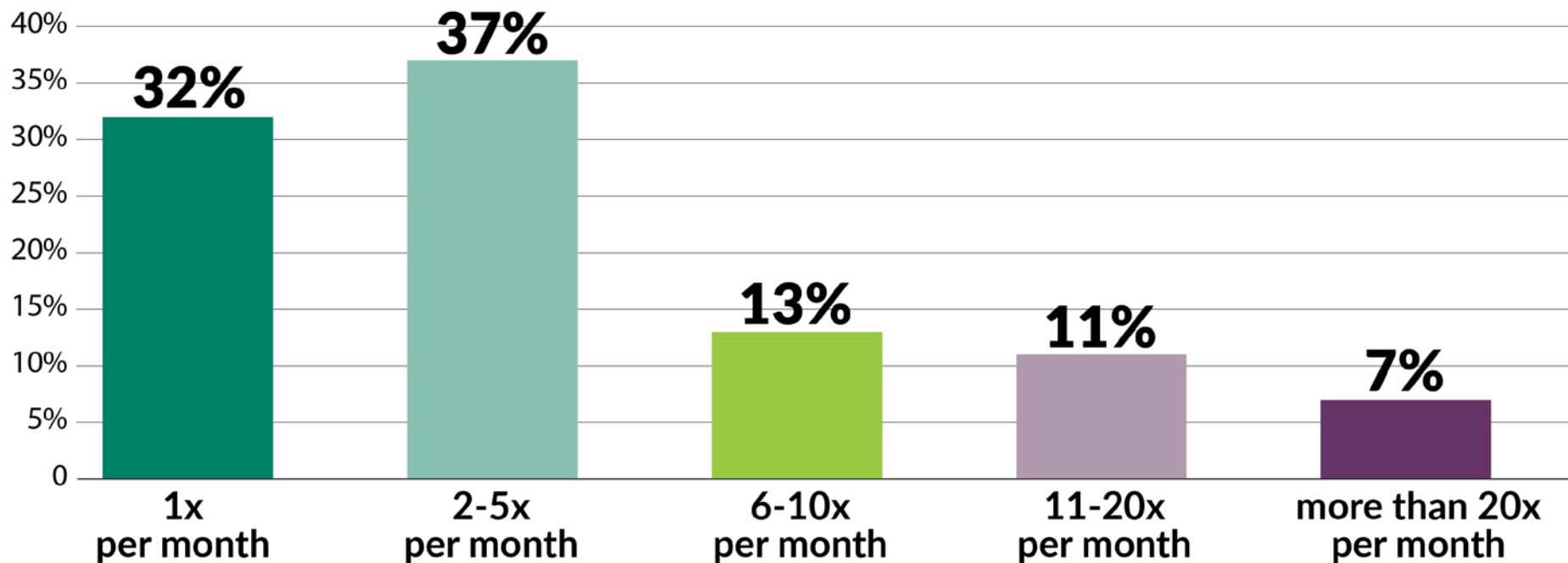
Daily Trips



What we're seeing:

Drivers use the lanes when they need them

Average monthly express toll lane travel frequency for *Good To Go!* pass users (Oct. 2015 – Sept. 2016)

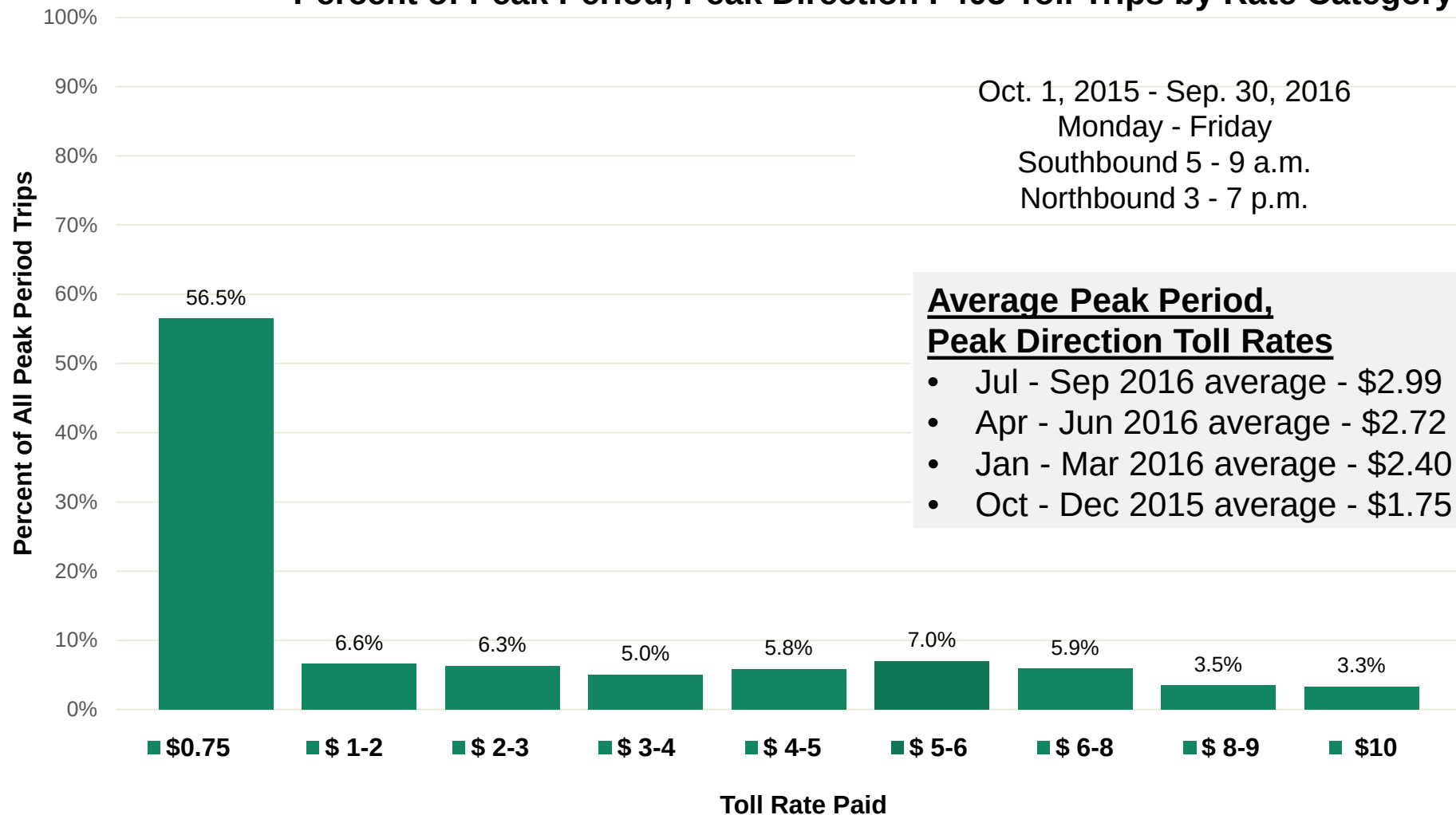


Source: Unique *Good To Go!* passes on I- 405
Weekdays from 5 a.m. to 7 p.m.

What we're seeing:

What drivers are choosing to pay

Percent of Peak Period, Peak Direction I-405 Toll Trips by Rate Category



What we're seeing: I-405 is moving more vehicles at peak periods in most areas

Combined volume increase for all lanes for peak period, peak direction trips

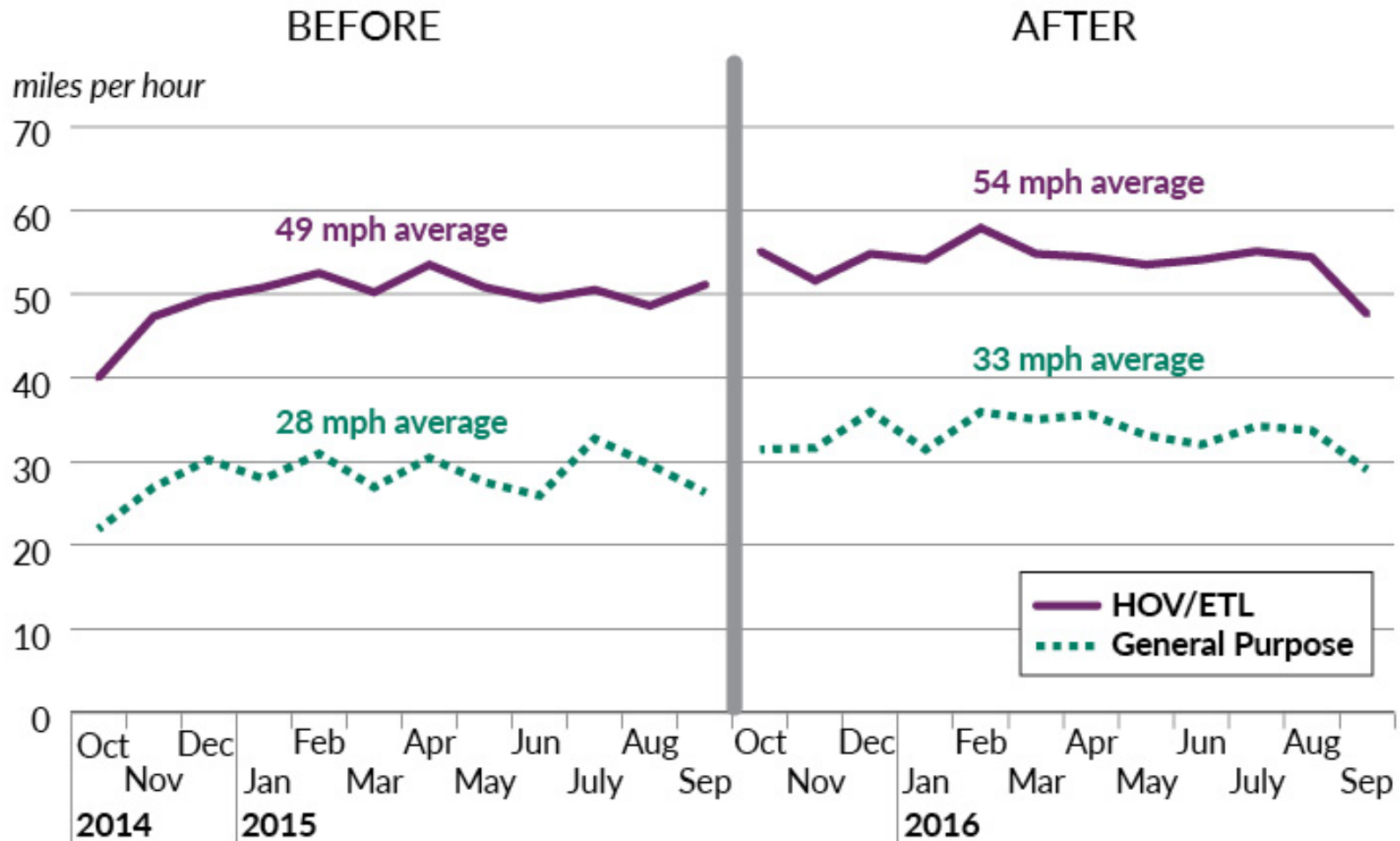
WSDOT added 7.5 lane miles of new capacity southbound for a **12% increase** in all lane miles.



WSDOT added 3.5 lane miles of new capacity northbound for a **5% increase** in all lane miles.

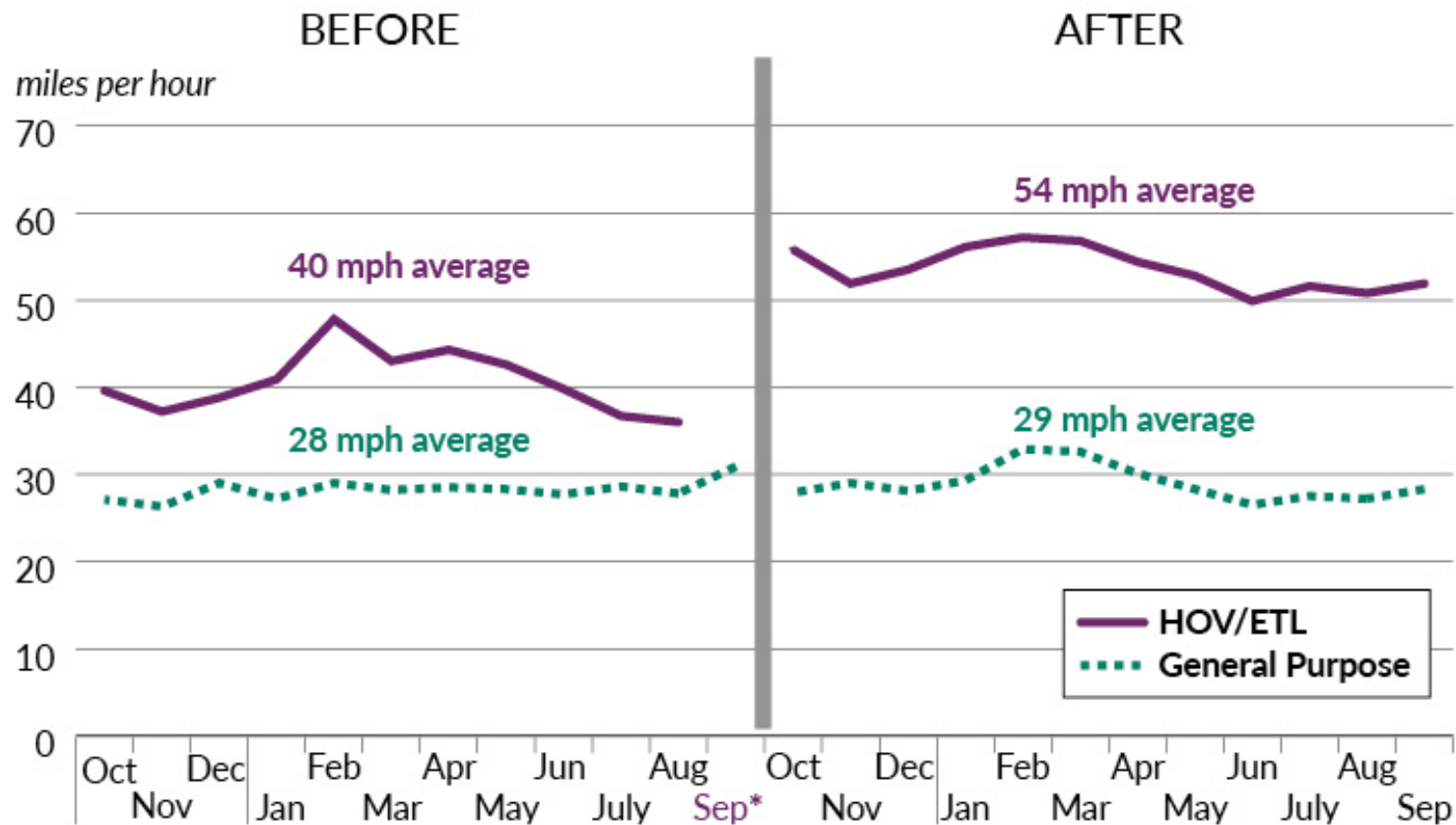
What we're seeing: The express toll lanes are moving morning drivers faster

For a full corridor trip during the peak period, the express toll lanes are moving vehicles faster and saving drivers time over the general purpose lanes.



What we're seeing: The express toll lanes are moving evening drivers faster

For a full corridor trip during the peak period, the express toll lanes are moving vehicles faster and saving drivers time over the general purpose lanes.

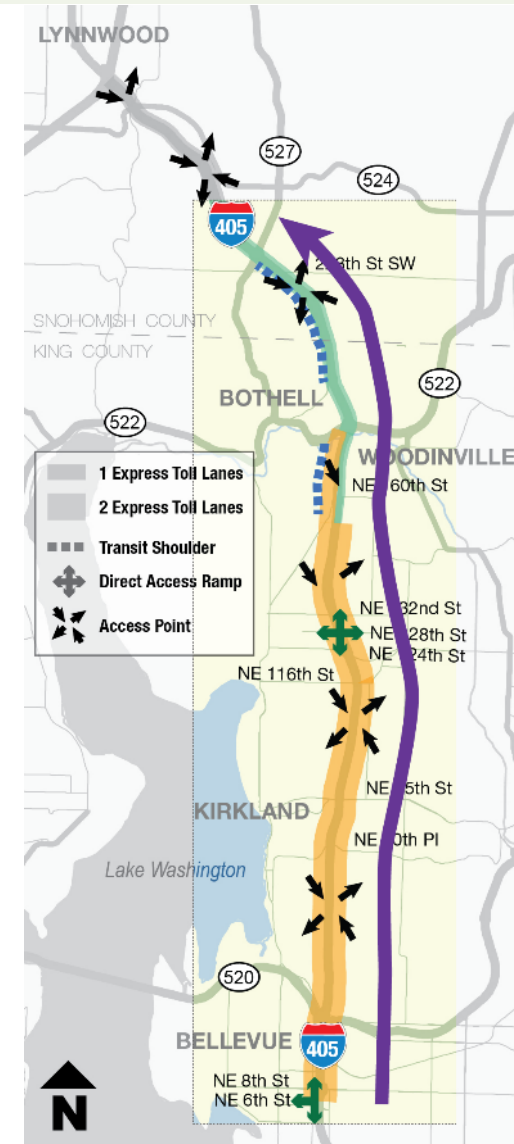


* Due to construction activity impacting traffic loop data in the northbound HOV lane, September 2015 data was deemed inaccurate and removed.

What we're seeing: The corridor is moving most evening peak commute drivers faster

Northbound I-405 from Bellevue to SR 527 (PM Peak Period)

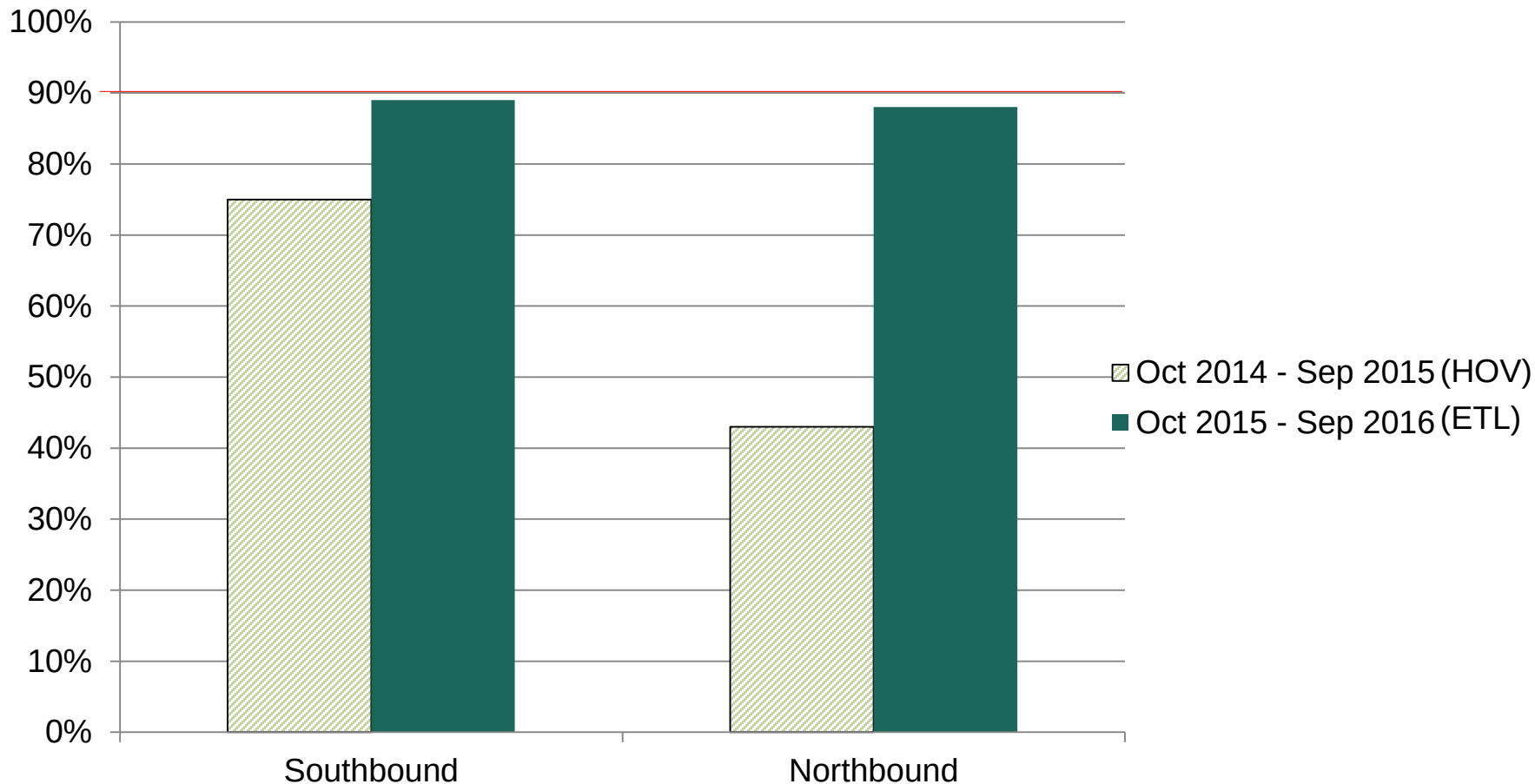
Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	28	(38)	2 minutes faster	4 minutes faster
	2015	26	(34)		
Jan	2015	28	(36)	3 minutes faster	1 minute faster
	2016	25	(35)		
May	2015	28	(38)	2 minutes faster	4 minutes faster
	2016	26	(34)		
Aug	2015	27	(33)	1 minute slower	1 minute slower
	2016	28	(34)		



What we're seeing: Speeds and predictability have improved with express toll lanes

I-405 Express Toll Lane Performance – Full Corridor

Percentage of Peak Periods and Peak Direction When Speeds are Greater Than 45 Miles Per Hour

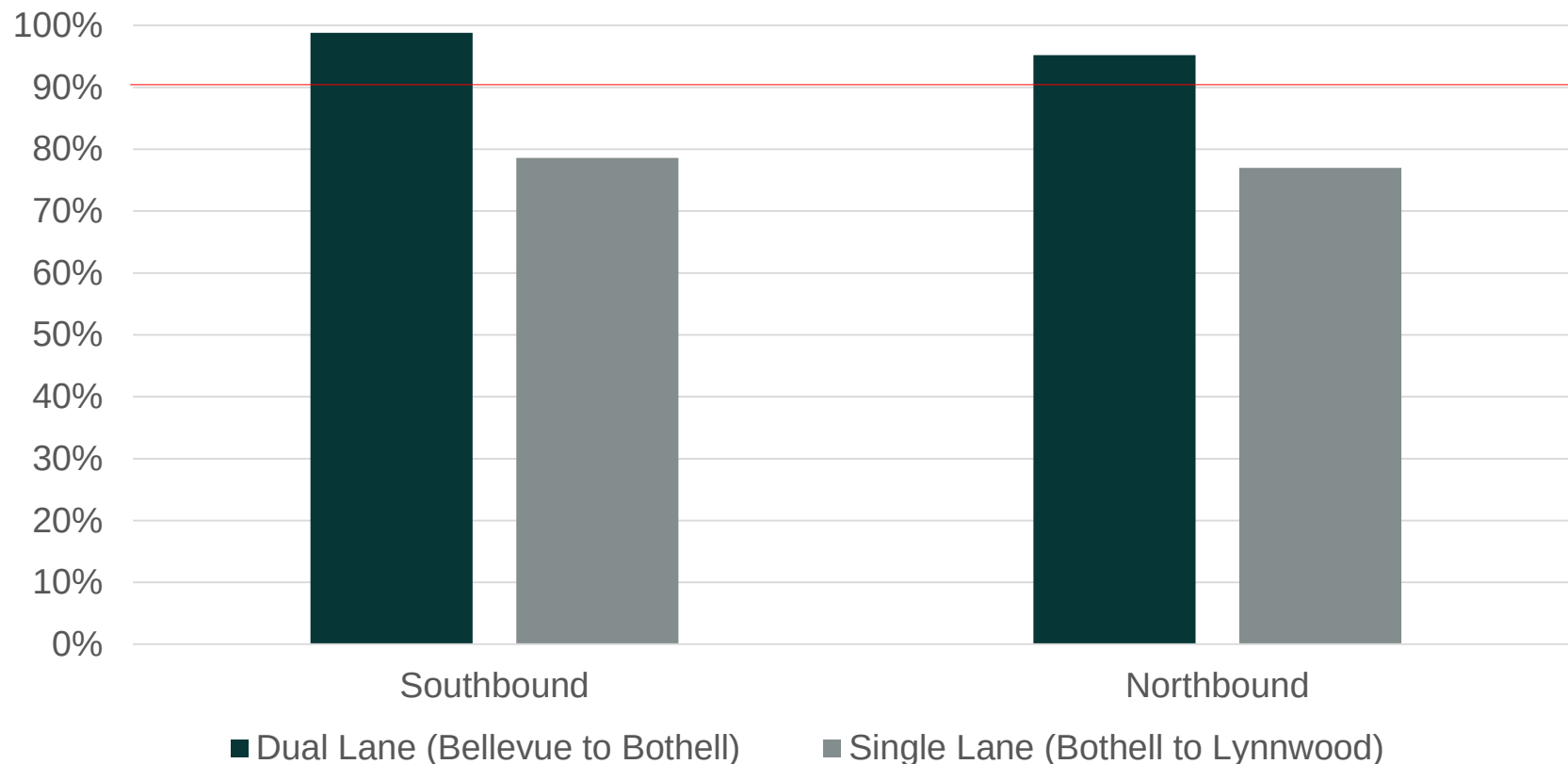


What we're seeing:

Many factors impact the 45 mph metric

I-405 Express Toll Lane Performance Single-Lane Section / Dual-Lane Section

Percentage of Peak Periods and Peak Direction When Speeds are Greater Than 45 Miles Per Hour
(Oct. 2015 – Sept. 2016)



What we're seeing:

Express toll lanes are funding future improvements

Higher utilization during first year of operation provided sufficient revenue to cover I-405 express toll lane operating costs, in addition to providing funding for the northbound **Peak-Use Shoulder Lane project.**



Peak-Use Shoulder Lane

Northbound I-405 from SR 527 to I-5

Scope

- Convert right shoulder to general purpose peak-use shoulder lane on northbound I-405 between SR 527 and I-5
- Build new noise wall for area residents
- Complete improvements to express toll lane signage and access

Timeline

- **November 2016:** Design-build contractor selected
 - Graham Contracting Ltd.
 - *Funded with I-405 express toll lane revenue*
- **Winter 2017:** Construction start
- **Spring 2017:** Open to traffic



Legislative Direction

The **2016 Supplemental Transportation Budget** directed WSDOT to study the north end of I-405, specifically:

“the identification and prioritization of projects that will help reduce congestion and provide added capacity on the Interstate 405 tolling corridor between state route number 522 and Interstate 5.”



I-405 Master Plan Elements Under Evaluation



Master Plan elements currently being considered for next steps include:

Direct Access Ramps at:

- SR 527
- NE 195th Street
- SR 522
- NE 160th Street

Direct Connector Ramps (HOV to ETL) at:

- I-5/I-405 interchange

Lanes

- Two express toll lanes in each direction

Transit

- I-405 Bus Rapid Transit (inside operations)

I-405 North End Projects Charrette

Two-day workshop

Nov. 16 and 29, 2016

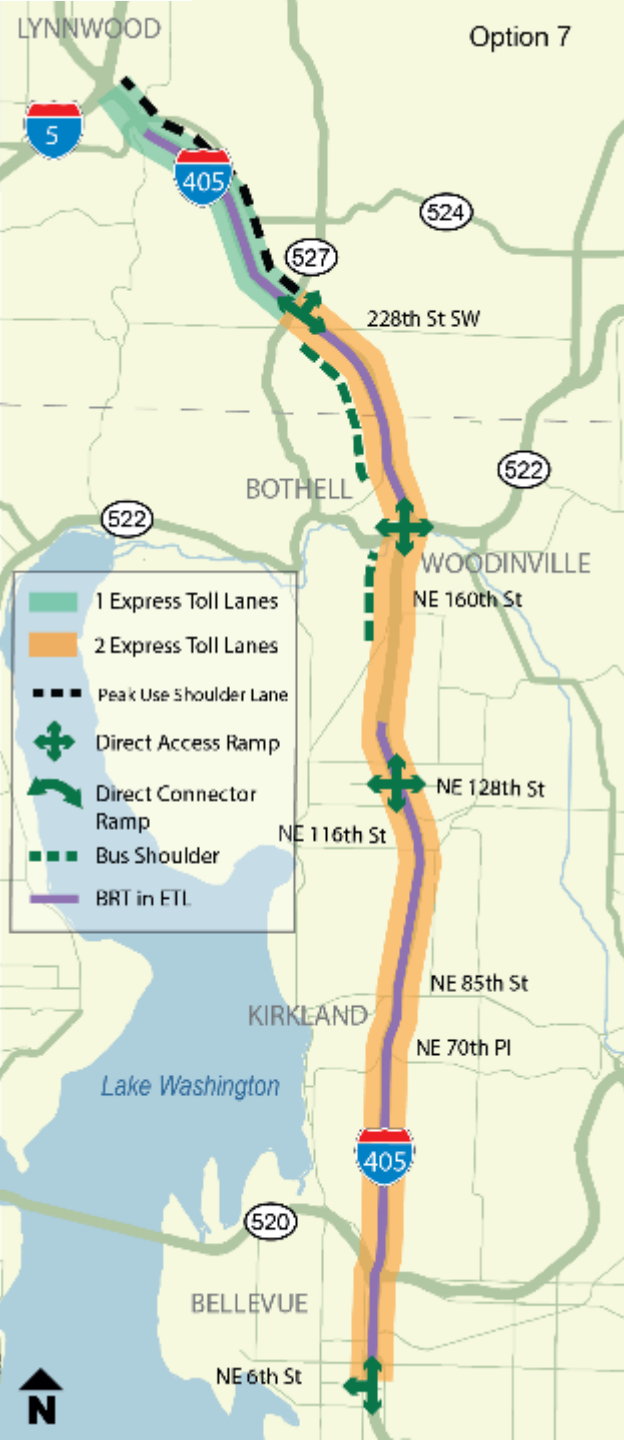
Interagency participation:

- Cities of Bothell and Woodinville
- Community Transit
- Federal Highway Administration
- King County Metro
- Snohomish County
- Sound Transit
- WSDOT



Objectives:

- Review WSDOT I-405 north end phasing concepts, brainstorm alternative solutions
- Gather input on challenges and considerations for improvements
- Develop recommendation for next priority improvements from Master Plan



Potential Phase 1 (~\$450M)*

Base + Enhanced SR 527 DA

Lanes

- One new express toll lane in each direction from SR 522 to SR 527

Ramps

- SR 522 direct access ramps
- SR 527 inline station direct access ramp (to east, north and south)

BRT

- In ETL from I-5 to south of SR 527

Benefits

- **Reduces southbound congestion from SR 527 to SR 522**
- Provides limited northbound congestion relief SR 522 to SR 527
- 2 minute travel time savings for transit at SR 527 direct access
- Improved BRT travel times
- Reduces frequency of high tolls

Estimated schedule

- 7 year project

I-405 North End: Next Steps

Potential initial \$5 million investment to continue to preliminary engineering (from Bellevue to Lynnwood project risk reserve savings):

- Planning-level traffic and revenue study
- Design refinements to better define costs
- Initial environmental investigation to identify risks and estimate costs

I-405/SR 167 Interchange Direct Connector

Project Description:

Builds a new flyover ramp connecting the SR 167 HOT lanes to the I-405 HOV lanes. Also relocates a noise wall and constructs portions of local streets in the Talbot Hill neighborhood.



Renton to Bellevue: Project Overview

- **Adds new highway capacity** to create a dual express toll lane system between State Route 167 in Renton and Northeast 6th Street in Bellevue. This project will complete a continuous 40-mile express toll lane system from I-405 in Lynnwood to SR 167 at the Pierce County line.
- **Improves four interchanges:** Northeast Park Drive and Northeast 44th Street in Renton, and 112th Avenue Southeast and Coal Creek Parkway in Bellevue.
- **Builds a new southbound general purpose lane** from I-90 to 112th Avenue Southeast in Bellevue.
- **Builds portions of the Eastside Rail Corridor regional trail**, including a new crossing over I-405 at the site of the former Wilburton rail bridge.*
- **Builds new direct access ramp** at Northeast 44th Street in Renton.**

*Partnership with King County

**Partnership with Sound Transit



Estimated Schedule
Construction start: 2019
Open to traffic: 2024

Renton to Bellevue: Direct Access Ramp at NE 44th Street

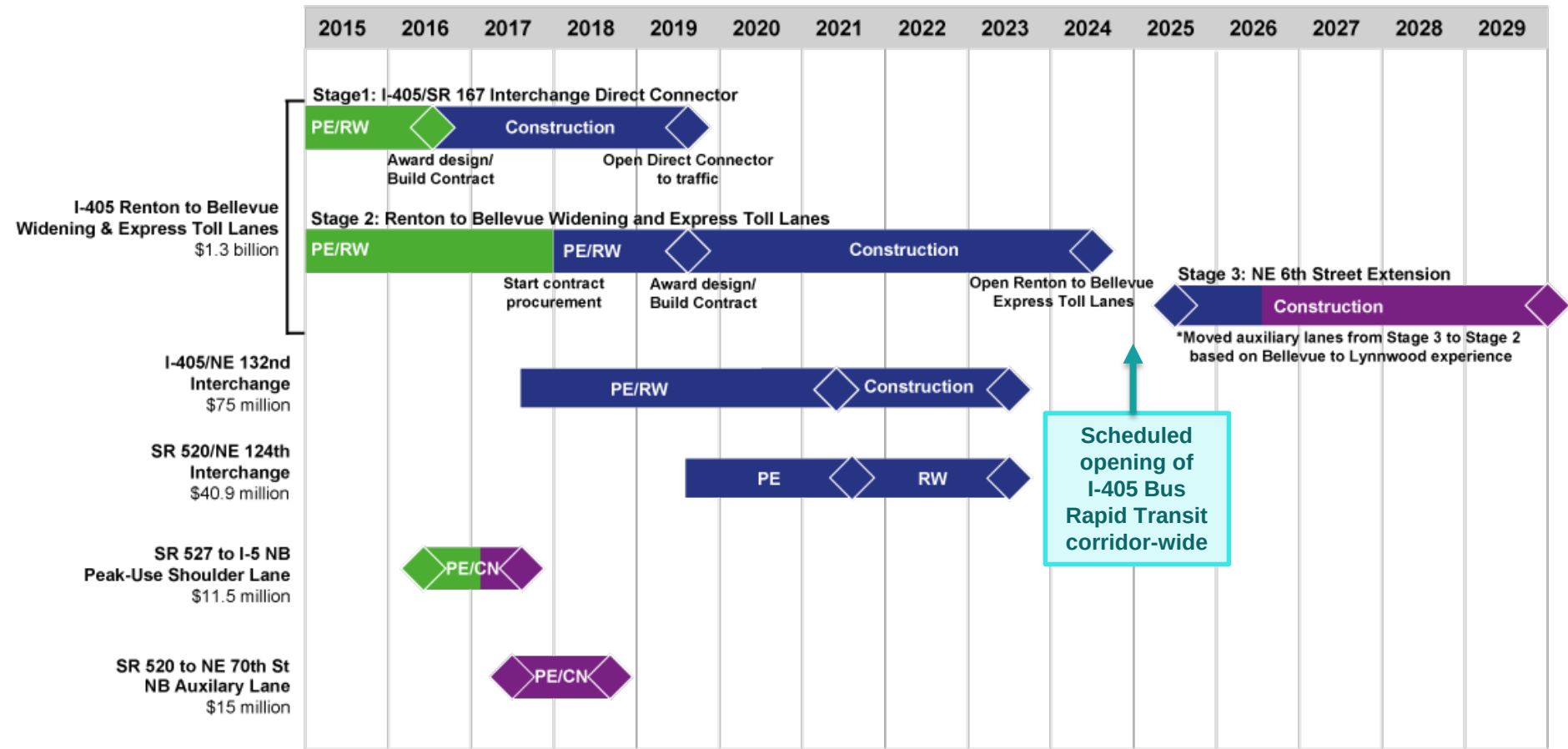
Sound Transit 3 package proposes for NE 44th Street:

- Direct access ramps
- Parking for transit users

Estimated 30% of existing on-ramp traffic would move to Direct Access ramps during peak periods



I-405 Delivery Schedule: Current Funding



- Program savings (Nickel/TPA)
- Connecting Washington funding
- Funded by toll revenue (anticipated by Connecting WA)

CONTACT

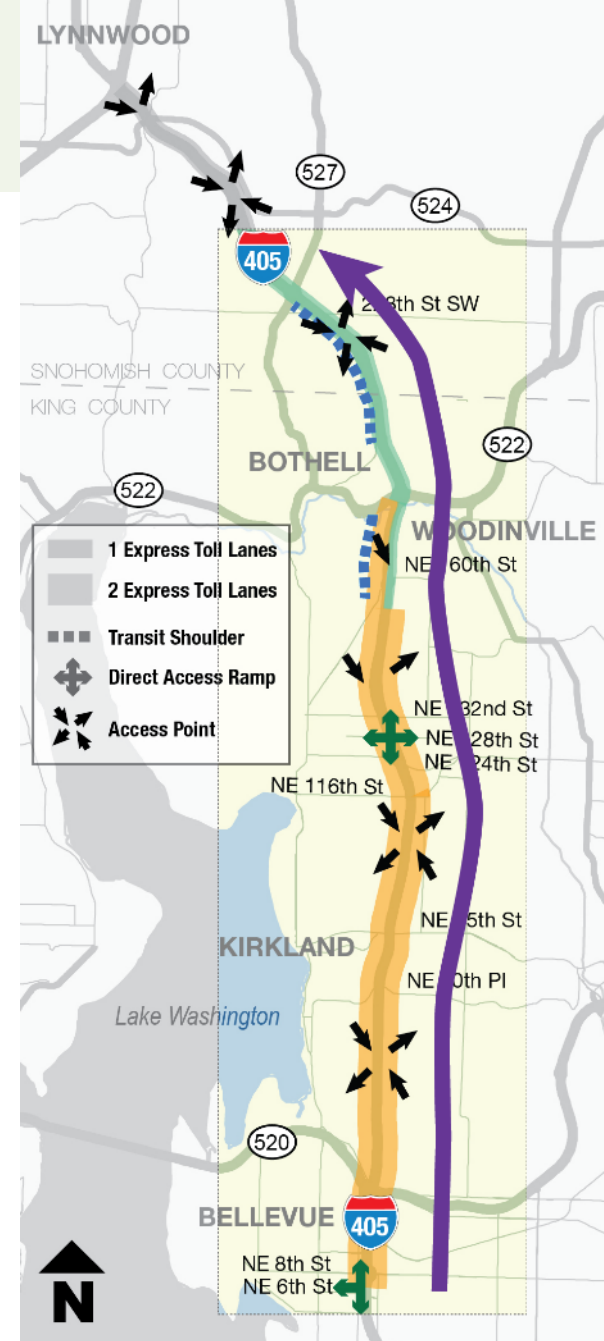
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I-405 is moving more vehicles at faster speeds in most sections

Northbound I-405 from Bellevue to SR 527 (PM Peak Period)

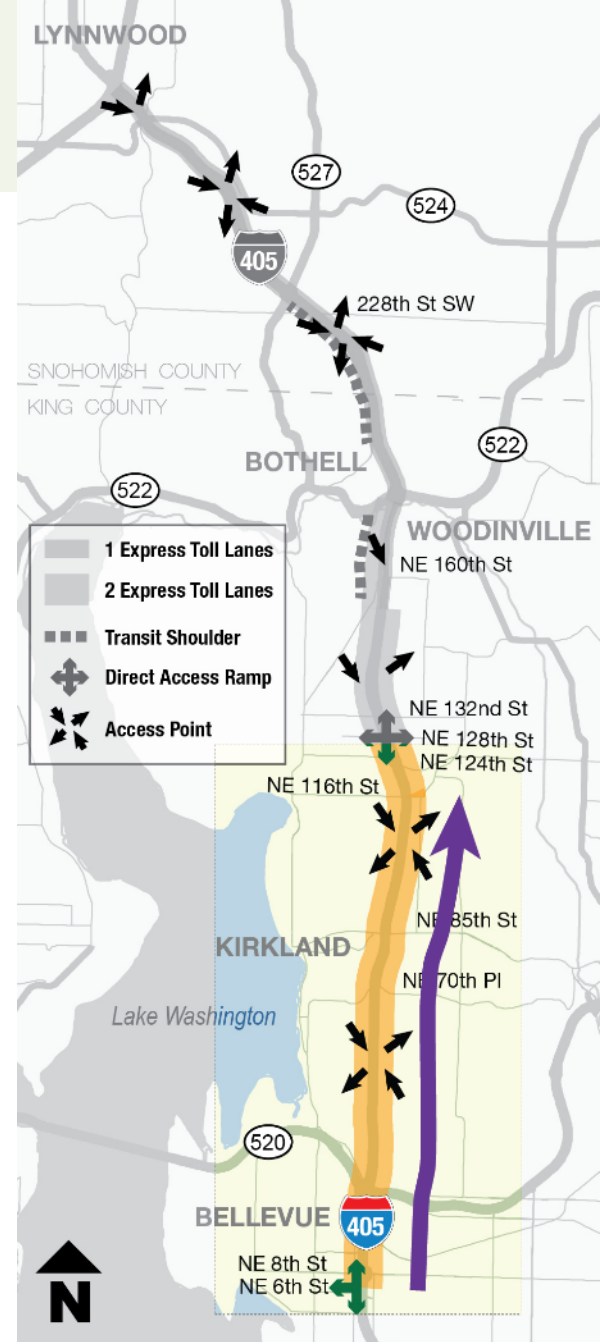
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Oct	2014	28	(38)	2 minutes faster	4 minutes faster
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Jan	2015	28	(36)	3 minutes faster	1 minute faster
	2016	25	(35)		
May	2015	28	(38)	2 minutes faster	4 minutes faster
	2016	26	(34)		
Aug	2015	27	(33)	1 minute slower	1 minute slower
	2016	28	(34)		



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Northbound I-405 from Bellevue to NE 116th (PM Peak Period)

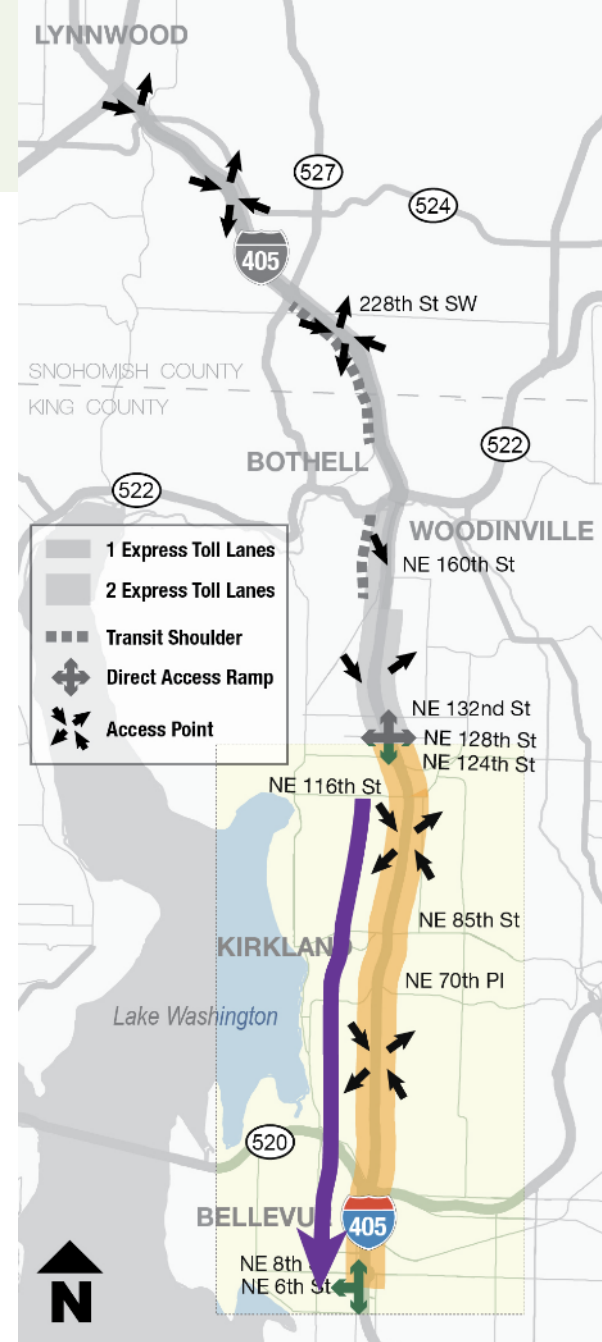
Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	16	(24)	3 minutes faster	6 minutes faster
	2015	13	(18)		
Jan	2015	16	(22)	4 minutes faster	4 minutes faster
	2016	12	(18)		
May	2015	16	(23)	4 minutes faster	7 minutes faster
	2016	12	(16)		
Aug	2015	16	(21)	3 minutes faster	5 minutes faster
	2016	13	(16)		



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Southbound I-405 from NE 116th St to Bellevue (AM Peak Period)

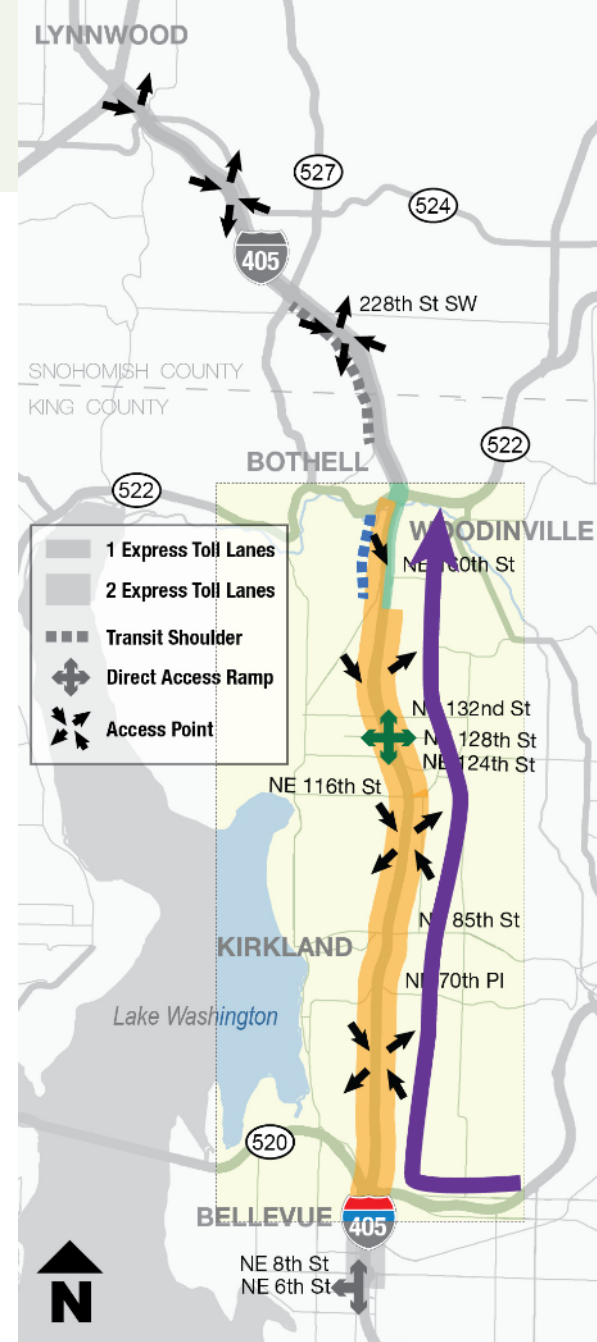
Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	12	(13)	2 minutes faster	2 minutes faster
	2015	10	(11)		
Jan	2015	11	(13)	2 minutes faster	1 minute faster
	2016	9	(12)		
May	2015	11	(13)	2 minutes faster	2 minutes faster
	2016	9	(11)		
Aug	2015	10	(11)	1 minute faster	1 minute faster
	2016	9	(10)		



I-405 is moving more vehicles at faster speeds in most sections

Westbound SR 520 at 148th Ave NE to Northbound I-405 at SR 522 (PM Peak Period)

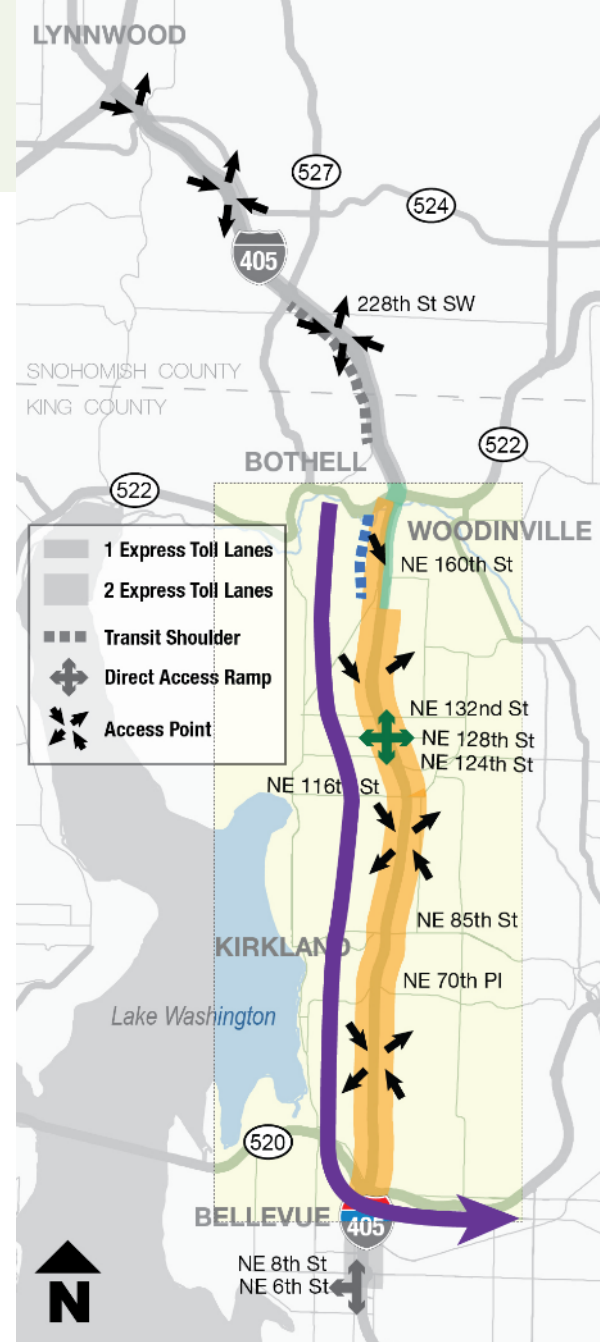
Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	27	(38)	7 minutes faster	11 minutes faster
	2015	20	(27)		
Jan	2015	26	(32)	6 minutes faster	3 minutes faster
	2016	20	(29)		
May	2015	28	(40)	6 minutes faster	11 minutes faster
	2016	22	(29)		
Aug	2015	24	(30)	1 minute faster	1 minute faster
	2016	23	(29)		



I-405 is moving more vehicles at faster speeds in most sections

Southbound I-405 at SR 522 to Eastbound SR 520 at 148th Ave NE (AM Peak Period)

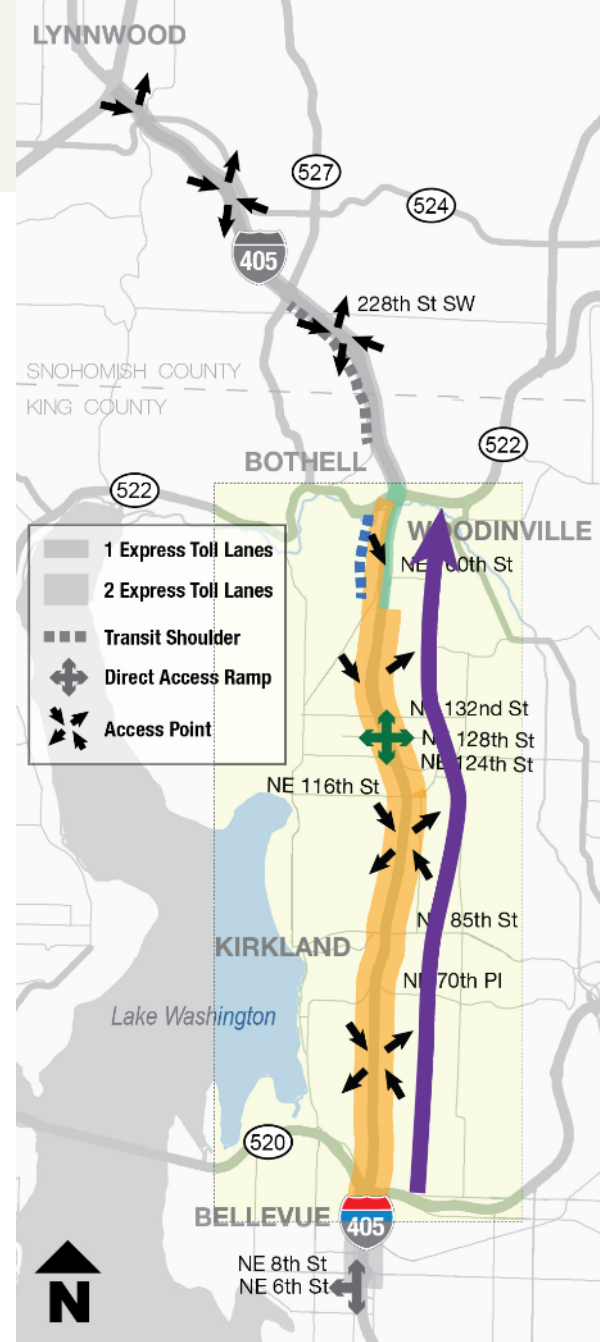
Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	23	(27)	5 minutes faster	6 minutes faster
	2015	18	(21)		
Jan	2015	21	(25)	5 minutes faster	5 minutes faster
	2016	16	(20)		
May	2015	21	(24)	5 minutes faster	6 minutes faster
	2016	16	(18)		
Aug	2015	20	(23)	5 minutes faster	6 minutes faster
	2016	15	(17)		



I-405 is moving more vehicles at faster speeds in most sections

Northbound I-405 from Bellevue to SR 522 (PM Peak Period)

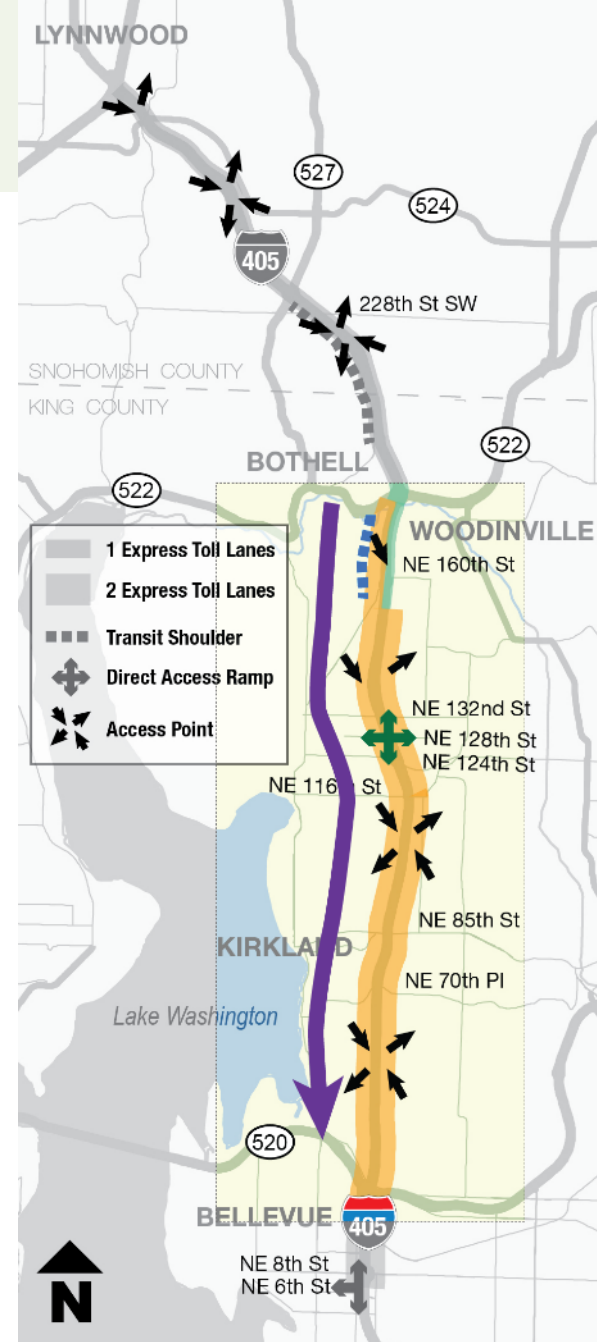
Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	24	(23)	3 minutes faster	1 minute faster
	2015	19	(22)		
Jan	2015	24	(31)	3 minutes faster	4 minutes faster
	2016	19	(27)		
May	2015	23	(33)	3 minutes faster	7 minutes faster
	2016	20	(26)		
Aug	2015	23	(30)	3 minutes faster	4 minutes faster
	2016	20	(26)		



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Southbound I-405 from SR 522 to Bellevue (AM Peak Period)

Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	21	(25)	2 minutes faster	3 minutes faster
	2015	19	(22)		
Jan	2015	19	(22)	5 minutes faster	5 minutes faster
	2016	14	(17)		
May	2015	19	(22)	5 minutes faster	6 minutes faster
	2016	14	(16)		
Aug	2015	17	(20)	4 minutes faster	5 minutes faster
	2016	13	(15)		



I-405 is moving more vehicles at faster speeds in most sections

Southbound I-405 from SR 527 to Bellevue (AM Peak Period)

Timeframe Comparison		GP Lane Travel Times in Minutes		Change in Travel Times	
		Average	(95 th Percentile)	Average	Reliable
Oct	2014	33	(40)	9 minutes faster	11 minutes faster
	2015	24	(29)		
Jan	2015	27	(35)	5 minutes faster	6 minutes faster
	2016	22	(29)		
May	2015	28	(34)	7 minutes faster	9 minutes faster
	2016	21	(25)		
Aug	2015	25	(33)	4 minutes faster	9 minutes faster
	2016	21	(24)		

