

I-405 Express Toll Lanes: 36 Months of Operations

THIS REPORT REVIEWS DATA FROM THE FIRST 36 MONTHS OF OPERATIONS (OCTOBER 2015 – OCTOBER 2018) OF THE EXPRESS TOLL LANES.



Table of Contents

I-405 Express Toll Lanes 36 Month Update: October 2015 – October 2018	3
--	---

Executive Summary 3

Goals	4
Legislative Performance Measures	4
How Express Toll Lanes Save Time	5
Volumes	6
Local Arterial Traffic.....	8
Average Corridor Speeds	10
Benefits During Worst Congestion	11
Collisions	12
Improvements	14
Public Perception	15
Transit Travel Times	16
Revenue	17
Toll Rates	18
Maximum Toll.....	19

Appendix A: Legislative Performance Measures20

Detailed General Purpose Lane Travel Time Data.....	23
Detailed Volume Data	36
Detailed Speed Data.....	37

Appendix B: Additional Traffic Performance Data 57

Appendix C: Express Toll Lanes Guide.....61

Operational Parameters	61
How Express Toll Lanes Work	61
Design	62
Vehicle Limitations	62
Dynamic Tolling	62
How the Signs Work.....	62

I-405 Express Toll Lanes 36 MONTH UPDATE: OCTOBER 2015 – OCTOBER 2018

Executive Summary

Goal #1

Goal 1: Provide a choice to people

- 61,000 vehicles use the express toll lanes each day.
 - 41,000 drivers choose to pay a toll and 20,000 vehicles drive toll-free.
- Drivers pay an average toll rate of \$3.17 during peak periods since the express toll lanes opened.
- In a recent survey, 86 percent of *Good To Go!* customers who had recently used the express toll lanes said they like having the option to use the express toll lanes when they need a faster trip.

Goal #2

Goal 2: Provide a faster, more predictable trip

- Drivers saved an average of 11 minutes using the express toll lanes compared to the general purpose lanes on trips between Bellevue and Lynnwood during peak periods.
- I-405 now carries up to 23 percent more vehicles each weekday during the peak periods when compared to before tolling began.
- Even though I-405 is carrying many more vehicles, average speeds in the express toll lanes have increased by as much as 27 mph, while general purpose lanes have improved by as much as 6 mph compared to pre-tolling in some areas.
- Every day, 7,700 people ride buses in the express toll lanes. Some bus routes save as much as 11 minutes per trip compared to before the express toll lanes opened.

Goal #3

Goal 3: Generate revenue to reinvest in the corridor

- In 36 months, the express toll lanes generated \$74.9 million in total revenue. While \$25 million has been used to maintain and operate the lanes, the remaining \$49.9 has or will be invested in I-405 improvements, including:
 - \$11.5 million for the peak use shoulder lane
 - \$15 million to design improvements and increase capacity north of the SR 522 interchange
- \$23.4 million is available for other future improvements which will be determined by the Legislature.

Legislative performance measures

The legislation that authorized the construction and operation of the I-405 express toll lanes requires WSDOT to report quarterly on seven performance measures. The statute also stipulates that if the lanes fail to meet both of the standards below, they will be closed as soon as practicable. The two legislative performance measures identified by RCW 47.56.880 (5) are:

1. Whether the express toll lanes generated sufficient revenue to pay for all express toll lane-related operating costs.
2. Whether the express toll lanes maintain speeds of 45 miles per hour at least 90 percent of the time during peak periods.

Revenue

The express toll lanes have consistently generated more revenue than is necessary to fund operational costs. During the 2018 summer quarter, the express toll lanes generated \$8.4 million in total revenue, which was more than enough to cover the \$2.7 million in expenditures. This brings the total revenue generated for 36 months of operations to \$74.9 million, with the total cost of operating and maintaining the lanes at \$25 million.

The Legislature specified that net revenue must be used to improve the corridor. WSDOT has already reinvested \$11.5 million into the peak use shoulder lane. An additional \$15 million was recently allocated by the Legislature to fund engineering to address the operational challenges in the north end of I-405, including the limited capacity in the southbound single lane section.

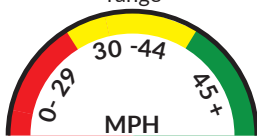
Speed reliability

While the express toll lanes have reduced travel times and increased speeds during peak periods in the corridor, some sections have fallen short of the second legislative performance measure of maintaining speeds of 45 mph or faster 90 percent of the time during peak periods. WSDOT reports this measure in six month increments, in order to be consistent with reporting to the Federal Highway Administration.

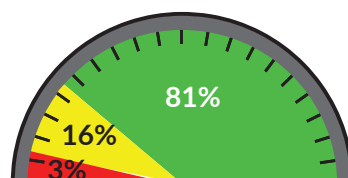
Overall, the express toll lanes are meeting the speed target 81 percent of the time during peak periods from April to September 2018. This is a significant improvement compared to the old HOV lanes, which only met the goal 56 percent of the time during the same time of year in 2015, before they were turned into express toll lanes.

The southbound lanes move at 45 mph 75 percent of the time during peak periods due to a lack of capacity in the single lane section and increasing traffic volumes. The northbound lanes met the speed goal 88 percent of the time

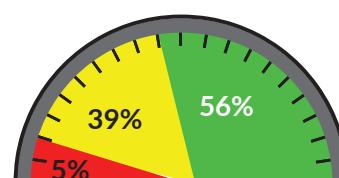
Percent of peak time periods when the lanes move vehicles within each speed range



Express toll lanes
(Apr. 2018 - Sept. 2018)



Pre-Tolling HOV
(Apr. 2015 - Sept. 2015)



How express toll lanes manage traffic during a population boom

Population in the central Puget Sound region continues to grow rapidly. Between April 2017 and April 2018, more than 52,000 people¹ moved to the area, or about 143 new residents a day. While people are moving to all parts of Puget Sound with about 64 new houses built each day spread across the entire region, job growth is still concentrated in Seattle and Bellevue. The result is a lot more people commuting longer distances to the same destinations.

Since the express toll lanes opened, almost 280,000 new drivers licenses were issued to drivers from out-of-state in King and Snohomish counties.² The rapid population and economic growth of the region means more drivers on the road and higher demand for faster, more reliable trips.

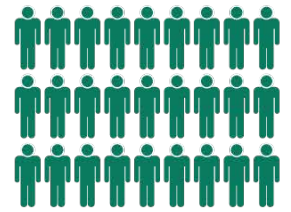
Volumes on corridor continue to increase

As the population of the Puget Sound region grows, so does the number of vehicles on the road. On average, up to 23 percent more vehicles move through the corridor during peak periods each weekday than before tolling began.

Since WSDOT opened the express toll lanes, the corridor has continued to keep up with growing demand and has shown travel time improvements in express toll lanes and regular lanes in most locations.

Combined peak period volumes in all sections of the I-405 corridor have increased compared to the year prior to tolling. The dual-lane section has experienced the highest volume growth, likely due to the added express toll lane capacity which more efficiently moves vehicles during peak periods. The single-lane section is also carrying increased volumes. This increase can be attributed to the express toll lanes' ability to move higher volumes during peak periods, compared to the previous HOV lanes.

APR. 2017 – APR. 2018



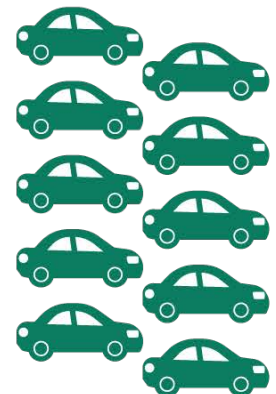
52,000
new residents



OCT. 2017 – SEPT. 2018



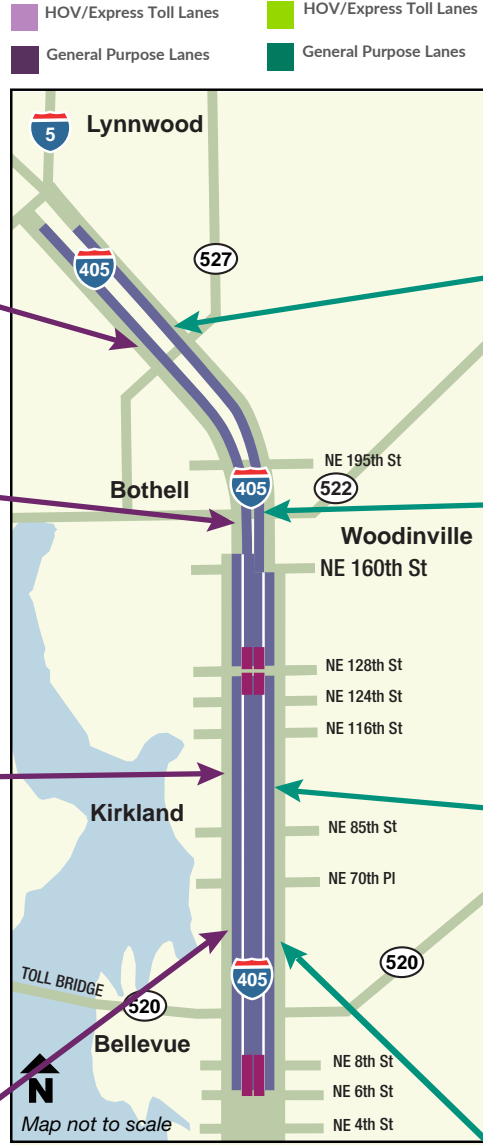
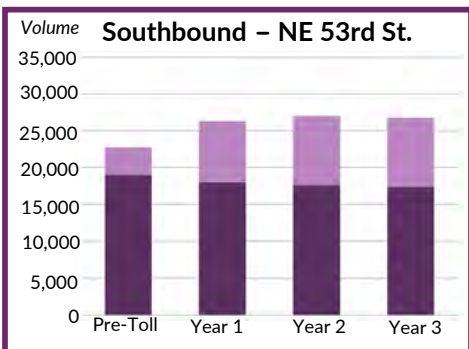
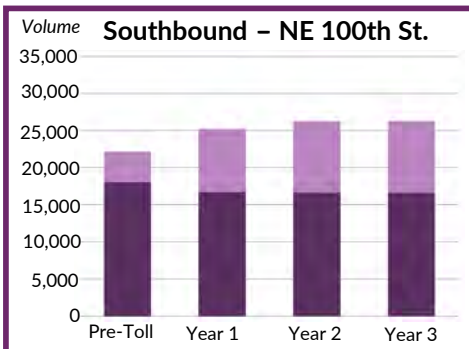
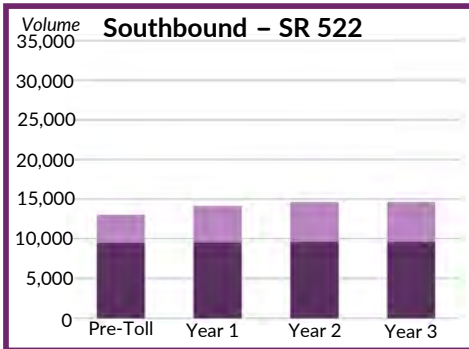
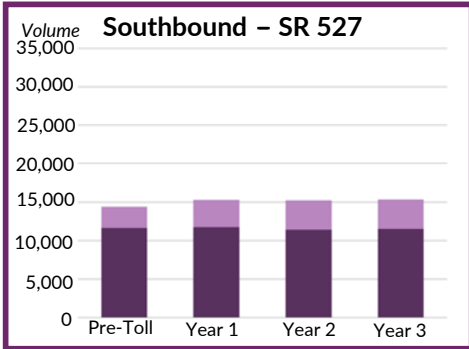
84,000
new drivers
from out-of-state



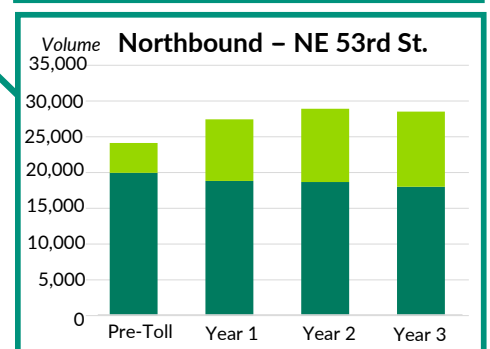
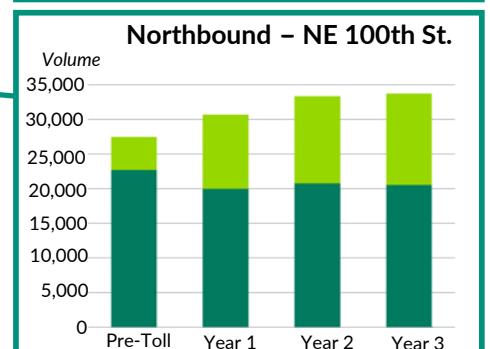
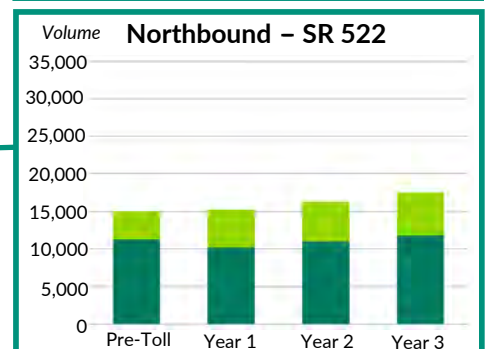
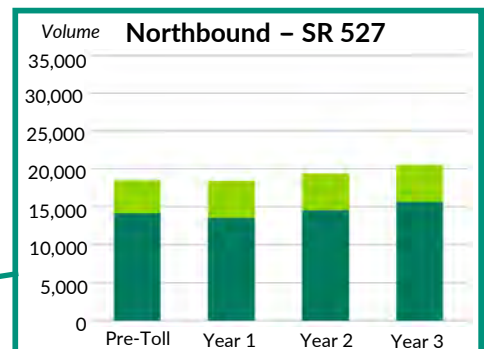
**Higher
traffic
volumes**

I-405 is carrying more vehicles each year (pre-tolling volumes compared to first three years of express toll lanes)

Southbound - Morning Peak (5-9am)



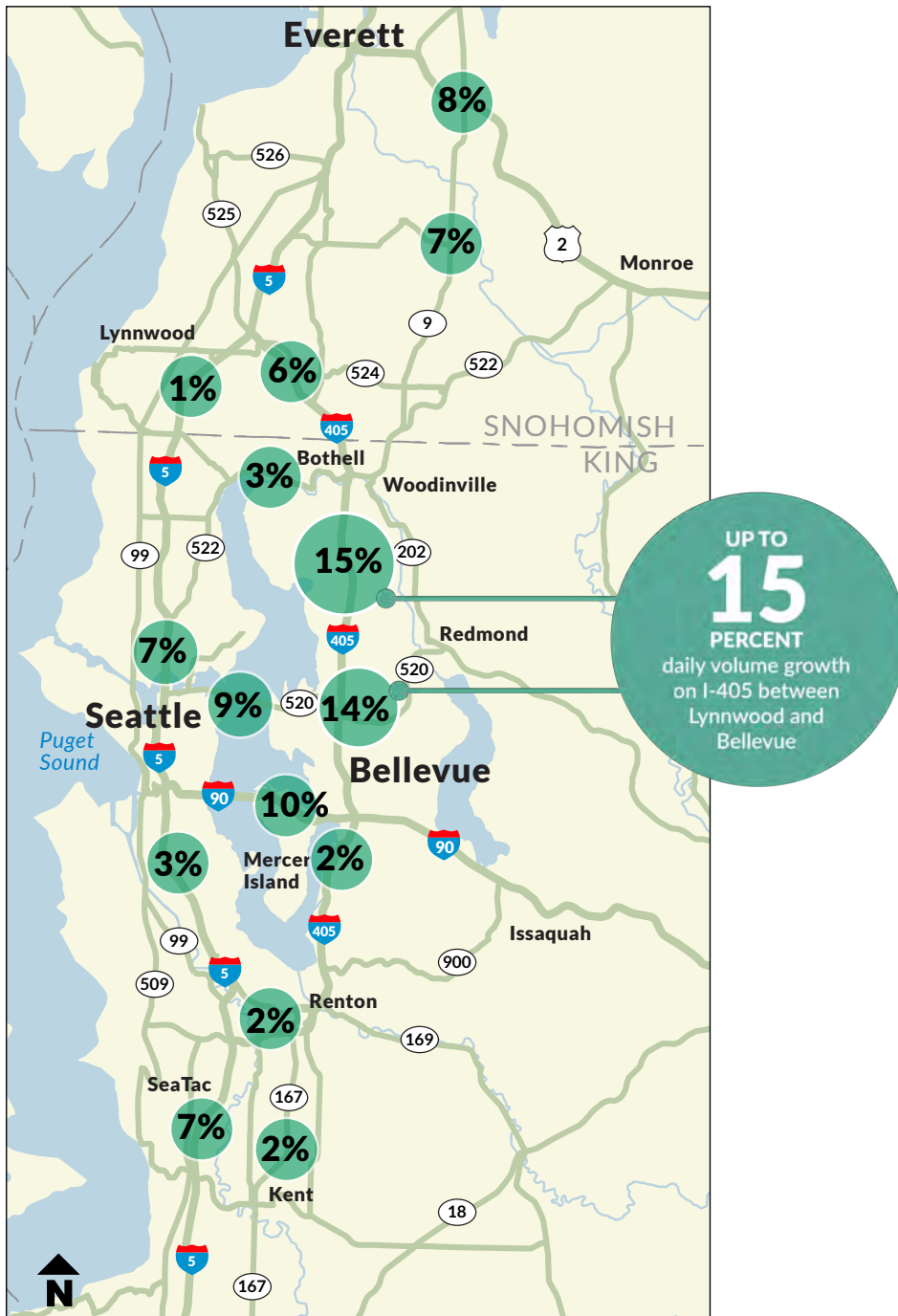
Northbound - Afternoon Peak (3-7pm)



Regional volume growth

As the population grows and more out-of-state drivers get licensed in Washington, increased volumes on roadways are to be expected. Most corridors saw between a 2 to 6 percent increase in daily volumes, however I-405 has seen the largest increase in vehicle volumes in the Bellevue to Lynnwood area, with a 4 to 12 percent growth. The volumes shown in the map below are daily vehicle volumes, which includes non-peak periods.

Average daily vehicle volume growth -
Oct. 1, 2014 - Sept. 30 2015 compared to Oct. 1, 2017 - Sept. 30, 2018



Local arterial traffic

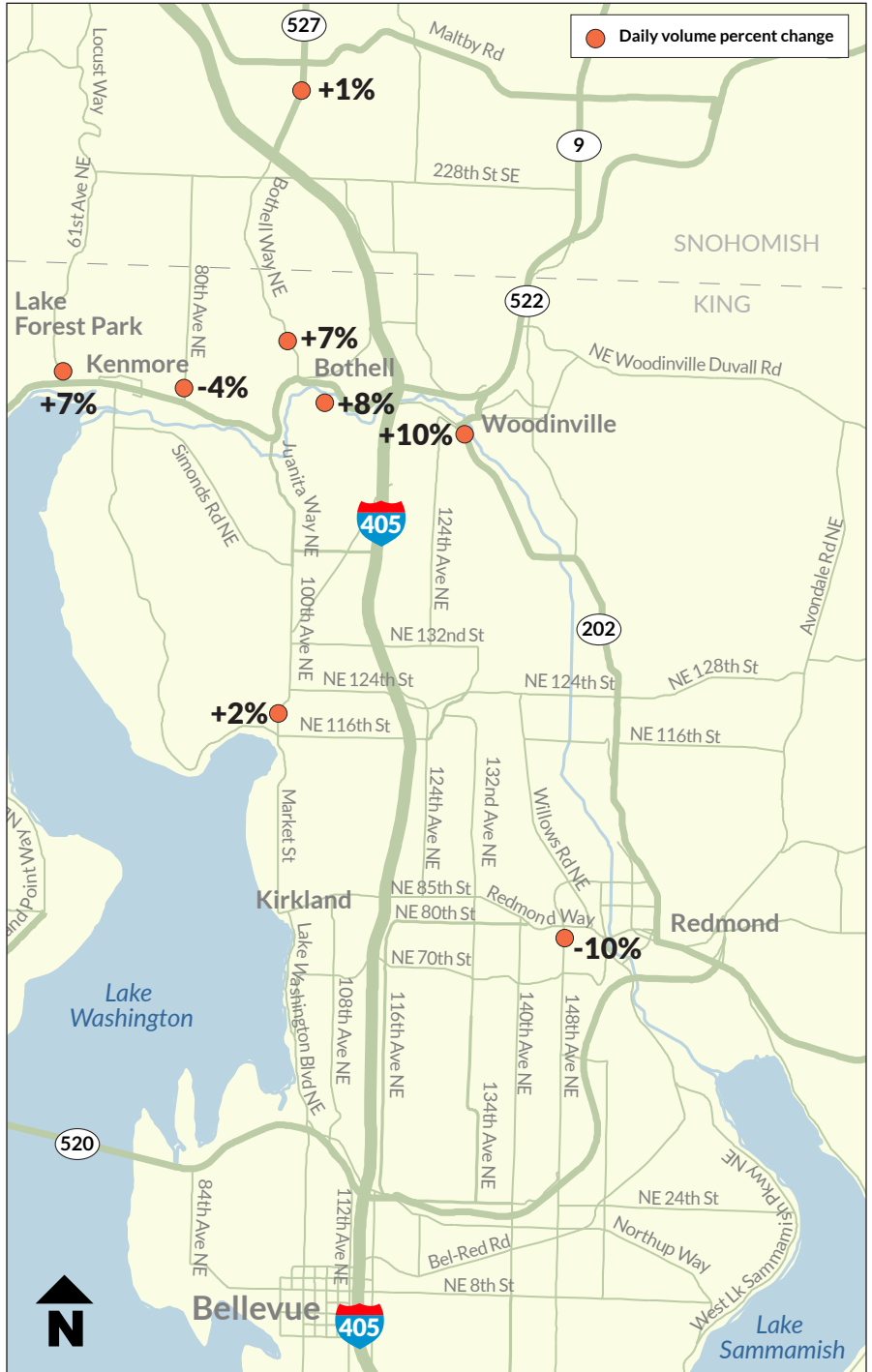
WSDOT is working with cities along the corridor to monitor local streets. Between July and August 2017, WSDOT collected volumes on arterial routes parallel to I-405, and collected the same data between July and August 2018 for year-over-year comparison.

Overall, the local arterial volumes dropped or remained about the same (some locations that showed no change were omitted from this report).

The Kenmore-Woodinville vicinity appears to show the most cumulative change between 2017 and 2018. However, the percentage only illustrates around 200 more vehicles per hour. This increase in volume is likely due to population growth.

Local arterial traffic remains about the same

Percent volume change represents daily change in volume between summer 2017 and summer 2018.



Average corridor speeds

From July to September 2018, the express toll lanes moved vehicles traveling the full length of the express toll lanes an average 16 mph faster than the general purpose lanes during the southbound morning peak period, and 21 mph faster during the northbound afternoon peak period.

Average corridor speeds, peak period, July-September 2018

	General Purpose	ETLs
Bellevue to Bothell	25 mph	52 mph
Bothell to Lynnwood	40 mph	54 mph
Lynnwood to Bothell	26 mph	42 mph
Bothell to Bellevue	42 mph	59 mph

Yearly speed comparisons

Speeds in both the express toll lanes and general purpose lanes have improved in most places compared to before tolling began, despite there being as many as 23 percent more cars on the road.

The table below compares average peak period speeds from the year before tolling (October 2014 - September 2015) to each year since the toll lanes have opened.

Average corridor speeds by year

	Pre-Tolling	Year 1	Year 2	Year 3
ETLs/HOV	45 mph	54 mph	51 mph	50 mph
GPLs	28 mph	31 mph	31 mph	31 mph

Express toll lane speeds compared to general purpose lane speeds during Summer 2018



General Purpose Lanes

Speeds are faster in each section since the express toll lanes opened, with the exception of the southbound single lane section. As shown in the table below, speeds in the northbound single lane section from Bothell to Lynnwood increased dramatically since the peak-use shoulder lane opened in 2017.

Average speeds in general purpose lanes

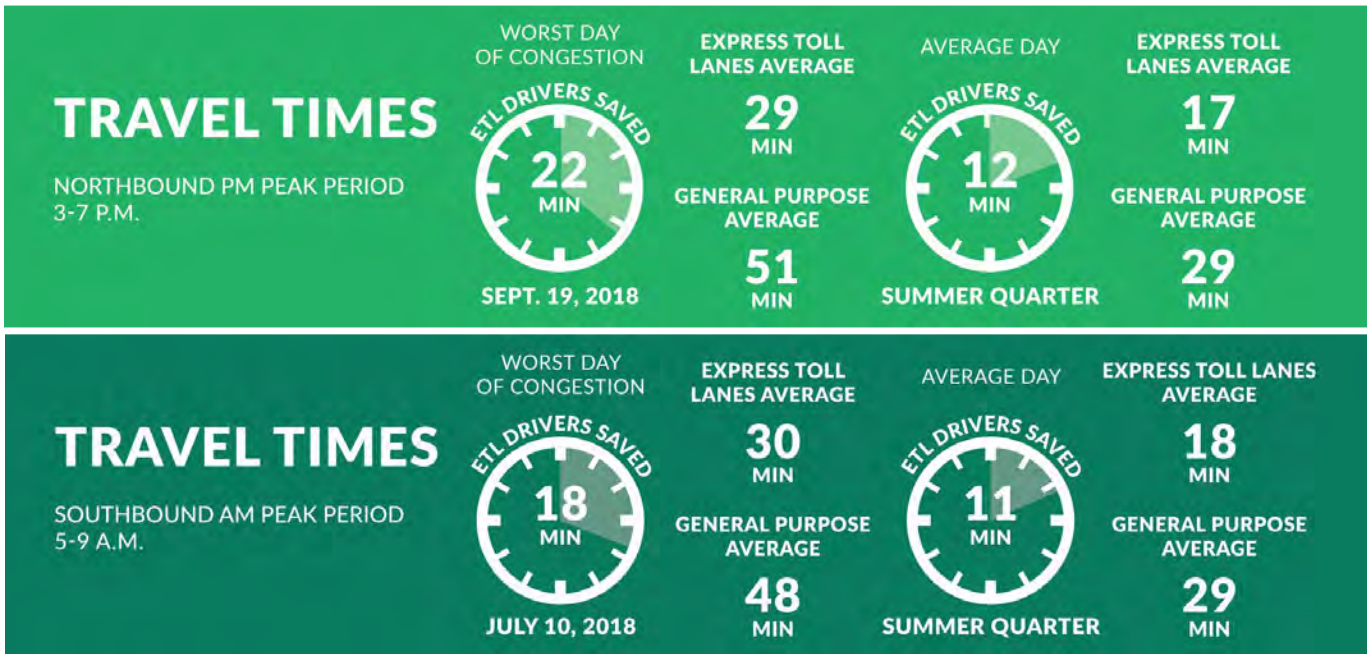
	Pre-Tolling	Summer 2016	Summer 2017	Summer 2018
Bellevue to Bothell	24 mph	28 mph	32 mph	25 mph
Bothell to Lynnwood	35 mph	27 mph	46 mph	40 mph
Lynnwood to Bothell	28 mph	26 mph	25 mph	26 mph
Bothell to Bellevue	36 mph	44 mph	43 mph	42 mph

Providing the most benefit during the worst congestion - Summer 2018

During the first three years of operations, the express toll lanes consistently provided travel time savings relative to the general purpose lanes. During the most recent quarter, drivers saved an average 12 minutes while traveling northbound and 11 minutes southbound for full corridor trips during the peak periods.

There are a number of factors that can influence travel times, including speeds, weather and collisions. The 'worst day of congestion' is defined as the day with the longest travel times of the quarter. Even during days with the longest travel times, the express toll lanes still provide value in the form of considerable travel time savings compared to general purpose lanes.

Reliable travel times savings in express toll lanes – July 1, 2018 - Sept. 30, 2018



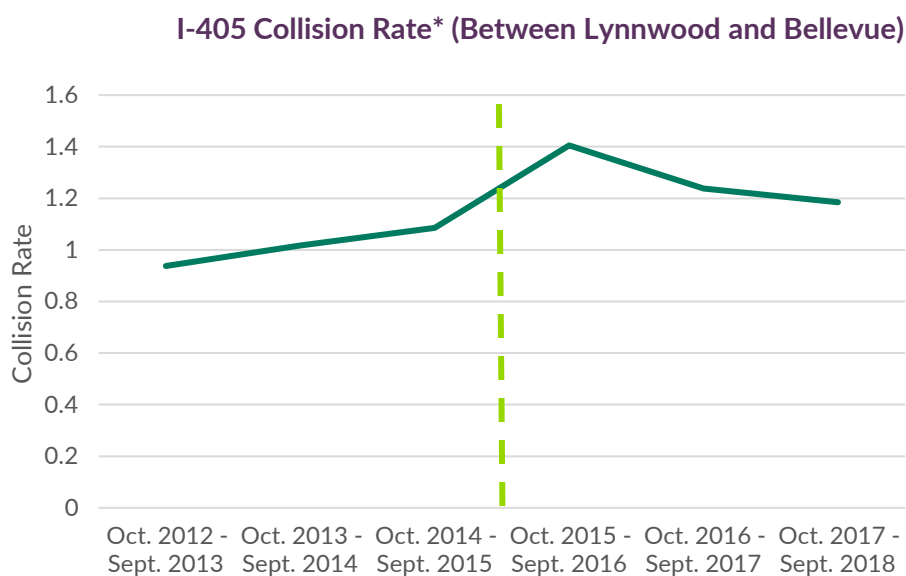
Collisions

Safety is always WSDOT’s top priority and we continue to work closely with Washington State Patrol to monitor traffic in both the express toll lanes and regular lanes.

WSDOT recently conducted a safety study for the express toll lanes with an emphasis on collisions. The study compared data from the three years prior to the express toll lanes opening (October 2012 - September 2015) to the three years since (October 2015 - September 2018).

The study only analyzed collisions that occurred on weekdays from 5 a.m. to 7 p.m. The data shows three distinct periods during which the collision rate changed, as shown on the graph below:

1. During the three years prior to tolling, the collision rate increased each year. Traffic volumes, which have a significant effect on collisions, also increased during this period. With more vehicles on the road, collisions are more likely to occur.
2. Collisions peaked in the first year after the express toll lanes opened. Those first few months after the express toll lanes opened represented a big change for many drivers and also coincided with the wettest winter on record. WSDOT responded by continually making enhancements to the system to improve safety and mobility for the traveling public, including adding a weave lane near NE 195th St. and lengthening access points.
3. The most recent data shows that after the express toll lanes have been in place for three years, the collision rate is trending down, approaching levels observed before the express toll lanes opened despite the increase in traffic volumes.



* Collision Rate is expressed in crashes per million vehicle miles traveled.

Collision types

The majority of collisions were low-speed, low-severity "fender-bender" collisions and sideswipe collisions. These collisions are common on urban freeways during peak periods when traffic volumes and congestion are high. This is similar to the collision trends that occurred on I-405 before the express toll lanes opened, as shown in the following table:

	Rear-end	Sideswipe	Fixed Object	Other
Before ETL	77%	16%	4%	3%
After ETL	79%	15%	3%	3%

Most collisions did not occur in the express toll lanes

The majority of collisions have occurred in the general purpose lanes and not at the express toll lane access points or within the express toll lanes.

Collision locations in both the general purpose lanes and the express toll lanes have remained similar to before the express toll lanes opened. While a similar percentage of collisions occur in the right general purpose lane and the left general purpose lane, the collisions for both lane types are concentrated near on and off ramps at interchanges. However, there were fewer collisions per mile in the express toll lane access point areas than in the rest of the corridor for all lane types.

Enforcement

The Washington State Patrol (WSP) provides enforcement to help ensure drivers are complying with the rules of the I-405 express toll lanes. WSP has specific shifts dedicated to express toll lane enforcement and regularly conducts emphasis patrols. During the most recent HOV emphasis patrol in September 2018, WSP made 1,756 contacts, issued 1,671 citations, and gave 85 warnings.

WSDOT continues to collaborate with WSP on additional enforcement of the express toll lanes. WSDOT is also taking the following actions with regard to enforcement of HOV rules:

- Investigating new technology to support monitoring and enforcement.
- Reviewing the current violation fine structure and making recommendations on possible revisions to deter non-compliance.
- Evaluating available data to further understand violation trends and continuing to make adjustments to the enforcement plan.




EXPRESS TOLL LANES IMPROVEMENT

SEPT. 2015 - PRESENT

REINVESTED REVENUE BACK INTO CORRIDOR



In 3 locations, **new pavement striping** was added to improve driver clarity and understanding



Implemented **2 major revisions to access point configurations** to improve traffic flow in the ETLs and regular lanes.

\$11.5 MILLION



Peak use shoulder to improve northbound PM commute

\$15 MILLION



Advanced preliminary engineer for future improvements: SR 522/SR 527 Capacity Improvement

SEPT. 2015

Listened to feedback


Reinvesting toll revenue

Learning from others


Managing ongoing operations

PRESENT

Lengthened 8 access points to allow drivers additional space to merge and earlier access to the ETL system




National experts **conducted 3 independent reviews** of ETL operations and identified opportunities or improvements based on industry best practices



Continually refining algorithm that generates toll rates to respond to demand and keep the lanes moving, with **50 algorithm adjustments** to date

Examples include:

- Helping improve performance at direct access ramps NE 128th St
- Managing heavy demand northbound in two lane section

Provide options for a shorter trip at a lower rate at direct access ramps



ENFORCING THE RULES ENSURES FAIRNESS

6,225 TOTAL ENFORCEMENT HOURS

FROM JULY 2017 TO JULY 2018

4,345 TOTAL NUMBER OF CITATIONS

6,935 NUMBER OF CONTACTS

LOOKING TO THE FUTURE



Continuing work to complete the 40-mile corridor and applying lessons learned

Public perception

In summer 2018, the Washington State Department of Transportation conducted a customer survey to determine how drivers felt about the express toll lanes. A random sample of 20,000 people who had used the express toll lanes in 2017 were sent a password-protected invitation to take the survey, and 1,795 customers participated. The results were statistically valid at the 95 percent confidence level.

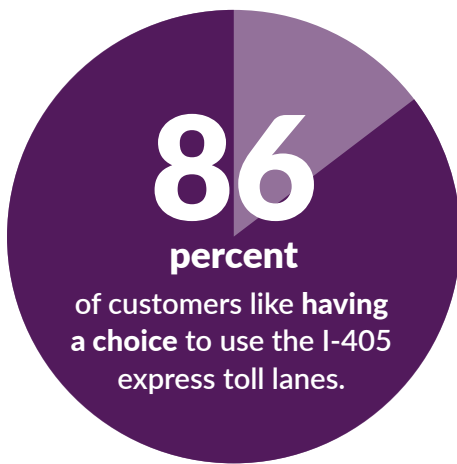
Support for I-405 express toll lanes is growing

More than 86 percent of customers said they like having the option to use the express toll lanes. This shows an increase in support compared to last year when about 60 percent of respondents said they liked having the option to use the express toll lanes. This trend also follows national express toll lane acceptance trends which increase over time as more drivers experience the benefits of the lanes.

Customers were nearly three times as likely to indicate satisfaction with the lanes than dissatisfaction. Customers were particularly happy with the speed and reliability of the lanes.

More than 70 percent of respondents agreed that people save time when they use the express toll lanes, while 57 percent believed the express toll lanes provide a reliable choice for a faster trip.

Good To Go! customer survey, 2018



For more information, please refer to the I-405 express toll lanes 24 month report, which includes two additional surveys:

- **Business Survey** - Businesses that used I-405 express toll lanes or SR 167 HOT lanes in past year.
- **Express Toll Lane Customer Survey** - People who used the express toll lanes in 2017.

Transit Travel Times

Since the express toll lanes opened in September 2015, transit ridership has increased by an average five percent on I-405. During the summer 2018 quarter, an average 7,700 people used transit routes on the express toll lanes every day. WSDOT works with regional transit agencies King County Metro and Community Transit (servicing Snohomish County) to monitor transit performance on the I-405 express toll lanes. Both Community Transit and King County Metro operate Sound Transit routes on I-405.

King County Metro travel times on I-405 between Bellevue and Lynnwood have improved by 3 to 11 minutes in the afternoon peak period and by 1 to 2 minutes in morning peak period. When comparing travel times to pre-tolling conditions, daily average travel times for Community Transit showed an improvement for the majority of routes, with the exception of Route 424 that travels along I-405 between SR 520 and SR 522. The travel time increase was slightly over a minute. The remaining routes have travel time savings of up to 4 minutes.



2% ↑
**RIDERSHIP
INCREASE**

**TIME SAVINGS
UP TO
4 MINUTES***



9% ↑
**RIDERSHIP
INCREASE**

**TIME SAVINGS
UP TO
11 MINUTES**



*Route 424 that travels along I-405 between SR 520 and SR 522 is the only route to show a travel time increase, but reports travel times over a significantly shorter distance than the other routes.

Revenue

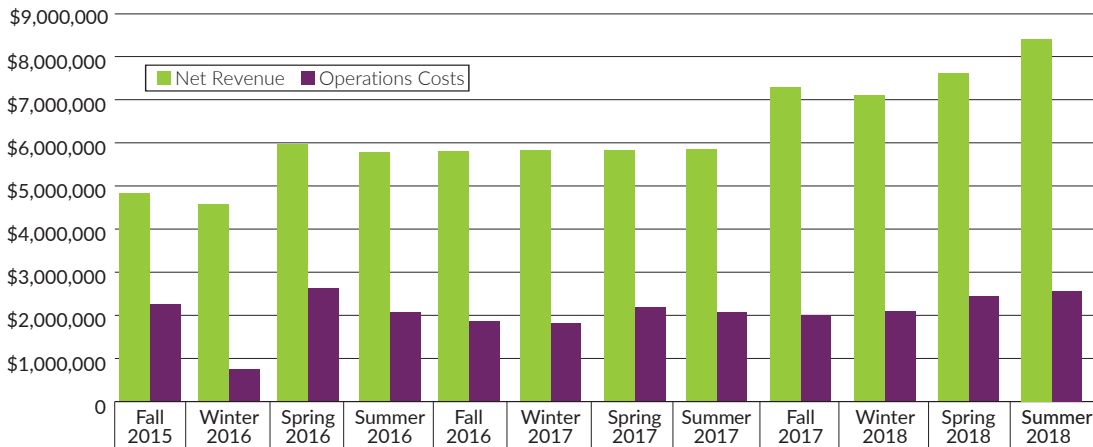
Toll revenue is appropriated by the Legislature and monitored by the Office of Financial Management. Under existing law, I-405 express toll lane revenue must be used to cover facility operations and maintenance costs, and any additional revenue is to be reinvested back in to the corridor.

An example of reinvestment in the corridor is the peak-use shoulder project which opened to traffic in spring 2017. The 1.8-mile peak-use shoulder lane on northbound I-405 between SR 527 in Bothell and I-5 in Lynnwood eases congestion by providing additional capacity during the weekday afternoon peak period.

The Legislature also approved the use of \$15 million in express toll lane revenue to fund preliminary engineering for design improvements and increase capacity north of the SR 522 interchange.

Express toll lane revenue has risen over time due to increasing demand as the number of cars on the road increases. However, operations costs have remained relatively consistent over the past three years. As a result, the percentage of revenue going to I-405 improvements has increased each year.

Revenue is increasing while expenses remain low.



TOTAL REVENUE

\$74.9M

OPERATIONS COSTS

\$25M

FOR IMPROVEMENTS

\$26.5M

REMAINING FUNDS AVAILABLE

\$23.4M

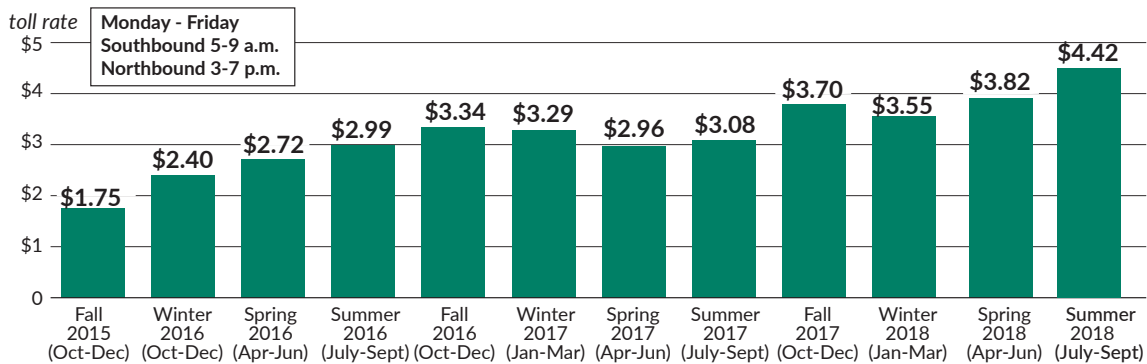
Toll Rates

In March 2015, the Washington State Transportation Commission (WSTC) approved a minimum toll rate of 75 cents and a maximum of \$10. Toll rates are adjusted by a congestion-based tolling algorithm designed to keep traffic in the express toll lanes flowing by adjusting the toll rate to manage the demand.

Since the express toll lanes opened, the average toll rate paid during peak periods has been \$3.17. In the most recent quarter:

- The average toll paid for all tolled trips was \$2.91, a 34 cent increase from last quarter.
- For peak period, peak direction trips, the average toll rate was \$4.42, a 60 cent increase from last quarter.
- The rate increase from last quarter is mainly due to algorithm adjustments used to manage the increased volumes in the northbound, dual lane section of the corridor.

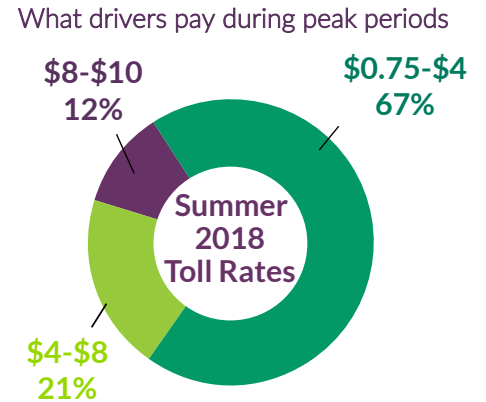
Average peak period, peak direction toll rates – October 1, 2015 - December 31, 2017



Maximum Toll

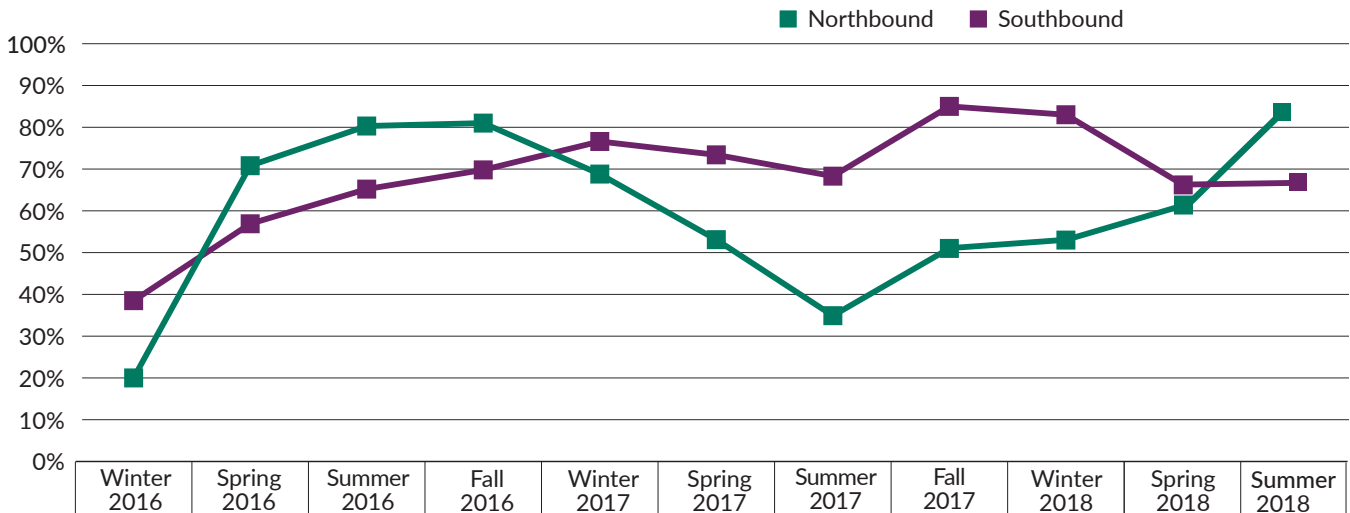
WSDOT tracks the instances where the express toll lanes reached \$10. In summer 2018, the toll rate reached the \$10 maximum:

- 6.2 percent of the time for all tolled trips.
- 11.9 percent of the time for peak period, peak direction trips.
 - 12.9 percent of northbound peak period trips paid the \$10 toll rate.
 - 10.8 percent of southbound peak period trips paid the \$10 toll rate.



The following chart represents the percentage of days that the maximum \$10 toll rate was displayed during the peak period by quarter. While the frequency of days with a \$10 toll slightly declined for southbound trips, there was an increase for northbound trips. This was mainly due to the toll algorithm adjustments made to help handle increasing volumes. For consistency, percentages for each quarter are calculated based on the current tolling hours before and after the hours of operation were changed in March 2016.

Percent of weekdays with \$10 rate by quarter



Appendix A: Legislative Performance Measures

In its 2011 authorization of the I-405 express toll lanes (RCW 47.56.880), the Legislature directed WSDOT to monitor and report on seven performance metrics on a quarterly basis.

LEGISLATIVE MONITORING REQUIREMENT	REPORT SECTION REFERENCE
a. Whether the express toll lanes maintain speeds of 45 miles per hour at least 90 percent of the time during peak periods.	Page 3. Includes percent of time the express toll lanes are moving traffic at 45 miles per hour or faster.
b. Whether the average traffic speed changed in the general purpose lanes.	Pages 3 and 10. Includes average speed and travel time trends for the general purpose lanes.
c. Whether transit ridership changed.	Page 16. Includes preliminary transit ridership and travel time findings.
d. Whether the actual use of the express toll lanes is consistent with the projected use.	We have exceeded original forecasts and will no longer be reporting.
e. Whether the express toll lanes generated sufficient revenue to pay for all I-405 express toll lane operating costs.	Page 4. Includes preliminary revenue and expenditure results.
f. Whether travel times and volumes have increased or decreased on adjacent local streets and state highways.	Pages 8 and 9. Includes volumes and travel times of local arterials.
g. Whether the actual gross revenues are consistent with projected gross revenues as identified in the fiscal note for EHB 1382 distributed by the Office of Financial Management on March 15, 2011.	We have far exceeded the original forecasts and will no longer be reporting on this, unless we fall below forecasts.

Legislative Performance Measures

The legislature added reporting requirements during the 2016 budget process detailed in ESHB 2524 209 (7). These subsequent reporting requirements address travel times and volumes for 10 specific travel segments along the I-405 express toll lanes corridor. This appendix provides a high-level summary of the travel time data and links to electronic copies of the detailed travel time and volume data. The Legislature requested average and at minimum, 90th percentile travel times. Consistent with WSDOT methodology and the requirements of the proviso, this report includes 95th percentile travel times.

ESHB 2524 209 (7) states:

The department must provide quarterly reports to the transportation committees of the legislature on the Interstate 405 express toll lane project performance measures listed in RCW 47.56.880(4). These reports must include:

- (a) Information on the travel times and travel time reliability (at a minimum, average and 90th percentile travel times) maintained during peak and nonpeak periods in the express toll lanes and general purpose lanes for both the entire corridor and commonly made trips in the corridor including, but not limited to, northbound from Bellevue to Rose Hill, state route number 520 at NE 148th to Interstate 405 at state route number 522, Bellevue to Bothell (both NE 8th to state route number 522 and NE 8th to state route number 527), and a trip internal to the corridor (such as NE 85th to NE 160th) and similar southbound trips;**
- (b) A month-to-month comparison of travel times and travel time reliability for the entire corridor and commonly made trips in the corridor as specified in (a) of this subsection since implementation of the express toll lanes and, to the extent available, a comparison to the travel times and travel time reliability prior to implementation of the express toll lanes;**
- (c) Total express toll lane and total general purpose lane traffic volumes, as well as per lane traffic volumes for each type of lane (i) compared to total express toll lane and total general purpose lane traffic volumes, as well as per lane traffic volumes for each type of lane, on this segment of Interstate 405 prior to implementation of the express toll lanes and (ii) compared to total express toll lane and total general purpose lane traffic volumes, as well as per lane traffic volumes for each type of lane, from month to month since implementation of the express toll lanes; and**
- (d) Underlying congestion measurements, that is, speeds, that are being used to generate the summary graphs provided, to be made available in a digital file format.**

The Legislature directed WSDOT to examine travel times along specific segments of the I-405 express toll lanes corridor. The following table lists these travel segments and their corresponding mileposts. A map of the express toll lanes with milepost markers is included for reference at the end of this appendix.

Legislative segments requested and corresponding mileposts

	Legislative Request	Provided Travel Times	Missing GP Data ¹	Missing ETL Data ¹	Notes
1	Interstate 405 Northbound Bellevue to Rose Hill	(MP 13.92) Bellevue to (MP 20.22) Rose Hill			
2	Interstate 405 Southbound Rose Hill to Bellevue	(MP 20.22) Rose Hill to (MP 13.92) Bellevue	July 2015	May, June, July 2015	
3	State Route 520 Westbound at NE 148th to Interstate 405 Northbound at State Route 522	(SR 520 MP 9.11) SR 520 @ 148th to (I-405 MP 23.51) SR 522	Sept 2015	Aug, Sept 2015	EB and WB sensor at 148th not located in same place
4	Interstate 405 Southbound at State Route 522 to State Route 520 Eastbound at NE 148th	(I-405 MP 23.51) SR 522 to (SR 520 MP 9.35) SR 520 @ 148th			EB and WB sensor at 148th not located in same place
5	Interstate 405 Northbound Bellevue to Bothell (State Route 522)	(MP 13.92) Bellevue to (MP 23.51) SR 522	Sept 2015	Aug, Sept 2015	
6	Interstate 405 Southbound Bothell (State Route 522) to Bellevue	(MP 23.51) SR 522 to (MP 13.92) Bellevue		May, June, Sept 2015	
7	Interstate 405 Northbound Bellevue to Bothell (State Route 527)	(MP 13.92) Bellevue to (MP 26.16) SR 527			
8	Interstate 405 Southbound Bothell (State Route 527) to Bellevue	(MP 26.16) SR 527 to (MP 13.92) Bellevue		May, June 2015	
9	Northbound Trip Internal to the Corridor (such as NE 85th to NE 160th)	(MP 17.99) NE 85th to (MP 24.39) Beardslee Blvd	Sept, Dec 2015	Sept, Dec 2015	Insufficient data availability @ NE 160th
10	Southbound Trip Internal to the Corridor (such as NE 85th to NE 160th)	(MP 24.39) Beardslee Blvd to (MP 17.99) NE 85th	Sept, Dec 2015	Sept, Dec 2015	Insufficient data availability @ NE 160th

¹ Loop data is not available in various locations due to construction activity. This has resulted in incalculable travel times for certain months.

Note: Monthly average and 95th percentile travel times provided for both general purpose and express toll lanes for the morning Peak (5AM - 9AM), Midday Period (9 AM - 3PM), and PM Peak (3PM - 7PM)

Note: The legislature requested average and 90th percentile travel times. Direction was received from OFM to report the 95th percentile.

Detailed General Purpose Lane Travel Time Data

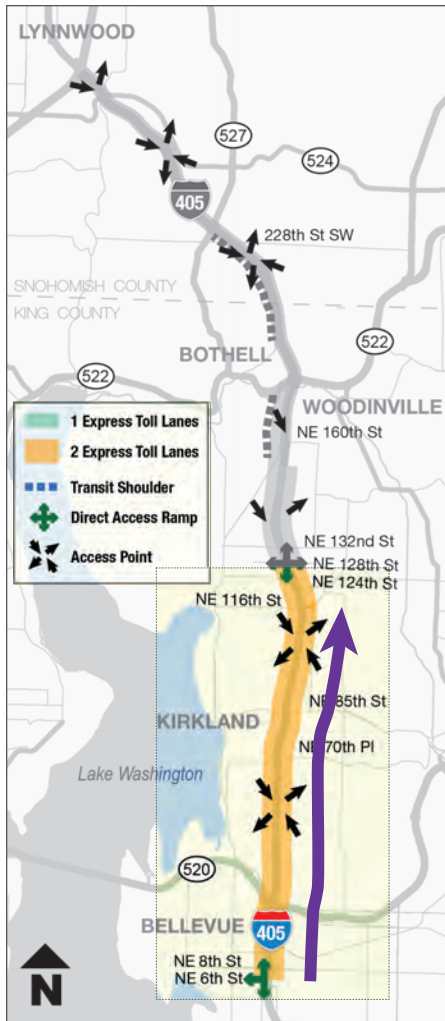
After 36 months of I-405 express toll lanes operations, most sections of the general purpose lanes are experiencing improved speed and reliability compared to before tolling. The largest improvements in travel times for northbound I-405 occur during the evening peak period between Bothell and Lynnwood. Travel times in this section significantly worsened until April 2017 when the peak-use shoulder lane opened, which significantly improved travel times and reliability.

Projects that have added capacity in the single-lane section, such as the toll-funded peak-use shoulder lane, have improved speeds in the general purpose and express toll lanes. This additional general purpose capacity frees up room for vehicles, allowing for faster speeds and shorter travel times. However, as vehicle volumes continue to increase, the peak-use shoulder will only serve as an interim improvement. WSDOT is studying how adding another express toll lane to this section could provide needed congestion relief between Bothell and Lynnwood.

Travel times in the southbound general purpose lanes have been fairly consistent since the express toll lanes opened. The dual lane section between Bothell and Bellevue shows improvements in speed and reliability during the morning peak period. The single lane section between Lynnwood and Bothell showed improved speeds in summer 2018 when compared to last quarter.

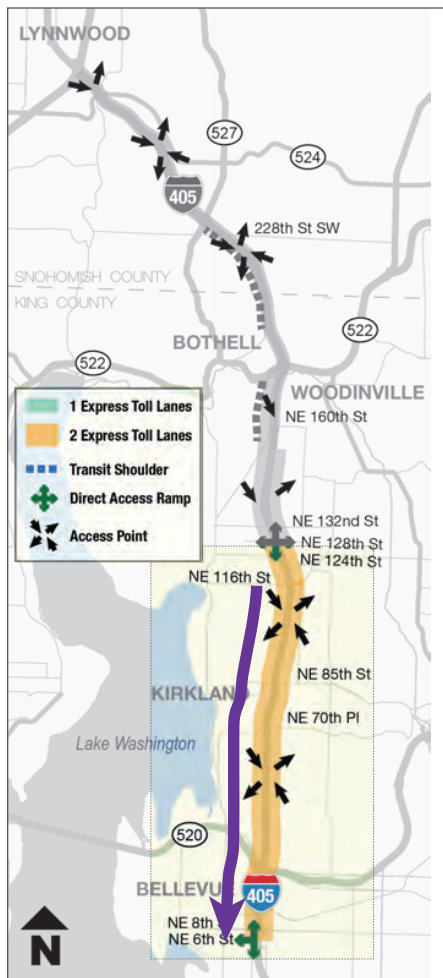
More detailed data can be found on WSDOT's website at:
www.wsdot.wa.gov/Tolling/405/library.htm.

1. Travel Times: Northbound I-405 from Bellevue to NE 116th (PM Peak Period)



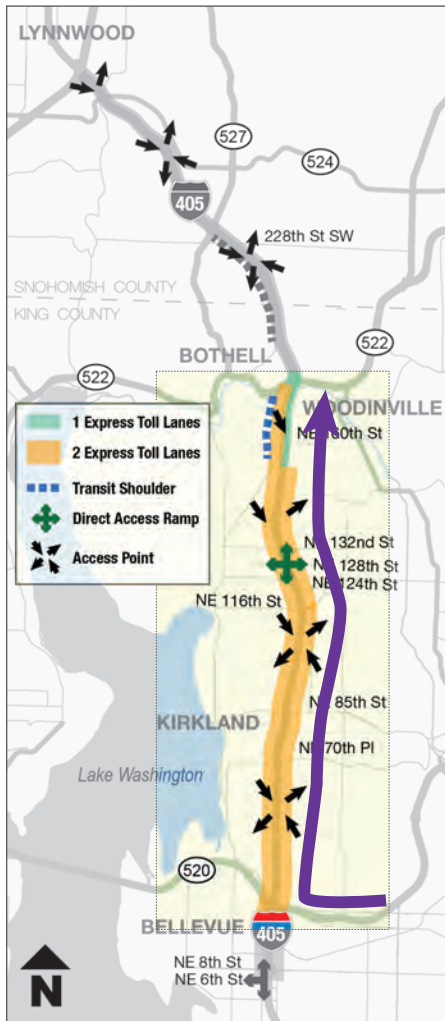
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	16	(26)	3 minutes faster	7 minutes faster
	2015	13	(19)		
Jan	2015	16	(23)	4 minutes faster	4 minutes faster
	2016	12	(19)		
May	2015	16	(25)	4 minutes faster	8 minutes faster
	2016	12	(17)		
Aug	2015	16	(22)	3 minutes faster	5 minutes faster
	2016	13	(17)		
Oct	2015	13	(19)	1 minute slower	4 minutes slower
	2016	14	(23)		
Jan	2016	12	(19)	1 minute faster	3 minutes faster
	2017	11	(16)		
May	2016	12	(17)	No change	1 minute slower
	2017	12	(18)		
Aug	2016	13	(17)	1 minute faster	No change
	2017	12	(17)		
Oct	2016	14	(23)	1 minute slower	No change
	2017	15	(23)		
Jan	2017	11	(16)	4 minutes slower	8 minutes slower
	2018	15	(24)		
May	2017	12	(18)	2 minutes slower	2 minutes slower
	2018	14	(20)		
Aug	2017	12	(17)	3 minutes slower	7 minutes slower
	2018	15	(24)		

2. Travel Times: Southbound I-405 from NE 116th to Bellevue (AM Peak Period)



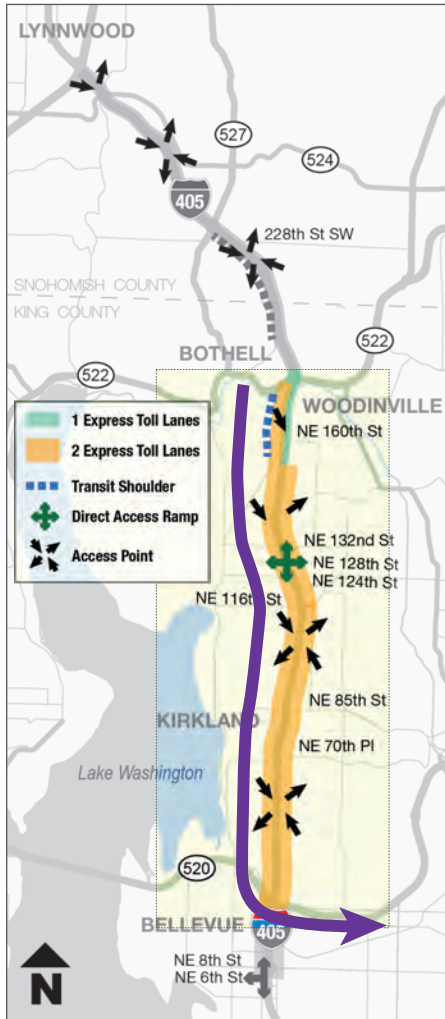
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	12	(14)	2 minutes faster	2 minutes faster
	2015	10	(12)		
Jan	2015	11	(13)	2 minutes faster	1 minute faster
	2016	9	(12)		
May	2015	11	(13)	2 minutes faster	2 minutes faster
	2016	9	(11)		
Aug	2015	10	(12)	1 minute faster	2 minutes faster
	2016	9	(10)		
Oct	2015	10	(12)	No change	No change
	2016	10	(12)		
Jan	2016	9	(12)	No change	No change
	2017	9	(12)		
May	2016	9	(11)	No change	No change
	2017	9	(11)		
Aug	2016	9	(10)	1 minute faster	No change
	2017	8	(10)		
Oct	2016	10	(12)	1 minute faster	1 minute faster
	2017	9	(11)		
Jan	2017	9	(11)	1 minute slower	1 minute slower
	2018	10	(12)		
May	2017	9	(11)	No change	No change
	2018	9	(11)		
Aug	2017	8	(10)	No change	No change
	2018	8	(10)		

3. Travel Times: Westbound SR 520 at 148th Ave NE to Northbound I-405 at SR 522 (PM Peak Period)



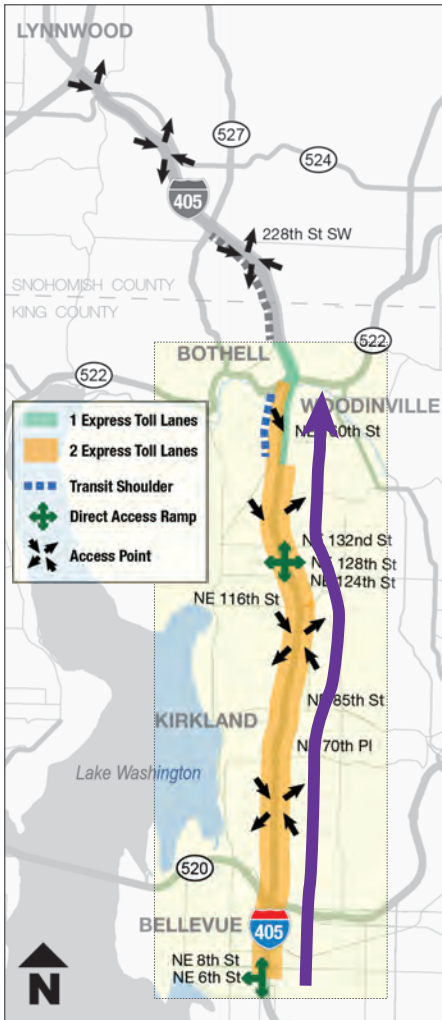
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	27	(43)	7 minutes faster	13 minutes faster
	2015	20	(30)		
Jan	2015	26	(34)	6 minutes faster	4 minutes faster
	2016	20	(30)		
May	2015	28	(43)	6 minutes faster	12 minutes faster
	2016	22	(31)		
Aug	2015	24	(30)	2 minutes faster	1 minute faster
	2016	22	(29)		
Oct	2015	20	(30)	3 minutes slower	7 minutes slower
	2016	23	(37)		
Jan	2016	20	(30)	1 minute faster	2 minutes faster
	2017	19	(28)		
May	2016	22	(31)	3 minutes faster	3 minutes faster
	2017	19	(28)		
Aug	2016	23	(30)	4 minutes faster	6 minutes faster
	2017	19	(24)		
Oct	2016	23	(37)	No change	2 minutes faster
	2017	23	(35)		
Jan	2017	19	(28)	4 minutes slower	6 minutes slower
	2018	23	(34)		
May	2017	19	(28)	4 minutes slower	4 minutes slower
	2018	23	(32)		
Aug	2017	19	(24)	3 minutes slower	10 minutes slower
	2018	22	(34)		

4. Travel Times: Southbound I-405 at SR 522 to Eastbound SR 520 at 148th Ave NE (AM Peak Period)



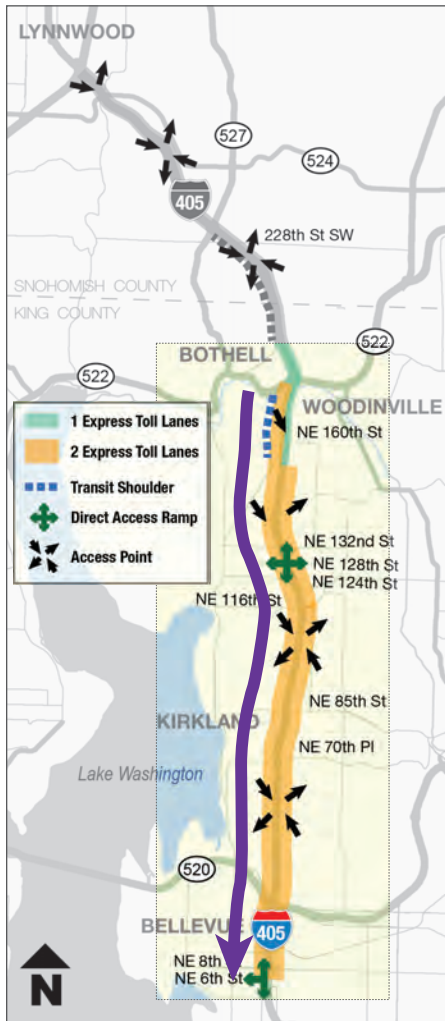
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	23	(28)	5 minutes faster	6 minutes faster
	2015	18	(22)		
Jan	2015	21	(25)	5 minutes faster	5 minutes faster
	2016	16	(20)		
May	2015	21	(25)	5 minutes faster	6 minutes faster
	2016	16	(19)		
Aug	2015	20	(24)	5 minutes faster	7 minutes faster
	2016	15	(17)		
Oct	2015	18	(22)	No change	1 minute slower
	2016	18	(23)		
Jan	2016	16	(20)	1 minute slower	1 minute slower
	2017	17	(21)		
May	2016	16	(19)	1 minute slower	1 minute slower
	2017	17	(20)		
Aug	2016	15	(17)	No change	1 minute slower
	2017	15	(18)		
Oct	2016	18	(23)	1 minute faster	3 minutes faster
	2017	17	(20)		
Jan	2017	17	(21)	1 minute slower	1 minute slower
	2018	18	(22)		
May	2017	17	(20)	No change	No change
	2018	17	(20)		
Aug	2017	15	(18)	No change	No change
	2018	15	(18)		

5. Travel Times: Northbound I-405 from Bellevue to SR 522 (PM Peak Period)



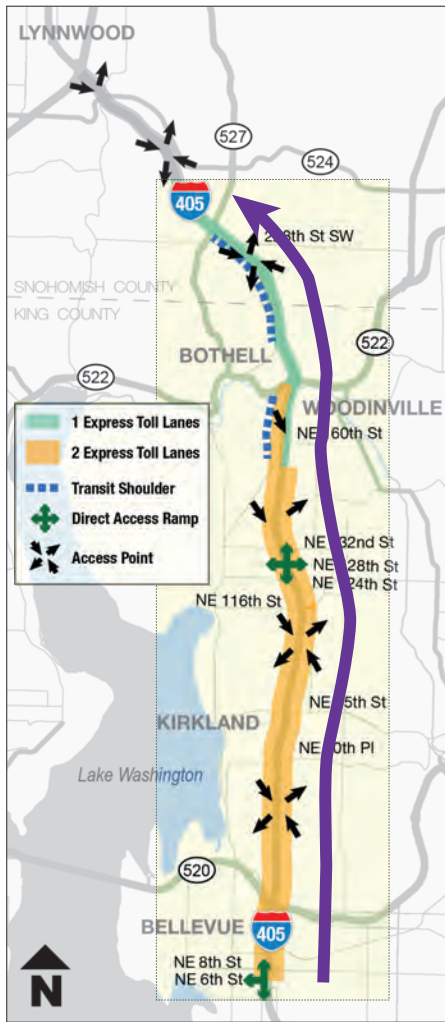
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	24	(35)	5 minutes faster	7 minutes faster
	2015	19	(28)		
Jan	2015	24	(32)	5 minutes faster	4 minutes faster
	2016	19	(28)		
May	2015	23	(35)	3 minutes faster	8 minutes faster
	2016	20	(27)		
Aug	2015	23	(30)	3 minutes faster	3 minutes faster
	2016	20	(27)		
Oct	2015	19	(28)	2 minutes slower	7 minutes slower
	2016	21	(35)		
Jan	2016	19	(28)	2 minutes faster	3 minutes faster
	2017	17	(25)		
May	2016	20	(27)	3 minutes faster	4 minutes faster
	2017	17	(23)		
Aug	2016	20	(27)	3 minutes faster	4 minutes faster
	2017	17	(23)		
Oct	2016	21	(35)	1 minute faster	5 minutes faster
	2017	20	(30)		
Jan	2017	17	(25)	4 minutes slower	7 minutes slower
	2018	21	(32)		
May	2017	17	(23)	3 minutes slower	5 minutes slower
	2018	20	(28)		
Aug	2017	17	(23)	4 minutes slower	9 minutes slower
	2018	21	(32)		

6. Travel Times: Southbound I-405 from SR 522 to Bellevue (AM Peak Period)



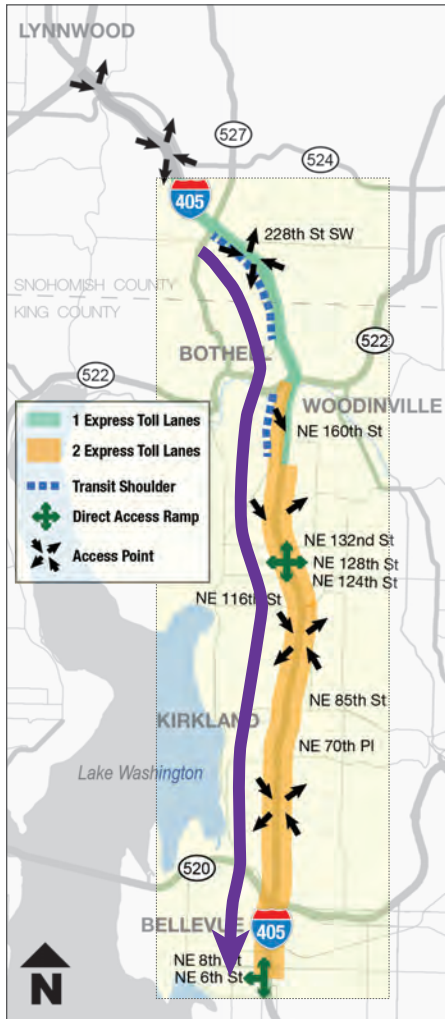
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	21	(25)	6 minutes faster	5 minutes faster
	2015	15	(20)		
Jan	2015	19	(23)	5 minutes faster	5 minutes faster
	2016	14	(18)		
May	2015	19	(23)	5 minutes faster	6 minutes faster
	2016	14	(17)		
Aug	2015	17	(21)	4 minutes faster	6 minutes faster
	2016	13	(15)		
Oct	2015	15	(20)	1 minute slower	No change
	2016	16	(20)		
Jan	2016	14	(18)	No change	No change
	2017	14	(18)		
May	2016	14	(17)	No change	No change
	2017	14	(17)		
Aug	2016	13	(15)	No change	1 minute slower
	2017	13	(16)		
Oct	2016	16	(20)	1 minute faster	2 minutes faster
	2017	15	(18)		
Jan	2017	14	(18)	1 minute slower	1 minute slower
	2018	15	(19)		
May	2017	14	(17)	No change	No change
	2018	14	(17)		
Aug	2017	13	(16)	No change	No change
	2018	13	(16)		

7. Travel Times: Northbound I-405 from Bellevue to SR 527 (PM Peak Period)



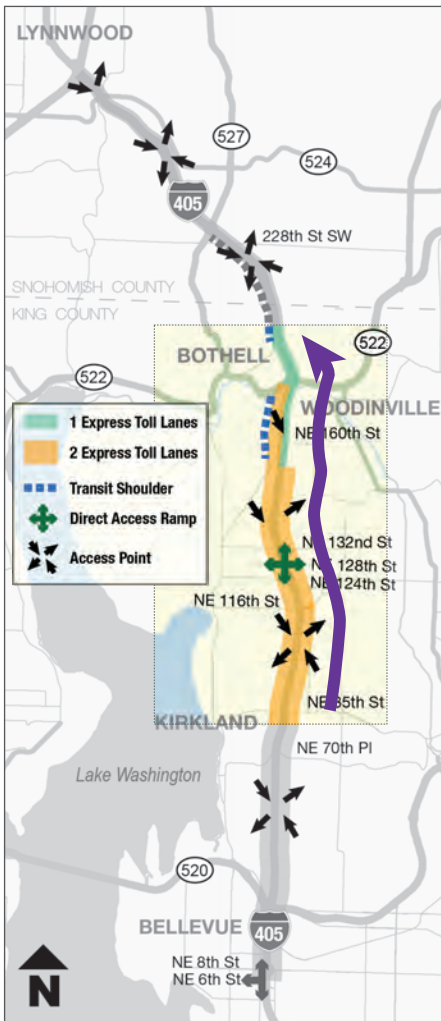
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	28	(39)	2 minutes faster	1 minute faster
	2015	26	(38)		
Jan	2015	28	(39)	3 minutes faster	3 minutes faster
	2016	25	(36)		
May	2015	28	(40)	2 minutes faster	4 minutes faster
	2016	26	(36)		
Aug	2015	27	(35)	1 minute slower	1 minute slower
	2016	28	(36)		
Oct	2015	26	(38)	2 minutes slower	3 minutes slower
	2016	28	(41)		
Jan	2016	25	(36)	1 minute faster	3 minutes faster
	2017	24	(33)		
May	2016	26	(36)	6 minutes faster	9 minutes faster
	2017	20	(27)		
Aug	2016	28	(36)	7 minutes faster	9 minutes faster
	2017	21	(27)		
Oct	2016	28	(43)	4 minutes faster	8 minutes faster
	2017	24	(35)		
Jan	2017	24	(33)	1 minute slower	5 minutes slower
	2018	25	(38)		
May	2017	20	(27)	4 minutes slower	6 minutes slower
	2018	24	(33)		
Aug	2017	21	(27)	4 minutes slower	12 minutes slower
	2018	25	(39)		

8. Travel Times: Southbound I-405 from SR 527 to Bellevue (AM Peak Period)



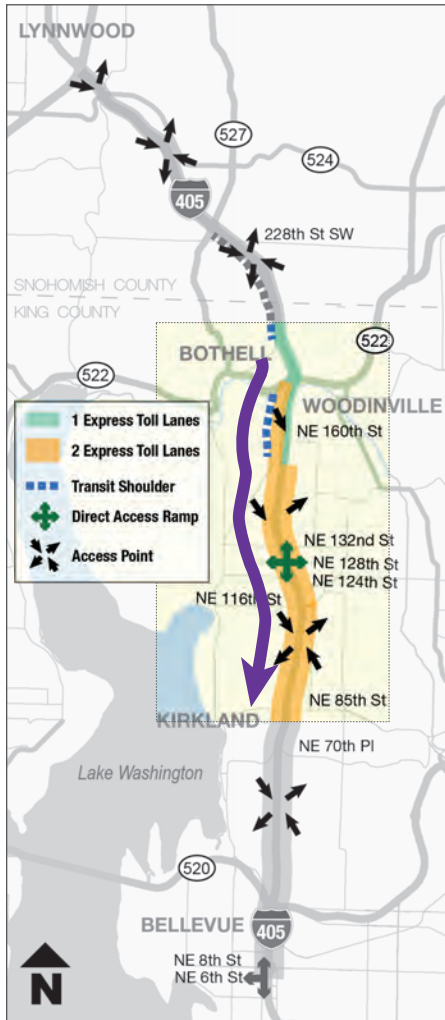
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	33	(41)	9 minutes faster	10 minutes faster
	2015	24	(31)		
Jan	2015	27	(36)	5 minutes faster	6 minutes faster
	2016	22	(30)		
May	2015	28	(35)	7 minutes faster	9 minutes faster
	2016	21	(26)		
Aug	2015	25	(34)	4 minutes faster	9 minutes faster
	2016	21	(25)		
Oct	2015	24	(31)	2 minutes slower	3 minutes slower
	2016	26	(34)		
Jan	2016	22	(30)	No change	1 minute faster
	2017	22	(29)		
May	2016	21	(26)	2 minutes slower	2 minutes slower
	2017	23	(28)		
Aug	2016	21	(25)	1 minute slower	2 minutes slower
	2017	22	(27)		
Oct	2016	26	(34)	1 minute faster	5 minutes faster
	2017	25	(29)		
Jan	2017	22	(29)	3 minutes slower	3 minutes slower
	2018	25	(32)		
May	2017	23	(28)	1 minute faster	No change
	2018	22	(28)		
Aug	2017	22	(27)	1 minute faster	No change
	2018	21	(27)		

9. Travel Times: Northbound I-405 from NE 85th to NE 195th (PM Peak Period)



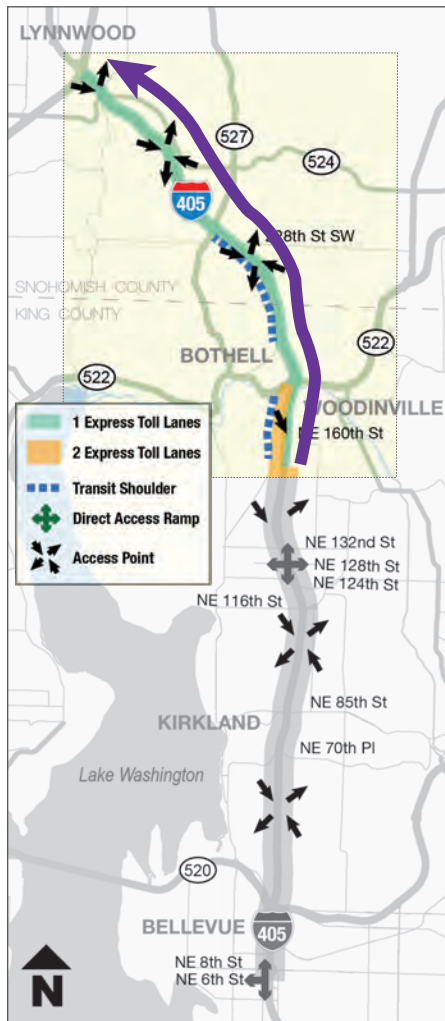
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	15	(19)	3 minutes faster	No change
	2015	12	(19)		
Jan	2015	15	(20)	3 minutes faster	2 minutes faster
	2016	12	(18)		
May	2015	15	(20)	1 minute faster	No change
	2016	14	(20)		
Aug	2015	14	(18)	No change	2 minutes slower
	2016	14	(20)		
Oct	2015	12	(19)	2 minutes slower	2 minutes slower
	2016	14	(21)		
Jan	2016	11	(16)	No change	No change
	2017	11	(16)		
May	2016	14	(20)	5 minutes faster	7 minutes faster
	2017	9	(13)		
Aug	2016	14	(20)	4 minutes faster	6 minutes faster
	2017	10	(14)		
Oct	2016	14	(21)	3 minutes faster	5 minutes faster
	2017	11	(16)		
Jan	2017	12	(17)	No change	3 minutes slower
	2018	12	(20)		
May	2017	9	(13)	3 minutes slower	3 minutes slower
	2018	12	(16)		
Aug	2017	10	(14)	2 minute slower	5 minute slower
	2018	12	(19)		

10. Travel Times: Southbound I-405 from NE 195th to NE 85th (AM Peak Period)



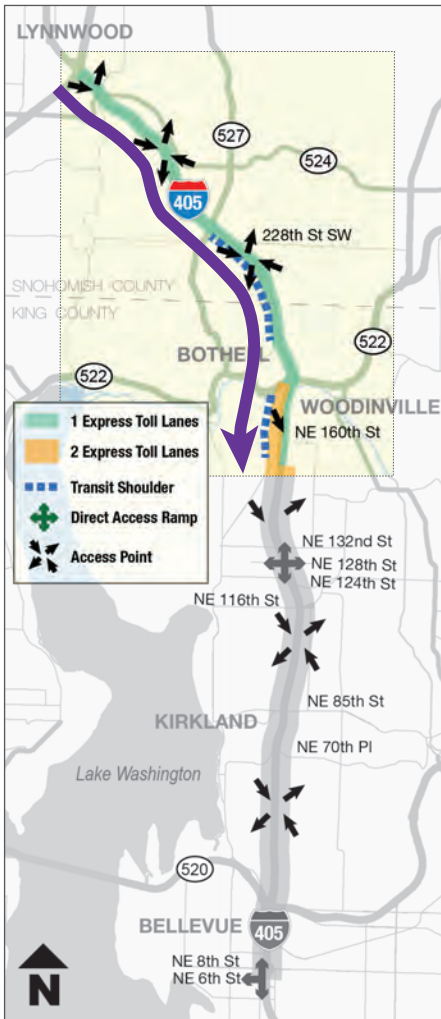
Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	19	(24)	6 minutes faster	6 minutes faster
	2015	13	(18)		
Jan	2015	16	(21)	5 minutes faster	5 minutes faster
	2016	11	(16)		
May	2015	16	(20)	5 minutes faster	6 minutes faster
	2016	11	(14)		
Aug	2015	15	(20)	4 minutes faster	7 minutes faster
	2016	11	(13)		
Oct	2015	13	(18)	1 minute slower	No change
	2016	14	(18)		
Jan	2016	12	(18)	No change	1 minute faster
	2017	12	(17)		
May	2016	11	(14)	No change	No change
	2017	11	(14)		
Aug	2016	11	(13)	No change	1 minute slower
	2017	11	(14)		
Oct	2016	14	(18)	2 minutes faster	3 minutes faster
	2017	12	(15)		
Jan	2017	15	(24)	4 minutes faster	3 minutes faster
	2018	11	(21)		
May	2017	11	(14)	No change	1 minute slower
	2018	11	(15)		
Aug	2017	11	(14)	1 minute faster	No change
	2018	10	(14)		

Additional Example: Travel Times: Northbound I-405 from NE 160th St. to I-5 (PM Peak Period)



Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	13	(19)	3 minutes slower	7 minutes slower
	2015	16	(26)		
Jan	2015	12	(20)	4 minutes slower	6 minutes slower
	2016	16	(26)		
May	2015	13	(19)	3 minutes slower	7 minutes slower
	2016	16	(26)		
Aug	2015	12	(19)	5 minutes slower	6 minutes slower
	2016	17	(25)		
Oct	2015	16	(26)	No change	1 minute faster
	2016	16	(25)		
Jan	2016	16	(26)	1 minute faster	2 minutes faster
	2017	15	(24)		
May	2016	16	(26)	7 minutes faster	12 minutes faster
	2017	9	(14)		
Aug	2016	17	(25)	8 minutes faster	11 minutes faster
	2017	9	(14)		
Oct	2016	17	(25)	7 minutes faster	8 minutes faster
	2017	10	(17)		
Jan	2017	15	(24)	4 minutes faster	3 minutes faster
	2018	11	(21)		
May	2017	9	(14)	2 minutes slower	4 minutes slower
	2018	11	(18)		
Aug	2017	9	(14)	2 minutes slower	5 minutes slower
	2018	11	(19)		

Additional Example: Travel Times: Southbound I-405 from I-5 to NE 160th St. (AM Peak Period)



Timeframe Comparison		General Purpose Lane Travel Times in Minutes		Change in Travel Times in Minutes	
		Average	(95th Percentile)	Average	Reliable
Oct	2014	25	(49)	9 minutes faster	22 minutes faster
	2015	16	(27)		
Jan	2015	17	(34)	No change	1 minute slower
	2016	17	(35)		
May	2015	18	(35)	2 minutes faster	7 minutes faster
	2016	16	(28)		
Aug	2015	16	(34)	No change	5 minutes faster
	2016	16	(29)		
Oct	2015	16	(27)	3 minutes slower	10 minutes slower
	2016	19	(37)		
Jan	2016	17	(35)	1 minute faster	1 minute faster
	2017	16	(34)		
May	2016	16	(28)	2 minutes slower	5 minutes slower
	2017	18	(33)		
Aug	2016	16	(29)	1 minute slower	4 minutes slower
	2017	17	(33)		
Oct	2016	16	(29)	4 minutes slower	7 minutes slower
	2017	20	(36)		
Jan	2017	16	(34)	4 minutes slower	4 minutes slower
	2018	20	(38)		
May	2017	18	(33)	1 minute faster	3 minutes faster
	2018	17	(30)		
Aug	2017	17	(33)	No change	3 minutes faster
	2018	17	(30)		

Detailed Volume Data

- The following pages contain a summary of the requested volume data. Due to the large quantity and detail of volume data requested for each travel segment, the rest of this data will be provided on WSDOT's website at www.wsdot.wa.gov/Tolling/405/library.htm.
- The appendix volume data summarizes volume totals by peak hour, peak period, daily total, direction, lane and by month from October 2014 through September 2018 at four screen line locations along the corridor. During the first three years of express toll lane operations, all four locations saw average volume growth compared to the year prior to express toll lane operations. The rate of growth was higher during the peak periods in the peak direction than the daily volume rate of growth. The rate of growth was also higher at the locations between Bellevue and Bothell than between Bothell and Lynnwood. The locations between Bellevue and Bothell clearly showed greater growth during the first year of operations than the second year. However the locations between Bothell and Lynnwood displayed a mix of trends over the two years. Most notably, the southbound AM peak period primarily grew in the first year of operations, while northbound PM peak period primarily grew in the second year of operations. The evening peak period data collected after April 2017 includes the operation of the peak-use shoulder lane.

Detailed Speed Data

- Due to the large amount and detail of the speed data requested for each travel segment, this data will be provided on WSDOT's website at:
www.wsdot.wa.gov/Tolling/405/library.htm
- Data summary: Monthly average, 5th percentile, and 95th percentile speeds (miles per hour) along I-405 in 5 minute increments from October 2014 to June 2018. Speeds are summarized in two segments: the southern corridor (downtown Bellevue to SR 522) and the northern corridor (SR 522 to Swamp Creek). They are also summarized for the full length in the HOV/express toll lanes and the general purpose lanes.

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
Oct	2014	Mainline	17,663	23,017	59,002	82,576
		HOV	4,301	4,850	10,402	10,812
		Total	21,964	27,867	69,404	93,388
	2015	Mainline	16,434	19,738	68,482	79,251
		ETL	7,622	8,755	16,053	14,538
		Total	24,056	28,493	84,535	93,789
	Total Change (2015-2014)			2,092	626	15,131
Nov	2014	Mainline	17,144	21,508	68,851	81,400
		HOV	3,932	4,565	12,511	11,345
		Total	21,076	26,073	81,362	92,745
	2015	Mainline	15,357	18,946	63,552	73,567
		ETL	7,490	8,865	16,220	14,663
		Total	22,847	27,811	79,772	88,230
	Total Change (2015-2014)			1,771	1,738	-1,590
Dec	2014	Mainline	16,511	21,553	68,468	80,554
		HOV	3,507	4,504	12,859	10,968
		Total	20,018	26,057	81,327	91,522
	2015	Mainline	15,235	18,490	65,204	75,996
		ETL	6,576	8,452	16,502	15,581
		Total	21,811	26,942	81,706	91,577
	Total Change (2015-2014)			1,793	885	379
Jan	2015	Mainline	17,262	22,217	68,380	80,996
		HOV	3,950	4,609	11,343	10,426
		Total	21,212	26,826	79,723	91,422
	2016	Mainline	15,730	19,042	65,432	76,350
		ETL	8,019	9,205	17,236	15,321
		Total	23,749	28,247	82,668	91,671
	Total Change (2016-2015)			2,537	1,421	2,945

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
Feb	2015	Mainline	18,152	23,283	67,434	80,586
		HOV	4,158	4,623	11,436	9,653
		Total	22,310	27,906	78,870	90,239
	2016	Mainline	17,038	19,918	68,765	79,759
		ETL	8,617	9,869	18,133	16,026
		Total	25,655	29,787	86,898	95,785
	Total Change (2016-2015)			3,345	1,881	8,028
Mar	2015	Mainline	18,539	22,839	72,882	85,870
		HOV	4,293	4,836	12,122	11,115
		Total	22,832	27,675	85,004	96,985
	2016	Mainline	17,359	20,000	69,351	79,866
		ETL	9,117	10,513	20,076	18,242
		Total	26,476	30,513	89,427	98,108
	Total Change (2016-2015)			3,644	2,838	4,423
Apr	2015	Mainline	19,022	22,890	73,793	85,949
		HOV	4,197	4,838	12,769	11,660
		Total	23,219	27,728	86,562	97,609
	2016	Mainline	17,505	20,568	69,840	74,820
		ETL	9,100	10,896	21,405	18,570
		Total	26,605	31,464	91,245	93,390
	Total Change (2016-2015)			3,386	3,736	4,683
May	2015	Mainline	18,265	22,625	72,807	85,565
		HOV	4,190	4,794	13,665	11,840
		Total	22,455	27,419	86,472	97,405
	2016	Mainline	16,980	20,698	69,152	84,522
		ETL	9,182	11,990	21,812	22,335
		Total	26,162	32,688	90,964	106,857
	Total Change (2016-2015)			3,707	5,269	4,492
Jun	2015	Mainline	19,028	23,427	74,338	88,340
		HOV	4,462	4,981	14,387	12,535
		Total	23,490	28,408	88,725	100,875
	2016	Mainline	17,672	20,693	69,964	85,705
		ETL	9,540	12,537	24,201	24,586
		Total	27,212	33,230	94,165	110,291
	Total Change (2016-2015)			3,722	4,822	5,440

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
Jul	2015	Mainline	18,697	23,398	74,231	89,503
		HOV	4,257	4,897	14,735	12,653
		Total	22,954	28,295	88,966	102,156
	2016	Mainline	16,812	20,397	69,454	84,960
		ETL	8,576	12,081	23,948	23,893
		Total	25,388	32,478	93,402	108,853
	Total Change (2016-2015)			2,434	4,183	4,436
Aug	2015	Mainline	18,633	22,896	74,145	88,103
		HOV	4,298	4,812	15,132	12,763
		Total	22,931	27,708	89,277	100,866
	2016	Mainline	17,510	20,683	70,068	85,514
		ETL	9,375	12,677	25,064	24,690
		Total	26,885	33,360	95,132	110,204
	Total Change (2016-2015)			3,954	5,652	5,855
Sep	2015	Mainline	17,763	23,025	71,767	85,595
		HOV	3,994	4,566	11,755	10,132
		Total	21,757	27,591	83,522	95,727
	2016	Mainline	16,589	20,618	67,817	83,428
		ETL	9,335	12,478	24,104	24,152
		Total	25,924	33,096	91,921	107,580
	Total Change (2016-2015)			4,167	5,505	8,399
Oct	2015	Mainline	16,434	19,738	68,482	79,251
		ETL	7,622	8,755	16,053	14,538
		Total	24,056	28,493	84,535	93,789
	2016	Mainline	16,540	20,598	66,729	82,580
		ETL	9,708	12,459	23,975	23,434
		Total	26,248	33,057	90,704	106,014
	Total Change (2016-2015)			2,192	4,564	6,169
Nov	2015	Mainline	15,357	18,946	63,552	73,567
		ETL	7,490	8,865	16,220	14,663
		Total	22,847	27,811	79,772	88,230
	2016	Mainline	15,916	19,888	65,746	81,248
		ETL	8,957	11,648	23,290	22,950
		Total	24,873	31,536	89,036	104,198
	Total Change (2016-2015)			2,026	3,725	9,264

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
Dec	2015	Mainline	15,235	18,490	65,204	75,996
		ETL	6,576	8,452	16,502	15,581
		Total	21,811	26,942	81,706	91,577
	2016	Mainline	16,210	19,588	65,620	81,107
		ETL	9,284	12,257	24,024	23,577
		Total	25,494	31,845	89,644	104,684
	Total Change (2016-2015)			3,683	4,903	7938
Jan	2016	Mainline	15,730	19,042	65,432	76,350
		ETL	8,019	9,205	17,236	15,321
		Total	23,749	28,247	82,668	91,671
	2017	Mainline	16,374	20,661	65,794	81,035
		ETL	9,038	11,972	21,846	22,077
		Total	25,412	32,633	87,640	103,112
	Total Change (2017-2016)			1,663	4,386	4,972
Feb	2016	Mainline	17,038	19,918	68,765	79,759
		ETL	8,617	9,869	18,133	16,026
		Total	25,655	29,787	86,898	95,785
	2017	Mainline	16,117	19,944	64,383	79,389
		ETL	9,092	11,859	22,912	22,956
		Total	25,209	31,803	87,295	102,345
	Total Change (2017-2016)			-446	2,016	397
Mar	2016	Mainline	17,359	20,000	69,351	79,866
		ETL	9,117	10,513	20,076	18,242
		Total	26,476	30,513	89,427	98,108
	2017	Mainline	16,984	20,726	67,585	83,419
		ETL	10,130	12,615	25,301	24,356
		Total	27,114	33,341	92,886	107,775
	Total Change (2017-2016)			638	2,828	3,459
Apr	2016	Mainline	17,505	20,568	69,840	74,820
		ETL	9,100	10,896	21,405	18,570
		Total	26,605	31,464	91,245	93,390
	2017	Mainline	17,173	21,366	68,899	85,444
		ETL	10,120	12,619	25,060	24,692
		Total	27,293	33,985	93,959	110,136
	Total Change (2017-2016)			688	2,521	2,714

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
May	2016	Mainline	16,980	20,698	69,152	84,522
		ETL	9,182	11,990	21,812	22,335
		Total	26,162	32,688	90,964	106,857
	2017	Mainline	16,932	21,161	68,485	85,044
		ETL	10,019	12,942	25,526	25,782
		Total	26,951	34,103	94,011	110,826
	Total Change (2017-2016)			789	1,415	3,047
Jun	2016	Mainline	17,672	20,693	69,964	85,705
		ETL	9,540	12,537	24,201	24,586
		Total	27,212	33,230	94,165	110,291
	2017	Mainline	17,362	21,026	70,000	87,110
		ETL	10,188	13,751	27,847	27,414
		Total	27,550	34,777	97,847	114,524
	Total Change (2017-2016)			338	1,547	3,682
Jul	2016	Mainline	16,812	20,397	69,454	84,960
		ETL	8,576	12,081	23,948	23,893
		Total	25,388	32,478	93,402	108,853
	2017	Mainline	16,488	20,895	69,575	85,995
		ETL	9,207	12,861	27,057	26,607
		Total	25,695	33,756	96,632	112,602
	Total Change (2017-2016)			307	1,278	3,230
Aug	2016	Mainline	17,510	20,683	70,068	85,514
		ETL	9,375	12,677	25,064	24,690
		Total	26,885	33,360	95,132	110,204
	2017	Mainline	17,470	21,509	70,940	87,151
		ETL	9,832	13,482	27,658	27,178
		Total	27,302	34,991	98,598	114,329
	Total Change (2017-2016)			417	1,631	3,466

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
Sep	2016	Mainline	16,589	20,618	67,817	83,428
		ETL	9,335	12,478	24,104	24,152
		Total	25,924	33,096	91,921	107,580
	2017	Mainline	16,523	21,319	68,411	84,558
		ETL	9,645	13,325	26,281	26,422
		Total	26,168	34,644	94,692	110,980
	Total Change (2017-2016)			244	1,548	2,771
Oct	2016	Mainline	16,540	20,598	66,729	82,580
		ETL	9,708	12,459	23,975	23,434
		Total	26,248	33,057	90,704	106,014
	2017	Mainline	16,891	21,096	67,776	83,869
		ETL	10,278	13,667	26,427	26,746
		Total	27,169	34,763	94,203	110,615
	Total Change (2017-2016)			921	1,706	3,499
Nov	2016	Mainline	15,916	19,888	65,746	81,248
		ETL	8,957	11,648	23,290	22,950
		Total	24,873	31,536	89,036	104,198
	2017	Mainline	15,200	20,194	64,316	80,727
		ETL	9,198	12,553	25,888	25,594
		Total	24,398	32,747	90,204	106,321
	Total Change (2017-2016)			-475	1,211	1,168
Dec	2016	Mainline	16,210	19,588	65,620	81,107
		ETL	9,284	12,257	24,024	23,577
		Total	25,494	31,845	89,644	104,684
	2017	Mainline	15,295	19,857	65,179	79,785
		ETL	8,491	11,871	24,640	24,876
		Total	23,786	31,728	89,819	104,661
	Total Change (2017-2016)			-1,708	-117	175

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)	Daily Total (SB)	Daily Total (NB)
Jan	2017	Mainline	16,374	20,661	65,794	81,035
		ETL	9,038	11,972	21,846	22,077
		Total	25,412	32,633	87,640	103,112
	2018	Mainline	15,795	20,036	64,180	79,661
		ETL	9,479	12,681	24,266	24,503
		Total	25,274	32,717	88,446	104,164
	Total Change (2018-2017)		-138	84	806	1,052
Feb	2017	Mainline	16,117	19,944	64,383	79,389
		ETL	9,092	11,859	22,912	22,956
		Total	25,209	31,803	87,295	102,345
	2018	Mainline	16,472	20,745	66,663	82,469
		ETL	9,685	13,057	24,287	24,919
		Total	26,157	33,802	90,950	107,388
	Total Change (2018-2017)		948	1,999	3,655	5,043
Mar	2017	Mainline	16,984	20,726	67,585	83,419
		ETL	10,130	12,615	25,301	24,356
		Total	27,114	33,341	92,886	107,775
	2018	Mainline	16,960	21,253	68,954	84,854
		ETL	10,261	13,914	26,143	26,623
		Total	27,221	35,167	95,097	111,477
	Total Change (2018-2017)		107	1,826	2,211	3,702

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Apr	2017	Mainline	17,173	21,366	68,899	85,444
		ETL	10,120	12,619	25,060	24,692
		Total	27,293	33,985	93,959	110,136
	2018	Mainline	17,446	20,861	69,378	84,990
		HOV	9,940	13,626	25,477	26,357
		Total	27,386	34,487	94,855	111,347
Total Change (2018-2017)			93	502	896	1,211
May	2017	Mainline	16,932	21,161	68,485	85,044
		ETL	10,019	12,942	25,526	25,782
		Total	26,951	34,103	94,011	110,826
	2018	Mainline	16,934	20,640	69,253	85,770
		HOV	9,907	13,591	26,593	27,037
		Total	26,841	34,231	95,846	112,807
Total Change (2018-2017)			-110	128	1,835	1,981
Jun	2017	Mainline	17,362	21,026	70,000	87,110
		ETL	10,188	13,751	27,847	27,414
		Total	27,550	34,777	97,847	114,524
	2018	Mainline	17,499	20,700	70,632	87,839
		HOV	10,134	13,742	28,181	28,771
		Total	27,633	34,442	98,813	116,610
Total Change (2018-2017)			83	-335	966	2,086

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			NE 100th (Dual-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Jul	2017	Mainline	16,488	20,895	69,575	85,995
		ETL	9,207	12,861	27,057	26,607
		Total	25,695	33,756	96,632	112,602
	2018	Mainline	16,764	19,855	69,446	85,145
		HOV	9,205	13,098	27,447	27,945
		Total	25,969	32,953	96,893	113,090
	Total Change (2018-2017)		274	-803	261	488
Aug	2017	Mainline	17,470	21,509	70,940	87,151
		ETL	9,832	13,482	27,658	27,178
		Total	27,302	34,991	98,598	114,329
	2018	Mainline	17,513	20,636	71,166	86,646
		HOV	9,687	13,280	27,960	28,181
		Total	27,200	33,916	99,126	114,827
	Total Change (2018-2017)		-102	-1,075	528	498
Sep	2017	Mainline	16,523	21,319	68,411	84,558
		ETL	9,645	13,325	26,281	26,422
		Total	26,168	34,644	94,692	110,980
	2018	Mainline	16,465	20,700	68,182	84,635
		HOV	9,775	13,423	26,339	27,091
		Total	26,240	34,123	94,521	111,726
	Total Change (2018-2017)		72	-521	-171	746

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Oct	2014	Mainline	10,841	14,319	51,987	53,767
		HOV	3,126	4,450	8,644	8,976
		Total	13,967	18,769	60,631	62,743
	2015	Mainline	11,773	13,483	53,876	55,295
		ETL	3,269	4,773	7,741	7,231
		Total	15,042	18,256	61,617	62,526
	Total Change (2015-2014)			1,075	-513	986
Nov	2014	Mainline	10,665	13,653	50,239	52,349
		HOV	2,681	4,127	8,976	8,789
		Total	13,346	17,780	59,215	61,138
	2015	Mainline	11,047	13,103	52,034	53,390
		ETL	3,226	4,474	8,121	7,256
		Total	14,273	17,577	60,155	60,646
	Total Change (2015-2014)			927	-203	940
Dec	2014	Mainline	10,586	13,544	50,562	52,184
		HOV	2,331	4,041	9,005	8,120
		Total	12,917	17,585	59,567	60,304
	2015	Mainline	10,845	12,846	52,300	53,035
		ETL	2,710	4,170	7,882	7,285
		Total	13,555	17,016	60,182	60,320
	Total Change (2015-2014)			638	-569	615
Jan	2015	Mainline	11,308	14,025	51,460	52,184
		HOV	2,522	3,985	7,565	8,120
		Total	13,830	18,010	59,025	60,304
	2016	Mainline	11,234	13,241	51,804	52,504
		ETL	3,306	4,362	7,715	7,201
		Total	14,540	17,603	59,519	59,705
	Total Change (2016-2015)			710	-407	494
Feb	2015	Mainline	11,864	14,539	53,269	53,944
		HOV	2,665	4,290	8,046	8,467
		Total	14,529	18,829	61,315	62,411
	2016	Mainline	12,085	13,846	54,020	54,992
		ETL	3,431	4,642	8,251	7,684
		Total	15,516	18,488	62,271	62,676
	Total Change (2016-2015)			987	-341	956

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Mar	2015	Mainline	11,937	14,681	49,388	50,728
		HOV	2,819	4,269	7,975	7,963
		Total	14,756	18,950	57,363	58,691
	2016	Mainline	12,240	14,076	54,019	55,254
		ETL	3,736	4,986	9,264	8,683
		Total	15,976	19,062	63,283	63,937
	Total Change (2016-2015)			1,220	112	5,920
Apr	2015	Mainline	12,277	14,506	54,498	54,996
		HOV	2,725	4,411	8,892	9,704
		Total	15,002	18,917	63,390	64,700
	2016	Mainline	12,433	13,952	54,906	56,333
		ETL	3,806	5,178	10,571	9,722
		Total	16,239	19,130	65,477	66,055
	Total Change (2016-2015)			1,237	213	2,087
May	2015	Mainline	11,929	14,182	54,062	55,279
		HOV	2,802	4,502	9,746	9,573
		Total	14,731	18,684	63,808	64,852
	2016	Mainline	11,990	13,670	54,741	55,531
		ETL	3,820	5,141	10,532	9,973
		Total	15,810	18,811	65,273	65,504
	Total Change (2016-2015)			1,079	127	1,465
Jun	2015	Mainline	12,225	14,166	55,328	56,319
		HOV	3,095	4,887	10,683	10,793
		Total	15,320	19,053	66,011	67,112
	2016	Mainline	12,260	13,865	55,920	56,902
		ETL	4,012	5,373	11,468	10,740
		Total	16,272	19,238	67,388	67,642
	Total Change (2016-2015)			952	185	1,377
Jul	2015	Mainline	12,440	14,016	56,522	56,423
		HOV	2,797	4,781	10,698	11,386
		Total	15,237	18,797	67,220	67,809
	2016	Mainline	11,761	13,432	54,902	55,848
		ETL	3,699	5,121	11,909	10,812
		Total	15,460	18,553	66,811	66,660
	Total Change (2016-2015)			223	-244	-409

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Aug	2015	Mainline	12,445	14,210	56,452	56,206
		HOV	2,925	4,685	10,755	11,346
		Total	15,370	18,895	67,207	67,552
	2016	Mainline	12,155	13,573	55,115	55,947
		ETL	4,035	5,268	12,364	11,170
		Total	16,190	18,841	67,479	67,117
	Total Change (2016-2015)			820	-54	272
Sep	2015	Mainline	11,603	13,984	53,381	54,701
		HOV	2,820	4,286	8,897	8,964
		Total	14,423	18,270	62,278	63,665
	2016	Mainline	11,177	13,640	52,915	54,656
		ETL	3,950	5,125	11,567	10,450
		Total	15,127	18,765	64,482	65,106
	Total Change (2016-2015)			704	495	2,204
Oct	2015	Mainline	11,773	13,483	53,876	55,295
		ETL	6,269	4,773	7,741	7,231
		Total	18,042	18,256	61,617	62,526
	2016	Mainline	11,186	13,643	51,919	53,482
		ETL	4,020	5,127	11,039	10,534
		Total	15,206	18,770	62,958	64,016
	Total Change (2016-2015)			-2,836	514	1,341
Nov	2015	Mainline	11,047	13,103	52,034	53,390
		ETL	3,226	4,474	8,121	7,256
		Total	14,273	17,577	60,155	60,646
	2016	Mainline	10,724	13,296	51,492	52,930
		ETL	3,540	4,807	10,866	10,279
		Total	14,264	18,103	62,358	63,209
	Total Change (2016-2015)			-9	526	2,203
Dec	2015	Mainline	10,845	12,846	52,300	53,035
		ETL	2,710	4,170	7,882	7,285
		Total	13,555	17,016	60,182	60,320
	2016	Mainline	10,915	13,433	51,169	53,155
		ETL	3,769	4,914	11,126	10,252
		Total	14,684	18,347	62,295	63,407
	Total Change (2016-2015)			1,129	1,331	2,113

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Jan	2016	Mainline	11,234	13,241	51,804	52,504
		ETL	3,306	4,362	7,715	7,201
		Total	14,540	17,603	59,519	59,705
	2017	Mainline	11,440	13,473	51,395	51,891
		ETL	3,609	4,829	9,906	9,833
		Total	15,049	18,302	61,301	61,724
	Total Change (2017-2016)			509	699	1,782
Feb	2016	Mainline	12,085	13,846	54,020	54,992
		ETL	3,431	4,642	8,251	7,684
		Total	15,516	18,488	62,271	62,676
	2017	Mainline	11,248	13,197	50,733	51,471
		ETL	3,681	4,740	10,329	10,219
		Total	14,929	17,937	61,062	61,690
	Total Change (2017-2016)			-587	-551	-1,209
Mar	2016	Mainline	12,240	14,076	54,019	55,254
		ETL	3,736	4,986	9,264	8,683
		Total	15,976	19,062	63,283	63,937
	2017	Mainline	11,535	13,292	53,175	52,949
		ETL	3,943	5,163	11,739	11,122
		Total	15,478	18,455	64,914	64,071
	Total Change (2017-2016)			-498	-607	1,631
Apr	2016	Mainline	12,433	13,952	54,906	56,333
		ETL	3,806	5,178	10,571	9,722
		Total	16,239	19,130	65,477	66,055
	2017	Mainline	11,912	15,641	54,023	56,908
		ETL	3,897	4,989	11,367	11,579
		Total	15,809	20,630	65,390	68,487
	Total Change (2017-2016)			-430	1,500	-87

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
May	2016	Mainline	11,990	13,670	54,741	55,531
		ETL	3,820	5,141	10,532	9,973
		Total	15,810	18,811	65,273	65,504
	2017	Mainline	11,675	15,684	53,901	55,572
		ETL	3,930	4,655	11,585	10,657
		Total	15,605	20,339	65,486	66,229
	Total Change (2017-2016)			-205	1,528	213
Jun	2016	Mainline	12,260	13,865	55,920	56,902
		ETL	4,012	5,373	11,468	10,740
		Total	16,272	19,238	67,388	67,642
	2017	Mainline	11,805	15,373	55,261	57,850
		ETL	4,074	4,993	12,732	11,493
		Total	15,879	20,366	67,993	69,343
	Total Change (2017-2016)			-393	1,128	605
Jul	2016	Mainline	11,761	13,432	54,902	55,848
		ETL	3,699	5,121	11,909	10,812
		Total	15,460	18,553	66,811	66,660
	2017	Mainline	11792	15,723	54,399	57,083
		ETL	3970	4,867	11,910	11,206
		Total	15762	20,590	66,309	68,289
	Total Change (2017-2016)			302	2,037	-502
Aug	2016	Mainline	12,155	13,573	55,115	55,947
		ETL	4,035	5,268	12,364	11,170
		Total	16,190	18,841	67,479	67,117
	2017	Mainline	11,953	15,768	55,688	57,721
		ETL	3,992	4,939	13,261	11,562
		Total	15,945	20,707	68,949	69,283
	Total Change (2017-2016)			-245	1,866	1,470

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Sep	2016	Mainline	11,177	13,640	52,915	54,656
		ETL	3,950	5,125	11,567	10,450
		Total	15,127	18,765	64,482	65,106
	2017	Mainline	11,326	15,904	53,689	56,433
		ETL	3,940	4,852	12,365	10,960
		Total	15,266	20,756	66,054	67,393
	Total Change (2017-2016)			139	1,991	1,572
Oct	2016	Mainline	11,761	13,432	54,902	55,848
		ETL	3,699	5,121	11,909	10,812
		Total	15,460	18,553	66,811	66,660
	2017	Mainline	11,466	16,043	53,147	56,213
		ETL	4,175	5,040	12,162	10,845
		Total	15,641	21,083	65,309	67,058
	Total Change (2017-2016)			181	2,530	-1,502
Nov	2016	Mainline	12,155	13,573	55,115	55,947
		ETL	4,035	5,268	12,364	11,170
		Total	16,190	18,841	67,479	67,117
	2017	Mainline	10,374	15,203	51,099	54,157
		ETL	3,588	4,705	11,842	10,644
		Total	13,962	18,347	62,941	64,801
	Total Change (2017-2016)			-2,228	1,067	-4,538
Dec	2016	Mainline	10,915	13,433	51,169	53,155
		ETL	3,769	4,914	11,126	10,252
		Total	14,684	18,765	62,295	63,407
	2017	Mainline	10,465	14,811	51,323	53,550
		ETL	3,321	4,510	11,344	10,547
		Total	13,786	19,321	62,667	64,097
	Total Change (2017-2016)			-898	974	372

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Jan	2017	Mainline	11,440	13,473	51,395	51,891
		ETL	3,609	4,829	9,906	9,833
		Total	15,049	18,302	61,301	61,724
	2018	Mainline	10,941	15,037	50,679	53,152
		HOV	3,608	4,673	10,719	10,001
		Total	14,549	19,710	61,398	63,153
	Total Change (2018-2017)			-500	1,408	97
Feb	2017	Mainline	11,248	13,197	50,733	51,471
		ETL	3,681	4,740	10,329	10,219
		Total	14,929	17,937	61,062	61,690
	2018	Mainline	11,381	15,816	52,677	55,302
		HOV	3,706	4,737	10,787	10,062
		Total	15,087	20,553	63,464	65,364
	Total Change (2018-2017)			158	2,616	2,402
Mar	2017	Mainline	11,535	13,292	53,175	52,949
		ETL	3,943	5,163	11,739	11,122
		Total	15,478	18,455	64,914	64,071
	2018	Mainline	11,681	16,111	54,271	56,829
		HOV	3,965	4,961	11,655	10,542
		Total	15,646	21,072	65,926	67,371
	Total Change (2018-2017)			168	2,617	1,012

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Apr	2017	Mainline	11,912	15,641	54,023	56,908
		ETL	3,897	4,989	11,367	11,579
		Total	15,809	20,630	65,390	68,487
	2018	Mainline	12,354	16,106	55,305	57,509
		HOV	3,944	4,962	11,526	10,699
		Total	16,298	21,068	66,831	68,208
Total Change (2018-2017)		489	438	1,441	-279	
May	2017	Mainline	11,675	15,684	53,901	55,572
		ETL	3,930	4,655	11,585	10,657
		Total	15,605	20,399	65,486	66,229
	2018	Mainline	11,846	15,801	55,122	57,571
		HOV	4,055	5,073	12,273	11,221
		Total	15,901	20,874	67,395	68,792
Total Change (2018-2017)		296	535	1,909	2,563	
Jun	2017	Mainline	11,805	15,373	55,261	57,850
		ETL	4,074	4,993	12,732	11,493
		Total	15,879	20,366	67,993	69,343
	2018	Mainline	12,190	16,129	56,384	59,154
		HOV	4,052	5,068	13,037	11,805
		Total	16,242	21,197	69,421	70,959
Total Change (2018-2017)		363	831	1,428	1,616	

*: PM Mainline data includes Peak Use Shoulder Lane counts starting Apr 2018.

AVERAGE WEEKDAY SCREENLINE VOLUMES YEAR TO YEAR COMPARISON - PRE-TOLLING TO PRESENT						
			SR 527 (Single-Lane Section)			
			AM Peak (SB, 5-9a)	PM Peak (NB, 3-7p)*	Daily Total (SB)	Daily Total (NB)
Jul	2017	Mainline	11,792	15,723	54,399	57,083
		ETL	3,970	4,867	11,910	11,206
		Total	15,762	20,590	66,309	68,289
	2018	Mainline	11,790	15,347	55,358	57,172
		HOV	3,862	4,793	12,925	11,917
		Total	15,652	20,140	68,283	69,089
	Total Change (2018-2017)		-110	-450	1,974	800
Aug	2017	Mainline	11,953	15,768	55,688	57,721
		ETL	3,992	4,939	13,261	11,562
		Total	15,945	20,707	68,949	69,283
	2018	Mainline	12,274	15,956	56,710	58,462
		HOV	3,952	4,877	13,258	11,975
		Total	16,226	20,833	69,968	70,437
	Total Change (2018-2017)		281	126	1,019	1,019
Sep	2017	Mainline	11,326	15,904	53,689	56,433
		ETL	3,940	4,852	12,365	10,960
		Total	15,266	20,756	66,054	67,393
	2018	Mainline	11,743	15,709	54,800	56,638
		HOV	3,964	4,887	12,003	11,180
		Total	15,707	20,596	66,803	67,818
	Total Change (2018-2017)		441	-160	749	425

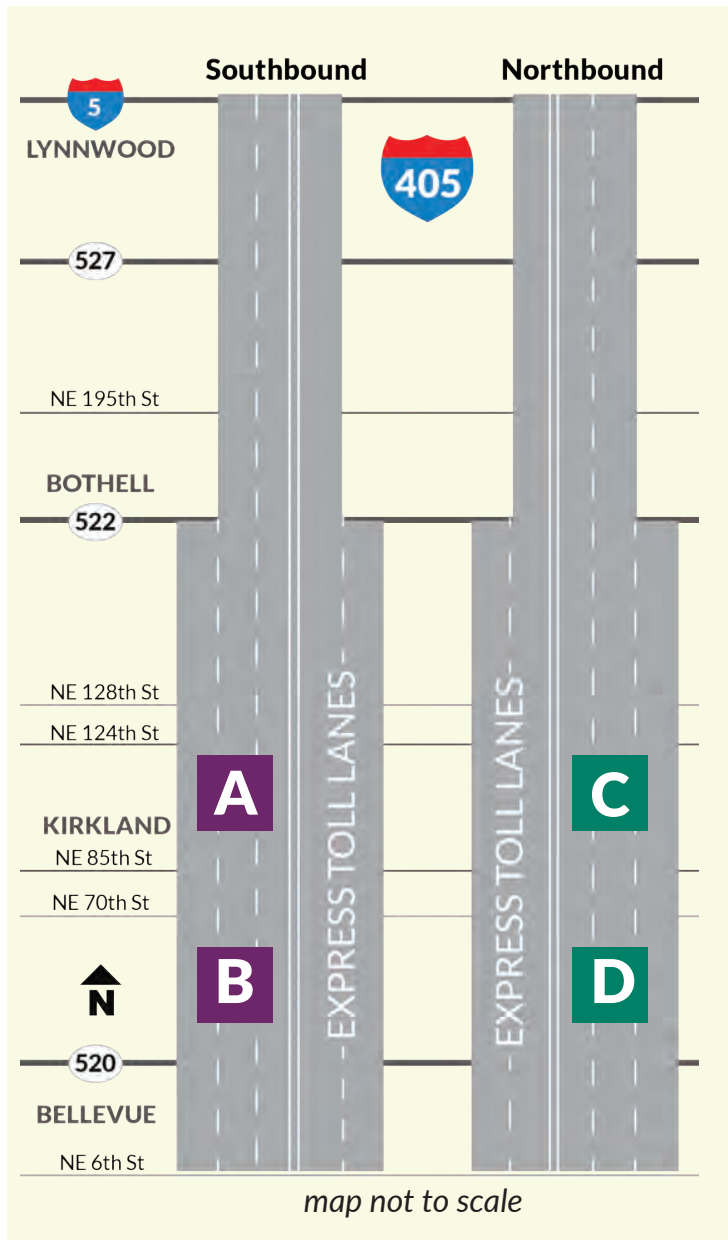
*: PM Mainline data includes Peak Use Shoulder Lane counts starting Apr 2018.

Reference map for locating mileposts along I-405



Appendix B: Additional Traffic Performance Data

Using sensors in the roadway, WSDOT collected traffic counts on the stretch of I-405 between Bellevue and Lynnwood. Volumes were reported at eight sample locations: four in the northbound direction and four in the southbound direction. In the dual-lane section, sensors collect traffic data at NE 53rd St and NE 100th St. In the single-lane section, the sensors are located at the I-405 interchanges with SR 522 and SR 527.



To monitor daily vehicle volumes on the portion of the I-405 corridor with dual express toll lanes, WSDOT collected data at NE 100th (markers A and C) and NE 53rd St (markers B and D).

Quarterly average daily volumes for general purpose and express toll lanes at these locations can be viewed on the following page.

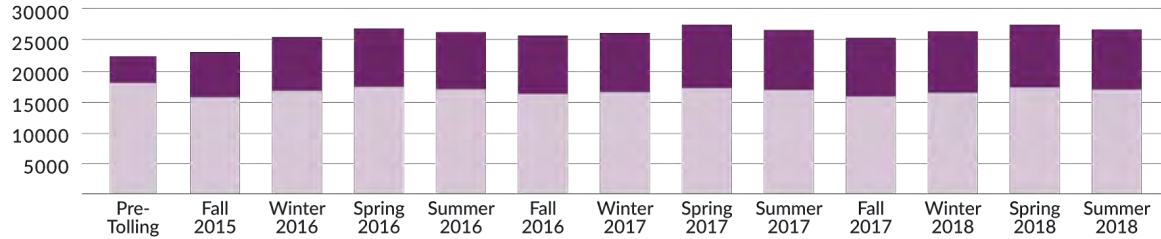
Average weekday dual-lane section volumes at sample locations – Oct. 1, 2014-June 30, 2018

Southbound Morning Peak 5 - 9 am

General purpose lanes HOV/Express toll lanes

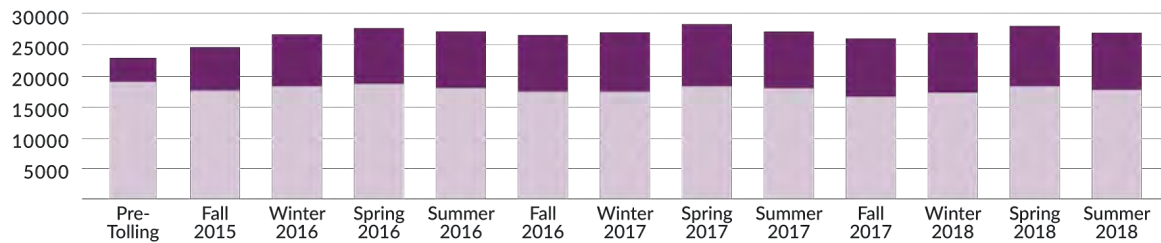
A NE 100th St

Average Peak Period Volume



B NE 53rd St

Average Peak Period Volume

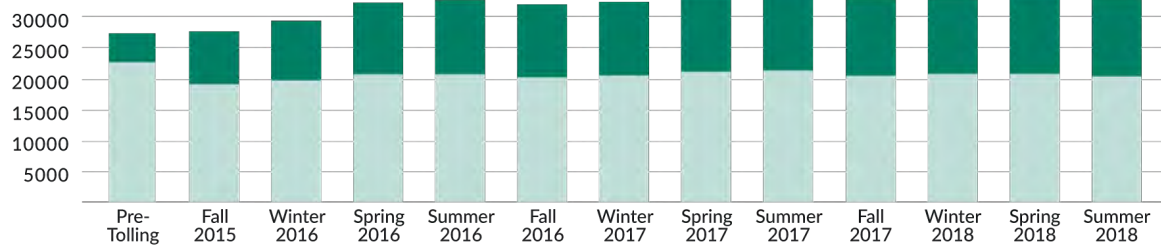


Northbound Evening Peak 3 - 7 pm

General purpose lanes HOV/Express toll lanes

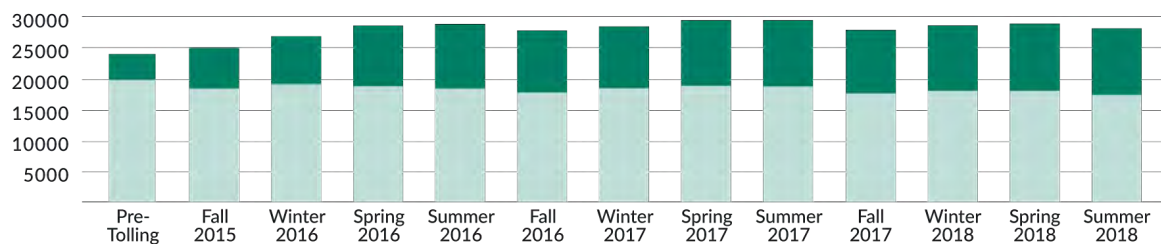
C NE 100th St

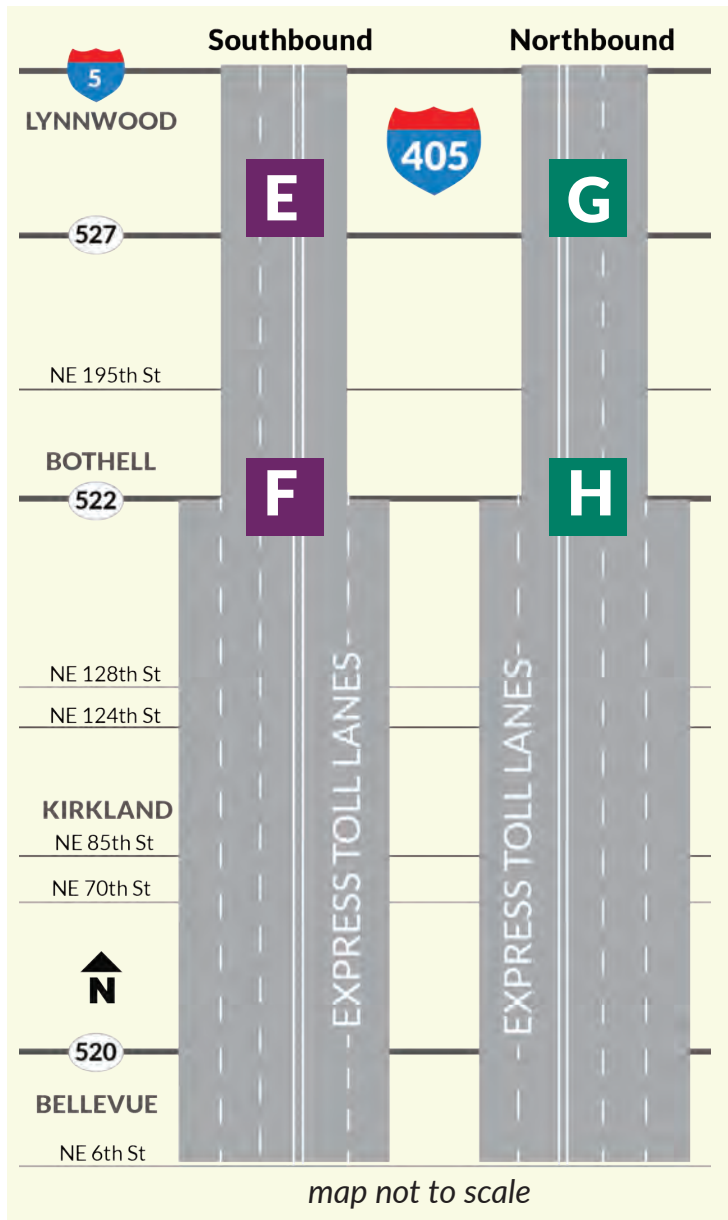
Average Peak Period Volume



D NE 53rd St

Average Peak Period Volume





To monitor daily vehicle volumes on the portion of the I-405 corridor with single express toll lanes, WSDOT collected data at the SR 527 interchange (markers E and G) and SR 522 (markers F and H).

Quarterly average daily volumes for general purpose and express toll lanes at these locations can be viewed on the following page.

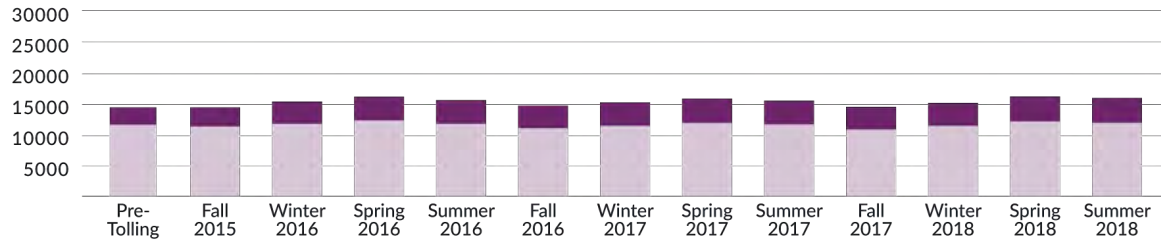
Average weekday single-lane section volumes at sample locations - Oct. 1, 2014-June 30, 2018

Southbound Morning Peak 5 - 9 am

General purpose lanes HOV/Express toll lanes

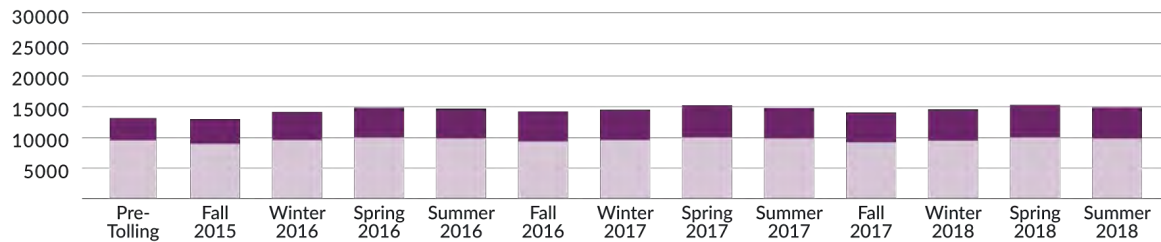
E SR 527

Average Peak Period Volume



F SR 522

Average Peak Period Volume

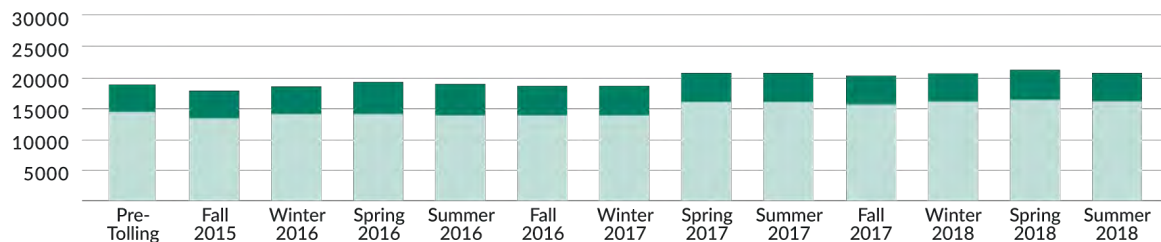


Northbound Evening Peak 3 - 7 pm

General purpose lanes HOV/Express toll lanes

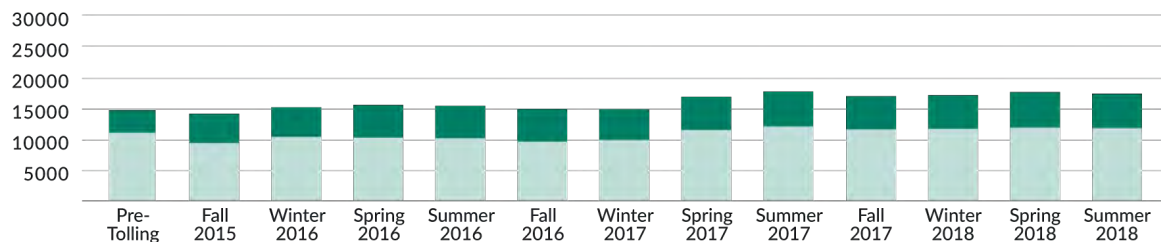
G SR 527

Average Peak Period Volume



H SR 522

Average Peak Period Volume



Appendix C: Express Toll Lane Guide

Operational Parameters

The following parameters define how the express toll lanes operate and are critical to understanding the data and analysis discussed in this report:

- The I-405 express toll lane corridor is made up of single- and dual-lane sections. The 7.9 mile portion of the system with two lanes in each direction between Bellevue and Bothell is referred to as the dual-lane section. The 7.15 mile portion of the system with one express toll lane in each direction between Bothell and I-5 in Lynnwood is referred to as the single-lane section.
- The I-405 express toll lanes operate as a tolled facility on weekdays between 5 a.m. and 7 p.m., except on major holidays. During all other days and times, the lanes are open to all traffic.
- Carpools with enough occupants may use the express toll lanes for free with a Flex Pass set to HOV mode. The carpool occupancy requirement, set by the Transportation Commission, allows vehicles with three or more occupants to travel toll-free during peak periods on weekdays and vehicles with two or more occupants to travel toll-free on weekdays from 9 a.m. to 3 p.m.
- Peak time, peak directions are southbound morning peak period (5 a.m.-9 a.m.) and northbound afternoon peak period (3 p.m.-7 p.m.)
- Trip categories: The following categories define toll trips:
 - **Toll-exempt:** Carpools traveling toll-free with a Flex Pass set to HOV mode, and motorcycles with a motorcycle pass.
 - **Photo toll:** Vehicles who pay the toll through a photo of the vehicle license plate. There are two types of photo tolling: – Pay By Plate - License plates registered to a *Good To Go!* account; drivers are charged an additional 25 cent fee per trip. – Pay By Mail - Drivers without a *Good To Go!* account receive toll bills through the mail for an additional \$2 per trip.
 - ***Good To Go!* pass:** Non-carpools that pay a toll using any *Good To Go!* pass installed in their vehicle; this method is the most inexpensive way to pay a toll.

How Express Toll Lanes Work

The I-405 express toll lanes were designed to provide faster, more predictable trips for transit, vanpools, carpools and toll-paying vehicles. While some factors, such as collisions, can inhibit the efficiency of the lanes, managing the flow of traffic in and out of the lanes allows the lanes to maintain faster speeds than general purpose lanes during periods of congestion.

WSDOT utilizes different strategies in the express toll lanes to promote steady speeds and more efficient person throughput, including lane design, vehicle limitations and tolling.

Design

Vehicles and transit can only enter and exit the express toll lanes by using specific access points. Limiting merging points and managing traffic flow through dynamic tolling allows the express toll lanes to maintain more consistent speeds. Some access points have a dashed white line for vehicles to merge in or out. Temporary weave lanes allow vehicles to merge in and out of the express toll lanes with less disruption, allowing the express toll lanes to operate more efficiently. Additionally, there are two direct access ramps that transit, high occupancy vehicles (HOV) and toll-paying drivers can use from NE 6th Street in Bellevue and NE 128th Street in Kirkland to enter the express toll lanes directly.

Vehicle Limitations

WSDOT manages the types of vehicles that can and cannot use the express toll lanes during operational hours. Between 7 p.m. and 5 a.m. and on weekends and holidays, the lanes are open to all vehicles.

Express toll lanes are always free to transit, vanpools and carpools that meet occupancy requirements. During peak hours, vehicles must have at least three occupants and a Flex Pass in order to use the lanes free of charge. The lanes incentivize transit and carpooling by providing faster, more predictable trips without a toll.

Large commercial vehicles, such as trucks over 10,000 pounds gross vehicle weight, are never allowed in the express toll lanes. This is consistent with HOV lane restrictions throughout Washington which are designed to promote more efficient person throughput.

One of the primary goals of the express toll lanes is to improve transit reliability and travel times. The previous HOV lanes often experienced gridlock which interfered with transit efficiency. Limiting the number of vehicles that can use the lanes ensures more reliability for transit riders. Motorcycles can always use the lanes free of cost as long as they have a *Good To Go!* motorcycle pass.

Dynamic Tolling

The efficiency of the express toll lanes relies heavily on the dynamic tolling algorithm which determines toll rates for the lanes. The algorithm adjusts toll rates every 5 minutes based on congestion to influence the flow of vehicles into the lanes to ensure that traffic continues to move smoothly. Toll rates range from \$0.75 to \$10.

As traffic increases, the toll increases. As traffic subsides, the toll goes down. This process is called “dynamic pricing.” Dynamic pricing works to ensure that the lanes don’t get overloaded with vehicles and become as congested as the general purpose lanes. The tolling system monitors congestion throughout the corridor which is why toll rates can vary for different destinations, or “toll zones.”

Typically, drivers chose to use the express toll lanes most during peak periods when traffic is heavy. As more vehicles enter, the toll rate goes up. This is why when congestion is at its worst, toll rates increase to the maximum rate.

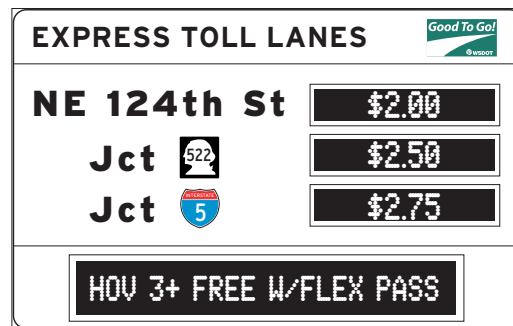
Transit and qualifying carpools can use the lanes for free. This has the combined benefit of incentivizing carpooling or use of public transportation to avoid paying a toll. When people opt to use these forms of transportation, they reduce the number of cars on the road which in turn helps reduce congestion.

Dynamic pricing is used successfully at other toll facilities around the country, including San Diego, Los Angeles, Miami, Denver, Northern Virginia, the Bay Area and Dallas.

How the Signs Work

The rates displayed on the roadway signs are for vehicles with transponders installed traveling to any point, up to and including the listed destination. Once a vehicle passes a listed destination, the rate for that trip will be based on the rate for the next destination you saw on the sign when you entered. Learn more about how express toll lanes work:

www.youtube.com/watch?v=lhwRTz7zxrY&feature=youtu.be.



FOR MORE INFORMATION

Visit [GoodToGo405.org](https://www.GoodToGo405.org) or contact us at GoodToGoTolling@wsdot.wa.gov

Title VI Notice to Public It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7090.

Americans with Disabilities Act (ADA) Information This material can be made available in an alternate format by emailing the WSDOT Diversity/ADA Affairs team at wsdotada@wsdot.wa.gov or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.