SR 520 Bridge Replacement and HOV Project

SR 520 Toll Traffic and Revenue Technical Report

DRAFT FINAL

Analysis of the 2007 SR 520 Finance Plan Toll Scenarios

Prepared for:

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DISCLAIMER

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Information and statements contained in this report are based on information provided to PB and HDR by, and obtained from, the Washington State Department of Transportation (WSDOT), the Puget Sound Regional Council (PSRC), and other sources. In the preparation of this report and the opinions contained herein, PB makes certain assumptions with respect to such conditions that may exist or events that may occur in the future that are subject to change. These assumptions underlie projected future traffic volumes and potential toll revenue ranges, and are not intended to reflect any official decisions regarding toll policy, project funding decisions, or the bridge replacement options.

Furthermore, the toll revenue and financial analysis results presented herein are provided for feasibility considerations and to further toll policy and financial planning discussions, and were not prepared for the purpose of securing an investment-grade credit rating for a potential future bond issuance.

This report does not constitute a recommendation of the Washington State Department of Transportation or that of PB.

ABBREVIATIONS AND ACRONYMS

(D)EIS	(Draft) Environmental Impact Statement
EB	Eastbound
ESSB	Engrossed Substitute Senate Bill
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
GO	General Obligation
GP	General Purpose (Lanes)
HMA	Hot Mix Asphalt
HOV	High-Occupancy Vehicle
I-5	Interstate Highway 5
I-90	Interstate Highway 90
I-405	Interstate Highway 405
MVFT	Motor Vehicle Fuel Tax
OST	Office of the State Treasurer
PCC	Portland Cement Concrete
PCE	Passenger Car Equivalent
PSRC	Puget Sound Regional Council
R&R	Rehabilitation and Repair
RTID	Regional Transportation Investment District
SR (520, 522)	State Route (520, 522)
ST2	Sound Transit 2 (investment plan)
TPA	Transportation Partnership Account
V/C	Volume-to-Capacity Ratio
VOT	Value of Time
VPHPL	Vehicles per Hour per Lane
WB	Westbound
WSDOT	Washington State Department of Transportation
YOE ($s)	Year of Expenditure (Dollars)

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1. INTRODUCTION AND SUMMARY

1.1 PURPOSE OF THIS REPORT

The SR 520 Bridge Replacement and HOV Project has a gap in funding relative to the project's anticipated cost. From inception, this project has been envisioned and publicly discussed as a toll project. This toll traffic and revenue report documents the technical information and analysis underlying the toll funding scenarios presented in the 2007 SR 520 Finance Plan.

In 2007, the Washington State Legislature passed and Governor Chris Gregoire signed into law Engrossed Substitute Senate Bill (ESSB) 6099 that directed the Washington State Department of Transportation (WSDOT) to prepare a Finance Plan for the SR 520 Bridge Replacement and HOV Project. As directed in ESSB 6099, the 2007 SR 520 Finance Plan examined revenues from tolls in addition to other identified funding sources. With direction that the finance plan concentrate tolling within the SR 520 corridor between I-5 on the west side of Lake Washington and I-405 on the east side, a key objective of the work plan was to determine the level of project funding that tolls could support.

The traffic and revenue analysis underlying the finance plan takes into account previous environmental documentation and builds on the work done for the 2004 SR 520 Toll Feasibility Study as well as the Funding Alternatives Report by the Washington State Treasurer from early 2007. Specifically, this toll traffic and revenue report:

- Examines a broader range of variable toll strategies and in greater detail;
- Considers tolling "short segment" trips between I-5 and I-405 that do not cross Lake Washington;
- Considers tolling the existing bridge in the near term (pre-completion tolling);
- Assesses the potential cross-lake traffic impacts of alternative future highway and transit network assumptions; and
- Identifies the financial impact of providing a toll exemption to 3+ HOVs.

The 2007 SR 520 Finance Plan provides a summary of the toll scenarios modeled and their funding potential.

This Toll Traffic and Revenue Technical Report provides the detail that underlies the finance plan toll scenarios, including:

- Assumptions, modeling methods, and calculation processes used to develop the daily and annual toll traffic projections;
- Gross and net annual toll revenues; and
- The resulting financial capacity of the net revenues.

1.2 SUMMARY OF TOLL TRAFFIC AND REVENUE RESULTS

The finance plan analysis examined five primary toll scenarios involving a range of toll rates and extent of tolling. Low, base and high traffic and revenue projections for each scenario were tested under two sets of financing assumptions with tolls beginning in mid-2018. In addition, two pre-completion toll cases were analyzed for tolling the existing bridge from late 2009 through completion of the new facility in mid-2018.

Exhibit 1 summarizes the distinguishing components of the five toll scenarios and the two pre-completion toll cases.

Exhibit 1: Finance Plan Toll Scenarios

Scenario		*Bridge Toll Emphasis (Weekdays)*		*Toll Configuration*		*Toll Exemptions*
Toll Scenarios Applying at New Bridge Opening in mid-2018						
SCENARIO 1	=	**Maximum Revenue**	+	**Corridor (Bridge + Short Segments)**	+	**Transit Only**
SCENARIO 2	=	**Revenue / Traffic Balance**	+	**Corridor (Bridge + Short Segments)**	+	**Transit Only**
SCENARIO 3	=	**Maximum Revenue**	+	**Single Point (Bridge Only)**	+	**Transit & HOV 3+**
SCENARIO 4	=	**Revenue / Traffic Balance**	+	**Corridor (Bridge + Short Segments)**	+	**Transit & HOV 3+**
SCENARIO 5	=	**Traffic Throughput**	+	**Corridor (Bridge + Short Segments)**	+	**Transit & HOV 3+**
Pre-Completion Toll Scenarios from late 2009 until New Bridge Opening						
SCENARIO B	=	**Revenue / Traffic Balance**	+	**Single Point (Bridge Only)**	+	**Transit Only (No HOV Lane)**
SCENARIO B5	=	**Traffic Throughput**	+	**Single Point (Bridge Only)**	+	**Transit Only (No HOV Lane)**

Exhibit 2 and Exhibit 3 provide representative summary data generated during the preparation of the 2007 SR 520 Finance Plan and this supporting report. For each of the five finance plan scenarios, the two pre-completion scenarios, and for two sensitivity tests, Exhibit 2 includes:

- The key scenario components;
- Toll rates;
- 2030 revenues; and
- Toll funding contributions (not applicable to the sensitivity tests);

For the same set of scenarios, Exhibit 3 provides summary information related to expected traffic levels and diversion, with a focus on SR 520 and the most frequent cross-lake alternative, I-90, under each of the tolling scenarios.

Exhibit 2: Toll Scenario Analysis Comparison Matrix 2007 (Part 1)

	Scenario	Scenario Elements				Assumed Year of Opening	Maximum PM Peak Bridge Toll (Opening Year)				Weighted Average Daily Toll Rate (Opening Year)		2030 Revenue (Millions of 2030 $s)[4]		Project Funding Generated by Tolls (Billions of $s)[4]	
		Toll Configuration	Toll Exemptions	Toll Emphasis	Background Network		Opening Year $s	2030 $s	2007 $s	2002 $s	Opening Year $s	2007 $s	Gross Revenue	Net Revenue Available for Project Use	Tolling Begins @ Opening	With Pre-Completion Tolling[8]
2007 Finance Plan Scenarios	Scenario 1 (A2)	Bridge + Short Segments	Transit	Revenue Generation	RTID + ST2	2018	$7.50	$10.09	$5.72	$5.05	$4.12	$3.14	$176 M	$153 M	$1.35 B	$1.91 B
	Scenario 2 (A3)	Bridge + Short Segments	Transit	Revenue/ Traffic Balance	RTID + ST2	2018	$5.00	$6.72	$3.81	$3.37	$3.07	$2.34	$158 M	$135 M	$1.19 B	$1.76 B
	Scenario 3 (A1)	Bridge Only	Transit & HOV 3+	Revenue Generation	RTID + ST2	2018	$7.50	$10.09	$5.72	$5.05	$4.06	$3.09	$150 M	$132 M	$1.17 B	$1.73 B
	Scenario 4 (A3-B)	Bridge + Short Segments	Transit & HOV 3+	Revenue/ Traffic Balance	RTID + ST2	2018	$5.00	$6.72	$3.81	$3.37	$3.06	$2.33	$149 M	$126 M	$1.12 B	$1.69 B
	Scenario 5 (A4)	Bridge + Short Segments	Transit & HOV 3+	Traffic Throughput	RTID + ST2	2018	$4.25	$5.72	$3.24	$2.86	$2.79	$2.13	$139 M	$117 M	$1.04 B	$1.57 B
	Sens Test: Scenario 3 + HOVs Tolled	Bridge Only	Transit	Revenue Generation	RTID + ST2	2018	$7.50	$10.09	$5.72	$5.05	$4.10	$3.13	$163 M	$143 M	N/A	N/A
	Toll-Free Build	N/A	All Vehicles	Toll-Free	RTID + ST2	2018	N/A					N/A				
	Sens Test: Scenario 1 w/o RTID+ST2	Bridge + Short Segments	Transit	Revenue Generation	Nickel & TPA Only	2018	$7.50	$10.09	$5.72	$5.05	N/A	N/A	N/A	N/A	N/A	N/A
	Toll-Free Build w/o RTID+ST2	N/A	All Vehicles	Toll-Free	Nickel & TPA Only	2018	N/A					N/A				

	Other Reference Point	Reference Point Elements				Assumed Year of Opening	Maximum PM Peak Bridge Toll (Opening Year)				Weighted Average Daily Toll Rate (Opening Year)		2010 Revenue (Millions of 2010 $s)		Project Funding Generated by Tolls (Billions of $s)[4]	
		Toll Configuration	Toll Exemptions	Toll Emphasis	Background Network		Opening Year $s	2030 $s	2007 $s	2002 $s	Opening Year $s	2007 $s	Gross Revenue	Net Revenue Available for Project Use	Pre-Completion Additive Amount	
Reference Points	Scenario B Additive to Scenarios 1-4	Bridge Only	Transit	Revenue/ Traffic Balance	Select Nickel & TPA	2009	$4.00	N/A	$3.81	$3.37	$2.59	$2.46	$36 M after ramp-up	$31 M after ramp-up	N/A	$0.57 B
	Scenario B5 Additive to Scenario 5	Bridge Only	Transit	Revenue/ Traffic Balance	Select Nickel & TPA	2009	$3.40	N/A	$3.24	$2.86	$2.35	$2.23	$34 M after ramp-up	$29 M after ramp-up	N/A	$0.53 B

NOTES:

1 "Other" diversion includes route diversion to routes other than to I-90, such as SR 522 or I-405, and trip cancellation
2 Relative to the Toll Free Build with RTID & ST2
3 Toll Impacts analyzed for opening year 2014 for the SR 520 Toll Feasibility Study in cases where 2030 data was unavailable.
4 2030 revenue and total project funding values reflect the "Base" traffic forecast case; funding values assume 30-year state-backed debt for comparative purposes
5 From the *2007 SR-520 and I-90 Toll Feasibility Analysis Traffic and Revenue Forecasts Technical Memorandum* and *The 2007 Report on SR 520 Bridge Replacement and HOV Project Funding Alternatives* (2007 Treasurer's Report); data is for "SR 520 tolled with I-90 toll-free" analysis
6 The results from "High" traffic case as modeled are provided for comparative purposes for consistency with previous SR 520 traffic analysis efforts
7 2030 revenue results for the 2004 Toll Feasibility study shown after application of 3% annual revenue growth constraint
8 2007 Treasurer's Report assumed pre-completion tolling began in 2011; other results assume pre-completion tolling to begin in 2009
* The DEIS focused on 2030 rather than an opening year & assumed real growth in tolls. Estimated opening year toll rate provided, with 2030 toll rate shown in ().

Exhibit 3: Toll Scenario Analysis Comparison Matrix 2007 (Part 2)

Scenario		Scenario Elements				2030 Model Outputs for SR 520 [6]								2030 Model Outputs for I-90		Toll Impacts on 2030 Traffic (Relative to Toll-Free Build Condition)							
		Toll Configuration	Toll Exemptions	Toll Emphasis	Background Network	Vehicles in GP Lanes		Vehicles in 3+ HOV Lanes		Total Vehicles		Persons (Incl. Transit)		Total Vehicles		520 Net Toll Diversion (%)		I-90 Net Increase (%)		520 Transit Mode Shift (%)		520 HOV3+ Mode Shift (%)	
						PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily
2007 Finance Plan Scenarios	Scenario 1 (A2)	Bridge + Short Segments	Transit	Revenue Generation	RTID + ST2	24,000	83,900	3,200	10,000	27,200	93,900	41,800	140,100	49,200	190,400	– 28%	– 38%	+ 5%	+ 14%	+ 23%	+ 23%	– 4%	– 10%
	Scenario 2 (A3)	Bridge + Short Segments	Transit	Revenue/ Traffic Balance	RTID + ST2	29,300	107,200	3,400	10,500	32,700	117,700	48,900	169,700	48,400	181,300	– 13%	– 22%	+ 3%	+ 9%	+ 23%	+ 23%	+ 3%	– 6%
	Scenario 3 (A1)	Bridge Only	Transit & HOV 3+	Revenue Generation	RTID + ST2	24,000	83,100	3,700	12,700	27,700	95,800	43,400	147,600	48,700	188,800	– 26%	– 36%	+ 4%	+ 13%	+ 23%	+ 23%	+ 11%	+ 14%
	Scenario 4 (A3-B)	Bridge + Short Segments	Transit & HOV 3+	Revenue/ Traffic Balance	RTID + ST2	29,300	107,200	3,700	12,200	33,000	119,400	49,800	175,100	48,200	180,400	– 12%	– 21%	+ 3%	+ 8%	+ 23%	+ 23%	+ 12%	+ 9%
	Scenario 5 (A4)	Bridge + Short Segments	Transit & HOV 3+	Traffic Throughput	RTID + ST2	30,300	109,800	3,700	12,100	34,000	121,900	50,800	177,600	47,900	179,400	– 10%	– 19%	+ 2%	+ 7%	+ 21%	+ 21%	+ 10%	+ 8%
	Sens Test: Scenario 3 + HOVs Tolled	Bridge Only	Transit	Revenue Generation	RTID + ST2	24,000	83,100	3,200	9,800	27,200	92,800	41,700	138,300	48,900	190,300	– 28%	– 38%	+ 4%	+ 14%	+ 23%	+ 23%	– 5%	– 13%
	Toll-Free Build	N/A	All Vehicles	Toll-Free	RTID + ST2	34,300	139,400	3,300	11,200	37,600	150,600	54,000	208,900	46,800	167,100	N/A							
	Sens Test: Scenario 1 w/o RTID+ST2	Bridge + Short Segments	Transit	Revenue Generation	Nickel & TPA Only	24,500	91,300	1,900	7,000	26,400	98,300	43,200	153,200	55,000	206,800	– 30%[2] – 29%	– 34%[2] – 34%	+ 17%[2] + 11%	+ 24%[2] + 9%	+ 235%[2] + 16%	+ 238%[2] + 16%	– 43%[2] – 5%	– 38%[2] – 11%
	Toll-Free Build w/o RTID+ST2	N/A	All Vehicles	Toll-Free	Nickel & TPA Only	35,100	141,900	2,000	7,800	37,100	149,700	55,200	213,600	49,300	189,000	N/A							

Other Reference Point		Reference Point Elements				2010 Model Outputs on SR 520 [6]								2010 Model Outputs for I-90		Toll Impacts on 2010 Traffic (Relative to Toll-Free Build Condition)							
		Toll Configuration	Toll Exemptions	Toll Emphasis	Background Network	Vehicles in GP Lanes		Vehicles in 3+ HOV Lanes		Total Vehicles		Persons (Incl. Transit)		Total Vehicles		520 Net Toll Diversion (%)		I-90 Net Increase (%)		520 Transit Mode Shift (%)		520 HOV2+ Mode Shift (%)	
						PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak	Daily
Reference Points	Scenario B Additive to Scenarios 1-4	Bridge Only	Transit	Revenue/ Traffic Balance	Select Nickel & TPA	21,500	67,800	N/A	N/A	21,500	67,800	26,300	81,300	43,900	178,700	– 22%	– 38%	+ 0.6%	+ 12%	+ 15%	+ 15%	N/A	N/A
	Scenario B5 Additive to Scenario 5	Bridge Only	Transit	Revenue/ Traffic Balance	Select Nickel & TPA	22,800	70,900	N/A	N/A	22,800	70,900	27,800	84,800	43,800	177,700	– 17%	– 36%	+ 0.5%	+ 11%	+ 15%	+ 15%	N/A	N/A

NOTES:
1 "Other" diversion includes route diversion to routes other than to I-90, such as SR 522 or I-405, and trip cancellation
2 Relative to the Toll Free Build with RTID & ST2
3 Toll Impacts analyzed for opening year 2014 for the SR 520 Toll Feasibility Study in cases where 2030 data was unavailable.
4 2030 revenue and total project funding values reflect the "Base" traffic forecast case; funding values assume 30-year state-backed debt for comparative purposes
5 From the *2007 SR-520 and I-90 Toll Feasibility Analysis Traffic and Revenue Forecasts Technical Memorandum* and *The 2007 Report on SR 520 Bridge Replacement and HOV Project Funding Alternatives* (2007 Treasurer's Report); data is for "SR 520 tolled with I-90 toll-free" analysis
6 The results from "High" traffic case as modeled are provided for comparative purposes for consistency with previous SR 520 traffic analysis efforts
7 2030 revenue results for the 2004 Toll Feasibility study shown after application of 3% annual revenue growth constraint
8 2007 Treasurer's Report assumed pre-completion tolling began in 2011; other results assume pre-completion tolling to begin in 2009
* The DEIS focused on 2030 rather than an opening year & assumed real growth in tolls. Estimated opening year toll rate provided, with 2030 toll rate shown in ().

Drawing from Exhibit 2 and Exhibit 3, the following narrative summarizes the key findings of the toll traffic and revenue analysis.

- **Impact of Bridge Toll Emphasis**: Three different tolling strategies for the cross-lake bridge toll were employed in the Finance Plan as shown in Exhibit 1. The highest "maximum revenue" variable toll schedule emphasizes revenue generation; the middle "revenue/traffic balance" toll schedule strikes a balance between revenue generation and traffic served; and the lowest "traffic throughput" variable toll rate schedule emphasizes demand management to serve the optimal volume of traffic during peak periods.

Exhibit 3 shows the toll impacts on traffic (relative to the toll-free build condition) for the different toll scenarios. As shown for Scenarios 1 and 3 in Exhibit 3, tolling with a revenue emphasis causes the highest toll diversion away from SR 520, with 2030 overall daily diversion rates between -35% and -40% as some travelers choose alternative routes, modes of travel or trip destinations. Scenarios 2 and 4, which balance revenue generation with traffic served,, exhibit less toll diversion, with 2030 daily diversion rates between -20% and -25%. Scenario 5's traffic throughput emphasis exhibits the lowest toll diversion, with a 2030 daily diversion rate of less than -20%.

Toll diversion results depend on the desired objectives of tolling the bridge. In all scenarios, toll diversion is expected to be significantly less during peak commute travel times when many people need to travel and alternative routes are most likely to be otherwise congested. As a result, traffic increases on I-90 are relatively small during peak periods and higher during off peak times when more I-90 capacity exists.

Exempting HOVs from tolls on SR 520 lowers the overall diversion by creating a more attractive alternative for some to form carpools and remain in the SR 520 corridor while at the same time attracting HOVs from other routes such as I-90 to SR 520.

It should be noted that toll diversion is a relative measure that should be interpreted with caution. The future toll-free traffic demand predicted by the regional travel demand model — which serves as the basis of comparison for toll diversion — may not end up being served in the exact manner predicted by the model without tolls, due to congestion and capacity constraints in the SR 520 corridor or elsewhere in the system. Thus, the results provided here may be considered upper bound estimates, and are best used as a comparative metrics by which to evaluate the toll scenarios analyzed against each other.

- **Impact of Toll Configuration:** Two toll configurations were analyzed for the Finance Plan: (1) tolling only the SR 520 Bridge, and (2) tolling the bridge as well as the short segment movements that are within the project area between I-5 and I-405 but that do not cross the lake (for example, movements between I-5 and Montlake Boulevard on the west side of the project or between 92nd Avenue and Bellevue Way on the east side would be included in the short segment category). Comparing Scenario 1 with the Scenario 3 sensitivity test indicates that adding short segment tolls does not materially change bridge crossing traffic demand. However, additional revenue would be generated from tolling these short segments. The revenue potential is relatively small, given that the non-cross-lake segment tolls have to be kept low

enough to prevent significant diversion to neighborhood arterial routes. Under Scenario 4, short segment tolls contribute about 7% or $80 million of the $1.12 billion toll funding from bonds. The funding contribution is similar for the other applicable scenarios, as the segment toll rates do not vary by scenario.

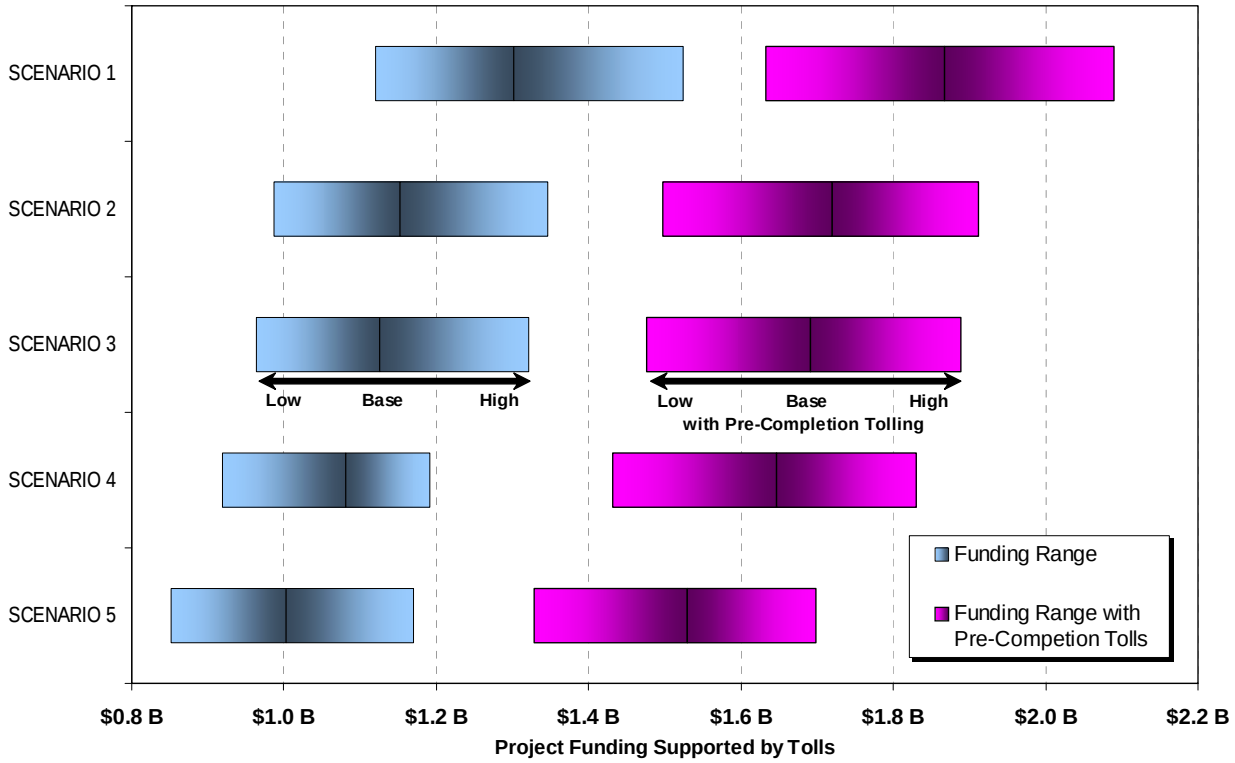
- **Impact of Toll Exemptions**: While all of the toll scenarios assume transit is toll-free, several scenarios also exempted 3+ high occupancy vehicles (HOVs) from the tolls. When 3+ HOVs are toll-free, HOV volumes increase on SR 520. However, when 3+ HOVs must pay a toll, two opposing factors produce mixed results. Some existing HOVs divert away from SR 520 due to the tolls while other drivers may form new carpools in order to share the new toll cost. Exhibit 3 shows two pairs of scenarios that differ only in their toll exemptions. The first pair, Scenario 2 and Scenario 4, has a positive SR 520 HOV 3+ mode shift and is an instance where the formation of new carpools is greater than the diversion of existing carpools. At the higher toll rates represented by the comparison of Scenario 3 and the HOV sensitivity test of Scenario 3, tolling HOVs has a negative overall HOV mode impact, where the diversion of existing HOVs away from SR 520 is greater than the formation of new carpools.

- **Impact of Background Network**: The five main finance plan scenarios all assume a background network that includes the highway projects proposed by the Regional Transportation Investment District (RTID) and the transit investments in the Sound Transit 2 (ST2) plan that collectively became the Roads and Transit ballot measure put forth to voters in November 2007 as Proposition One. Although the ballot measure failed, the outcome was unknown at the time that this report's technical analysis was undertaken. Many of RTID/ST2 investments, such as the widening of I-405 and the expansion of light rail across Lake Washington on I-90 may yet be completed.

In order to test the impact of the background network choices that were made, a sensitivity test on Scenario 1 was performed. In this test, the RTID/ST2 package of investments were excluded. The results of that test, as shown in Exhibit 2, reveal that the impact of not having the RTID/ST2 network improvements in place would actually result in more cross-lake traffic, and thus, do not adversely affect the funding available from tolls.

Exhibit 4 summarizes the range of project funding that could be generated from tolls over the low, base and high traffic and revenue projections for each scenario, both with and without pre-completion tolling.

Exhibit 4: Summary of Project Funding Potential by Toll Scenario and Revenue Case



By issuing bonds to be repaid with the net toll revenue stream that would begin in mid-2018 when the new bridge and approaches are opened to traffic, tolling could contribute between $0.85 and 1.5 billion in project funding. Assuming that net toll revenues from pre-completion tolling would be used to pay for construction expenditures as they are collected, tolling the existing bridge over this time period would be expected to yield an additional $480 to $570 million.

Several key assumptions were made as part of this analysis, including:

- The final project definition was assumed to be fixed, including the scope of improvements, schedule of construction, cost, and schedule of cash flow needs;
- The toll scenarios were evaluated without determination of the "optimal" tradeoff between revenue and diversion, and additional analysis of the acceptable levels of toll diversion is warranted;
- Toll rates were assumed to escalate at a projected inflation rate of 2.5% per year and the revenue projections reported in this study are dependent on that assumption; and
- Pre-completion revenues after toll collection costs were assumed to be fully available for "pay-as-you-go" financing, with no deductions made for either upfront toll equipment capital costs or contributions to transit operations.

1.3 REPORT ORGANIZATION

The remainder of this report is organized into six main sections. Following this Introduction and Summary are numbered sections as follows:

2. TOLL SCENARIOS ANALYZED;
3. TOLL TRAFFIC PROJECTIONS;
4. ANNUAL GROSS TOLL REVENUES;
5. GROSS REVENUE DEDUCTIONS AND NET REVENUES;
6. FINANCIAL CAPACITY OF TOLL REVENUES; and
7. FURTHER STUDY

End notes and appendices follow Section 7.

2. TOLL SCENARIOS ANALYZED

The SR 520 Bridge Replacement and HOV Project has a gap in funding relative to the project's anticipated cost. A more in-depth analysis of tolling was undertaken to examine the extent to which toll revenues could help close the funding gap. This section documents the development of the toll scenarios that were modeled and evaluated for the 2007 SR 520 Finance Plan as the subject matter of this toll traffic and revenue report.

2.1 TOLL SCENARIO CONSIDERATIONS

The development of toll scenarios for the finance plan was conducted by a cross-section of the Finance, Environmental/Transportation, Policy and Communication committees assembled to advise the SR 520 Bridge Replacement and HOV Project's finance plan. The task force was asked to develop up to six toll scenarios that would be analyzed for revenue generation. The characteristics of the final scenarios were chosen by considering the following questions.

- Background Network Assumptions: What projects would be assumed to be in place in the network (for example, projects funded through RTID and ST2)?
- Toll Location: What facilities would be tolled?
- Toll Strategy: Would the toll level be set to maximize revenue, to manage traffic or as a balance between those two objectives?
- Toll Structure: Would tolls vary depending on where someone enters and exits SR 520?
- Implementation Timing: Would tolling start before or after completion of the replacement bridge?
- Toll Exemptions: Which vehicle class(es) would not have to pay the toll?

2.2 BOUNDARIES OF ANALYSIS

In order to maximize the funding from tolls to help close the anticipated funding gap, the task force discussed a variety of toll options. Potential options included tolling I-90, constructing express toll lanes on I-405, and extending tolls on SR 520 east of I-405.[1] The final decision, however, was to focus attention of the project area first, leaving the discussion of tolls on I-90 and I-405 for future study. Moreover, in order to stay within the boundaries of the previous environmental work completed on the project, tolling on SR 520 was limited to the project area between I-5 and I-405.

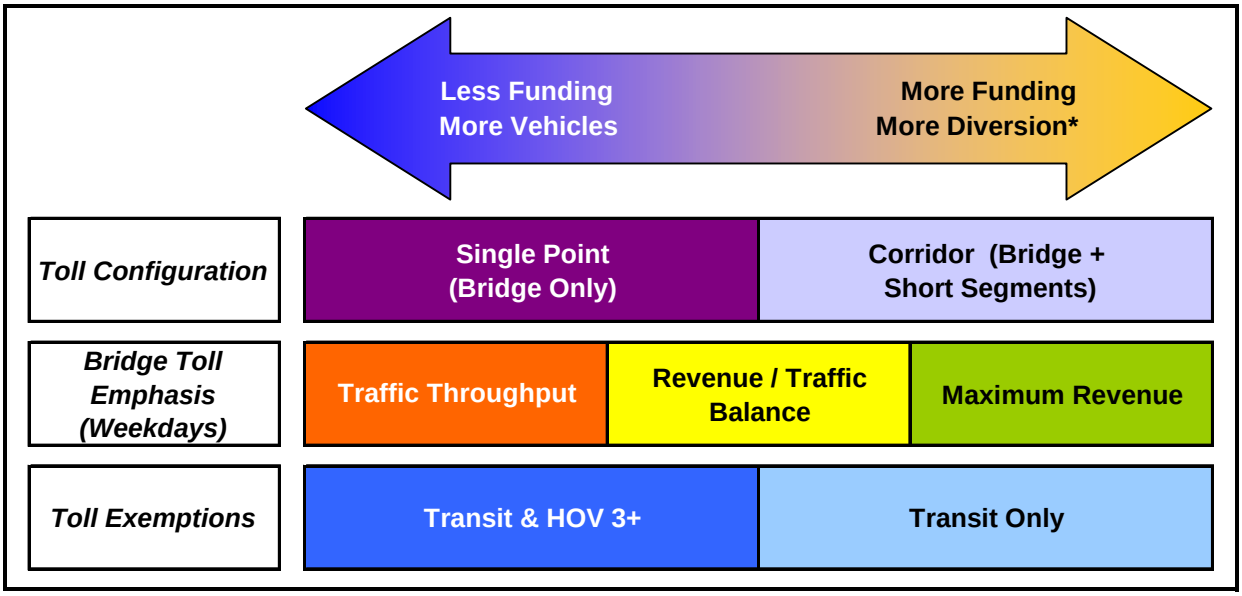
The timing of initiating tolls was also discussed. The Puget Sound Region's successful application for grant funding as part of the federal Urban Partnership program included tolling the existing SR 520 prior to and during construction of the new facility. The task force thus included this "pre-completion" tolling as an option for consideration.

Transit vehicles were assumed to be toll free in all toll scenarios. This decision was made to be consistent with assumptions in the project's environmental process as well as with previous tolling studies.

2.3 TOLL SCENARIO DEVELOPMENT

Exhibit 5 presents the menu of key components or "building blocks" that were used to define the toll scenarios for travel demand modeling, revenue projections, and financial analysis.

Exhibit 5: Components in Toll Scenario Development



- **Toll Configuration** - refers to where the toll is assessed. Two options were considered:

  (1) A single point of toll collection on the floating bridge so that only cross-lake trips are tolled; and

  (2) Corridor tolling where short segment trips that remain on either side of the lake would be tolled in addition to cross-lake trips. Corridor tolling was not considered for the pre-completion period options because of the additional capital cost of toll collection equipment that would be incurred and the relatively small additional revenue that this would generate.

- **Bridge Toll Emphasis** - refers to which primary objective would be served by the variable toll options, recognizing revenue and traffic management objectives are not mutually exclusive. Up to a point, charging higher tolls will increase revenue despite reductions in traffic. Beyond a certain point, charging higher tolls will cause sufficient demand to shift to alternative routes, travel modes or destinations such that revenue will decline. Three options were considered:

  (1) A lower, "traffic throughput" variable toll schedule designed to optimize the number of vehicles served in the morning (AM) and afternoon (PM) peak periods;

(2) A "revenue/traffic balance" toll schedule striking a compromise between vehicles served and revenue generated; and

(3) A "maximum revenue" toll schedule to determine the highest level of funding that tolling could support.

- Weekend tolls as well as weekday short segment tolls (under corridor tolling cases) were not varied by toll scenario.

- **Toll Exemptions** - refers to which special classifications of vehicles may use SR 520 without paying a toll. Previous work had consistently assumed that transit would be exempt from paying tolls. Until recently, studies have also assumed qualified carpools would be toll-free. In this study, two options were considered:

  (1) Only public transit vehicles would be exempted from the toll; and

  (2) Both transit and high occupancy vehicles with three or more persons (3+ HOVs) would travel toll-free.[2]

- **Truck Tolls** - Larger commercial vehicles (medium and large trucks) were assumed to pay a multiple of the auto toll that would, on average, equal three times the relevant auto toll in all of the scenarios.

2.4 TRAFFIC MODELING PROCESS INPUTS

The five post-completion finance plan scenarios all assume the same project build assumptions and the same future background network will be in place about the time the new SR 520 Bridge is opened to traffic in mid-2018. This section summarizes the common set of SR 520 build assumptions and future background highway and transit projects assumed in all scenarios. The five post-completion toll scenarios that were developed from the components in Exhibit 5 are also identified in this section.

2.4.1 SR 520 Project Definition

The SR 520 project is still in the environmental process, so the project definition is not yet fully settled. For purposes of this report, the post-completion scenarios all assume the following SR 520 Bridge Replacement and HOV Project attributes:

- A six-lane configuration with two general purpose (GP) lanes and one HOV lane in each direction between I-5 and I-405;
- A Pacific Street Interchange (because this option is more costly than the Montlake Interchange option, this option was included as the most conservative alternative to study);
- SR 520 HOV to I-5 Express Lane direct connection;
- 60 mph free flow (design) speed between I-5 and I-405;

2.4.2 Background Network and Transit Service Assumptions

The post-completion scenarios included all of the highway improvements funded by the Transportation Partnership Account (TPA) and Nickel packages. In addition, the highway projects proposed by the Regional Transportation Investment District (RTID) and the transit investments in the Sound Transit 2 (ST2) plan were also assumed per the direction of ESB 6099.[3] The highway projects on I-405 and I-90 listed below are of particular relevance to cross-lake travel as they serve as segments of alternate routes for SR 520. In the lists that follow, an asterisk (*) indicates those projects which were included in the RTID/ST2 funding package.

Highway Projects within the Study Area

The projects listed below represent improvements that are planned and funded by TPA and Nickel funding or as part of the RTID improvements that was included in the November 2007 Roads and Streets ballot measure. While that particular measure was defeated, it can be reasonably assumed that these projects may be individually or collectively funded in the future through alternate means and are thus included for these modeling efforts.

- I-90:
  - Outer HOV lanes* (this would provide bidirectional HOV lanes throughout the day on I-90 between Rainier Ave in Seattle and I-405 in Bellevue in order to improve transit reliability)
- I-405:
  - SR 520 to I-5 (North) Widening
  - Bellevue Nickel Project (SE 8th to I-90)
  - South Bellevue Widening
  - I-5 to SR 169 Stage 1 and Stage 2 Widening Projects
  - SR 169 to I-90 Widening*
  - I-90 to Downtown Bellevue Widening*
  - Tukwila to Renton Improvements (I-5 to SR 169- Phase 2)

The widening projects on I-405 described above result in three GP lanes and two HOV lanes between SR 522 and SE 8th Street in Bellevue and between 112th Ave SE and I-5 in the south. Between SE 8th St and 112th Ave SE, there are two HOV lanes and additional general purpose lanes.

When completed, these projects will add capacity to existing facilities.

- I-5:
  - HOV lanes:
    - From Federal Way to Tacoma
    - From SR 526 to US 2 in Snohomish County
  - Additional NB lane from NE 175th St to NE 205th St in north King County
  - I-5/SR 509 Corridor Improvements in south King County*

- SR 520:
  - SR 202 to West Lake Sammamish east of I-405
- SR 16:
  - HOV from I-5 to Union St in Pierce County
- SR 167 in south King County:
  - HOV lanes from 15th St SW to 15th St NW
  - HOV/Express Toll Lanes from 8th St E to S. 277th St*
  - Additional NB/SB lane from I-405 to S. 180th St
  - Add one southbound lane from SE 180th to S 277th St*
  - Direct HOV-to-HOV ramps between SR 167 and I-405*
- Mercer Street Widening between I-5 and Dexter Ave in Seattle*

Transit

In previous SR 520 studies, transit service mirrored existing service concepts. This study is the first attempt to incorporate the next set of major Sound Transit investments. The major transit assumptions underlying the network for Scenarios 1-5 were provided by Sound Transit staff and include the following:

- In model year 2015, used to predict mid-2018 opening year conditions, Sound Transit Link light rail was assumed to be in operation between Northgate and Kent-Des Moines in the I-5 corridor. Link was also assumed to run between downtown Seattle and the Bellevue Transit Center in the I-90 corridor (the latter is actually assumed to be completed in 2020, which is closer to the year of opening than 2030, the other model forecast year).
- By 2030, Link light rail was assumed to be in operation between 164th Street/Ash Way and the Tacoma Dome Station (in the I-5 corridor) and between downtown Seattle and the Overlake Transit Center in Redmond (via the I-90 corridor).
- Sounder commuter rail service was assumed to operate during peak commute periods between Everett and Seattle (30 minute headways AM southbound and PM northbound), and between Lakewood and Seattle (25 minute peak direction headways and 45 minute reverse direction headways).

Similar to the RTID-funded highway improvements discussed earlier, the funding for some of this work was to come from the now-defeated ST2. The projects remained in the background network however, as it is assumed that the affected projects will be funded in an alternate way in the future.

2.5 POST-COMPLETION TOLL SCENARIO DEVELOPMENT

This section defines each post-completion Finance Plan toll scenario in terms of its toll configuration, toll exemptions, and toll emphasis. Exhibit 15 in Section 2.5.6 compares each scenario based on these individual elements. The applied center span bridge toll rates for

modeling purposes are also given for each scenario. As a model input, toll rates are given in 1990 dollars; however, for comparison toll rates are also expressed here in 2007 dollars and in 2018 (year of opening) dollars. AM and PM peak period toll rates reflect the maximum levels that would occur in revenue operations. The off-peak rates reflect the average off-peak toll that would be in place over the 18 hour model "off-peak" period.

In all cases, this analysis assumes medium and large truck traffic will be assessed tolls at multiples of the auto toll rate, with the average multiple equal to three times the auto toll.

2.5.1 Scenario 1

Scenario 1 was structured to provide the top funding bookend; that is, to determine the maximum amount of revenue that could be generated through tolls. All SR 520 traffic is tolled based on where it enters and exits the facility; this is referred to as "corridor" tolling, and is distinguished from "single-point," or cross-lake only tolling. All cross-lake traffic, including HOVs, would be charged 100% of the prevailing time-of-day toll, and non-cross-lake traffic using a segment of SR 520 will be charged a fraction of the cross-lake toll. The variable cross-lake toll rates used in the demand modeling are shown in Exhibit 6.

Exhibit 6: Scenario 1 Maximum Revenue Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2018$
AM Peak Max	$3.01	$4.57	$6.00
PM Peak Max	$3.76	$5.72	$7.50
Avg. Off-Peak	$1.76	$2.66	$3.50

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

Note that the off-peak tolls shown above and in the subsequent scenarios are the average tolls applied in the modeling of what would be several different off-peak toll levels by time of day.

2.5.2 Scenario 2

Scenario 2 was structured to balance competing goals of revenue generation and optimal traffic throughput. Scenario 2 uses the corridor tolling configuration with a toll structure that aims to achieve a revenue/traffic balance. The variable center span toll rates used in demand modeling are shown in Exhibit 7.

Exhibit 7: Scenario 2 Revenue/Traffic Balance Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2018$
AM Peak Max	$2.01	$3.05	$4.00
PM Peak Max	$2.51	$3.81	$5.00
Avg. Off-Peak	$1.25	$1.91	$2.50

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

2.5.3 Scenario 3

Scenario 3 is identical to Scenario 1 **except** only cross-lake vehicles would be tolled, and HOV 3+ vehicles would be exempted from tolls when traveling in the HOV lanes. The revenue-maximizing toll rates used in demand modeling are shown in Exhibit 8.

Exhibit 8: Scenario 3 Maximum Revenue Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2018$
AM Peak Max	$3.01	$4.57	$6.00
PM Peak Max	$3.76	$5.72	$7.50
Avg. Off-Peak	$1.76	$2.66	$3.50

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

2.5.4 Scenario 4

Scenario 4 mirrors Scenario 2 **except** that it includes a toll exemption for 3+ HOVs. In this scenario, cross-lake 3+ HOV users would be exempt from tolls when traveling in the HOV lane and all other cross-lake traffic would be charged 100% of the prevailing time-of-day toll. Non-cross-lake traffic (including HOVs), using a short segment of SR 520 without crossing the lake, would be charged a fraction of the cross-lake toll. The bridge toll rates used in the demand modeling are shown in Exhibit 9.

Exhibit 9: Scenario 4 Revenue/Traffic Balance Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2018$
AM Peak Max	$2.01	$3.05	$4.00
PM Peak Max	$2.51	$3.81	$5.00
Avg. Off-Peak	$1.25	$1.91	$2.50

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

2.5.5 Scenario 5

Scenario 5 was structured to yield optimal traffic levels, which made it the lower funding bookend. The cross-lake toll was lowered to the level that would result in traffic levels at or near the facility's capacity, thereby attempting to optimize traffic throughput while still generating funding for the project. The bridge toll rates used in the demand modeling are shown in Exhibit 10.

Exhibit 10: Scenario 5 Traffic Throughput Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2018$
AM Peak Max	$1.71	$2.59	$3.40
PM Peak Max	$2.13	$3.24	$4.25
Avg. Off-Peak	$1.25	$1.91	$2.50

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

2.5.6 Determination of Maximum Revenue Tolls under Scenarios 1 and 3

Post-completion Scenarios 1 and 3 apply bridge tolls that attempt to maximize the amount of revenue, and thus, funding that tolling SR 520 can generate. The revenue optimization process seeks the toll rates by time period that maximize revenue generation. Traffic declines as the toll rate increases, but up to the revenue maximizing point, it declines slow enough that revenues increase. Beyond this point, traffic demand becomes sufficiently sensitive to toll increases that further increases cause traffic declines that are sufficient to also reduce revenues.

The proposed toll rates enter the regional travel demand model as time costs in the generalized cost function reflected in the highway assignment process. Using estimated values of time by time period, which were based on a 2003 stated preference survey of 927 SR 520 users, the toll rates are converted to additional travel time costs for using the SR 520 Bridge.

The revenue maximization process involves three distinct steps. The first two steps are common to all of the toll modeling analysis, while the third step specifically addresses revenue maximization.

(1) The first step is a toll-free model run which includes the trip distribution, mode choice and highway assignment stages.

(2) In the second step, the trip distribution results from the first step are maintained and a toll model run involving only mode choice and highway assignment is performed. This toll model run uses base (revenue/traffic balance) toll rates on the SR 520 Bridge that vary by time of day in order to capture the mode shift and route diversion effects of tolling.

(3) In the third stage, the resulting vehicle trip tables from the second step are used to perform an iterative series of generalized cost highway assignments in search of the "optimal" toll rate that produces the maximum revenue point. PM and Off-Peak assignments are iteratively run using a range of different toll rates to develop revenue curves and identify the revenue maximizing toll rate combinations by time of day and direction.

Toll rate versus revenue curves were developed separately by direction; however, their close similarity led to the adoption of a single revenue maximizing toll rate for both directions for both the PM and Off-Peak periods. The revenue maximizing AM toll rate was set at 80% of the PM toll rate, reflecting its somewhat lower overall peak demand relative to the PM peak period.

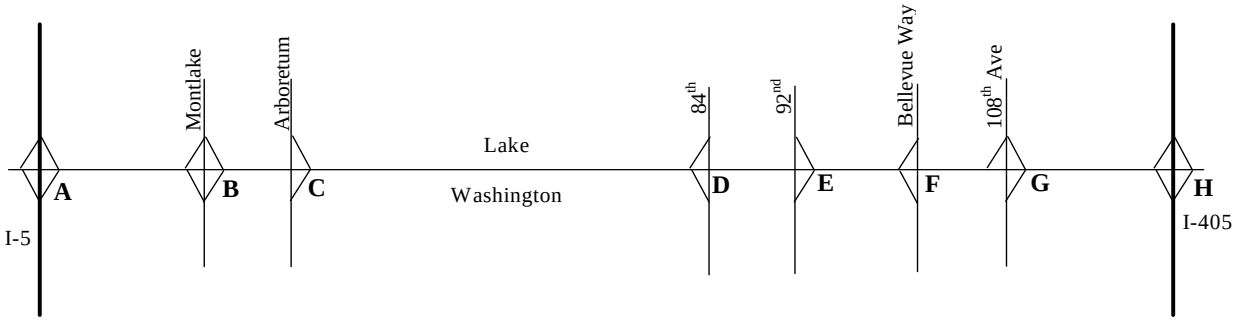
Although the iterative process described in step 3 above was run separately for 2015 and 2030, the 2015 results (as indicative of opening year conditions) were emphasized in the development of the revenue maximizing toll rate schedules discussed in Section 4.

2.5.7 Determination of Segment Tolls under Scenarios 1, 2, 4 and 5

All of the post completion scenarios except Scenario 3 toll the entire corridor between I-5 and I-405. In addition to tolling cross-lake trips at the bridge center span, short segment trips that do not cross the lake are tolled at a fraction of the bridge toll. Vehicles using SR 520 would pay either the segment toll or the bridge toll, but not both.

Exhibit 11 provides a schematic illustration of the various interchanges and the on/off movements they facilitate in the SR 520 corridor between I-5 and I-405.

Exhibit 11: SR 520 Bridge and Segment Toll Corridor Schematic of Possible On/Off Movements



An analysis of three potential schemes for charging tolls on non-cross-lake segments — such as from A to B or H to E above — was conducted. Each of the three schemes considered provided a way to relate segment tolls to the bridge toll:

(1) Distance-Based Toll Segment Allocation — segment distance divided by toll corridor distance;

(2) Volume-Based Toll Segment Allocation — segment-only traffic volume divided by total cross-lake traffic volume; and

(3) Willingness-To-Pay Toll Segment Allocation — peak period value of time-based willingness-to-pay for time savings divided by the PM peak bridge toll.

It makes reasonable policy sense to preserve some symmetry of local segment tolling on both sides of the lake, and in fact, east and west side differences among the three methods above were relatively small. As such, non-cross-lake toll segments were equalized for "interstate-connected" segments, making an I-5/Montlake toll segment and an I-405/east side interchange toll segment the same cost. This resulted in "interstate-connected" segment tolls expressed as a share of the bridge toll as follows:

(1) 20% under distance-based segment tolls;

(2) 24% under volume-based segment tolls; and

(3) 36% under willingness-to-pay segment tolls with an assumed 5 minutes of time savings for the "revenue/traffic balance" PM peak period bridge toll or 24% under the "maximum revenue" PM peak bridge toll.

Based on these results, travel demand modeling was conducted using 20% and 30% of the revenue/traffic balance bridge toll for the interstate-connected segment tolls, and one-half of

those amounts for the shorter segments that represent intra-east side movements that do not reach or cross I-405.

The results at 30% of the bridge toll exhibited toll diversion for the I-405 connected short segments in excess of 80% for most movements. The toll diversion results for the west side movements between I-5 and Montlake were lower, but still generally in excess of 50%.

For interstate-connected short segments at 20% of the revenue/traffic balance bridge toll, diversion was significantly lower, especially on the east side. With substantially more traffic retained instead of diverted, revenue more than doubled with the drop in toll from 30% to 20% of the bridge toll.

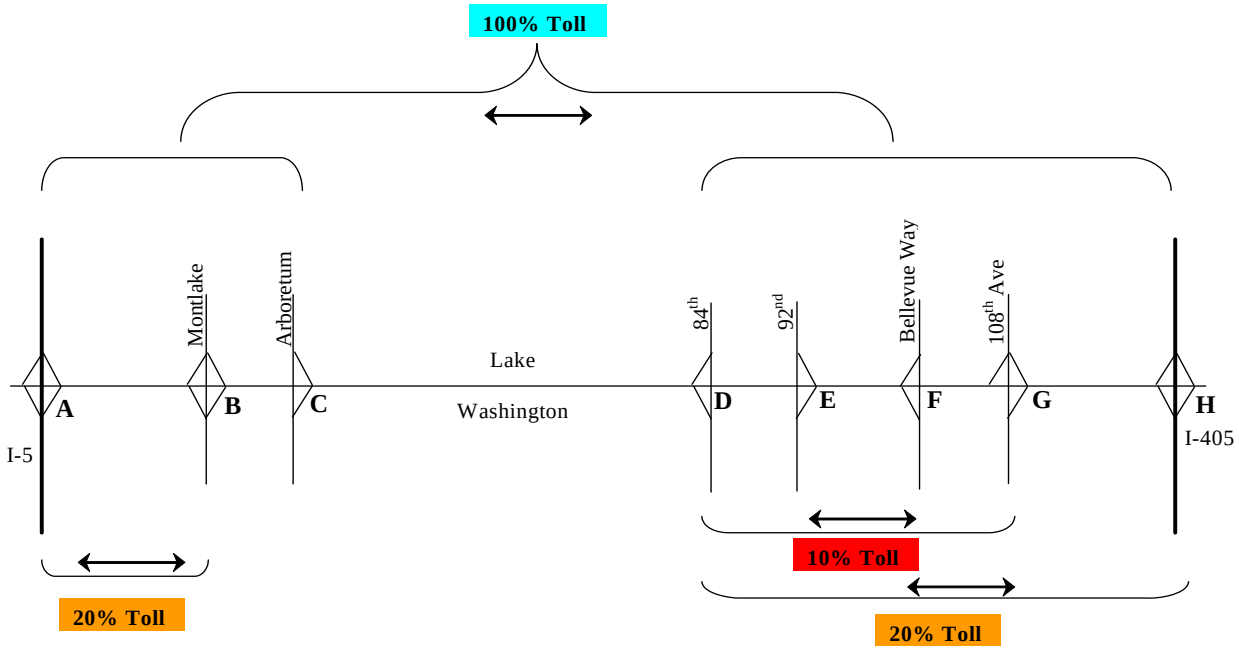
Segment toll rates were thus finalized at 20% of the revenue/traffic balance bridge toll schedule values for all toll scenarios *regardless of the actual bridge toll applied in each scenario*, subject to the following conditions:

- Interstate-connected segment tolls would vary by time of day as 20% of the variable revenue/traffic balance bridge toll subject to a minimum value of $0.50 in 2018 dollars ($0.25 in 1990 model dollars);
- Intra-east side movements that do not include I-405 (such as between 92nd Avenue and Bellevue Way) would be one-half of the above amounts, including one half of the minimum value; and
- These segment tolls would only be charged to vehicles with transponders.

Regarding the last point above, any user making a non-cross-lake movement without a transponder (using pay-by-plate, described in Section 5) was assumed to be charged 100% of the cross-lake toll, plus any applicable surcharges. This assumption was made based upon the fact that local segment trips are primarily local users who would be most likely to have a transponder. This assumption avoids having to install license plate cameras at every possible on and off ramp, which would be required to operationally distinguish the local segment travel by those without transponders.

Exhibit 12 illustrates the schedule of tolls by segment and cross-lake movements as a percentage share of the revenue/traffic balance bridge toll.

Exhibit 12: Segment Tolls as Shares of the Revenue/Traffic Balance Bridge Toll



From \ To	A	B	C	D	E	F	G	H
A		20%		100%		100%		100%
B	20%			100%		100%		100%
C				100%		100%		100%
D	100%	100%	100%					
E						10%		20%
F	100%	100%	100%		10%			
G	100%	100%	100%		10%			20%
H	100%	100%	100%		20%		20%	

2.6 ADDITIVE PRE-COMPLETION TOLL SCENARIOS

The previous section analyzed tolling configurations that would be implemented "post-completion," or after the new facility was opened to traffic. This section defines the two pre-completion cases, scenarios that could be funding "add-ons" to supplement the five post-completion scenarios. Exhibit 15 compares each scenario based on their toll configuration, toll exemptions and toll emphasis components. The bridge toll rates shown in the following two exhibits for the pre-completion cases reflect those that were modeled for the AM and PM peak periods and the average for the off-peak period. As a model input, toll rates are expressed in 1990 dollars. However, for comparison, toll rates are also shown here expressed in 2007 dollars and in 2009 (first year of pre-completion tolling) dollars.

Pre-completion Scenarios B and B5 examine tolling the existing bridge prior to and during construction of the new facility (mid-2009 through mid-2018). Tolls would be applied to the existing bridge at a single, "center span" location before the new bridge facility is open to traffic. Because the existing bridge does not have separate HOV lanes throughout the corridor, tolls are assessed to all cross-lake vehicles, with only transit vehicles exempted.

2.6.1 Scenario B (Additive to Scenarios 1-4)

The toll rate emphasis in Scenario B matches the revenue/traffic balance option applied for the bridge in Scenarios 2 and 4. Corridor tolling was not considered for the pre-completion period because the additional toll collection equipment investment that would required on the existing facility's ramps would be short-lived, combined with the relatively low additional revenue that would be generated from segment tolls.

Because of the near-term timing of pre-completion tolling, the RTID/ST2 network improvements were not assumed to be completed as part of the background transportation network. The variable bridge toll rates used for Scenario B pre-completion toll modeling are shown in Exhibit 13.

Exhibit 13: Scenario B Revenue/Traffic Balance Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2009$
AM Peak Max	$2.01	$3.05	$3.21
PM Peak Max	$2.51	$3.81	$4.01
Avg. Off-Peak	$1.25	$1.91	$1.99

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

2.6.2 Scenario B5 (Additive to Scenario 5)

Supplemental Scenario B5 is the same as Scenario B above except that it applies the lower, traffic throughput bridge toll rate schedule used in post-completion Scenario 5. This makes Scenario B5 the logical add-on case for Scenario 5, though it could potentially be paired with any of the other scenarios with a greater than inflationary increase in tolls when the new bridge opens to traffic. The variable bridge toll rates used for Scenario B5 pre-completion toll modeling are shown in Exhibit 14.

Exhibit 14: Scenario B5 Traffic Throughput Bridge Tolls for Demand Modeling

Toll Rates by Time Period			
Time Period	1990$	2007$	2009$
AM Peak Max	$1.71	$2.59	$2.73
PM Peak Max	$2.13	$3.24	$3.40
Avg. Off-Peak	$1.25	$1.99	$1.99

*Toll rate estimates correspond to the SR-520 Bridge mid-span segment.

Exhibit 15 identifies the distinct components of the five primary toll scenarios as well as the two pre-completion supplemental scenarios. Note that the scenarios are numbered and presented in descending order of their projected funding potential.

Exhibit 15: Summary of Finance Plan Toll Scenario Assumptions

Scenario		Bridge Toll Emphasis (Weekdays)		Toll Configuration		Toll Exemptions
Toll Scenarios Applying at New Bridge Opening in mid-2018						
SCENARIO 1	=	Maximum Revenue	+	Corridor (Bridge + Short Segments)	+	Transit Only
SCENARIO 2	=	Revenue / Traffic Balance	+	Corridor (Bridge + Short Segments)	+	Transit Only
SCENARIO 3	=	Maximum Revenue	+	Single Point (Bridge Only)	+	Transit & HOV 3+
SCENARIO 4	=	Revenue / Traffic Balance	+	Corridor (Bridge + Short Segments)	+	Transit & HOV 3+
SCENARIO 5	=	Traffic Throughput	+	Corridor (Bridge + Short Segments)	+	Transit & HOV 3+
Pre-Completion Toll Scenarios from late 2009 until New Bridge Opening						
SCENARIO B	=	Revenue / Traffic Balance	+	Single Point (Bridge Only)	+	Transit Only (No HOV Lane)
SCENARIO B5	=	Traffic Throughput	+	Single Point (Bridge Only)	+	Transit Only (No HOV Lane)

2.7 DIAGNOSTIC SCENARIOS

To help understand the impacts of various toll scenario elements, additional diagnostics scenarios were also analyzed for their traffic impacts, but excluded from the financial analysis. This section discusses the definitions and the level of analysis for each scenario.

2.7.1 Sensitivity Test 1: Background Network Impacts

A sensitivity test on both Scenario 1 and the toll-free basis of comparison was modeled in order to identify the effects of the network and transit service improvements included in the Proposition 1 / Roads and Transit Ballot Measure. The sensitivity test considered the impact of these highway and transit network improvements on SR 520 individually and on total cross-lake travel for both bridges. Scenario 1, with the highest toll rates analyzed, and the toll-free case were chosen for the sensitivity test because these two bookends fully bracket the impacts that would be observed for the other scenarios.

This background network sensitivity test assumes the SR 520 project build assumptions (as defined in Section 2.4.1 above) and the background network (as defined in Section 2.4.2). However, this test excludes the RTID/ST2 package of highway and transit projects in order to isolate the impacts of these investments from the rest of network. Listed below are the highway projects that are assumed in the network as well as the underlying transit assumptions. Except where noted, all projects were assumed to be present in both the 2015 (for a 2018 opening year) and 2030 future year model networks.

Highway Projects

The Scenario 1 sensitivity test includes the following highway projects in the network:

- I-405:
  - SR 520 to I-5 Widening
  - Bellevue Nickel Project (SE 8th to I-90)
  - South Bellevue Widening
  - I-5 to SR 169 Stage 1 and Stage 2 Widening Projects (Renton)
  - Tukwila to Renton Improvements (I-5 to SR 169- Phase 2) (in 2030 only)
- I-5:
  - HOV lanes:
    - From Federal Way to Tacoma
    - From SR 526 to US 2 (Everett)
  - Additional NB lane from NE 175th St to NE 205th St (Shoreline)
- SR 520:
  - SR 202 to West Lake Sammamish (East King County)
- SR 16 HOV from I-5 to Union St (Tacoma)
- SR 167:
  - HOV lanes from 15th St SW to 15th St NW (South King County)
  - SB HOV/Express Toll Lanes from 8th St E to S. 277th St (Kent)
  - Additional NB/SB lane from I-405 to S. 180th St (Renton)

Transit

The major transit assumptions underlying the network for the sensitivity test of Scenario 1 include the following:

- In 2015, Link light rail is in operation between the University of Washington and Seattle-Tacoma International (Sea-Tac) Airport
- In 2030, Link light rail is in operation between Northgate and Seattle-Tacoma International (Sea-Tac) Airport
- Sounder commuter rail service was assumed to operate during peak commute periods between Everett and Seattle (30 minute headways AM southbound and PM northbound), and between Lakewood and Seattle (25 minute peak direction headways AM northbound/PM southbound and 45 minute reverse direction headways AM southbound/PM northbound).
- Without light rail on the I-90 bridge, SR 520 includes a higher level of bus service.

2.7.2 Sensitivity Test 2: Tolling HOVs

A sensitivity test of Scenario 3 was analyzed to evaluate the traffic and funding implications of tolling HOVs on the bridge. Scenario 3 assumes that 3+ HOVs are toll-free whereas this sensitivity test assumes that HOVs are tolled. Scenario 3 includes the highest toll rates analyzed, thereby helping to identify the maximum impact of tolling HOVs. Additionally, with HOVs tolled, Scenario 3 differs from Scenario 1 only in the tolling configuration, allowing for the isolation of segment tolling revenue.

Note that the comparison of Scenario 4 with Scenario 2 similarly identifies the impact of tolling HOVs, but under the lower, revenue/traffic balance toll schedule and with corridor/short segment tolling included.

3. TOLL TRAFFIC PROJECTIONS

3.1 REGIONAL TRAVEL DEMAND MODEL

3.1.1 Background Network and Regional Model

The toll-free and toll simulation modeling was conducted using the same basic model that is currently supporting the travel forecasting analysis for the Final Environmental Impact Statement (FEIS) on the Alaskan Way Viaduct and Seawall Replacement Project (AWV) and was previously used to support some initial updated SR 520 and I-90 toll analysis by the Office of the State Treasurer in early 2007. This model also represents an evolution of the basic modeling platform underlying the traffic analysis of the 2006 SR 520 DEIS.

The AWV model is based on a version of the Puget Sound Regional (PSRC) regional travel demand model that has been used on that project since 2002. This model uses three time periods — a morning AM peak three hours, an afternoon PM peak three hours, and an 18 hour off-peak period — to model traffic in the Puget Sound Region.

The current AWV model does includes a number of important updates as reported in the main validation analysis report (*Updated Travel Forecasting Model Validation Report for Base Year (2000)*, Parsons Brinckerhoff, November 2005) and in an addendum to this report (*Addendum to Updated Travel Forecasting Model Validation Report*, Parsons Brinckerhoff, August 2007). These refinements and updates improved the model's performance for base year 2000 and 2005 conditions.

The AWV model was also tailored to better reflect the network detail in the SR 520 corridor, the details of which are described below.

3.1.2 Key Modeling Assumptions

General Network, Vehicle Class and Land Use Assumptions

Besides the scenario-specific network assumptions described in previous sections, the regional travel model employs the following network, vehicle class and land use assumptions. Except where noted, the following assumptions apply to all scenarios in all forecast years.

- The model uses the recent 2006 Land Use Forecast obtained from the PSRC, which is the most up-to-date forecast of future geographically distributed population and employment.
- The model assumes that the downtown Seattle parking cost real growth rate is 1.5% per year.
- For the pre-completion scenarios, the network assumes a 2+ definition for HOV lanes. For the post-completion scenarios, it assumes a 3+ HOV definition. The presumption is that the regional HOV network will have moved up to a 3+ person eligibility criterion for most, if not all of the 40 year operating horizon following the opening of the new bridge in 2018.

- Heavy and medium trucks (three or more axles) are assumed to be 30% of all commercial travel. According to the PSRC Model Methodology Report for the updated model (February 2006), the relative shares of commercial travel are distributed as autos/small trucks, medium trucks, and heavy trucks at 70%, 14%, and 16%, respectively.

Values of Time

In tolling analysis, the value of time is a critical piece of information that serves as the link between the monetary cost of a toll and the time cost of avoiding the toll. It provides the dollar value of an hour of time and is an indicator of the willingness-to-pay tolls. The values of time are used by the demand model to identify the point at which travelers would rather pay the toll than change their travel behavior. Because values of time tend to differ among individuals according to their trip purpose, time of travel, income levels and a host of other factors, it is necessary to develop aggregate values of time that conform to the input constraints of the regional travel demand model.

The following assumptions apply to this SR 520 traffic and revenue analysis in terms of values of time.

- Values of time were statistically estimated by time of travel, trip purpose, trip frequency and income class based on a 2003 stated preference survey of SR 520 bridge users.[4] (Subsequent statistical analysis also yielded the distribution of individual respondent values of time).
- Values of time were aggregated by time period, trip purpose and trip frequency market segments for the median income level of each segment.
- Values of time were then expressed as both per vehicle and per person values, with observed occupancy data used to identify a higher overall vehicle value of time for work trip purposes only.
- Using additional trip purpose and frequency statistics from the *1999 Trans-Lake Washington Origin and Destination Survey*, the values of time by market segment were further aggregated into vehicle values of time for peak and off-peak trips as conducive for use in the regional travel demand model.
- Values of time were assumed to keep pace with general inflation but were not assumed to exhibit any excess real growth over time.

Exhibit 16 presents the values of time, expressed in 2002 dollars, that were estimated from the 2003 stated preference survey. The aggregate vehicle values of time by period shown in the lower right part of the table reflect those that were used in the demand modeling process. In constant 2007 dollars, the estimated value of time for the AM and PM peak period travel convert to $16.47 per hour and the off-peak value of time converts to $13.79 per hour. In 1990 model year dollars, these amounts are $10.84 and $9.08, respectively.

Exhibit 16: SR 520 Bridge User Values of Time by Market Segment (2002 Dollars)

Traveler Market Segments			Value of Time per Person per Hour (at segment median income)	Occupancy Rates		Value of Time per Vehicle per Hour (at segment median income)	Median Income (by traveler market segment, in 1,000s)
Time Period	Trip Purpose	Trip Frequency		SOV Share	HOV2 Share		
AM & PM Peak Periods	Work	5 or more trips in this direction per week	**$14.07**	80%	20%	**$16.89**	$81 K
		4 or less trips in this direction per week	**$9.84**	72%	28%	**$12.62**	$73 K
	Non-Work	1 or more trips in this direction per week	**$5.03**	60%	40%	**$5.03**	$70 K
		Less than 1 trip in this direction per week	**$8.65**			**$8.65**	$74 K
Off-Peak Periods / Weekends	Work	All trip frequencies	**$10.38**	81%	19%	**$12.37**	$64 K
	Non-Work	All trip frequencies	**$11.92**	45%	55%	**$11.92**	$66 K

Traveler Market Segments			Value of Time per Vehicle (at segment median income)	Traveler Market Shares by:		Value of Time per Vehicle (by time period for toll analysis)
Time Period	Trip Purpose	Trip Frequency		Frequency w/in Trip Purpose	Trip Purpose w/in Time Period	
AM & PM Peak Periods	Work	5 or more trips in this direction per week	$16.89	72%	86%	**$14.43**
		4 or less trips in this direction per week	$12.62	28%		
	Non-Work	1 or more trips in this direction per week	$5.03	52%	14%	
		Less than 1 trip in this direction per week	$8.65	48%		
Off-Peak Periods / Weekends	Work	All trip frequencies	$12.37	N/A	35%	**$12.08**
	Non-Work	All trip frequencies	$11.92	N/A	65%	

The tolls on SR 520 were another key input. In order to be consistent with other monetary cost inputs in the model, the toll rates had to be expressed in 1990 dollars. Year of opening toll rates were deflated to 2007 dollars using an assumed projected inflation rate of 2.5% per year, and the 2007 values were further deflated using a composite index of historical inflation based on the U.S. Bureau of Labor Statistic's Consumer Price Index and the Bureau of Economic Analysis' Implicit Price Deflator for Personal Consumption.

The initial modeling toll rates for the bridge for the revenue/traffic balance case were consistent with the work conducted for the 2007 Funding Alternatives Report by the Washington State Treasurer, which assumed a maximum toll rate of $5 in the peak period in 2018 dollars. Iterative analysis was conducted to arrive at the optimal toll schedules for the traffic throughput and maximum revenue bridge toll cases from initial "seed" values. For a complete list of initial and final toll rates by scenario, see Exhibit C-1 through Exhibit C-7 in Appendix C.

Several short segment toll schemes were tested to arrive at a set of tolls that were sufficiently low to prevent substantial toll diversion to local arterial routes. These segment tolls did not vary by scenario in cases where corridor tolling was applied.

Model Analysis Years by Scenario

In order to interpolate traffic and revenue results for a mid-2018 opening of the new SR 520 Bridge through the end of the financial analysis in 2058, two forecast horizon years were modeled and analyzed for the post-completion scenarios — 2015 and 2030. For the pre-completion scenarios from mid 2009 to mid-2018, the forecast horizon years modeled were 2010 and 2020.

3.1.3 Model Strengths and Limitations

Like any travel demand model designed to forecast future events, the AWV version of the PSRC model has both strengths and shortcomings. Recognition of potential model limitations is an important part of designing post-processing steps and developing a forecast range to capture likely future outcomes.

Strengths

The regional model used in this study has a number of strengths in terms of tolling analysis:

- As a network-based model, a variety of network assumptions can be considered and evaluated separately. This can involve assessing different toll locations and strategies, using different combinations of highway and transit projects as well as tolling different vehicle classes. This flexibility allows for a targeted tolling analysis;
- The model can be used to consider future conditions, reflecting future projections for regional population and employment around the central Puget Sound region;
- The model effectively captures the mode choice and route diversion effects of tolling; that it accounts for changes in route that some travelers make to avoid the toll, and it accounts for those for whom switch to carpooling or transit;
- The basic model is the same as was used for the 2007 Funding Alternatives Report by the Washington State Treasurer;
- The model has been validated and was ready to go to when analysis began in the summer of 2007; and
- Value of time used was specific to users of SR 520.

Limitations and Resolutions

While the model effectively deals with some aspects and effects of tolling, there are some shortcomings:

- The model generally does not adequately capture the trip distribution and destination choice effects of tolling. Instead, it assumes that trips generally go to the same destinations in the toll case as they did in the toll-free case. In reality, some travelers may choose different trip destinations to minimize toll expenses. To account for this

potential, the basic model demand results are set as the high end of the forecast range. This forecast range is described in more detail below.

- The model provides demand estimates for three different time periods — a three-hour AM peak period, a three-hour PM peak period, and an 18-hour off-peak period (the latter emphasizing the top eight mid-day and evening hours for statistics such as the volume-to-capacity ratio). This level of time segmentation is insufficient for SR 520, which exhibits great variability in demand during the off-peak period, particularly during the heavily congested shoulder periods.
- Due to either future congestion under the toll-free basis of comparison or the variable toll schedules used in the toll scenarios of this study, it is expected that the high (monetary plus time) costs of peak period travel would induce some trips to shift from the peak periods to shoulder or off-peak times to take advantage of lower toll rates and/or less congested conditions. However, the model does not capture toll-induced time of day. This limitation in the model is addressed in the way traffic and revenue are allocated over the course of the 24 hour day in the revenue operation analysis and calculations.
- The model does not effectively simulate the tolling of HOVs in the post-completion case when there is a separate HOV lane. Therefore, HOVs were modeled as toll-free and the impacts of tolling HOVs were addressed during the post-processing of model results for Scenarios 1 and 2 and the sensitivity test of Scenario 3.
- The model, like most other regional travel demand platforms, does not produce traffic forecasts for weekends. The assessment of weekend traffic in order to aggregate to annual traffic projections is discussed in Section 4.
- Values of time used in demand modeling were based on research from a stated-preference survey of 927 SR 520 users conducted in 2003. Recently, PSRC has undertaken an experimental study of hypothetical roadway pricing which may shed additional light on region-wide values of time. This effort is expected to be completed by late Spring 2008.

3.2 TRAVEL DEMAND MODELING RESULTS

3.2.1 Types of Toll Diversion

When a new toll is imposed in a previously toll-free highway, travel patterns change as travelers seek to optimize their behavior under the new conditions in order to minimize their overall travel costs. These changes in travel patterns can result in various forms of toll diversion including:

- Route diversion — the decision to use an alternate route to avoid paying a toll;
- Mode diversion — a change in mode to avoid a toll or share the costs (e.g., if single occupant vehicles must pay a toll but transit passengers can use a facility for a lower cost fare, some drivers may shift to transit);

- Change in time of travel — a shift in the time of travel to a lower (toll) cost time of day (e.g., if the toll is higher during peak periods, some drivers may shift their trip to an off peak time to take advantage of lower toll rate);
- Change of trip destination — a shift in travel to a new destination that avoids the toll; and
- Change in trip frequency — a reduction in the frequency that a trip is made, including trip elimination.

3.2.2 Traffic Forecast Range

A key objective of the traffic projections is to develop a forecast range which will ultimately capture the actual future results. Developing the forecast range requires consideration of the aforementioned model limitations and an understanding of occasional model idiosyncrasies.

The AWV version of the PSRC model accounts for primary traveler diversion responses to tolls — route diversion and mode shift — but does not capture changes in trip destinations or eliminated trips that would also result in fewer SR 520 trips. In order to account for these effects, the basic model outputs defined as the "high" end of the forecast range were adjusted downward by factors to account for these two specific issues, resulting in a range of travel forecasts as high, base and low cases.

High Values

The "high" values represent the traffic volumes that come from the model and are those which are typically used for assessing demand potential and traffic impacts. The reporting of high values is also consistent with the procedures used in previous modeling analysis conducted for the SR 520 DEIS. The traffic volumes summarized in Exhibit 2Exhibit 3 represent these high values — subject to the post-processing steps described in Section 3.2.3 — and represent the full demand potential and associated traffic impacts.

Base Values

Revenue projections and financial analysis focus primarily on the "base" values. The "Base" values represent a 10% reduction in all cross-lake demand on both bridges to mitigate the risk for potential model forecast error in simulating cross-lake traffic. Use of these values for revenue projections and financial analysis in the project finance plan makes the plan a bit more conservative. The revenue and financial capacity results summarized in Exhibit 2 were derived from the base values.

The reduction of cross-lake travel demand from high to base, reflecting some change in trip destinations, applies to the toll-free as well as all of the toll cases for all vehicle classes (except transit), since both cases carry the same trip distribution pattern. The post-processing steps described in Section 3.2.3 are then applied to these base values.

Low Values

The "low" values capture further downside risk that toll diversion may exceed the high or base levels. Trip distribution in the toll model runs was assumed to be unchanged from the corresponding toll-free model run. This reflects an established practice that acknowledges

that the model's distribution step can be over-sensitive to the introduction of tolls at the trip distribution step — particularly for cross-lake trips. However, tolls would likely result in some changes in the level of trip making and/or trip destinations beyond what the model captures in route and mode diversion or that is subsequently reflected in the revenue operation analysis re-distributed times of travel. Specifically, some traffic may choose an alternative destination not involving cross-lake travel and/or some trips may be eliminated (reduced frequency) due to tolls. The "Low" values are obtained by applying an additional 10% reduction the "Base" case toll volumes only under all toll scenarios and analysis years to account for potential trip distribution effects not otherwise represented in the travel demand results. The post-processing steps described in Section 3.2.3 are then applied to these low values.

3.2.3 Post Processing Steps

The following sections explain the three steps of post-processing assumptions and calculations that were applied to the basic model outputs for each forecast year, as:

(1) AM peak directional balancing of SR 520 bridge mid-span volumes;

(2) Cross-lake demand and capacity balancing; and

(3) Conversion of modeled 3+ HOVs from toll-free to tolled.

AM Peak Period Directional Balancing

Model traffic forecasts for the SR 520 bridge mid-span vehicle volumes in AM peak period are directionally balanced so as to coincide with the observed directional balance in actual traffic as well as the predicted directional balance of future PM peak period traffic. To balance the directional volumes, the eastbound and westbound volumes are averaged, and that average is applied in both directions, with no net change in total bi-directional volumes. This step is applied to the volume of non-carpool, carpool and commercial vehicles on the SR 520 bridge mid-span for both the toll-free and toll model results for all toll scenarios and analysis years.

I-90 / SR 520 Cross-Lake Balancing

The model may at times over-assign traffic to I-90 — beyond its feasible capacity — when SR 520 is tolled. This occurs primarily because the model won't allow traffic to time shift beyond the peak periods when the peak periods get overly congested. Post-processing may be required in one or both directions to achieve some balance of demand and capacity between the two cross-lake bridge facilities. The extent of the post-processing readjustment on I-90 and SR 520 was prescribed with the following assumptions and rules relating to the volume-to-capacity ratio (V/C) on both SR 520 and I-90.

Assumptions:

- X_t = SR 520 V/C ratio when tolled
- Y_t = I-90 V/C ratio when SR 520 is tolled
- Y_f = I-90 V/C ratio when SR 520 is toll-free

Rules:

For both the AM and PM peak periods, the following demand/capacity balancing rules were applied:

(1) If $X_t \geq 1.0$, then no balancing is undertaken; otherwise

(2) If $Y_t > 1.1$, then shift traffic from I-90 to SR 520 until:

a. $X_t = 1.0$ or

b. Y_t = maximum of (Y_f , 1.1)

whichever occurs first.

In short, if I-90 demand exceeds its capacity by more than 10% and SR 520 has available capacity, then traffic is shifted from I-90 to SR 520 until either SR 520 is at capacity or I-90 demand has scaled down to either 110% of capacity or its demand level when SR 520 is toll-free, whichever is greater.

This step is applied to the total volume of non-carpool, carpool and commercial vehicles on the general purpose (GP) lanes of SR 520 bridge mid-span for AM and PM peak periods for toll model results only for all scenarios/years. However, it is assumed that the actual traffic that is moved while balancing V/C ratios on SR 520 and I-90 is comprised of non-carpool vehicles only. This means that the volumes representing HOV vehicles on GP lanes and the Medium and Heavy truck volumes are not affected in this stage.

Adjustments to Toll 3+ HOVs

For Scenarios 1-5, it was necessary to model 3+ HOVs as toll-free when traveling in the HOV lane as previously noted. A diagnostic model run with tolls on 3+ HOVs in the HOV lanes resulted in insignificantly small volumes of traffic in the HOV lanes, as there was no particular incentive to use them. However, this prevented the six lanes of the SR 520 facility from performing as intended.

Scenarios 1 and 2 assumed that 3+ HOVs would be tolled. Specifically, all vehicles in all three lanes in each direction on the SR 520 Bridge would be subject to tolls with the exception of transit vehicles. An additional toll scenario sensitivity test consisted of analyzing HOVs both tolled and toll-free to isolate the effects of tolling HOVs.

To convert model outputs where 3+ HOVs are toll-free to a case where they are tolled, the following post-processing adjustments were prescribed.

- For the AM and PM peak periods, the resulting 3+ HOV volumes from the *toll case* are to be reduced by one-half of the modeled toll diversion rate for GP lane traffic in each period for each travel direction.
- For the Off-Peak period, the resulting 3+ HOV volume from the *toll-free baseline case* is to be reduced by one-half of the observed diversion rate for GP traffic for each

travel direction, and that revised toll-free volume becomes the new adjusted toll case HOV volume.

In each case, it was assumed that one-half of the net HOV volume adjustment to the toll case becomes an adjustment with the opposite sign to the I-90 HOV volumes. So if the net PM peak HOV westbound volume in the toll case (with 3+ HOVs toll-free) is decreased by 800 vehicles to account for 3+ HOVs being tolled, then the corresponding I-90 volume in the same direction and time period needs to be increased by 400 vehicles.

Exhibit 17 provides a hypothetical example of the HOV vehicle adjustments for the applicable scenarios which assume 3+ HOVs are tolled.[5]

Exhibit 17: Tolled HOV Vehicle Adjustments

		SR 520 G.P. Lane Toll Diversion Rate (%)	3+ HOV Volumes				
			Toll Free (Model)	Tolled w/ 3+ HOV exempt (Model)	Adjustment for Tolling 3+ HOVs	Adjusted Tolled w/ 3+ HOV pays	Adjustment Formula / Comments
SR 520	PM Peak*	-20%	6000	8000	–800	7200	Adjustment = [8000 x (–20% x 1/2)]
	Off Peak	-30%	4000	5000	–1600	3400	Adj = [4000 x (–30% x 1/2) – (5000 – 4000)]
I-90	PM Peak*		7000	6800	+400	7200	1/2 of SR 520 adjustment goes to I-90
	Off Peak		5000	5100	+800	5900	1/2 of SR 520 adjustment goes to I-90

* same would apply for AM Peak

This step is applied to the volume of HOV vehicles on HOV lanes of SR 520 bridge mid-span (with corresponding adjustments to the I-90 bridges) for the AM, PM and off-peak periods for post-completion toll results in those scenarios where 3+ HOVs are tolled by definition (Scenario1, Scenario 2 and the sensitivity test of Scenario 1). This step is not applied to pre-completion tolling results, since all of the 2+ HOVs with pre-completion tolling travel on the GP lanes and, thus, would be subject to tolls unless exemptions could be handled by back office adjustments.

3.2.4 Impacts of Tolling SR 520 on Nearby Roadways

Route diversion related to the implementation of tolls on SR 520 was analyzed to qualitatively describe the potential congestion impacts on surrounding arterials and freeway segments for the 2030 horizon year. This assessment focused on 2030 PM peak period modeling data given in Exhibit 2 and Exhibit 3. The analysis compares the impacts of tolls for the various toll scenarios to a toll-free case. For the purposes of this exercise, the alternative routes to SR 520 of greatest interest consisted of I-90 to the south, SR 522 to the north, and I-5 and I-405 around Lake Washington (to the north and south).

Comparisons between the various toll scenarios (1-5) and the toll-free case for 2030 PM peak period conditions are described below in order of diversion magnitude.

Maximum Revenue Toll Scenarios (Scenarios 1 & 3)

The toll scenarios which maximized revenue (HOVs tolled or toll-free) provided the greatest reduction of cross-lake traffic demand on SR 520 (compared the 2030 toll-free case), due to the relatively high monetary cost associated with SR 520.

- Overall traffic reductions of approximately 10,000 vehicles for the PM peak period are estimated for the maximum revenue scenarios compared to the toll-free case. The higher toll rates for these scenarios have the greatest effect on westbound traffic in terms of PM peak period reduction (compared to the toll-free case) while eastbound traffic demands were less influenced by the higher tolls. This may reflect a wider variety of discretionary trip purposes for westbound PM peak travel.
- Route diversion due to these higher toll rates was concentrated to major east-west corridors such as I-90 and SR 522 and, to a lesser degree, segments of I-405 (both northbound and southbound) and I-5. I-90 peak period traffic volumes do not increase substantially (about 4-5% higher in the peak periods).
  - Volume-to-capacity (V/C) ratio analysis for I-90 (at mid-lake) shows low-to-moderate increases in congestion for both the eastbound and westbound directions. The minor impact on I-90 V/C ratios is primarily due to the already large future traffic demand expected along this major corridor, as well as the fact that most segments along I-90 show demand exceeding capacity (V/C > 1.0) even when SR 520 is toll-free.
  - Impacts to SR 522 are somewhat more pronounced, with V/C ratios increasing by 0.10 or more in some sections. Most notable are sections along SR 522 between Kenmore and Bothell.
  - Congestion impacts on I-405 and I-5 are expected to be generally minor due to the significant "base" traffic volumes along these corridors (both north and south of SR 520) and the already high v/c ratios even under the toll-free case (typically greater than 1.0, indicating congestion already exists).
  - No arterial analysis was performed.

Revenue/Traffic Balance Scenarios (Scenarios 2 & 4)

The toll scenarios which balanced revenue and traffic showed lower traffic reductions on the SR 520 bridge than for the maximum revenue scenarios when compared to the 2030 toll-free case.

- Based on the modeling data summarized in Exhibit 2 and Exhibit 3, overall PM peak period traffic reductions of approximately 5,000 vehicles are estimated for the revenue/traffic balanced cases (Scenarios 2 & 4) compared to the toll-free case or roughly half the reduction of the maximum revenue cases (Scenarios 1 & 3).
- Route diversion due to the balanced toll rate, while lower in magnitude than for the maximum revenue case, was again concentrated on I-90 and SR 522 and segments of I-405 (north and south of SR 520) and I-5.
- Volume to capacity (V/C) ratios for the I-90 bridges show moderate increases (0.05 or less) for both the eastbound and westbound directions. As discussed previously, the minor impact on I-90 V/C ratios is primarily due to the already large demands expected along this major corridor and the fact that most segments along I-90 show demands exceeding capacity (V/C > 1.0) under the SR 520 toll-free case.
- Impacts to SR 522 are again more pronounced compared to the other alternative routes with V/C ratios increasing by 0.10 or more in some sections. Certain sections

along SR 522 show V/C ratios approaching but not exceeding capacity (1.0) under the revenue/traffic balance scenarios. Corresponding V/C ratios for the toll-free case show values below capacity (<1.0).

- Congestion impacts on I-405 and I-5 are minor due to the significant background traffic volumes along these corridors (both north and south of SR 520) and the already high V/C ratios even under the toll-free case (typically >1.0).

Throughput-Maximized Option (Scenario 5)

The toll scenario that aimed to optimize traffic during peak periods (represented by lower peak period toll rates) showed similar traffic reductions on SR 520 (mid-lake) as those described for the revenue/traffic balance scenarios.

- Based on the 2030 modeling data, overall PM peak period traffic reductions across SR 520 are estimated at roughly 4,000 vehicles for the traffic throughput case compared to the toll-free case. This equates to roughly 40% of the maximum revenue toll traffic reductions.
- Route diversion for these options are similar to those identified for the revenue/traffic balance scenarios with most of the diverted traffic also using either I-90 or SR 522.
- Attempts at reducing route diversion to I-90 and SR 522 also result in minimizing route diversion that would put additional vehicular traffic on arterials and neighborhood streets.

Impacts to link-level volume to capacity (V/C) ratios under these options are commensurately similar to the Balanced-Moderate options.

Off-Peak Traffic Congestion Impacts

While operational impacts on surrounding arterials and freeway segments due to tolling on SR 520 were not explicitly analyzed for off-peak periods, the levels of congestion expected for the majority of facilities such as I-90, SR 522, I-5, and I-405 is fairly limited during the those periods. Despite lower tolls on SR 520 during the off-peak periods, additional capacity on alternative routes will likely result in higher relative levels of route diversion from SR 520 during off-peak times. This time-based effect on traffic demand would be most significant during shoulder periods and under those tolling scenarios with the highest, maximum revenue toll schedule (Scenarios 1 or 3). Conversely, with lower tolls designed to retain more traffic on SR 520 in Scenarios 2, 4 and 5, the potential for traffic diversion to alternative routes in off-peak periods would be less pronounced.

The existing travel demand modeling tools pose some limitations for fully understanding the intra-day route diversion impacts beyond the relative comparisons noted above, especially for off-peak times which could receive additional trips from time shifting of travel due to tolls. As such, further analysis of potential traffic demand shifts to off-peak or shoulder periods may be warranted in order to establish a more detailed understanding of time-based traffic demand distributions over a typical weekday.

3.2.5 Weekday Daily Demand in Forecast Years

The following subsections provide daily summaries of the Pre-Completion and Post-Completion scenarios for all forecast years with and without tolls. Since the overall demand for daily cross-lake travel increases from 2015 to 2030, congestion on I-90 and other alternate routes also increases. Therefore, travelers are less sensitive to the same real toll rates and lower overall toll diversion rates are observed in the 2030 model results.

Results for each tolling scenario are discussed in terms relative to the toll-free baseline. For a set of results of projected demand by time of day for all vehicle classes, see Appendix B. As can be expected, scenarios with higher toll rates demonstrate higher rates of diversion to alternate routes.

Scenario 1 Daily Traffic

Scenario 1 is a post-completion, maximum revenue bridge toll scenario, employing a segmental corridor tolling scheme on SR 520 between I-5 and I-405. Only transit vehicles are exempt from paying tolls.

Tolling SR 520 at these relatively high levels results in the following:

- Traffic volume impacts:
  - Total volumes on SR 520 decrease in both forecast years due to toll diversion while total volumes on I-90 increase, relative to the toll-free comparison case:
    - In 2030, the daily toll diversion away from SR 520 is –38% under the high traffic forecast;
    - The daily increase in traffic on I-90 is +13% in 2030 under the high traffic forecast; and
    - Absolute and percentage toll diversion impacts are significantly lower in the peak periods (as shown in Exhibit 3 and in the table exhibits of Appendix B).
  - Additionally, the combined total daily cross-lake volumes on both bridges decrease by –11% due to the increased travel cost on SR 520 and increased congestion on I-90.
- Mode shift impacts:
  - Tolling SR 520 also encourages a mode shift to transit, with 800 additional bus passengers on SR 520 and 800 additional rail passengers on I-90.
  - When HOVs are tolled, there are two separate trends impacting HOVs on SR 520:
    - HOVs from the toll-free case now face a toll and may divert to other routes or modes, and vehicles formerly with one or two occupants may form new 3+ carpools to share the cost of the toll.
    - There is no net mode shift to increase the number of HOVs on SR 520 due to the high revenue maximizing toll rate and the fact that HOVs are tolled in Scenario 1; in fact, daily HOVs on SR 520 are –11% lower in 2030.

Exhibit 18 shows the daily toll and toll-free cross-lake volumes for Scenario 1. Exhibit B-1 through Exhibit B-6 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Exhibit 18: Scenario 1 Comparison of Daily Crosslake Volumes (Post-Completion / HOVs Tolled)

	Scenario 1 - 2015 Forecasts					Scenario 1 - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**129,500**	**68,800**	116,600	59,000	52,700	**139,400**	**83,900**	125,500	76,100	68,200
%Change in GP lane vehicles		***–47%***		*–49%*	*–55%*		***–40%***		*–39%*	*–46%*
Vehicles on HOV lanes	**6,700**	**5,800**	6,000	5,100	4,900	**11,200**	**10,000**	10,100	9,100	8,700
%Change in HOV lane vehicles		***–13%***		*–15%*	*–18%*		***–11%***		*–10%*	*–14%*
Transit Passenger Volume	**6,400**	**7,200**	6,400	7,200	7,200	**6,400**	**7,900**	6,400	7,900	7,900
%Change in Transit Passengers		***+13%***		*+13%*	*+13%*		***+23%***		*+23%*	*+23%*
SR-520 Total	***136,200***	***74,600***	*122,600*	*64,100*	*57,600*	***150,600***	***93,900***	*135,600*	*85,200*	*76,900*
% Change in SR-520 Vehicles		***–45%***		*–48%*	*–53%*		***–38%***		*–37%*	*–43%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**141,500**	**168,900**	127,300	154,900	154,900	**160,300**	**182,400**	144,300	163,600	163,600
%Change in GP lane vehicles		***+19%***		*+22%*	*+22%*		***+14%***		*+13%*	*+13%*
Vehicles on HOV lanes	**2,800**	**3,700**	2,500	3,400	3,500	**6,700**	**7,900**	6,100	7,100	7,300
%Change in HOV lane vehicles		***+32%***		*+36%*	*+40%*		***+18%***		*+16%*	*+20%*
Total Transit Passenger Volume	**24,500**	**25,300**	24,500	25,300	25,300	**36,900**	**37,100**	36,900	37,100	37,100
%Change in Transit Passengers		***+3%***		*+3%*	*+3%*		***+1%***		*+1%*	*+1%*
LRT Passenger Volumes	**21,900**	**22,700**	21,900	22,700	22,700	**32,800**	**32,900**	32,800	32,900	32,900
I-90 Total	***144,300***	***172,600***	*129,800*	*158,300*	*158,400*	***167,000***	***190,300***	*150,400*	*170,700*	*170,900*
% Change in I-90 Vehicles		***+20%***		*+22%*	*+22%*		***+14%***		*+13%*	*+14%*
Total Transit Passengers	**30,900**	**32,500**	30,900	32,500	32,500	**43,300**	**45,000**	43,300	45,000	45,000
% Change in Crosslake Vehicles		***+5%***		*+5%*	*+5%*		***+4%***		*+4%*	*+4%*
Total HOV Vehicles in HOV lanes	**9,500**	**9,500**	8,500	8,500	8,400	**17,900**	**17,900**	16,200	16,200	16,000
% Change in Crosslake Vehicles		***0%***		*0%*	*–1%*		***0%***		*0%*	*–1%*
Total Crosslake Vehicles	**280,500**	**247,200**	252,400	222,400	216,000	**317,600**	**284,200**	286,000	255,900	247,800
% Change in Crosslake Vehicles		***–12%***		*–12%*	*–14%*		***–11%***		*–11%*	*–13%*

Note: Scenario 1 has HOV3+ definition

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Scenario 2 Daily Traffic

Scenario 2 is a post-completion, revenue/traffic balance bridge toll scenario employing corridor tolling of SR 520 between I-5 and I-405. Only transit vehicles are exempt from paying tolls.

Tolling SR 520 at these more moderate, balanced toll levels results in the following:

- Traffic volume impacts:
  - Total volumes on SR 520 decrease in both forecast years due to toll diversion while total volumes on I-90 increase, relative to the toll-free comparison case:
    - In 2030, the daily toll diversion away from SR 520 is –22% under the high traffic forecast;
    - The daily increase in traffic on I-90 is +9% in 2030 under the high traffic forecast; and
    - Absolute and percentage toll diversion impacts are significantly lower in the peak periods (as shown in Exhibit 3 and in the table exhibits of Appendix B).
  - Additionally, the combined total daily cross-lake volumes on both bridges decrease by –6% due to the increased travel cost on SR 520 and increased congestion on I-90.

- Mode shift impacts:
  - Tolling SR 520 also encourages a mode shift to transit, with 800 additional bus passengers on SR 520 and 800 additional rail passengers on I-90.
  - When HOVs are tolled, there are two separate trends impacting HOVs on SR 520:
    - HOVs from the toll-free case now face a toll and may divert to other routes or modes, and;
    - Vehicles formerly with one or two occupants may form new 3+ carpools to share the cost of the toll.
  - Under the more modest toll rates of Scenario 2, the toll disincentive for existing HOVs is reduced such that when combined with the incentive to carpool, 2030 daily tolled HOVs are only –6% lower than the toll-free comparison case, and there is actually a +3% net increase in HOVs in the PM peak period (see Exhibit 3).

Since the overall demand for daily cross-lake travel increases from 2015 to 2030, congestion on I-90 and other alternate routes also increases. Therefore, travelers are less sensitive to the same real toll rates and lower overall toll diversion rates are observed in 2030 model results.

Exhibit 19 shows the daily toll and toll-free cross-lake volumes for Scenario 2. Exhibit B-7 through Exhibit B-12 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Exhibit 19: Scenario 2 Comparison of Daily Crosslake Volumes (Post-Completion / HOVs Tolled)

	Scenario 2 - 2015 Forecasts					Scenario 2 - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**129,500**	**88,800**	116,600	78,900	70,200	**139,400**	**107,200**	125,500	96,100	85,800
%Change in GP lane vehicles		***–31%***		*–32%*	*–40%*		***–23%***		*–23%*	*–32%*
Vehicles on HOV lanes	**6,700**	**6,300**	6,000	5,600	5,400	**11,200**	**10,500**	10,100	9,400	9,000
%Change in HOV lane vehicles		***–6%***		*–7%*	*–10%*		***–6%***		*–7%*	*–11%*
Transit Passenger Volume	**6,400**	**7,200**	6,400	7,200	7,200	**6,400**	**7,900**	6,400	7,900	7,900
%Change in Transit Passengers		***+13%***		*+13%*	*+13%*		***+23%***		*+23%*	*+23%*
SR-520 Total	***136,200***	***95,100***	*122,600*	*84,500*	*75,600*	***150,600***	***117,700***	*135,600*	*105,500*	*94,800*
% Change in SR-520 Vehicles		***–30%***		*–31%*	*–38%*		***–22%***		*–22%*	*–30%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**141,500**	**160,500**	127,300	145,500	145,500	**160,300**	**173,700**	144,300	156,700	156,400
%Change in GP lane vehicles		***+13%***		*+14%*	*+14%*		***+8%***		*+9%*	*+8%*
Vehicles on HOV lanes	**2,800**	**3,300**	2,500	3,000	3,200	**6,700**	**7,600**	6,100	6,800	7,100
%Change in HOV lane vehicles		***+18%***		*+20%*	*+28%*		***+13%***		*+11%*	*+16%*
Total Transit Passenger Volume	**24,500**	**25,300**	24,500	25,300	25,300	**36,900**	**37,100**	36,900	37,100	37,100
%Change in Transit Passengers		***+3%***		*+3%*	*+3%*		***+1%***		*+1%*	*+1%*
LRT Passenger Volumes	**21,900**	**22,700**	21,900	22,700	22,700	**32,800**	**32,900**	32,800	32,900	32,900
I-90 Total	***144,300***	***163,800***	*129,800*	*148,500*	*148,700*	***167,000***	***181,300***	*150,400*	*163,500*	*163,500*
% Change in I-90 Vehicles		***+14%***		*+14%*	*+15%*		***9%***		*9%*	*9%*
Total Transit Passengers	**30,900**	**32,500**	30,900	32,500	32,500	**43,300**	**45,000**	43,300	45,000	45,000
% Change in Crosslake Vehicles		***+5%***		*+5%*	*+5%*		***+4%***		*+4%*	*+4%*
Total HOV Vehicles in HOV lanes	**9,500**	**9,600**	8,500	8,600	8,600	**17,900**	**18,100**	16,200	16,200	16,100
% Change in Crosslake Vehicles		***+1%***		*+1%*	*+1%*		***+1%***		*0%*	*–1%*
Total Crosslake Vehicles	**280,500**	**258,900**	252,400	233,000	224,300	**317,600**	**299,000**	286,000	269,000	258,300
% Change in Crosslake Vehicles		***–8%***		*–8%*	*–11%*		***–6%***		*–6%*	*–10%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Scenario 3 Daily Traffic

Scenario 3 is a maximum revenue bridge toll post-completion scenario that adds corridor tolling and a 3+ HOV exemption to Scenario 1. Both transit and 3+ HOV users are exempt from paying tolls when traveling across the lake in the HOV lanes.

Tolling SR 520 at these relatively high levels results in the following:

- Traffic volume impacts:
  - Total volumes on SR 520 decrease in both forecast years due to toll diversion while total volumes on I-90 increase, relative to the toll-free comparison case:
    - In 2030, the daily toll diversion away from SR 520 is –36% under the high traffic forecast;
    - The daily increase in traffic on I-90 is +13% in 2030 under the high traffic forecast; and
    - Absolute and percentage toll diversion impacts are significantly lower in the peak periods (as shown in Exhibit 3 and in the table exhibits of Appendix B).
  - Additionally, the combined total daily cross-lake volumes on both bridges decrease by –10% due to the increased travel cost on SR 520 and increased congestion on I-90.

- Mode shift impacts:
  - Tolling SR 520 also encourages a mode shift to transit, with 800 additional bus passengers on SR 520 and 800 additional rail passengers on I-90.
  - Daily HOV travel on SR 520 increases by 1,000 cars (+15%) in model year 2015 and by 1,500 cars (+13%) in 2030, relative to the toll-free base case due to the toll incentive for additional carpool formation.

Since the overall demand for daily cross-lake travel increases from 2015 to 2030, congestion on I-90 and other alternate routes also increases. Therefore, travelers are less sensitive to the same real toll rates and lower overall toll diversion rates are observed in 2030 model results. Exhibit 20 shows the daily toll and toll-free cross-lake volumes for Scenario 3. Exhibit B-13 through Exhibit B-18 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Exhibit 20: Scenario 3 Comparison of Daily Crosslake Volumes (Post-Completion / HOVs Toll-Free)

	Scenario 3 - 2015 Forecasts					Scenario 3 - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**129,500**	**67,500**	116,600	57,700	51,500	**139,400**	**83,100**	125,500	75,100	67,400
%Change in GP lane vehicles		***–48%***		*–51%*	*–56%*		***–40%***		*–40%*	*–46%*
Vehicles on HOV lanes	**6,700**	**7,700**	6,000	6,900	6,900	**11,200**	**12,700**	10,100	11,400	11,400
%Change in HOV lane vehicles		***+15%***		*+15%*	*+15%*		***+13%***		*+13%*	*+13%*
Transit Passenger Volume	**6,400**	**7,200**	6,400	7,200	7,200	**6,400**	**7,900**	6,400	7,900	7,900
%Change in Transit Passengers		***+13%***		*+13%*	*+13%*		***+23%***		*+23%*	*+23%*
SR-520 Total	***136,200***	***75,200***	*122,600*	*64,600*	*58,400*	***150,600***	***95,800***	*135,600*	*86,500*	*78,800*
% Change in SR-520 Vehicles		***–45%***		*–47%*	*–52%*		***–36%***		*–36%*	*–42%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**141,500**	**169,300**	127,300	155,400	155,400	**160,300**	**182,300**	144,300	163,700	163,700
%Change in GP lane vehicles		***+20%***		*+22%*	*+22%*		***+14%***		*+13%*	*+13%*
Vehicles on HOV lanes	**2,800**	**2,700**	2,500	2,400	2,400	**6,700**	**6,500**	6,100	5,800	5,800
%Change in HOV lane vehicles		***–4%***		*–4%*	*–4%*		***–3%***		*–5%*	*–5%*
Total Transit Passenger Volume	**24,500**	**25,400**	24,500	25,400	25,400	**36,900**	**37,100**	36,900	37,100	37,100
%Change in Transit Passengers		***+4%***		*+4%*	*+4%*		***+1%***		*+1%*	*+1%*
LRT Passenger Volumes	**21,900**	**22,700**	21,900	22,700	22,700	**32,800**	**32,900**	32,800	32,900	32,900
I-90 Total	***144,300***	***172,000***	*129,800*	*157,800*	*157,800*	***167,000***	***188,800***	*150,400*	*169,500*	*169,500*
% Change in I-90 Vehicles		***+19%***		*+22%*	*+22%*		***+13%***		*+13%*	*+13%*
Total Transit Passengers	**30,900**	**32,600**	30,900	32,600	32,600	**43,300**	**45,000**	43,300	45,000	45,000
% Change in Crosslake Vehicles		***+6%***		*+6%*	*+6%*		***+4%***		*+4%*	*+4%*
Total HOV Vehicles in HOV lanes	**9,500**	**10,400**	8,500	9,300	9,300	**17,900**	**19,200**	16,200	17,200	17,200
% Change in Crosslake Vehicles		***+9%***		*+9%*	*+9%*		***+7%***		*+6%*	*+6%*
Total Crosslake Vehicles	**280,500**	**247,200**	252,400	222,400	216,200	**317,600**	**284,600**	286,000	256,000	248,300
% Change in Crosslake Vehicles		***–12%***		*–12%*	*–14%*		***–10%***		*–10%*	*–13%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Scenario 4 Daily Traffic

Scenario 4 is a revenue/traffic balance bridge toll post-completion scenario that adds a 3+ HOV exemption to Scenario 2. Both transit and HOV vehicles are exempt from paying tolls when traveling across the lake in the HOV lanes.

Tolling SR 520 at these more moderate, balanced toll levels results in the following:

- Traffic volume impacts:
  - Total volumes on SR 520 decrease in both forecast years due to toll diversion while total volumes on I-90 increase, relative to the toll-free comparison case:
    - In 2030, the daily toll diversion away from SR 520 is –21% under the high traffic forecast;
    - The daily increase in traffic on I-90 is +8% in 2030 under the high traffic forecast; and
    - Absolute and percentage toll diversion impacts are significantly lower in the peak periods (as shown in Exhibit 3 and in the table exhibits of Appendix B).
  - Additionally, the combined total daily cross-lake volumes on both bridges decrease by –6% due to the increased travel cost on SR 520 and increased congestion on I-90.

- Mode shift impacts:
  - Tolling SR 520 also encourages a mode shift to transit, with 800 additional bus passengers on SR 520 and 800 additional rail passengers on I-90.
  - Daily HOV travel on SR 520 increases by 1,100 cars (+15%) in model year 2015 and 1,000 cars (+9%) in 2030, relative to the toll-free base case due to the toll incentive for additional carpool formation.

Since the overall demand for daily cross-lake travel increases from 2015 to 2030, congestion on I-90 and other alternate routes also increases. Therefore, travelers are less sensitive to the same real toll rates and lower overall toll diversion rates are observed in 2030 model results. Exhibit 21 shows the daily toll and toll-free cross-lake volumes for Scenario 4. Exhibit B-19 through Exhibit B-24 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Exhibit 21: Scenario 4 Comparison of Daily Crosslake Volumes (Post-Completion / HOVs Toll-Free)

	Scenario 4 - 2015 Forecasts					Scenario 4 - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	**Toll-Free[2]**	**Tolled**	**Tolled**	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**129,500**	**88,800**	116,600	78,900	70,200	**139,400**	**107,200**	125,500	96,100	85,800
%Change in GP lane vehicles		***–31%***		*–32%*	*–40%*		***–23%***		*–23%*	*–32%*
Vehicles on HOV lanes	**6,700**	**7,800**	6,000	7,000	7,000	**11,200**	**12,200**	10,100	11,000	11,000
%Change in HOV lane vehicles		***+16%***		*+17%*	*+17%*		***+9%***		*+9%*	*+9%*
Transit Passenger Volume	**6,400**	**7,200**	6,400	7,200	7,200	**6,400**	**7,900**	6,400	7,900	7,900
%Change in Transit Passengers		***+13%***		*+13%*	*+13%*		***+23%***		*+23%*	*+23%*
SR-520 Total	***136,200***	***96,600***	*122,600*	*85,900*	*77,200*	***150,600***	***119,400***	*135,600*	*107,100*	*96,800*
% Change in SR-520 Vehicles		***–29%***		*–30%*	*–37%*		***–21%***		*–21%*	*–29%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**141,500**	**160,500**	127,300	145,500	145,500	**160,300**	**173,700**	144,300	156,700	156,400
%Change in GP lane vehicles		***+13%***		*+14%*	*+14%*		***+8%***		*+9%*	*+8%*
Vehicles on HOV lanes	**2,800**	**2,600**	2,500	2,300	2,300	**6,700**	**6,700**	6,100	6,100	6,100
%Change in HOV lane vehicles		***–7%***		*–8%*	*–8%*		***0%***		*0%*	*0%*
Total Transit Passenger Volume	**24,500**	**25,300**	24,500	25,300	25,300	**36,900**	**37,100**	36,900	37,100	37,100
%Change in Transit Passengers		***+3%***		*+3%*	*+3%*		***+1%***		*+1%*	*+1%*
LRT Passenger Volumes	**21,900**	**22,700**	21,900	22,700	22,700	**32,800**	**32,900**	32,800	32,900	32,900
I-90 Total	***144,300***	***163,100***	*129,800*	*147,800*	*147,800*	***167,000***	***180,400***	*150,400*	*162,800*	*162,500*
% Change in I-90 Vehicles		***+13%***		*+14%*	*+14%*		***8%***		*8%*	*8%*
Total Transit Passengers	**30,900**	**32,500**	**30,900**	**32,500**	**32,500**	**43,300**	**45,000**	43,300	45,000	45,000
% Change in Crosslake Vehicles		***+5%***		*+5%*	*+5%*		***+4%***		*+4%*	*+4%*
Total HOV Vehicles in HOV lanes	**9,500**	**10,400**	**8,500**	**9,300**	**9,300**	**17,900**	**18,900**	16,200	17,100	17,100
% Change in Crosslake Vehicles		***+9%***		*+9%*	*+9%*		***+6%***		*+6%*	*+6%*
Total Crosslake Vehicles	**280,500**	**259,700**	**252,400**	**233,700**	**225,000**	**317,600**	**299,800**	286,000	269,900	259,300
% Change in Crosslake Vehicles		***–7%***		*–7%*	*–11%*		***–6%***		*–6%*	*–9%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Scenario 5 Daily Traffic

Scenario 5 is a traffic throughput bridge toll post-completion scenario that aside from its lower toll schedule emphasizing traffic over revenue is identical to Scenario 4. Both transit and HOV vehicles are exempt from paying tolls when traveling across the lake in the HOV lanes. Overall impacts include:

- Traffic volume impacts:
  - Total volumes on SR 520 decrease in both forecast years due to toll diversion while total volumes on I-90 increase, relative to the toll-free comparison case:
    - In 2030, the daily toll diversion away from SR 520 is –19% under the high traffic forecast;
    - The daily increase in traffic on I-90 is +7% in 2030 under the high traffic forecast; and
    - Absolute and percentage toll diversion impacts are significantly lower in the peak periods (as shown in Exhibit 3 and in the table exhibits of Appendix B).
  - Additionally, the combined total daily cross-lake volumes on both bridges decrease by –5% due to the increased travel cost on SR 520 and increased congestion on I-90.

- Mode shift impacts:
  - Tolling SR 520 also encourages a mode shift to transit, with 800 additional bus passengers on SR 520 and 800 additional rail passengers on I-90.
  - Daily HOV travel on SR 520 increases by 1,000 cars (+15%) in model year 2015 and by 900 cars (+8%) in 2030, relative to the toll-free base case due to the toll incentive for additional carpool formation.

Since the overall demand for daily cross-lake travel increases from 2015 to 2030, congestion on I-90 and other alternate routes also increases. Therefore, travelers are less sensitive to the same real toll rates and lower overall toll diversion rates are observed in 2030 model results. Exhibit 22 shows the daily toll and toll-free cross-lake volumes for Scenario 5. Exhibit B-25 through Exhibit B-30 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Exhibit 22: Scenario 5 Comparison of Daily Crosslake Volumes (Post-Completion / HOVs Toll-Free)

	Scenario 5 - 2015 Forecasts					Scenario 5 - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**129,500**	**91,900**	116,600	81,800	73,000	**139,400**	**109,800**	125,500	98,400	87,500
%Change in GP lane vehicles		***–29%***		*–30%*	*–37%*		***–21%***		*–22%*	*–30%*
Vehicles on HOV lanes	**6,700**	**7,700**	6,000	6,900	6,900	**11,200**	**12,100**	10,100	10,900	10,900
%Change in HOV lane vehicles		***+15%***		*+15%*	*+15%*		***+8%***		*+8%*	*+8%*
Transit Passenger Volume	**6,400**	**7,100**	6,400	7,100	7,100	**6,400**	**7,800**	6,400	7,800	7,800
%Change in Transit Passengers		***+11%***		*+11%*	*+11%*		***+22%***		*+22%*	*+22%*
SR-520 Total	***136,200***	***99,600***	*122,600*	*88,700*	*79,900*	***150,600***	***121,900***	*135,600*	*109,300*	*98,400*
% Change in SR-520 Vehicles		***–27%***		*–28%*	*–35%*		***–19%***		*–19%*	*–27%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**141,500**	**159,700**	127,300	144,600	144,400	**160,300**	**172,700**	144,300	155,800	155,800
%Change in GP lane vehicles		***+13%***		*+14%*	*+13%*		***+8%***		*+8%*	*+8%*
Vehicles on HOV lanes	**2,800**	**2,600**	2,500	2,300	2,300	**6,700**	**6,700**	6,100	6,000	6,000
%Change in HOV lane vehicles		***–7%***		*–8%*	*–8%*		***0%***		*–2%*	*–2%*
Total Transit Passenger Volume	**24,500**	**25,100**	24,500	25,100	25,100	**36,900**	**36,900**	36,900	36,900	36,900
%Change in Transit Passengers		***+2%***		*+2%*	*+2%*		***0%***		*0%*	*0%*
LRT Passenger Volumes	**21,900**	**23,800**	21,900	23,800	23,800	**32,800**	**34,800**	32,800	34,800	34,800
I-90 Total	***144,300***	***162,300***	*129,800*	*146,900*	*146,700*	***167,000***	***179,400***	*150,400*	*161,800*	*161,800*
% Change in I-90 Vehicles		***+12%***		*+13%*	*+13%*		***7%***		*8%*	*8%*
Total Transit Passengers	**30,900**	**32,200**	30,900	32,200	32,200	**43,300**	**44,700**	43,300	44,700	44,700
% Change in Crosslake Vehicles		***+4%***		*+4%*	*+4%*		***+3%***		*+3%*	*+3%*
Total HOV Vehicles in HOV lanes	**9,500**	**10,300**	8,500	9,200	9,200	**17,900**	**18,800**	16,200	16,900	16,900
% Change in Crosslake Vehicles		***+8%***		*+8%*	*+8%*		***+5%***		*+4%*	*+4%*
Total Crosslake Vehicles	**280,500**	**261,900**	252,400	235,600	226,600	**317,600**	**301,300**	286,000	271,100	260,200
% Change in Crosslake Vehicles		***–7%***		*–7%*	*–10%*		***–5%***		*–5%*	*–9%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Scenarios B and B5 Pre-Completion Daily Traffic

Supplemental Scenario B, a pre-completion tolling add-on to Scenarios 1-4, examines tolling the existing bridge during from mid-2009 until the new bridge opens in mid-2018. Scenario B applies the revenue/traffic balance toll schedule to the existing bridge and excludes segment tolling. In the absence of a separate HOV lane, tolls are assessed to all cross-lake vehicles, with only transit vehicles exempted.

Scenario B5 is the same as Scenario B except for the application of the lower, traffic throughput toll schedule, which makes it a logical add-on to Scenario 5, though it could potentially be paired with any of the other toll scenarios subject to a change in toll emphasis upon opening the new bridge.

While both Scenario B and B5 also exclude tolling during the night hours of 11 PM to 5 AM for purposes of the annual traffic and gross revenue projections presented in Section 4, the exclusion of night tolling is not reflected in the daily traffic volumes presented in this section. It is assumed that significant construction activities would occur during the overnight period, including lane reductions and closures. Tolling under these conditions would likely result in greater diversion than would otherwise be expected. As a result, it was assumed that traffic volumes under the un-tolled construction condition would be approximately the same as the volumes that would be observed in a tolled but construction-free condition.

Tolling the existing SR 520 bridge at the revenue/traffic balance or traffic throughput toll levels results in the following:

- Traffic volume impacts:
  - Total volumes on SR 520 decrease in both forecast years due to toll diversion while total volumes on I-90 increase, relative to the toll-free comparison case:
    - In 2010, the daily toll diversion away from SR 520 is –38% for Scenario B and –36% for Scenario B5 under the high traffic forecast relative to toll-free daily traffic volumes on the bridge;
    - By model year 2020, the daily SR 520 toll diversion rate has softened to –31% and
      –30% for Scenarios B and B5, respectively;
    - The daily increases in traffic on I-90 are similar between Scenarios B and B5, with the largest percentage change occurring in model year 2010 at +12% under the high traffic forecast; and
    - Absolute and percentage toll diversion impacts are significantly lower in the peak periods (as shown in Exhibit 3 and in the table exhibits of Appendix B).
  - Additionally, the combined total daily cross-lake volumes on both bridges in 2010 decrease by –8% due to the increased travel cost on SR 520 and increased congestion on I-90.

- Mode shift impacts:
  - Tolling SR 520 also encourages a mode shift to transit, with 1,600 additional bus passengers on SR 520, but 400 fewer bus passengers on I-90.

Since the overall demand for daily cross-lake travel increases from 2010 to 2020, congestion on I-90 and other alternate routes also increases. Therefore, travelers are less sensitive to the same real toll rate, and overall toll diversion rates are observed in model year 2020.

Exhibit 23 shows the daily toll and toll-free cross-lake volumes for Scenario B and Exhibit 24 shows the same for Scenario B5. Exhibit B-31 through Exhibit B-42 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for both scenarios under the toll-free and low, base and high toll cases.

Exhibit 23: Scenario B Comparison of Daily Crosslake Volumes (Pre-Completion / HOVs Tolled)

	Scenario B - 2010 Forecasts				Scenario B - 2020 Forecasts			
	"High" & "Base" Values		"Low" Values		"High" & "Base" Values		"Low" Values	
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled
SR-520 Bridge (midspan)								
Total Vehicles on GP lanes	**110,000**	**67,800**	110,000	61,400	**117,500**	**80,700**	117,500	73,300
%Change in GP lane vehicles		***–38%***		*–44%*		***–31%***		*–38%*
Vehicles on HOV lanes								
%Change in HOV lane vehicles								
Transit Passenger Volume	**10,900**	**12,500**	10,900	12,500	**13,700**	**15,900**	13,700	15,900
%Change in Transit Passengers		***+15%***		*+15%*		***+16%***		*+16%*
SR-520 Total	***110,000***	***67,800***	*110,000*	*61,400*	***117,500***	***80,700***	*117,500*	*73,300*
% Change in SR-520 Vehicles		***–38%***		*–44%*		***–31%***		*–38%*
I-90 Bridge (midspan)								
Total Vehicles on GP lanes	**151,900**	**168,100**	151,900	168,100	**166,100**	**179,100**	166,100	178,700
%Change in GP lane vehicles		***+11%***		*+11%*		***+8%***		*+8%*
Vehicles on HOV lanes	**7,900**	**10,600**	7,900	10,600	**9,900**	**11,800**	9,900	11,800
%Change in HOV lane vehicles		***+34%***		*+34%*		***+19%***		*+19%*
Total Transit Passenger Volume	**9,300**	**8,900**	9,300	8,900	**12,300**	**11,500**	12,300	11,500
%Change in Transit Passengers		***–4%***		*–4%*		***–7%***		*–7%*
I-90 Total	***159,800***	***178,700***	*159,800*	*178,700*	***176,000***	***190,900***	*176,000*	*190,500*
% Change in I-90 Vehicles		***+12%***		*+12%*		***+8%***		*+8%*
Total Transit Passengers	**20,200**	**21,400**	20,200	21,400	**26,000**	**27,400**	26,000	27,400
% Change in Crosslake Vehicles		***+6%***		*+6%*		***+5%***		*+5%*
Total HOV Vehicles in HOV lanes	**7,900**	**10,600**	7,900	10,600	**9,900**	**11,800**	9,900	11,800
% Change in Crosslake Vehicles		***+34%***		*+34%*		***+19%***		*+19%*
Total Crosslake Vehicles	**269,800**	**246,500**	269,800	240,100	**293,500**	**271,600**	293,500	263,800
% Change in Crosslake Vehicles		***–9%***		*–11%*		***–7%***		*–10%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Exhibit 24: Scenario B5 Comparison of Daily Crosslake Volumes (Pre-Completion / HOVs Tolled)

	Scenario B5 - 2010 Forecasts				Scenario B5 - 2020 Forecasts			
	"High" & "Base" Values		"Low" Values		"High" & "Base" Values		"Low" Values	
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled
SR-520 Bridge (midspan)								
Total Vehicles on GP lanes	**110,000**	**70,900**	110,000	64,100	**117,500**	**82,800**	117,500	75,700
%Change in GP lane vehicles		***–36%***		*–42%*		***–30%***		*–36%*
Vehicles on HOV lanes								
%Change in HOV lane vehicles								
Transit Passenger Volume	**10,900**	**12,500**	10,900	12,500	**13,700**	**15,900**	13,700	15,900
%Change in Transit Passengers		***+15%***		*+15%*		***+16%***		*+16%*
SR-520 Total	***110,000***	***70,900***	*110,000*	*64,100*	***117,500***	***82,800***	*117,500*	*75,700*
% Change in SR-520 Vehicles		***–36%***		*–42%*		***–30%***		*–36%*
I-90 Bridge (midspan)								
Total Vehicles on GP lanes	**151,900**	**167,300**	151,900	167,300	**166,100**	**179,400**	166,100	178,300
%Change in GP lane vehicles		***+10%***		*+10%*		***+8%***		*+7%*
Vehicles on HOV lanes	**7,900**	**10,400**	7,900	10,400	**9,900**	**11,800**	9,900	11,800
%Change in HOV lane vehicles		***+32%***		*+32%*		***+19%***		*+19%*
Total Transit Passenger Volume	**9,300**	**8,900**	9,300	8,900	**12,300**	**11,500**	12,300	11,500
%Change in Transit Passengers		***–4%***		*–4%*		***–7%***		*–7%*
I-90 Total	***159,800***	***177,700***	*159,800*	*177,700*	***176,000***	***191,200***	*176,000*	*190,100*
% Change in I-90 Vehicles		***+11%***		*+11%*		***+9%***		*+8%*
Total Transit Passengers	**20,200**	**21,400**	20,200	21,400	**26,000**	**27,400**	26,000	27,400
% Change in Crosslake Vehicles		***+6%***		*+6%*		***+5%***		*+5%*
Total HOV Vehicles in HOV lanes	**7,900**	**10,400**	7,900	10,400	**9,900**	**11,800**	9,900	11,800
% Change in Crosslake Vehicles		***+32%***		*+32%*		***+19%***		*+19%*
Total Crosslake Vehicles	**269,800**	**248,600**	269,800	241,800	**293,500**	**274,000**	293,500	265,800
% Change in Crosslake Vehicles		***–8%***		*–10%*		***–7%***		*–9%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

3.2.6 Potential Impacts of Alternative Network/Transit Assumptions

Two formal sensitivity tests were applied to two of the primary five toll scenarios, and one indicative sensitivity test of an alternative I-405 configuration were completed, and are presented in the following subsections.

Results for Sensitivity Test 1: Background Network Impacts

This sensitivity test examines the effects of excluding the RTID/ST2 highway and transit improvements in the background network, analyzed for both Scenario 1 and the accompanying toll-free case. Recall that the RTID/ST2 network improvements encompass a region-wide package of highway and transit projects which include, but are not limited to:

- Light rail transit from Seattle to Overlake Transit Center across the I-90 Bridge;
- Additional lanes on I-405 from SR 520 to SR 169 resulting in 3 GP lanes and 2 HOV lanes in each direction to complement the similar widening between SR 520 and SR 522 to the north;
- An outer HOV lane in each direction on I-90 between I-5 and I-405; and
- Other improvements outside of the study area for this project

By analyzing the percentage change in GP, HOV and Transit volumes relative to the scenario without RTID/ST2, the impacts of these highway and transit improvements can be isolated.

A couple of key conclusions were drawn from this sensitivity test:

- Overall cross-lake travel (both bridges) is projected to be lower with the RTID/ST2 improvements — approximately 3% lower in total person trips and approximately 9% lower in (general purpose lane) vehicle trips, with or without tolls.
  - The RTID improvements provide relief to routes that serve as alternatives to the Lake Washington bridges. For example, a widened I-405 attracts vehicle trips that previously used I-90 due to I-405 congestion; the resulting reduction in demand and improved traffic conditions on I-90 then attract some vehicle trips away that would otherwise use SR 520.
    - A 4 GP + 1 HOV lane per direction configuration of a widened I-405 would cause an even further decrease in cross-lake travel demand on both bridges by opening up more general purpose capacity around the south end of the lake.
  - ST2 light rail on I-90 would provide a reliable and attractive transit alternative to driving, thereby lowering cross-lake vehicle demand and increasing cross-lake transit ridership by 35%, though the increase is disproportionately on I-90 (+217%) with SR 520 transit ridership actually decreasing (bus service on SR 520 is also reduced with ST2 focusing transit service on I-90).
  - Improved HOV facilities on I-90 and I-405 with the RTID improvements are projected to result in increased cross-lake HOV volumes, +60% overall in the case with SR 520 tolled. Higher HOV volumes mean fewer tolled vehicles, even if HOVs are not exempted from tolls.

– However, the net increase in cross-lake transit travel does not quite offset the reduction in person-trips resulting from improvements to cross-lake alternatives for vehicle travel, hence the overall 3% reduction in cross-lake person trips.

Exhibit 2 and Exhibit 3 in Section 1 summarize the traffic and revenue impacts of this sensitivity test.

Exhibit 25 shows the daily toll and toll-free cross-lake volumes for the Scenario 1 network sensitivity test, for comparison with Exhibit 18. Exhibit 3 in Section 1 also provides some additional comparison data for the PM peak period.

In general, the impacts of RTID/ST2 on PM peak period travel patterns are similar to the daily results — volumes on the GP lanes decrease on both SR 520 and I-90; HOV volumes increase due to improved HOV accessibility; and ST2 encourages increased transit ridership with service focused on I-90.

Exhibit B-43 through Exhibit B-48 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Following Exhibit 25 on the next page are three pages of tables providing additional comparison detail between Scenario 1 and the Scenario 1 network sensitivity test. Exhibit 26 presents the comparison for toll-free and toll cases on a daily, bi-directional basis. Exhibit 27 and Exhibit 28 provide the same information for the PM peak period in the eastbound and westbound directions, respectively.

Exhibit 27 shows that in the eastbound direction, the percentage increase in HOV traffic on SR 520 is greater for the PM Peak than for the daily condition. With RTID improvements, HOV capacity on I-90 is decreased from two reversible HOV/Express lanes to one HOV lane. This reduction in eastbound HOV capacity on I-90 redirects some HOV traffic to SR 520.

Exhibit 28 shows that in the westbound direction, PM peak HOV traffic decreases on SR 520 with the RTID and ST2 improvements. The change in HOV volumes on I-90 cannot be evaluated because there are no westbound PM Peak HOV lanes on I-90 without the RTID improvements. When a westbound HOV lane on I-90 is added as a part of the RTID improvements, some HOV traffic redistributes to I-90 away from SR 520.

In summary, including the RTID/ST2 network improvements in the toll scenario analysis makes the finance plan results more conservative — there would be more general purpose lane cross-lake traffic without these improvements, and thus, more toll paying vehicles on SR 520.

Exhibit 25: Scenario 1 Network Sensitivity Test (Post-Completion / No RTID & ST2 / HOVs Tolled)

	Scenario 1 Sensitivity Test - 2015 Forecasts					Scenario 1 Sensitivity Test - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**132,700**	**77,600**	119,400	70,600	63,200	**141,900**	**91,300**	127,700	82,100	74,000
%Change in GP lane vehicles		***–42%***		*–41%*	*–47%*		***–36%***		*–36%*	*–42%*
Vehicles on HOV lanes	**7,000**	**6,000**	6,300	5,500	5,300	**7,800**	**7,000**	7,100	6,200	6,000
%Change in HOV lane vehicles		***–14%***		*–13%*	*–16%*		***–10%***		*–13%*	*–15%*
Transit Passenger Volume	**13,800**	**16,000**	13,800	16,000	16,000	**18,600**	**21,600**	18,600	21,600	21,600
%Change in Transit Passengers		***+16%***		*+16%*	*+16%*		***+16%***		*+16%*	*+16%*
SR-520 Total	***139,700***	***83,600***	*125,700*	*76,100*	*68,500*	***149,700***	***98,300***	*134,800*	*88,300*	*80,000*
% Change in SR-520 Vehicles		***–40%***		*–39%*	*–46%*		***–34%***		*–34%*	*–41%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**165,600**	**187,000**	149,000	167,600	167,600	**185,800**	**202,800**	167,200	182,700	182,200
%Change in GP lane vehicles		***+13%***		*+12%*	*+12%*		***+9%***		*+9%*	*+9%*
Vehicles on HOV lanes	**2,500**	**3,300**	2,200	3,000	3,000	**3,200**	**4,000**	2,900	3,500	3,600
%Change in HOV lane vehicles		***+32%***		*+36%*	*+36%*		***+25%***		*+21%*	*+24%*
Total Transit Passenger Volume	**9,300**	**8,400**	9,300	8,400	8,400	**13,200**	**11,700**	13,200	11,700	11,700
%Change in Transit Passengers		***–10%***		*–10%*	*–10%*		***–11%***		*–11%*	*–11%*
LRT Passenger Volumes										
I-90 Total	***168,100***	***190,300***	*151,200*	*170,600*	*170,600*	***189,000***	***206,800***	*170,100*	*186,200*	*185,800*
% Change in I-90 Vehicles		***+13%***		*+13%*	*+13%*		***9%***		*9%*	*9%*
Total Transit Passengers	**23,100**	**24,400**	23,100	24,400	24,400	**31,800**	**33,300**	31,800	33,300	33,300
% Change in Crosslake Vehicles		***+6%***		*+6%*	*+6%*		***+5%***		*+5%*	*+5%*
Total HOV Vehicles in HOV lanes	**9,500**	**9,300**	8,500	8,500	8,300	**11,000**	**11,000**	10,000	9,700	9,600
% Change in Crosslake Vehicles		***–2%***		*0%*	*–2%*		***0%***		*–3%*	*–4%*
Total Crosslake Vehicles	**307,800**	**273,900**	276,900	246,700	239,100	**338,700**	**305,100**	304,900	274,500	265,800
% Change in Crosslake Vehicles		***–11%***		*–11%*	*–14%*		***–10%***		*–10%*	*–13%*

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

Exhibit 26: Impacts of RTID and ST2 Network Improvements on Daily Crosslake Travel

		Toll-Free		Toll		Toll Diversion	
		% Change Due To RTID/ST2 Improvements[1]	Comment	% Change Due To RTID/ST2 Improvements[1]	Comment	% Change in Vehicles vs. Toll-Free	
						Without RTID/ST2	With RTID/ST2
GP Lanes	SR 520	–1.8%	RTID/ST2 marginally reduces LOV traffic on SR 520.	–8.0%	Lower crosslake demand with RTID/ST2 improvements leads to higher toll diversion away from SR 520, thus the differences in the toll scenarios are more pronounced than for the toll-free scenarios.	–36%	–40%
	I-90	–14%	Improved I-90 HOV accessibility encourages a mode shift away from LOV. Additionally, the RTID I-405 improvements are in closer proximity to I-90.	–10%	RTID improvements divert more traffic away from SR 520 onto I-90 due to lower overall crosslake demand.	+9.1%	+14%
	Total	–8.5%	Due to I-405 RTID improvement (3 GP + 2 HOV lanes), demand for total crosslake travel decreases.	–9.4%	Overall crosslake impact of the network improvements is essentially the same as toll-free	–10%	–11%
HOV Lanes	SR 520	+44%	At the crosslake level, HOV accessibility is improved and a portion of the increase uses SR 520.	+48%	Impact of the network improvements is essentially the same as toll-free	+13%	+16%
	I-90	+109%	As the RTID HOV improvements focus on I-90, the majority of the mode shift to HOV is attracted to I-90.	+94%	The change in HOV volumes on I-90 with and without RTID is marginal and reflects some mode shift to transit.	+3.1%	–4.5%
	Total	+63%	Increases I-90 HOV capacity across the lake and RTID improves HOV access on I-405, thus encouraging a mode shift.	+60%	Overall crosslake impact of the network improvements is essentially the same as toll-free	+10%	+8.4%
Transit	SR 520	–66%	With LRT on I-90 east to Overlake, transit service on SR 520 is reduced under ST2.	–63%	Impact of the network improvements is essentially the same as toll-free	+16%	+23%
	I-90	+180%	East corridor rail on I-90 attracts additional transit riders.	+217%	With toll, even more transit riders are attracted to the rail	–11%	+0.5%
	Total	+36%	East corridor rail on I-90 attracts additional transit riders and ST2 increases overall crosslake transit demand	+35%	Overall crosslake impact of the network improvements is essentially the same as toll-free	+4.7%	+3.9%
All Lanes	SR 520				As HOV volumes increase on SR 520 when tolled, the diversion rates for all lanes are lower than for GP lanes only. Lower crosslake demand with RTID/ST2 leads to higher overall toll diversion.	–33%	–36%
	I-90				Overall diversion rates for all lanes are essentially the same as for GP lanes only.	+9.0%	+13%

Note: All scenarios have a 3+ HOV definition and 3+ HOVs are assumed to be toll-free

1. Percent change with RTID/ST2 improvements compares 2030 with RTID/ST2 relative to 2030 without RTID/ST2 and compares "high" forecast values.

Exhibit 27: Impacts of RTID and ST2 Network Improvements on PM Peak Eastbound Crosslake Travel

		Toll-Free		Toll		Toll Diversion	
						% Change in Vehicles vs. Toll-Free	
		% Change Due To RTID/ST2 Improvements[1]	Comment	% Change Due To RTID/ST2 Improvements[1]	Comment	Without RTID/ST2	With RTID/ST2
GP Lanes	SR 520	–2.8%	Similar to daily impacts- A slight reduction in GP volumes on SR 520	–3.4%	Similar to daily impacts- Lower crosslake demand with RTID makes alternative routes more attractive and leads to higher diversion away from SR 520 when tolls are introduced	–29%	–30%
	I-90	–6.7%	Similar to daily impacts- Increased HOV capacity encourages a mode shirt away from LOV.	–7.5%	Similar to daily impacts- Lower crosslake demand with RTID makes I-90 attractive and leads to higher diversion to I-90 when tolls are introduced on SR 520	+6.0%	+5.2%
	Total	–5.1%	Similar to daily impacts- RTID improvements on I-405 reduce crosslake travel demand	–6.2%	Similar to daily impacts- RTID improvements on I-405 reduce overall crosslake demand with and without tolls on SR 520	–8.7%	–9.8%
HOV Lanes	SR 520	+157%	There is a higher HOV increase on SR 520 relative to I-90 because peak direction HOV capacity is reduced on I-90 with RTID improvement.	+169%	There is a higher HOV increase on SR 520 relative to I-90 because peak direction HOV capacity is reduced on I-90 with RTID improvement.	+5.6%	+11%
	I-90	+154%		+165%		+2.1%	+6.4%
	Total	+156%	Total crosslake HOV demand goes up with RTID	+167%	Total crosslake HOV demand goes up with RTID	+4.0%	+8.6%
Transit	SR 520	–60%	Similar to daily impacts- With LRT on I-90, transit service is reduced on SR 520.	–57%	Overall crosslake impact of the network improvements is essentially the same as toll-free	+16%	+23%
	I-90	+116%	Similar to daily impacts- East corridor rail on I-90 attracts additional transit riders.	+143%	Similar to daily impacts- East corridor rail on I-90 attracts additional transit riders.	–11%	+0.4%
	Total	+18%	Similar to daily impacts- ST2 and East corridor rail on I-90 increases overall crosslake transit demand.	+19%	Overall crosslake impact of the network improvements is essentially the same as toll-free	+4.2%	+4.8%
All Lanes	SR 520				Significant increases in SR 520 HOV volumes on SR 520 with RTID in place lowers the overall diversion rate more than without RTID.	–27%	–25%
	I-90				Overall diversion rates for all lanes are essentially the same as for GP lanes only.	+5.9%	+5.3%

Note: All scenarios have a 3+ HOV definition and 3+ HOVs are assumed to be toll-free

1. Percent change with RTID/ST2 improvements compares 2030 with RTID/ST2 relative to 2030 without RTID/ST2 and compares "high" forecast values.

Exhibit 28: Impacts of RTID and ST2 Network Improvements on PM Peak Westbound Crosslake Travel

		Toll-Free		Toll		Toll Diversion	
						% Change in Vehicles vs. Toll-Free	
		% Change Due To RTID/ST2 Improvements[1]	Comment	% Change Due To RTID/ST2 Improvements[1]	Comment	Without RTID/ST2	With RTID/ST2
GP Lanes	SR 520	-1.8%	Similar to daily impacts- A slight reduction in GP volumes on SR 520	0.0%	No change in GP volumes as diversion rates are similar with and without RTID.	-31%	-30%
	I-90	-11%	Similar to daily impacts- Increased HOV capacity encourages a mode shirt away from LOV.	-12%	Similar to daily impacts- Lower crosslake demand with RTID makes I-90 attractive and leads to higher diversion to I-90 when tolls are introduced on SR 520	4.9%	3.4%
	Total	-7.1%	Similar to daily impacts- RTID improvements on I-405 reduce crosslake travel demand	-8.3%	Similar to daily impacts- RTID improvements on I-405 reduce overall crosslake demand with and without tolls on SR 520	-11%	-12%
HOV Lanes	SR 520	-21%	Without RTID, all WB HOV trips must use SR 520. With RTID, there are HOV lanes in both directions on I-90 so some of the HOV trips shift to I-90	-20%	Without RTID, all WB HOV trips must use SR 520. With RTID, there are HOV lanes in both directions on I-90 so some of the HOV trips shift to I-90	19%	21%
	I-90	NA	Without RTID, there are no WB HOV lanes in the PM Peak. No comparison can be made.	NA	Without RTID, there are no WB HOV lanes in the PM Peak. No comparison can be made.	NA	-6.0%
	Total	15%	Similar to daily impacts- Total crosslake HOV demand goes up with RTID.	8.8%	Similar to daily impacts- Total crosslake HOV demand goes up with RTID.	19%	13%
Transit	SR 520	-75%	Similar to daily impacts- With LRT on I-90, transit service is reduced on SR 520.	-74%	Overall crosslake impact of the network improvements is essentially the same as toll-free	16%	23%
	I-90	369%	Similar to daily impacts- East corridor rail on I-90 attracts significantly more transit riders.	428%	Similar to daily impacts- East corridor rail on I-90 attracts significantly more transit riders.	-11%	0.4%
	Total	50%	Similar to daily impacts- ST2 and East corridor rail on I-90 increases overall crosslake transit demand.	43%	ST2 and East corridor rail on I-90 increases overall crosslake transit demand The diversion rate is higher without RTID because the toll-free transit numbers are lower without RTID.	9%	3.1%
All Lanes	SR 520				Increased HOV volumes when SR 520 is tolled result in lower overall diversion rates when compared with GP lanes only.	–29%	–28%
	I-90				Overall diversion rates for all lanes are essentially the same as for GP lanes only.	+4.9%	+3.3%

Results for Sensitivity Test 2: Tolling HOVs

The Scenario 3 HOVs tolled sensitivity test removes the toll exemption for 3+ HOVs from Scenario 3 to create a comparison similar to that between Scenarios 4 and 2. The test continues the maximum revenue single-point bridge toll and is designed to isolate the effects of tolling HOVs. When HOVs are tolled, there are two separate trends impacting HOV travel on SR 520: HOVs from the toll-free case now face a toll and may divert to other routes or modes; and vehicles formerly with one or two occupants may form new 3+ carpools to share the cost of the toll.

The results of tolling HOVs under Scenario 3 are similar to that of Scenario 2 relative to Scenario 4, but more pronounced due to the higher, maximum revenue bridge tolls.

- On a daily basis in 2030, there is a net decrease in 3+ HOVs of –13% when tolled alongside all other vehicles relative to when all of SR 520 is toll-free; this compares to 3+ HOVs being +14% higher when exempted from tolling, again relative to when all of SR 520 is toll-free.
- For the PM peak period in 2030, there is a net decrease in 3+ HOVs of –5% when tolled alongside all other vehicles relative to when all of SR 520 is toll-free; this compares to 3+ HOVs being +11% higher when exempted from tolling, again relative to when all of SR 520 is toll-free.

As with the other scenarios, since the overall demand for daily cross-lake travel increases from 2015 to 2030, congestion on I-90 and other alternate routes also increases, and travelers including tolled HOVs become less sensitive to the same real toll over time as exhibited by a comparison of the 2015 and 2030 results. Exhibit 29 shows the daily toll and toll-free cross-lake volumes for Scenario 3 Sensitivity Test. Exhibit B-49 through Exhibit B-54 in Appendix B provide detailed directional and time period SR 520 and I-90 demand results for the toll-free and low, base and high toll cases.

Impact of Alternative I-405 Configuration on Cross-Lake Travel

An indicative sensitivity test for post-completion Scenario 1 in which the RTID widening improvements to I-405 were coded as 4 general purpose and 1 HOV lane was tested. The increased general purpose lane capacity on I-405 greatly improved mobility on the Eastside and resulted in lower cross-lake travel demand than the 3+2 default configuration for I-405. The effects were especially pronounced for I-90, where more traffic opted to use I-405 around the lake to the south. The improved traffic conditions on I-90 attracted additional traffic from SR 520. With improved alternative route conditions, traffic was not only lower on SR 520, but more sensitive to the toll rate. Consequently, the revenue maximizing toll rate would be expected to be lower under this configuration of I-405.

Exhibit 29: Scenario 3 HOV Sensitivity Test (Post-Completion / HOVs Tolled)

	Scenario 3 Sensitivty Test- 2015 Forecasts					Scenario 3 Sensitivity Test - 2030 Forecasts				
	"High" Values		"Base" Values		"Low" Value	"High" Values		"Base" Values		"Low" Value
	Toll-Free	**Tolled**	Toll-Free[2]	Tolled	Tolled	**Toll-Free**	**Tolled**	Toll-Free[2]	Tolled	Tolled
SR-520 Bridge (midspan)										
Total Vehicles on GP lanes	**129,500**	**67,500**	116,600	57,700	51,500	**139,400**	**83,100**	125,500	75,100	67,400
%Change in GP lane vehicles		***–48%***		*–51%*	*–56%*		***–40%***		*–40%*	*–46%*
Vehicles on HOV lanes	**6,700**	**5,600**	6,000	5,000	4,800	**11,200**	**9,800**	10,100	8,800	8,500
%Change in HOV lane vehicles		***–16%***		*–17%*	*–20%*		***–13%***		*–13%*	*–16%*
Transit Passenger Volume	**6,400**	**7,200**	6,400	7,200	7,200	**6,400**	**7,900**	6,400	7,900	7,900
%Change in Transit Passengers		***+13%***		*+13%*	*+13%*		***+23%***		*+23%*	*+23%*
SR-520 Total	***136,200***	***73,100***	*122,600*	*62,700*	*56,300*	***150,600***	***92,900***	*135,600*	*83,900*	*75,900*
% Change in SR-520 Vehicles		***–46%***		*–49%*	*–54%*		***–38%***		*–38%*	*–44%*
I-90 Bridge (midspan)										
Total Vehicles on GP lanes	**141,500**	**169,300**	127,300	155,400	155,400	**160,300**	**182,300**	144,300	163,700	163,700
%Change in GP lane vehicles		***+20%***		*+22%*	*+22%*		***+14%***		*+13%*	*+13%*
Vehicles on HOV lanes	**2,800**	**3,700**	2,500	3,400	3,500	**6,700**	**7,900**	6,100	7,100	7,300
%Change in HOV lane vehicles		***+32%***		*+36%*	*+40%*		***+18%***		*+16%*	*+20%*
Total Transit Passenger Volume	**24,500**	**25,400**	24,500	25,400	25,400	**36,900**	**37,100**	36,900	37,100	37,100
%Change in Transit Passengers		***+4%***		*+4%*	*+4%*		***+1%***		*+1%*	*+1%*
LRT Passenger Volumes	**21,900**	**22,700**	21,900	22,700	22,700	**32,800**	**32,900**	32,800	32,900	32,900
I-90 Total	***144,300***	***173,000***	*129,800*	*158,800*	*158,900*	***167,000***	***190,200***	*150,400*	*170,800*	*171,000*
% Change in I-90 Vehicles		***+20%***		*+22%*	*+22%*		***+14%***		*+14%*	*+14%*
Total Transit Passengers	**30,900**	**32,600**	30,900	32,600	32,600	**43,300**	**45,000**	43,300	45,000	45,000
% Change in Crosslake Vehicles		***+6%***		*+6%*	*+6%*		***+4%***		*+4%*	*+4%*
Total HOV Vehicles in HOV lanes	**9,500**	**9,300**	8,500	8,400	8,300	**17,900**	**17,700**	16,200	15,900	15,800
% Change in Crosslake Vehicles		***–2%***		*–1%*	*–2%*		***–1%***		*–2%*	*–2%*
Total Crosslake Vehicles	**280,500**	**246,100**	252,400	221,500	215,200	**317,600**	**283,100**	286,000	254,700	246,900
% Change in Crosslake Vehicles		***–12%***		*–12%*	*–15%*		***–11%***		*–11%*	*–14%*

Note: Scenario A has HOV3+ definition

[1] Toll-free and Toll vehicle volumes shown in this table reflect post-modeling assumptions.

[2] The Toll-free values do not change between "Base" and "Low" cases. Therefore, the diversion rates for "Low" tolled values are based on the "Base" Toll-free values.

4. ANNUAL GROSS TOLL REVENUES

A financial revenue model was prepared to convert the weekday total daily traffic projections by toll scenario for two forecast years, and convert them to annual gross revenues over a 10 year pre-completion period and 40 years of operation on the new facility. Several steps are involved in this process as described in the following sections.

4.1 ALLOCATION OF WEEKDAY DAILY TRAFFIC PROJECTIONS

Developing the annual revenue projections needed for the 2007 SR 520 Finance Plan required a process to migrate the daily outputs generated by the regional traffic model to a daily distribution of traffic consistent with the more detailed, operational variable toll schedules and their impacts on shifting some traffic to peak shoulder and off peak times.

As discussed in Section 3, the AWV model used in this study provides travel demand estimates for three different time periods — an AM peak period, a PM peak period, and an off-peak period. The model is designed to predict the total demand that would choose to travel in each of both three-hour peak periods as well as the 18-hour off-peak period. However, these periods are uniform for all roads in the regional network, and do not "flex" for facility specific conditions or when demand in a peak period exceeds the available capacity. So while the regional model excels at predicting overall daily traffic demand, under congested future conditions, it can be prone to overstating the volume of traffic that could be served in the peak periods and/or understate the duration of these periods.

Exhibit 30 illustrates this issue by superimposing the three periodic model toll rates under the revenue/traffic balance scheme (Scenario 4) with the model-assigned, bi-directional hourly traffic volumes. The left axis and the area bars represent the toll rate applied in each hourly period, with toll rates ***expressed in year of opening 2018 dollars***. The right scale and plot line represent the ***2030 model forecast*** of average hourly bridge traffic on SR 520.

Network congestion and capacity constraints are accounted for within the regional model by increasing the time cost of travel and affecting route choice, but not beyond the point of serving all of the demand. Put another way, all of the SR 520 peak period travel demand in the model is accommodated within the three hour morning and afternoon peak periods, even when future capacity constraints on SR 520 and/or congestion on I-5 and I-405 would result in a different outcome under real conditions.

Exhibit 30: Model Toll Rates and 2030 Traffic Forecasts — Revenue/Traffic Balance Tolls

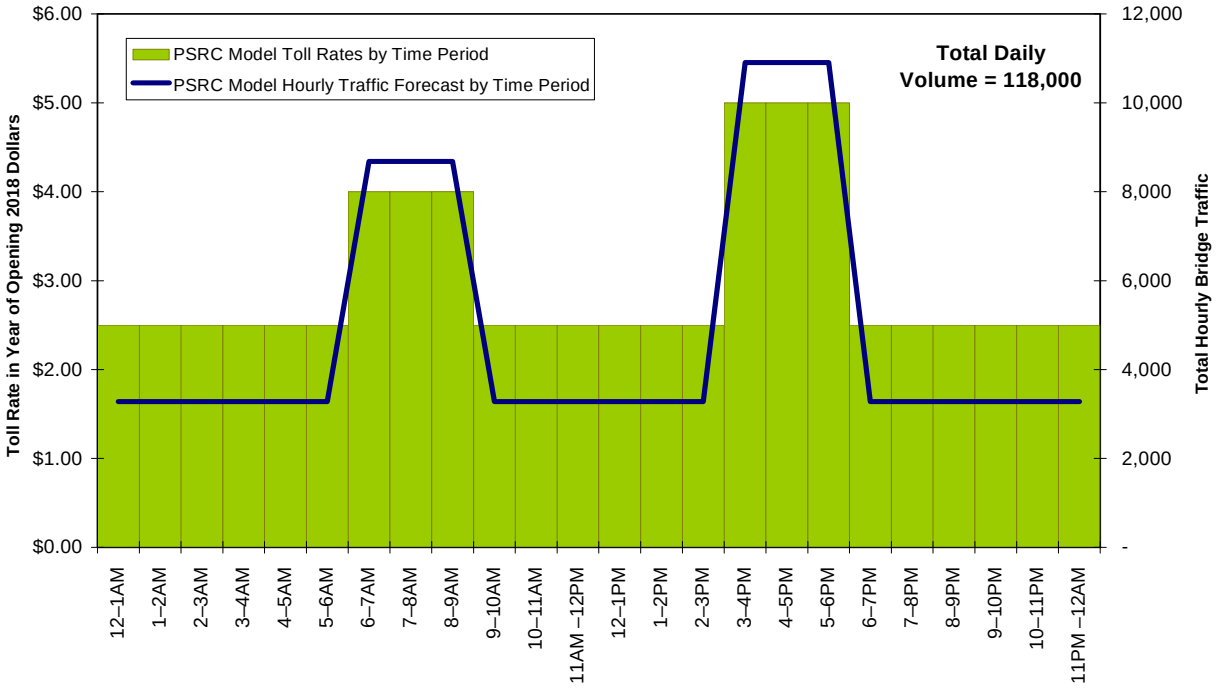


Exhibit 30 reveals some important considerations regarding the three period regional model.

- Three distinct time periods limits the toll modeling to 3 discrete toll rates, one per period:
  - The AM peak period is 3 hours long and has a toll rate of $4.00 (in 2018$);
  - The PM peak period is 3 hours long and has a toll rate of $5.00 (in 2018$); and
  - The off-peak period is 18 hours long and has a toll rate of $2.50 (in 2018$).

- The three period model does not simulate peak spreading; all peak period travel is projected to be served within the three hour peak periods.
  - While the model will impose higher time costs of travel as volumes approach capacity, it will still ultimately assign trips to SR 520 within the period even when SR 520 demand exceeds capacity. This is true as long as using SR 520 shows a lower overall (time plus toll) cost than the next best alternative.
  - In reality, if volumes in the peak periods exceed capacity (such as occurs today without a toll), peak spreading will push these volumes to the peak shoulders, effectively extending the peak periods to four or five hours or more, and thus, lowering the volume per hour relative to the model forecasts.

Exhibit 31 provides a simplified illustration of how the same bi-directional daily traffic volumes from the regional model for the revenue/traffic balance tolls are allocated for revenue operations and financial forecasting purposes with the more detailed operational toll schedule. As above, the left axis and the area bars represent the toll rate applied in each hourly period, with toll rates ***expressed in year of opening 2018 dollars***. The right scale and plot line represent the ***2030 forecast hourly allocation*** of SR 520 bridge traffic, reflecting the expected peak spreading anticipated under the more variable operational toll schedule.

Exhibit 31: Revenue Operations Toll Schedule and 2030 Traffic Forecast — Revenue/Traffic Balance Tolls

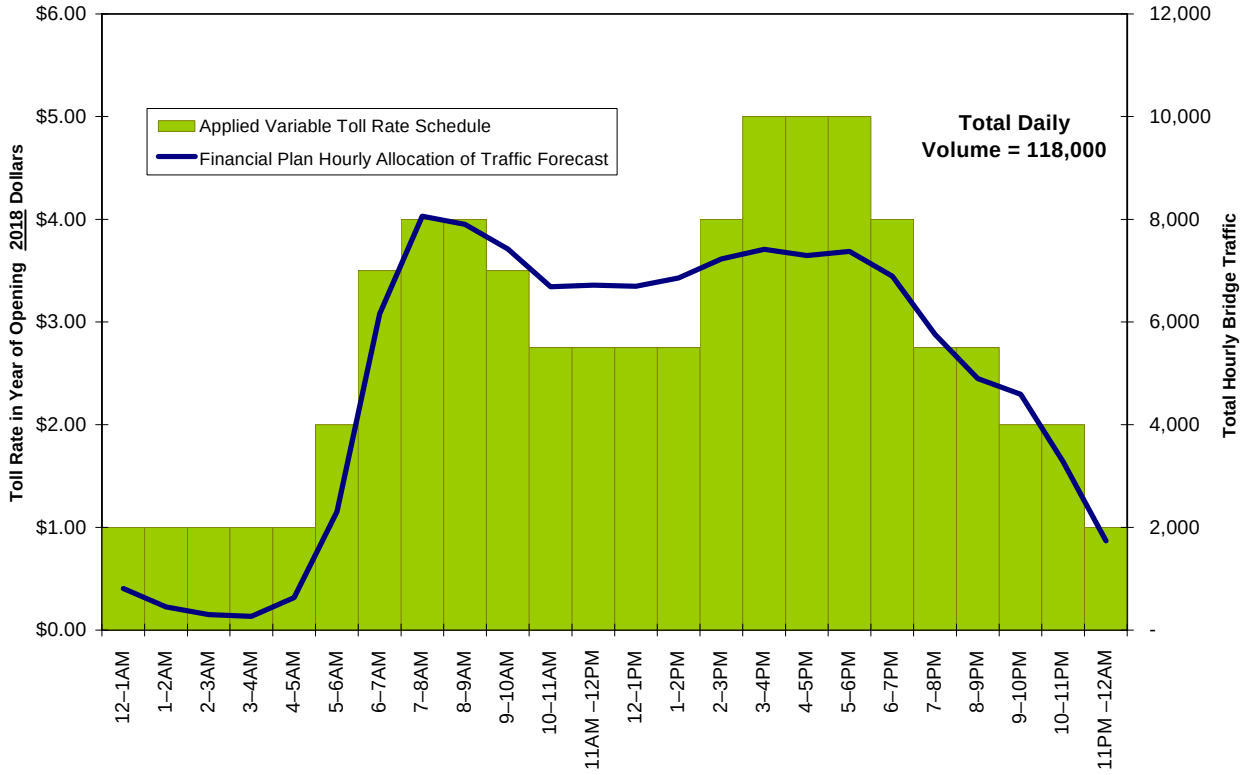


Exhibit 31 illustrates some key results of the SR 520 Finance Plan revenue model.

- The anticipated revenue operations and associated financial projections employ a more continuous variable toll schedule with tolls changing as frequently as each hour. Note that the single 18-hour off-peak toll rate used in the demand modeling for Scenario 4 as well as the other scenarios was set to match the corresponding weighted average variable toll over 15 "off-peak" hours shown in the variable toll schedule of Exhibit 31.
- Having toll rates that are lower during midday and progressively lower during other off-peak times creates an incentive to travel during those times. This helps to spread the peak periods into shoulder times and shift some of the peak period demand to off-peak times, thereby improving utilization throughout the day when compared to the AWV model results.

- The hourly volumes in the revenue model remain tied to the daily totals from the AWV regional model (the area under the traffic volume curves in Exhibit 30 and Exhibit 31 are identical).
- Separate distributions were used to allocate autos and larger trucks, based upon observed hourly distribution patterns and the relative elasticities of demand for travel by time of day under a variable toll structure.
- Future time of day traffic patterns on the new facility under a variable toll are expected to be similar to currently observed time of day patterns resulting from the variable time costs of traffic congestion.
- Put another way, the variable tolls are intended to manage and distribute demand more efficiently across the day than implied by the model. Compared with existing conditions, time costs of peak travel that cause peak spreading are exchanged in the future for dollar costs that creates the same incentive for some travel to shift to shoulder or off-peak times.

4.1.1 Weekday Traffic, Variable Tolls and Demand Management

Do the toll rate schedules considered in the various toll scenarios sufficiently manage demand to prevent congestion and produce good flow conditions ("free-flow") during the peak periods? A definitive system answer would require extensive micro-simulation modeling of SR 520 in the context of adjacent facilities such as I-5, I-90 and I-405. This is because congestion at either end of the corridor on I-5 or I-405 could generate backups on SR 520 even if the toll effectively keeps the demand for travel below the facility's capacity. Even without micro-simulation, however, an answer to the question must be estimated.

All of the toll scenarios considered for the finance plan apply higher tolls during the peak periods in order to manage demand and minimize congestion. The lowest toll schedule considered — the traffic throughput bridge tolls of Scenario 5 — was designed to optimize traffic throughput during the morning and afternoon peak periods. Specifically, tolls were set to achieve hourly directional traffic volumes in 2030 close to the theoretical capacity for the facility of up to 2000 vehicles per lane per hour.[6] When demand exceeds this threshold capacity, traffic flow breaks down, congestion delays occur and throughput drops. All of the other toll scenarios employ higher tolls, and thus achieve lower peak traffic demand, making them even more likely to maintain efficient speeds and flow conditions, at least when conditions on connecting network roadways do not create downstream bottlenecks that could potentially back up onto SR 520, resulting in suboptimal traffic flows.

Exhibit 32 and Exhibit 33 illustrate the 2030 projected westbound and eastbound traffic versus capacity under the traffic throughput tolls of Scenario 5. The traffic shown represents the tolled vehicles in the two general purpose lanes, averaged across the duration of each toll time period. This set of average traffic volumes is compared to the combined capacity for both lanes of 4,000 vehicles per lane per hour. Traffic volumes in the toll-free HOV lanes for eligible vehicles with three or more occupants (not shown) are projected to be well under their lane capacities.

Exhibit 32: 2030 Average Hourly Westbound Traffic by Toll Period — Traffic Throughput Tolls

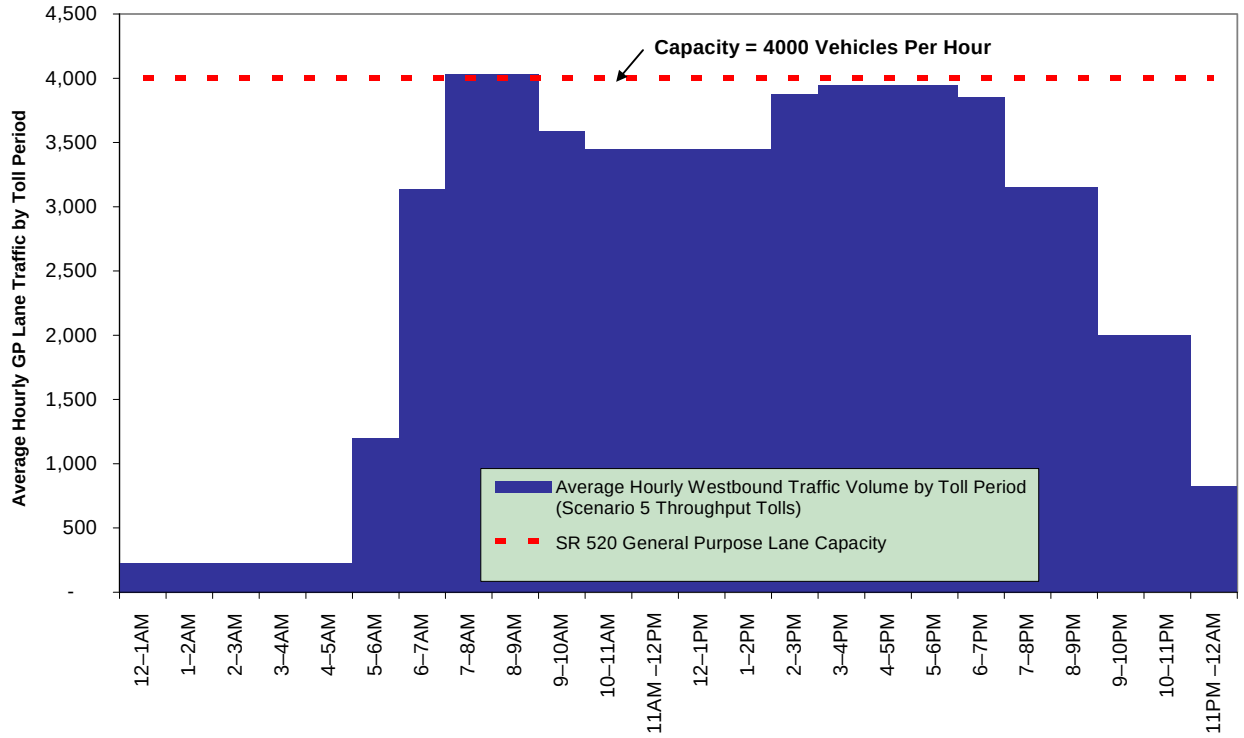
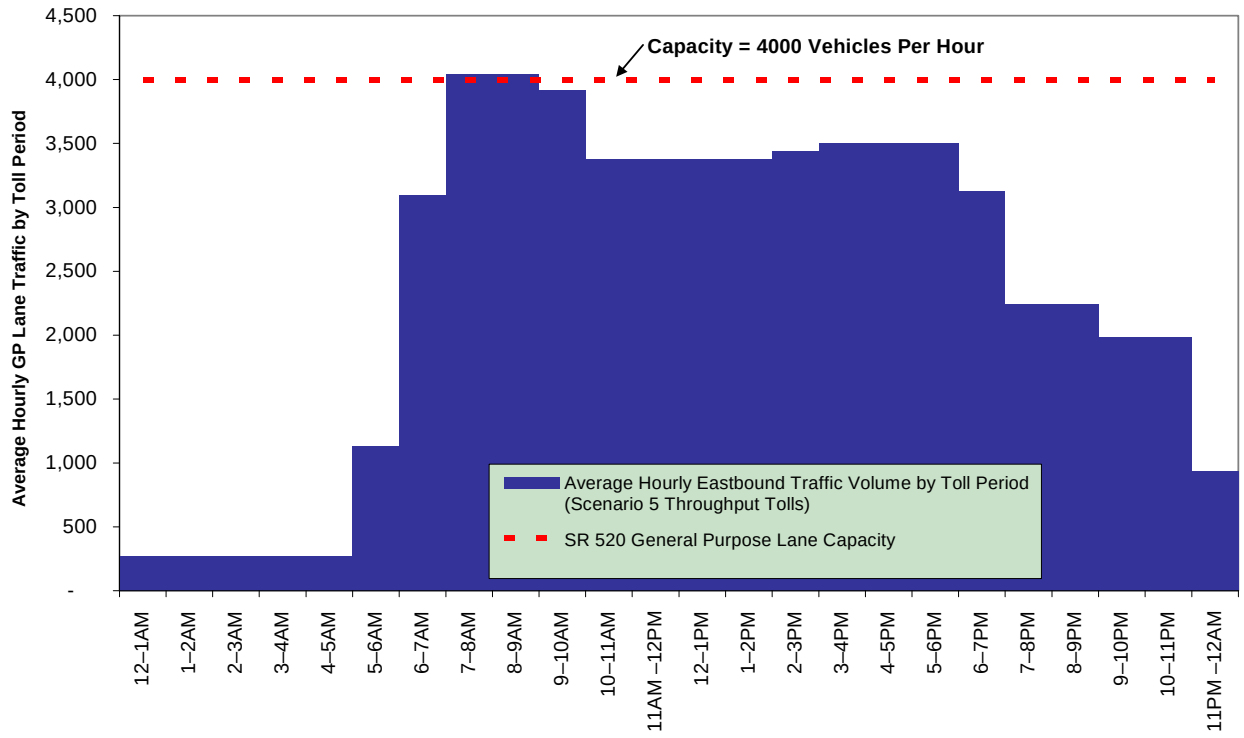


Exhibit 33: 2030 Average Hourly Eastbound Traffic by Toll Period — Traffic Throughput Tolls



4.2 WEEKDAY TOLL SCHEDULE DEVELOPMENT

Previous consideration of tolls on SR 520 has assumed a variable toll rate structure by time of day, differing for weekends and weekdays.[7] The same approach was employed for this work. Tolling parameters and objectives as described in Section 2 were used as inputs to identify morning and afternoon peak toll rates as well as the average off-peak rate for the modeling described in the previous sections. Within these parameters, variable toll rate schedules were developed to mirror the varying travel demand observed throughout the day and expected shifts in demand due to tolling. The resulting toll rate schedules have higher rates during the expected peak demand periods and lower rates during other times expected to have less demand, when alternative routes would be more attractive and/or transit alternatives less available.

The post-completion variable toll schedules applied in developing the gross toll revenue projections are presented in Exhibit 34 through Exhibit 37 by scenario and toll location. In all of charts, the opening year toll rates in 2018 dollars are indicated on the left axis and the equivalent values in 2007 dollars are provided on the right axis.

In all cases, tolls are assumed to escalate in step with projected inflation at an assumed rate of 2.5% per year.

Exhibit 34: Maximum Revenue Bridge Tolls and Segment Tolls (Scenario 1) — Weekdays

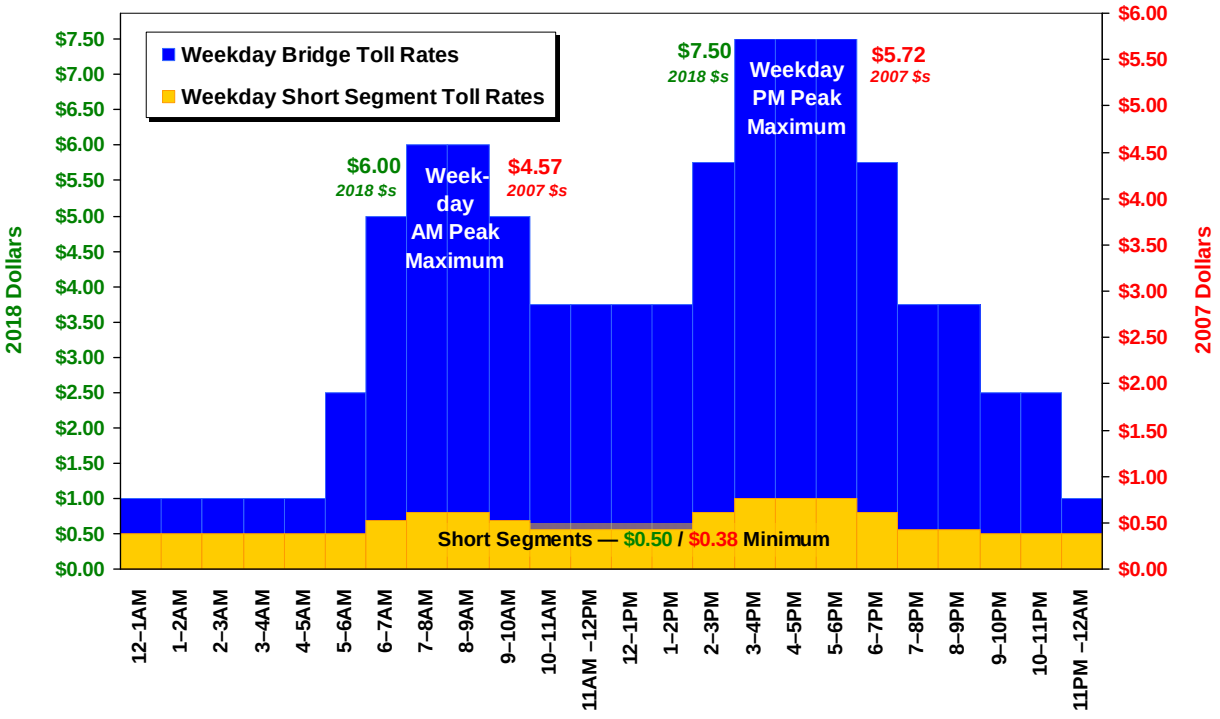


Exhibit 35: Revenue/Traffic Balance Bridge Tolls and Segment Tolls (Scenarios 2 & 4) — Weekdays

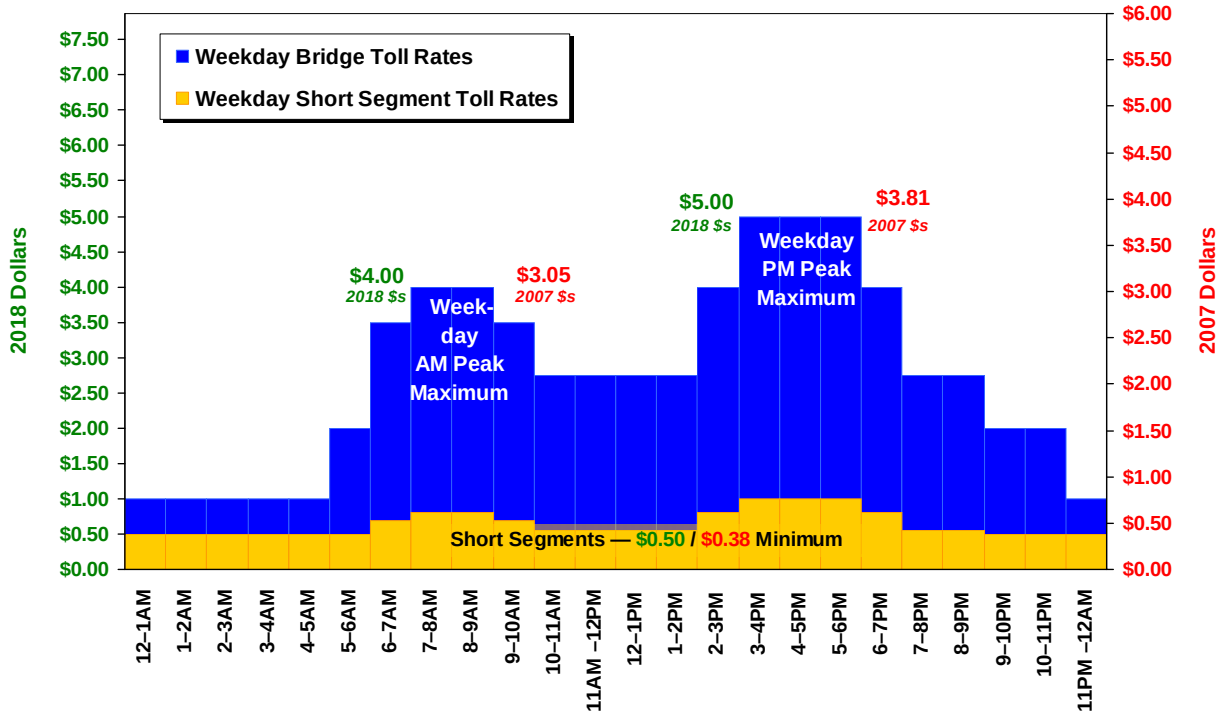


Exhibit 36: Maximum Revenue Bridge Tolls (Scenario 3 — Bridge Only) — Weekdays

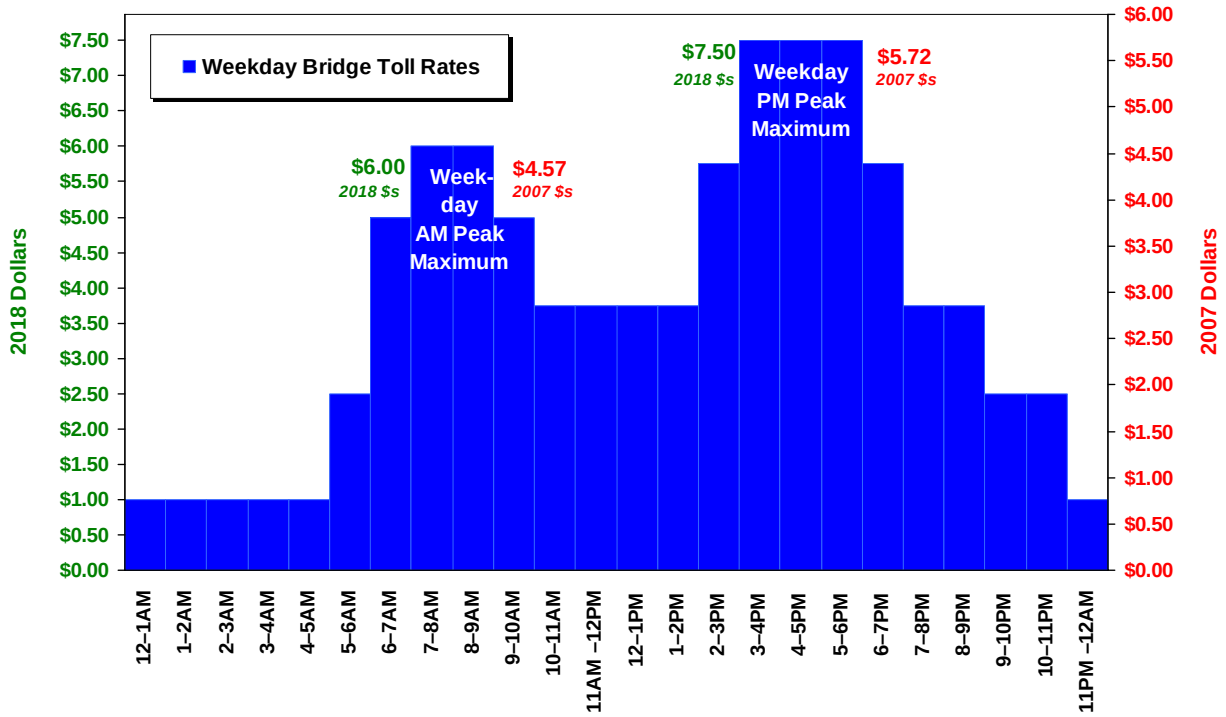
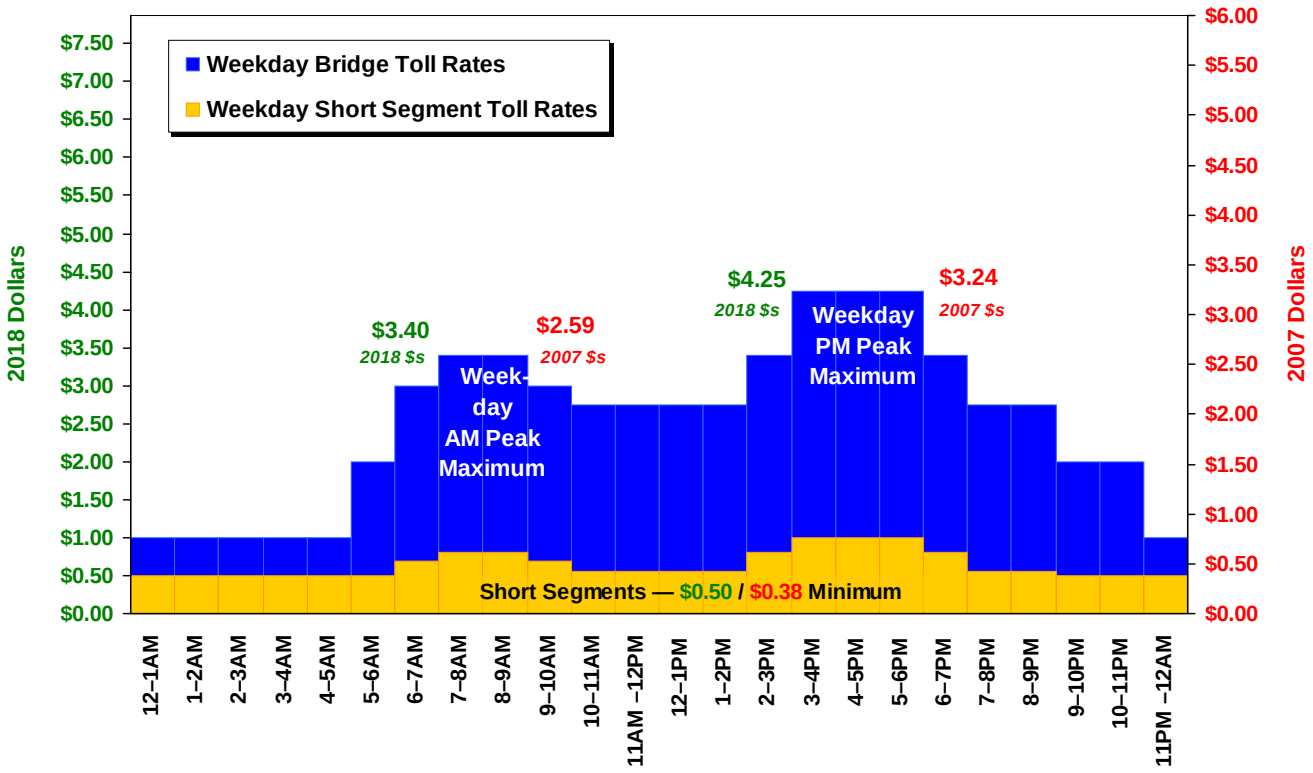


Exhibit 37: Traffic Throughput Bridge Tolls and Segment Tolls (Scenario 5) — Weekdays



4.3 WEEKEND DAILY TRAFFIC PROJECTIONS

The AWV model does not provide forecasts of weekend travel. As a result, a combination of existing travel data, stated preference survey results regarding willingness to pay tolls (values of time), and the model predicted demand response to tolls by SR 520 users during weekdays must be used to develop weekend daily traffic projections. Weekend traffic differs from weekday traffic in a number of ways. Because network traffic levels overall are less on weekend days, congestion will be lower on routes that can serve as alternates to SR 520, making them more attractive alternatives to a tolled SR 520. A larger portion of weekend trip purposes tend to be discretionary, which can result in a higher propensity to change travel behavior to minimize toll costs. Finally, more weekend vehicles are likely to qualify as HOVs than weekday vehicles. As a result, toll diversion on weekends would be higher than weekdays, given the same toll rates.

Under existing toll-free conditions, actual weekend daily traffic in 2007 was approximately 70% of weekday daily traffic. The weekend traffic distribution on SR 520 resembles a bell curve, with the highest traffic volumes occurring during the middle of the day between the hours of 11 AM and 6 PM.

To attempt to offset the expected higher diversion rate, tolls on weekends were assumed to be lower than on weekdays, with the midday peak toll set to 40% of the maximum PM peak weekday toll under the revenue/traffic balance toll scheme of Scenarios 2 and 4. Weekend toll traffic was assumed to be a smaller share of weekday toll traffic, 64%, compared with the observed toll-free 70% level. This projects to a somewhat higher rate of toll diversion on

weekends, despite significantly lower tolls than weekdays, to provide a conservative revenue estimate in the absence of a weekend specific demand model.

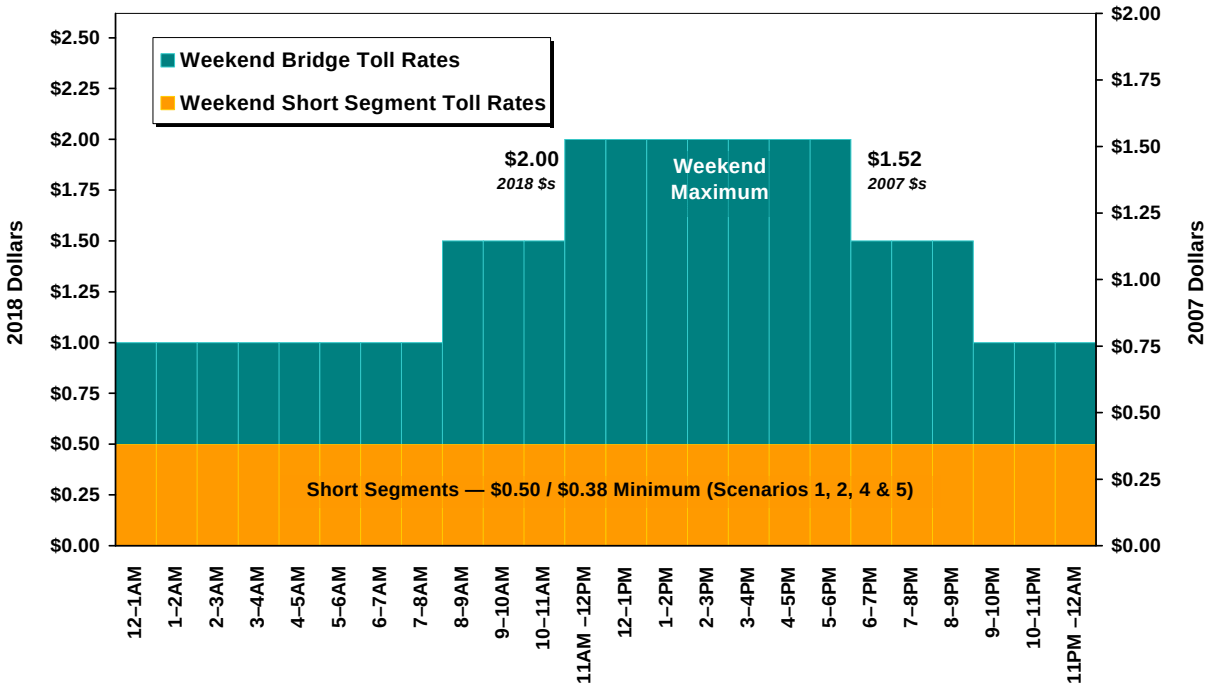
Weekend truck traffic, which, on average, would pay a toll that is three times that of the auto toll rate, may be even more likely to divert to alternative routes such as I-90 to the extent that the network is not congested. Additionally, commercial purpose truck traffic is less on weekends. For the purpose of this analysis, it was assumed that the share of weekday SR 520 truck traffic on weekends would be one-half the corresponding weekend auto share of weekday traffic, or 32%.

4.4 WEEKEND TOLL SCHEDULES

Due to the lack of demand model for weekend travel and limited data regarding weekend traffic behavior, only one weekend toll case was considered. Exhibit 38 shows the weekend toll schedule that was used under all of the post-completion toll scenarios. The opening year toll rates in 2018 dollars are indicated on the left axis and the equivalent values in 2007 dollars are provided on the right axis. The bridge toll varies by time of day to approximately match the bell-curve shape of the weekend traffic. The short segment toll rate remains fixed at its minimum level all day.

Tolls are assumed to escalate in step with projected inflation at an assumed rate of 2.5% per year.

Exhibit 38: Bridge and Short Segment Toll Rates (All Post Completion Scenarios) — Weekends



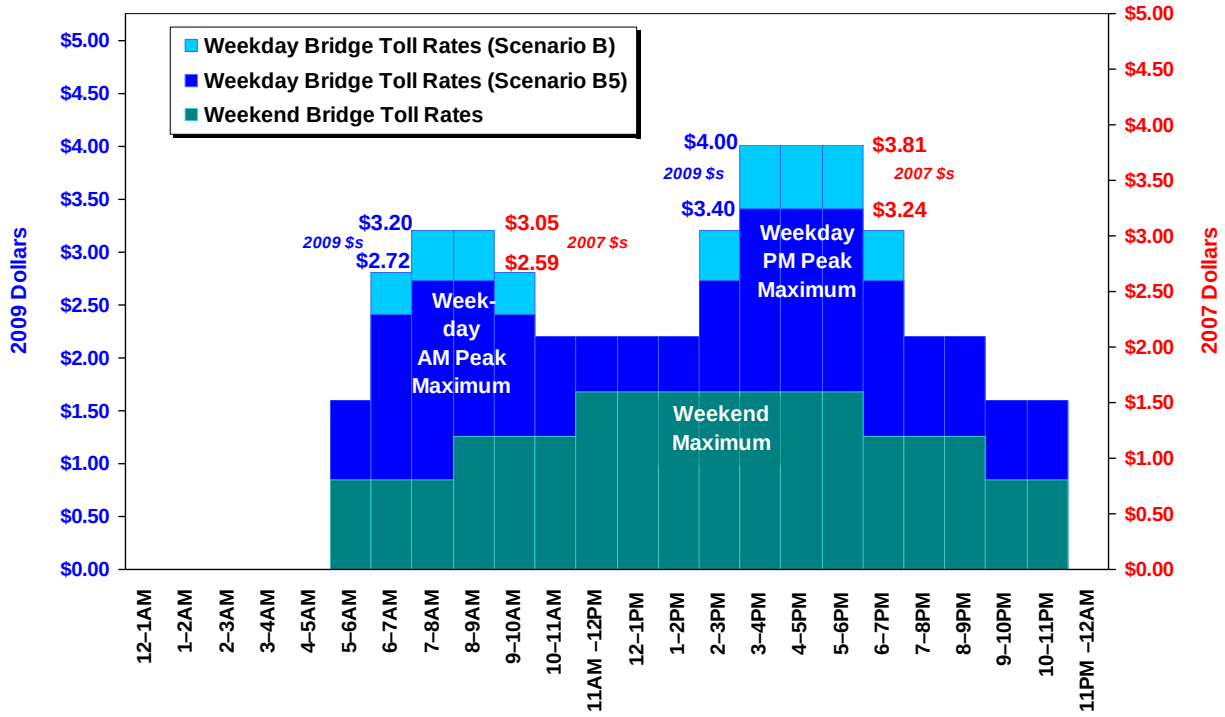
4.5 PRE-COMPLETION TOLL SCHEDULES

The two weekday pre-completion toll rate schedules for the bridge — revenue/traffic balance and traffic throughput — are the same as their post-completion counterparts when expressed in constant 2007 dollars, except for the fact that nights are assumed to be toll-free. Specifically, the pre-completion toll schedules assume that nights from 11:00 PM to 5:00 AM would be toll-free because demand is low as well and construction closures would be most likely. Weekend toll rates are also follow their pre-completion counterparts with the exception of toll-free nights.

Exhibit 39 presents the pre-completion weekday and weekend toll rates by time period for the two cases in which tolling could begin in the third quarter of 2009. Toll rates are shown for the year of implementation in 2009 dollars on the left axis and in constant 2007 dollars on the right axis.

Tolls are assumed to escalate in step with projected inflation at an assumed rate of 2.5% per year during the pre-completion toll period in the same manner as after the new bridge opens in mid-2018.

Exhibit 39: Pre-Completion Bridge Tolls (Scenario B & B5) -- Weekdays & Weekends



4.6 ANNUAL GROSS REVENUES

4.6.1 Tolled Traffic Revenue

The daily traffic volumes from the model forecast years of 2015 and 2030 were interpolated to yield values for the post completion period years 2018 through 2029. Traffic from 2031 through 2040 was extrapolated at one-half the average annual growth rate between 2015 and 2030. Traffic beyond 2040 was conservatively held fixed with no growth.

Annual gross toll revenues were then calculated by multiplying the projected weekday and weekend day traffic by toll period for autos and trucks by the appropriate tolls (again, tolls are assumed to escalate at an inflationary 2.5%) and expanding to the entire year for all years of the forecast period. The annual expansion used 110 weekend days (52 weeks X two weekend days, plus six non-weekend holiday days), with the remaining 255 days per year allocated as weekdays.

The predicted traffic was adjusted in the initial years of the toll operations to account for "ramp-up" effects. During the first years of tolling, traffic is expected to be lower as some potential users explore travel alternatives, become accustomed to paying tolls and/or become more comfortable with electronic toll collection. While ramp-up is primarily viewed as a traffic effect, the ramp-up adjustments made to traffic in the SR 520 finance plan analysis could also allow for toll revenues or operating costs not initially meeting their targets regardless of traffic.

A more pronounced ramp-up effect was assumed for pre-completion tolling under the assumption that in the future, electronic transactions of all types will be more common-place, thus requiring less of an adjustment period by the traveling public. Similarly, the ramp-up effect of post-completion tolling, when not preceded by pre-completion tolling, was assumed to be more pronounced. However, a small ramp-up effect was still included when transitioning from tolling the existing bridge to post-completion tolling of the new facility to account for the potential of a higher than inflationary toll increase and/or the introduction of short segment tolling.

Exhibit 40 summarizes the ramp-up adjustments that were applied to traffic and revenue in the initial and transitional years of toll operations. The ramp-up assumptions are based on industry experience and professional judgment.

Exhibit 40: Initial Traffic Ramp-Up Assumptions as Percentage Shares of Predicted Demand Levels

Year of Operation	Pre-Completion	Post-Completion without Pre-Completion	Post-Completion with Pre-Completion
Year 1*	75%	85%	95%
Year 2	85%	95%	100%
Year 3	95%	100%	100%
Year 4	100%	100%	100%

* In the Pre-Completion case, Year 1 is FY 2010; in the Post-Completion case, Year 1 is FY 2019

4.6.2 Pay-by-Plate Surcharge Revenue

As discussed in detail in Section 5, all toll collection will be electronic with no toll booths for cash payment. Electronic toll collection would primarily rely on customers using a registered *Good to Go!* transponder account, though license plate recognition methods referred to as "pay-by-plate" or video tolling would be available for infrequent or out-of-town users. Pay-by-plate transactions would be assessed a toll surcharge sized to offset the additional cost of toll collection and processing transactions of this type. This revenue neutral surcharge is also expected to serve as an incentive for most customers to acquire a *Good to Go!* transponder.

5. GROSS REVENUE DEDUCTIONS AND NET REVENUES

The order in which toll revenues are allocated to various uses will ultimately affect the level of funding that can be borrowed through the issuance of bonds. The Office of the State Treasurer (OST) assisted WSDOT with determining which revenue deductions were to be made, and in what order those deductions would occur. OST then estimated the level of project funding that each tolling scenario might generate, as discussed in Section 6.

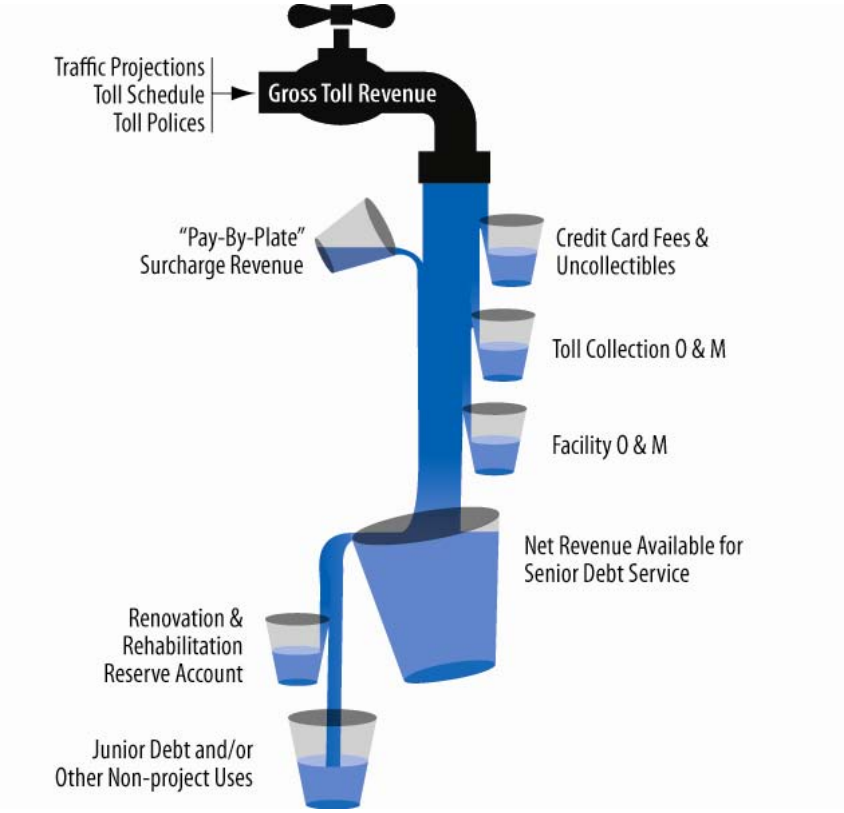
5.1 SUMMARY OF STEPS TO NET REVENUES

Transitioning from gross revenue to net revenue requires a series of steps that alternatively add or subtract value from the toll revenue stream. The steps are different for the post-completion period than they would be for pre-completion, primarily because it is assumed that the pre-completion revenues will not be bonded. The more standard post-completion case is examined first.

5.1.1 Post-Completion

Net revenue is defined as the cash flow that is available for debt service — repayment of the principal and interest on the bonds — after satisfying other "upstream" uses of gross revenues in the net revenue waterfall illustrated in Exhibit 41 for post-completion tolling. A description of each use of toll revenues follows in the next section.

Exhibit 41: Post-Completion "Waterfall" Progression from Gross to Net Toll Revenues



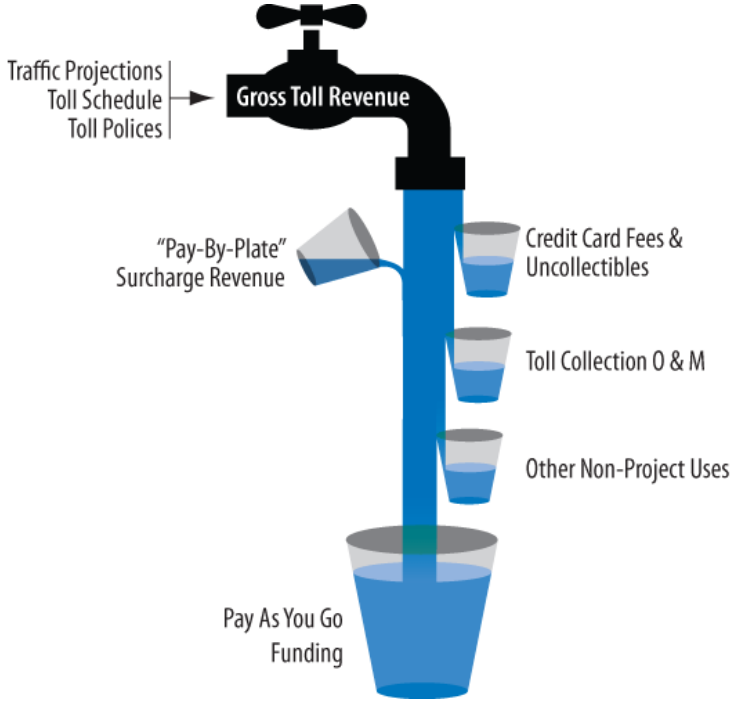
Revenues from tolling SR 520 are anticipated to be used to repay the principal and interest on bonds that will be sold to help finance construction. However, gross toll revenues may be pledged to other project or even non-project uses.

It is customary in a toll road financing for the bond covenants to stipulate that the toll facility's operations and maintenance expenses be paid from toll revenues prior to debt service payments. This helps the bonds achieve a favorable credit rating and interest rate, and provides an assurance to bondholders that the facilities and related assets will be maintained to provide continual revenue service. Providing funding for toll collection, routine bridge and roadway operations and maintenance as well as consideration for future repairs and rehabilitation helps to minimize the risk of facility closure or other events that could interrupt the toll revenue stream. As shown in Exhibit 41, the resulting net revenue can then be pledged to debt service payments. Excess toll revenues after debt service payments can be used to fund reserve accounts arranged to pay for project renovation and rehabilitation expenses, repay subordinate debt issues, or fund other non-project uses.

5.1.2 Pre-Completion

Pre-completion tolling could be implemented as early as the third quarter of 2009 (FY 2010) while project development activities, including final design, permitting and construction, are underway. There is ordinarily no need for long term borrowing via bonds when revenues are closely aligned with project needs. Because pre-completion toll revenues would be collected at the same time as construction (rather than only after the bridge is completed), the 2007 SR 520 Finance Plan assumed that net toll revenues would be used for "pay-as-you-go" financing directly toward construction expenditures. As a result, the progression from gross toll revenues to the funding available for project expenditures is somewhat different for the pre-completion period, as shown in Exhibit 42. Even without a bond covenant requirement, it is still advisable to use gross toll revenues to pay for toll collection operations and maintenance expenses prior to directing revenue to any other uses so as to ensure that the toll collection capacity of the facility is maintained. A description of each use of toll revenues follows in the next section.

Exhibit 42: Pre-Completion "Waterfall" Progression from Gross to Net Toll Revenues



5.2 TOLL REVENUE ADJUSTMENTS

5.2.1 Pay-by-Plate Toll Surcharge Revenue

Vehicles without a transponder can pay their tolls via license plate recognition, referred to as "pay-by-plate." The market penetration of transponders is expected to increase with time. Based on WSDOT's recent experience with the Tacoma Narrows Bridge, transponder use is expected to start at relatively high levels. When tolling is introduced during the pre-completion period, it is anticipated that 80% of toll transactions by the end of the first year will be paid by transponder. Transponder use is expected to increase by 2% each year, eventually reaching 98% of all transactions. When tolling is introduced in the post-completion period, it is anticipated that 90% of first year toll transactions at the end of the first year will be transponder based, and will also increase by 2%, again maxing out at 98%.

In addition to the cost of the toll, pay-by-plate transactions are assessed a fee to offset additional processing costs associated with the pay-by-plate method, including technical expenses associated with reading the plate images and generating and issuing a collection invoice.[8] These fees are added to the gross toll revenues prior to any deductions or expenses. The pay-by-plate fee ($1.00 in 2009) is sized to be revenue neutral so that the cost to process the transaction is directly offset by the transaction fee, resulting in no net impact on the amount of revenue available for project purposes.

5.2.2 Credit Card Fees and Uncollectible Accounts

A revenue deduction totaling five percent (5%) of the gross revenues in each year was made to capture a variety of impacts that are anticipated to reduce the toll revenue potential. Two percent represents a deduction to account for credit card fees, assuming that the overwhelming majority of travelers will have transponder accounts that are linked to credit cards (or debit cards used in a credit card transaction) or who would otherwise make an electronic payment using a credit card.

The remaining three percent deduction to gross revenues was made to account for uncollectible accounts, toll evasion, and/or electronic toll collection errors such as unreadable transponder tags and/or license plate images as discussed in Section 6.

5.3 OPERATING AND MAINTENANCE COSTS

Estimates for routine operations and maintenance and for asset rehabilitation and replacement costs for the SR 520 facility and toll collection operation were developed based on historical data and experience from operating highways, including the I-90 bridges and the new Tacoma Narrows Bridge. Future costs were projected by applying inflation factors to current O&M estimates and applying standard WSDOT schedules for the timing of asset repairs and rehabilitation.

5.3.1 Pre-Completion Operating and Maintenance Costs

Facility O&M

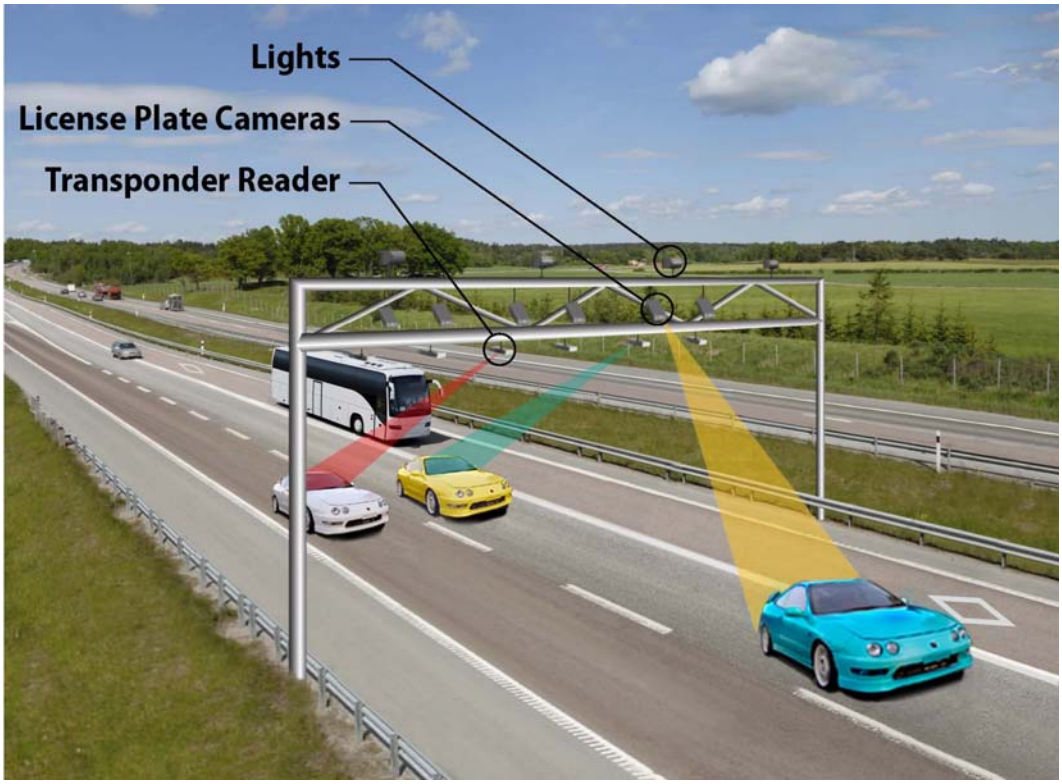
Costs associated with operations and maintenance of the SR 520 roadway and bridge prior to the opening of the new facility in mid-2018 are assumed to be either included in the maintenance budget of the WSDOT Northwest Region or capitalized as part of the construction project, and were therefore not included as a revenue deduction in the pre-completion tolling scenarios.

Toll Collection O&M

The anticipated flow of collection activities and associated unit costs for cashless tolling specific to SR 520 were developed as part of the SR 520 finance plan effort.[9] Toll collection efforts are assumed to be 100% electronic; that is, there will be no collection plaza for users to pay the toll with cash. Also referred to as "open-road tolling," the electronic toll collection along SR 520 will use a system of pre-registered toll transponders and license plate recognition to identify users and assess tolls accordingly.

As a vehicle approaches a toll collection point, an overhead reader would search for the presence of a *Good-to-Go!* transponder, as represented in Exhibit 43. Transactions are divided between vehicles that are automatically identified as having valid transponders for payment (green in the exhibit) and those that don't (red). The majority of vehicles with valid transponders would have the toll automatically deducted from their registered *Good-to-Go!* accounts, though a small portion may require "additional collection efforts" for reasons such as an account linked to an expired credit card. This refers to the introduction of operations staff into the process to assist the customer in paying the toll.

Exhibit 43: Electronic Toll Collection Transponder Detection Apparatus



If a transaction occurs without a valid transponder read, then one of the following will occur:

- A "Pay-by-Plate" transaction is initiated based on license plate recognition;
- A current customer is manually identified from their license plate and the toll deducted from their account; or
- No further action is taken due to an illegible license plate image.

In situations where a license plate is recognized but the customer does not initiate payment on their own, additional costs are incurred when collection efforts are initiated to send invoices, send notices of infraction, and handle appeal processes, among other transactional expenses.

Within the O&M cost estimates, unit costs for categories of work that include the involvement of operations staff are escalated annually by an inflation factor that is assumed to be 2.5% per year. This is done to account for annual increases in salaries that will occur for the employees involved in answering customer phone calls, viewing license plate images, handling customer appeals, etc. Unit costs for some fully automated processes remain constant over the forecast period and, in effect, decline in real terms. The stability of these cost elements can be attributed to competitive market forces and economies of scale in data processing that allows transactions to be added to an existing system without incurring additional costs.

The largest components of the cost of toll collection operations are shown in Exhibit 44.

Exhibit 44: Top Five Toll Collection Operating Cost Drivers

Cost Category	Unit Cost (2007$)	Unit Cost Driver	Unit Cost Escalated During Forecast
Vehicles with Tags	$0.08	Per vehicle possessing a readable transponder	No
Active Account Maintenance Fee	$1.00	Per active account per month	No
Additional Collection Efforts	$1.00	Per instance of customer service assistance in paying a toll	Yes
Vehicles without Tags	$0.30	Per vehicle not possessing a readable transponder	No
Send Invoice	$1.00	Per invoice sent	No

Note: Full detail on the cashless workflow is available in supporting documentation.[10]

The average variable toll collection costs per transaction by type are shown in Exhibit 45. Every transaction incurs the initial transponder-based charge. The non-transponder transactions then incur the additional Pay-by-Plate expense.

Exhibit 45: Electronic Toll Collection Unit Transaction Costs

Transaction Type	2009$	2018$
Transponder-Based	$0.15	$0.18
Pay-by-Plate	$1.00	$1.22

The vast majority of traffic on SR 520 is comprised of frequent users which is expected to lead to a high level of *Good to Go!* transponder usage. In scenarios that include pre-completion tolling, tag usage is assumed to begin at 80% in 2009 (FY 2010) and ramp up by 2% per year until reaching a plateau at 98% in FY 2019.

General and administrative costs, including project-related office space and staffing expenses, are also included in the operating cost forecast. These costs amount to approximately $1 million per year in 2007 dollars and are escalated at 2.5% per year during the forecast period. Annual maintenance costs, which consist of field maintenance, system administration, and electronic toll collection application maintenance, are estimated at 15% of the sum of the cost of the tolling central system hardware and the field hardware at the tolling points. These costs increase every seven years when the field hardware is replaced. Despite their periodic nature, these costs were considered as routine, and thus included in the net revenue waterfall above renovation and rehabilitation costs since routine maintenance is essential to keeping the toll collection system operational and generating revenue. Exhibit 46 summarizes the total cost of the tolling operation for FY 2010 to FY 2018.

Exhibit 46: Total Toll Collection Operating and Maintenance Costs — Mid-2009 to Mid-2018

Pre-completion	Scenario B Base Traffic	Scenario B High Traffic	Scenario B5 Base Traffic	Scenario B5 High Traffic
Operations	$59.9 M	$65.0 M	$61.8 M	$66.9 M
Maintenance	$4.6 M	$4.6 M	$4.6 M	$4.6 M
Total O&M	**$57.4 M**	**$69.6 M**	**$66.4 M**	**$71.5 M**

5.3.2 Major Rehabilitation and Capital Upgrades

Facility

As with operating and maintenance costs, the costs of rehabilitation and replacement of the SR 520 roadway and bridge prior to the opening of the new facility in 2018 are not included in the pre-completion cost estimates. These expenses will largely be born out during the replacement of the SR 520 bridge and are thus assumed to be included as part of the capital construction costs for the project.

Toll Collection

The initial investment in toll collection capital equipment is assumed to be 100% funded by the 2007 Urban Partnership Agreement

Toll collection rehabilitation and replacement expenses were assumed to be paid for with pre-completion toll revenues, and for the pre-completion case would be included in the general Toll Collection O&M category. The total cost of toll collection rehabilitation and replacement is presented in Exhibit 47. The central system software is not anticipated to require upgrading during the pre-completion period. Annual escalation of 2.5% per year is applied to back office and field hardware expenses.

Exhibit 47: Total Pre-Completion Toll Collection Rehabilitation and Replacement Costs ($ Million)

Description	Scenarios B & B5 Total 9-Year Cost
Toll Collection Software	N/A
Central System Hardware	$2.50 M
Field Hardware	$1.00 M
Total	**$3.50 M**

5.3.3 Post-Completion Operating and Maintenance Costs

Facility

The SR 520 Facility operations and maintenance cost estimates are based on a six-lane replacement of the current facility from I-5 to I-405. The estimate was developed assuming the project includes:

- The Pacific Interchange Alternative as defined in the 2006 DEIS;
- Reconstruction of all local street crossings;
- Replacement of the Evergreen Point Floating Bridge;
- Replacement of the West Approach structures;
- Replacement of the Portage Bay Bridge;
- 12-foot wide lanes, 10-foot wide shoulders;
- Mainline pavement is Portland cement concrete (PCC), ramp and city street pavements are hot-mix asphalt (HMA);
- Noise walls;
- A 14-foot wide pedestrian/bicycle lane;
- Lids at 10th and Delmar Ave., Montlake Blvd NE, Evergreen Point Rd., 84th Ave NE and 92nd Ave NE. and the Pacific Street/Montlake Blvd Intersection;
- New storm water management facilities;
- New SR 520 Floating Bridge Operations and Maintenance Building; and
- Associated traffic signals, illumination and ITS.

The new SR 520 floating bridge will open to traffic in mid-2018 and the SR 520 Bridge Replacement and HOV Project will be completed in 2020. The future maintenance budget and the desired work performance in terms of life cycle management goals are unresolved.

Due to uncertainty in predicting the timing and final configuration of the design, the operation and maintenance cost estimate for this report is limited to an analysis of the existing SR 520 bridge facility operations and maintenance cost estimates. The annual estimated operation and maintenance cost of the SR 520 Bridge facility shown in Exhibit 48 totals approximately $2.8 million (2007$). For forecasting purposes, these costs are assumed to escalate at 2.5% annually, in step with projected inflation.

Exhibit 48: Facility Operating and Maintenance Cost Components

Description	Annual Expense 2007$
Electrical Services and Highway Lighting	$2,000
Electrical Equipment, Elevators	$307,000
3rd Party Damages	$75,000
Bridge Deck Repair	$1,115,000
Roadway Surface, Guardrails, Noise Walls	$305,000
Landscape & Best Management Practices	$250,000
West Approach Structure	$50,000
520 Incident Response Team Cost	$691,000
Total	**$2,795,000**

Toll Collection

Toll collection cost in post-completion scenarios is calculated in the same fashion and includes the same cost components as in the pre-completion tolling scenarios, with one difference; in the post-completion scenarios that include pre-completion tolling, transponder usage begins at 90% when the new facility opens in mid-2018 and increases by 1% per year until hitting a maximum of penetration 98% in 2026 (FY 2027).

Exhibit 49 summarizes the total cost of the tolling operation for the period of mid 2018 (FY 2019) to mid-2058 (through FY 2058) when both pre- and post-completion tolling are in effect.

Exhibit 49: 40 Year Post-Completion Toll Collection O&M Costs with Pre-Completion Tolls (Millions of YOE $s)

Post-completion	Scenario 1*	Scenario 2*	Scenario 3*	Scenario 4*	Scenario 5*
Operations	$412	$449	$297	$431	$434
Maintenance	$111	$111	$25	$111	$111
Total	**$523**	**$560**	**$322**	**$542**	**$545**

* For High traffic case

Exhibit 50 summarizes the total cost of the tolling operation for the period of FY 2019 to FY 2058 when only post-completion tolling is in effect. Operational cost is higher during this time period in scenarios without pre-completion tolling due to the effect of ramp up assumptions for the percentage of customers using transponders. In other words, when Scenario B is in effect, ramp up in transponder use occurs before FY 2019, which leads to lower operating cost in FY 2019 and beyond as transponder transactions are cheaper to process than pay-by-plate transactions.

Exhibit 50: 40 Year Post-Completion Toll Collection O&M Costs without Pre-Completion Tolls (Millions of YOE $s)

Post-completion	Scenario 1*	Scenario 2*	Scenario 3*	Scenario 4*	Scenario 5*
Operations	$426	$465	$306	$446	$450
Maintenance	$109	$109	$25	$109	$109
Total	**$535**	**$574**	**$331**	**$555**	**$559**

* For High traffic case

5.4 NET REVENUES

5.4.1 Net Revenues before Periodic Rehabilitation and Repair Costs

Net toll revenues before rehabilitation and repair (R&R) consist of gross toll revenues, plus pay-by-plate toll surcharges, less revenue adjustments for credit card fees and uncollectible accounts, and less operations and maintenance costs.[11]

5.4.2 Major Rehabilitation and Capital Upgrades

Facility

Costs for the rehabilitation and replacement of the SR 520 roadway and bridge are outlined in Exhibit 51. Costs are incurred periodically and are expected to occur at the frequencies listed below. Renovation and rehabilitation expenditures are paid for out of a reserve account that is funded with toll revenues after senior debt service has been paid, as shown graphically in Exhibit 41.

Exhibit 51: Post-Completion Facility Rehabilitation and Replacement Schedule

Description / Item	Qty	Units	Unit Cost	Frequency	Incidental Cost (2007$)
HMA - Pavement	25,268	Tons	$70.70	10 years	$1,786,000
PCC - Pavement	17,292	cu/yd	$280	20-30 Years	$4,842,000
Closed Circuit TVs	56	CCTVs	$27,000	10 Years	$1,512,000
Ramp Meters	8	Meters	$42,000	5 Years	$336,000
Emergency Call Boxes	64	Call Boxes	$13,000	10 Years	$832,000
Highway Advisory Radio (HAR) Signal	3	Signals	$27,000	10 Years	$81,000
Reverse Lane Closure System	3	Systems	$182,000	20 Years	$546,000
Variable Message Signs	17	Signals	$179,000	14 Years	$3,043,000
HAR Transmitter	3	Transmitters	$106,000	20 Years	$318,000
Emergency Traffic Signal	5	Signals	$137,000	10 Years	$685,000
Weather Station	1	Stations	$57,000	25 Years	$57,000
Replacement of Anchor Cables	40,200	Linear feet	$165	20 Years	$6,633,000
Traffic Signal System	19	Systems	$250,000	20 Years	$4,750,000

Toll Collection

The cost of the initial toll collection capital equipment is assumed to be in the total cost of the project. Estimated rehabilitation and replacement costs for the SR 520 toll collection system are outlined in Exhibit 52. Rather than occurring annually, costs are incurred periodically and are expected to occur based on the frequencies listed in the exhibit. The cost of field hardware is dependent on the number of tolling points within the facility. Scenario 3 and the two pre-completion cases (Scenarios B and B5) are expected to include two tolling points, or one in each direction for traffic crossing Lake Washington. Scenarios 1, 2, 4, and 5 consist of 19 tolling points to capture all potential tolled movements on and off of SR 520.

Exhibit 52: Post-Completion Toll Collection Rehabilitation and Replacement Schedule

Description / Item	Qty	Units	Unit Cost	Frequency	Incidental Cost (2007$)
Toll Collection Software	1	Lump Sum	$7,000,000	12 Years	$7,000,000
Central System Hardware	1	Lump Sum	$2,500,000	5 Years	$2,500,000
Field Hardware (Scenario 3)	2	Tolling Point	$400,000	7 Years	$400,000
Field Hardware (Scenarios 1, 2, 4, 5)	19	Tolling Point	$400,000	7 Years	$7,600,000

Reserve Account Discussion for Periodic Expenditures

After debt service payments are made, contributions to a rehabilitation and replacement reserve account would be made. This contribution would be made annually, and would be sized each year with consideration given to future major rehabilitation and replacement expenditures that will be required. This approach results in a smoother cash flow curve from year to year, rather than one with large, intermittent spikes caused by the incursion of these rehabilitation and replacement expenditures. The smooth cash flow curve allows for more consistent debt coverage, or the amount of income available for debt service payments.

5.4.3 Net Revenue Summary

Annual traffic and revenue tables summarizing the steps from gross to net revenues for each of the tolling scenarios at the high, base, and low traffic levels were prepared and provided to the Office of the State Treasurer as inputs to facilitate a financial capacity analysis. These tables are provided in Appendix A.

6. FINANCIAL CAPACITY OF TOLL REVENUES

6.1 TOTAL PROJECT NEEDS

As described in the SR 520 project's Draft Environmental Impact Statement (DEIS) issued in August 2006, WSDOT proposes to replace the Portage Bay and Evergreen Point bridges and approaches, replace the existing roadway between Interstate 5 (I-5) in Seattle and 108th Avenue Northeast on the Eastside, and add a new bicycle and pedestrian path. Final project specifications are still being developed.

In December 2006, Governor Gregoire endorsed the six-lane configuration (four general purpose and two transit/carpool lanes) as the alternative that will keep drivers safer, improve reliability for people crossing the lake, provide a dedicated lane for transit and high occupancy vehicles (HOVs), and accommodate future high capacity transit on the SR 520 bridge. The estimated cost of this configuration is $4.4 billion.

Recent efforts to reduce the project's overall cost have resulted in two strategies for cost reduction:

- WSDOT has developed a revised floating bridge design concept that reduces the number of required pontoons, allowing for construction cost savings. The reduced number of pontoons will provide the necessary buoyancy for four general purpose traffic lanes and two HOV lanes, as currently envisioned in the 4+2 configuration. These pontoons would be designed to allow for modifications to accommodate future rail in the corridor.
- WSDOT is also proposing to begin pontoon construction earlier which would enable traffic capacity to be restored sooner in the event of a catastrophic failure on the existing SR 520 bridge. Advancing this work by almost three years over the original schedule will reduce the cost of pontoon construction by incurring less inflation.

If these approaches are adopted, cost savings are expected to be approximately $400 million, reducing the overall project cost to approximately $3.98 billion in year of expenditure dollars.

Several funding sources for the project have been identified including state Nickel and TPA taxes, federal formula funds, and other sources. These sources are insufficient to cover all of the project's expenses, necessitating the study of leveraging toll revenues into project funding. The project is currently projected to be approximately $2.06 billion short of full funding. Toll revenues could be used to help close the funding gap, but will not necessarily fill the gap entirely.

6.2 CONVERTING NET TOLL REVENUE TO PROJECT FUNDING

After the deductions described in Section 5 are taken from the gross toll revenue, the remaining net revenue is used to generate additional funding for project purposes. Pre-

completion and post-completion net toll revenues will contribute to funding needs in different ways.

6.2.1 Financial Assumptions

Pre-Completion Financing Assumptions

Under the Urban Partnership Grant, toll revenues are expected to be collected on the existing bridge before and during the construction phase of the project (2009-18). Revenues would start prior to the major construction expenditures and would continue throughout construction activities.

These net toll revenues are best treated as "pay-as-you-go" project funding. For the purpose of developing the 2007 SR 520 Finance Plan, it was assumed that pre-completion tolls would cover expenses as they are incurred, saving the borrowing costs associated with issuing bonds. As discussed previously in Section 5, certain operational and maintenance expenses, including credit card fees and toll collection functions, would be deducted from the gross toll revenues resulting in the net toll revenues that would be available for funding project expenditures. If these assumptions were to change, the calculation of the amount of revenue available for project uses would require revision.

The 2007 SR 520 Finance Plan assumed that all revenues are available for purposes of financing the project; however, a portion of the pre-completion gross toll revenues may need to be pledged to pay for additional transit service under the Lake Washington Congestion Management Program funded by the Urban Partnership Grant. This possibility is indicated by the "Other Non-Project Uses" bucket in Exhibit 42. The total operating cost of the new buses in the program over the nine fiscal years from FY 2010 to 2018 has been initially estimated at $40 million. Until such an agreement with the other project partners has been finalized, the pre-completion toll revenues presented in this report do not include these non-project uses.

Post-completion Financing Assumptions

From the onset, WSDOT has assumed that, in order to fund project expenses, tolls would be charged and the net revenues would be bonded. Furthermore, WSDOT assumed that the bonds would be sold prior to the project's completion in order to assist in paying project expenses.

As discussed previously, when toll revenues are used to repay bonds, the market typically requires that gross toll revenues be first pledged to cover the toll facility's operations and maintenance expenses prior to making debt service payments. This ensures that the facility and related assets are well-maintained and able to continue their revenue operations to provide an acceptable level of service to facility users. Providing funding for toll collection, routine bridge and roadway operations and maintenance as well as periodic repairs and rehabilitation also helps to minimize the risk of the facility being closed or other events interrupting the toll revenue stream. Other revenue sources and expenses are added and subtracted, respectively, to determine the net revenues available for debt service.

Refer again to Exhibit 41 for the progression of gross toll revenues to the net toll revenues available to repay debt as anticipated for the SR 520 project. Gross toll revenues from SR

520 would be supplemented by pay-by-plate surcharge revenue from users without transponders, and would then be reduced by credit card fees, uncollectible accounts, toll collection operation and maintenance expenses, and facility operation and maintenance expenses. The resulting "Net Revenue Available for Debt Service" would be used to repay the principal and interest on the bonds and would determine the level of borrowing supported.

6.3 OPTIONS FOR STRUCTURING SECURITIES

The State of Washington customarily funds transportation projects by issuing general obligation bonds backed by the full faith and credit of the State with a backstop, or further backing of the motor vehicle fuel taxes (GO/MVFT bonds). Bonds issued in this manner generally have a repayment period of up to 30 years. Other options are available to the State. For example, the State may issue revenue bonds which only pledge a dedicated revenue stream instead of the State's general taxation power to repay the bonds.

6.3.1 Financing Scenarios

Two financing scenarios were examined by the Office of the State Treasurer for the 2007 SR 520 Finance Plan, including:

(1) 30-year General Obligation / Motor Vehicle Fuel Tax (GO/MVFT) bonds — Bonds repaid from toll revenues but backed by the Motor Vehicle Fuel Tax Fund would be considered by the financial markets to be essentially equivalent to general obligation bonds backed by the full faith and credit of the State of Washington. As a result, the cost of borrowing, issuing, and insuring these bonds would be the same as other state obligations.

(2) 40-year Non-Recourse Toll Revenue bonds — Revenue bonds would be backed only by the toll revenue generated by the project; as a result, credit rating agencies consider revenue bonds riskier than their GO/MVFT counterparts. As a result, the coverage requirements and the cost of borrowing, issuing, and insuring these bonds would be greater than those for GO/MVFT bonds. The longer 40-year term helps offset the higher credit cost and coverage requirements of using toll revenue bonds.

Exhibit 53 summarizes the bond financing assumptions used by the Office of the State Treasurer to estimate the financial capacity of net toll revenues.

Exhibit 53: Bond Financing Assumptions

Assumption	*GO/MVFT (State-Backed) Bonds*	*Revenue Bonds*
Term	Long-Term (30-year)	Long-Term (40-year)
Minimum Debt Service Coverage Ratio*	1.25x: Annual net revenue is at least 125% the annual debt service payments **	1.5x: Annual net revenue is at least 150% of annual debt service payments
Interest Rates	5.90% Current Interest 6.40% Deferred Interest	6.00% Current Interest 6.50% Deferred Interest
Issuance Costs	0.2% of Par Amount	0.4% of Par Amount ***
Bond Insurance	0.15% of Debt Service	1.00% of Debt Service
Underwriter Discount Current Interest Bonds	0.50% of Par Amount	0.70% of Par Amount
Underwriter Discount - Deferred Interest Bonds	1.00% of Par Amount	1.20% of Par Amount
Minimum Fund Balance	None	None
Reserves	None	Debt Service Reserve Fund (Surety)

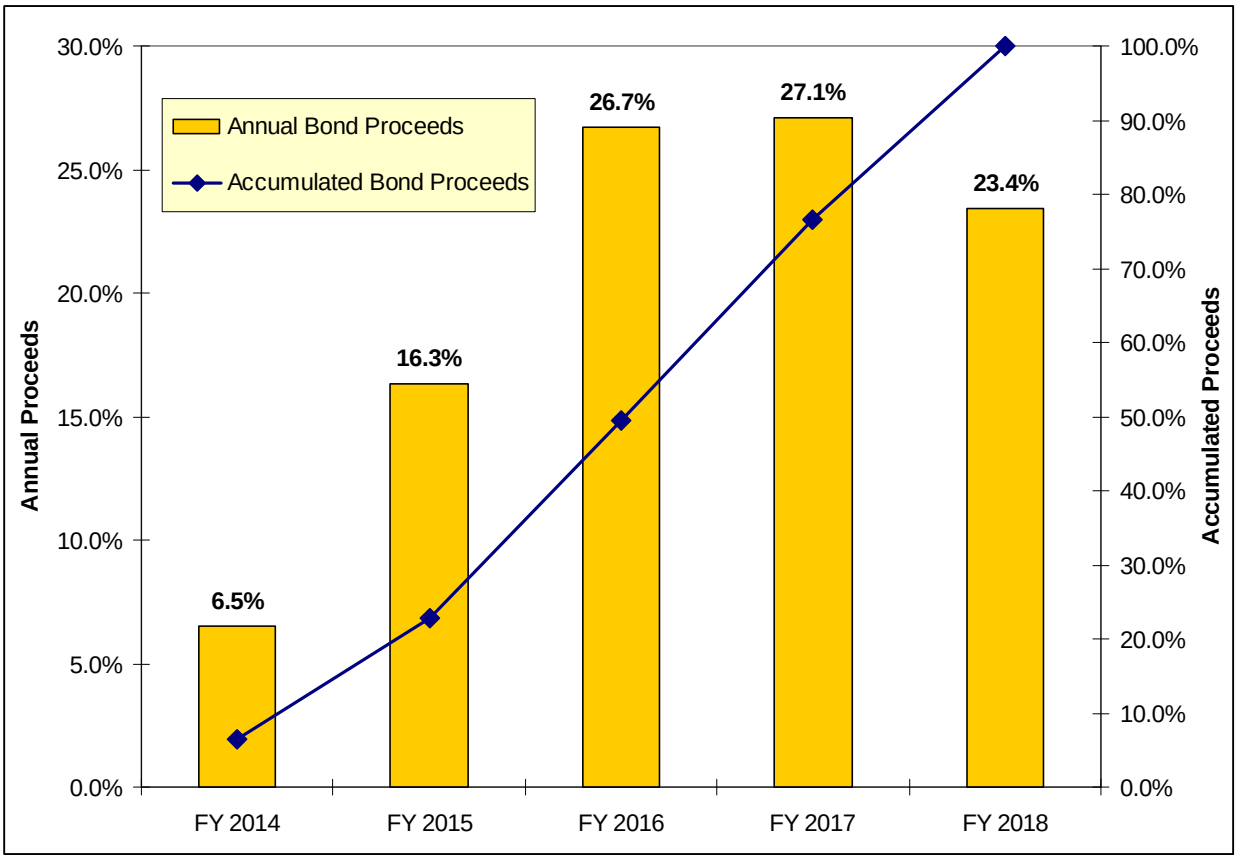
* The Debt Service Coverage Ratio is the factor of net revenue available for repaying debt divided by the debt service principal and interest payments. The excess revenue provided by debt service coverage can be made available for other purposes, such as renovation and rehabilitation expenses, subordinated debt and/or other project or non-project uses.

** Assumed, but may not be necessary for debt backed by the State of Washington.

*** Includes the cost of a debt service reserve account surety policy.

The Office of the State Treasurer used the net toll revenue stream for each toll scenario and financing case to identify the maximum construction amounts that could be leveraged with bonds, subject to the above financing conditions, and assumed the bond proceeds would follow the distribution of project expenditures indicated in Exhibit 54.

Exhibit 54: Anticipated Schedule of Bond Proceeds



The funding contribution of net toll revenues was optimized by "sculpting" the debt repayment schedule, using combinations of current interest bonds and deferred interest bonds, so that the payments increase over time in line with rising toll revenues. This allows the state to borrow the largest amount possible while maintaining the desired debt service coverage constant throughout the life of the debt repayment schedule.

6.4 FINANCIAL CAPACITY RESULTS

6.4.1 Pre-Completion Contribution

Exhibit 55 shows the funding amounts that would result by adding pre-completion tolling to the existing bridge, beginning in third quarter calendar year 2009 (FY 2010). A single pre-completion tolling case (Scenario B) was added to Scenarios 1 through 4. This implementation of tolls in 2009 is projected to yield from $510 to $570 million in pay-as-you-go project funding under the base projection traffic and revenue case.

Scenario 5, with its toll rate structure that is based on optimizing traffic throughput with slightly lower peak period toll rates, is projected to generate from $480 to $530 million in additional funding for the base projection utilizing pre-completion Scenario B5, also with lower peak period toll rates.

These amounts assume that all net pre-completion toll revenues (after toll collection operations and maintenance costs) are available for pay-as-you-go project capital expenditures. There are circumstances in which the pre-completion toll funding would be less, such as if a toll exemption were given to registered 2+ HOVs, or if pre-completion toll revenues were dedicated to other, non-project related expenses.

Exhibit 55: Pre-Completion Toll Revenue Available for Project Expenditures

	SCENARIO B **Pay-as-You-Go Financing**			**SCENARIO B5** **Pay-as-You-Go Financing**		
	Pre-Completion Toll Revenue			Pre-Completion Toll Revenue		
Fiscal Year	Low	Base = High		Low	Base = High	
	$512 M	$566 M	$566 M	$478 M	$527 M	$527 M
2010	$27 M	$30 M	$30 M	$26 M	$28 M	$28 M
2011	$44 M	$49 M	$49 M	$41 M	$46 M	$46 M
2012	$52 M	$58 M	$58 M	$49 M	$54 M	$54 M
2013	$57 M	$64 M	$64 M	$54 M	$59 M	$59 M
2014	$60 M	$67 M	$67 M	$56 M	$62 M	$62 M
2015	$63 M	$70 M	$70 M	$59 M	$65 M	$65 M
2016	$66 M	$73 M	$73 M	$62 M	$68 M	$68 M
2017	$69 M	$76 M	$76 M	$64 M	$71 M	$71 M
2018	$72 M	$80 M	$80 M	$67 M	$74 M	$74 M
	$512 M	**$566 M**	**$566 M**	**$512 M**	**$566 M**	**$566 M**
	Applicable to Scenarios 1-4			Applicable to Scenario 5		

6.4.2 Post-Completion Contribution

Exhibit 56 presents in summary form the funding that could be contributed by tolls beginning in mid-2018 when the new bridge and approaches are open to traffic. The highlighted column focuses on the funding contribution that would be available from the sale of 30 year state-backed bonds under the base projection for traffic and revenue. The base projection lies between the low and high points of the traffic and revenue forecast range produced for each scenario. The bond proceed amounts shown in the exhibit represent the sum of proceeds received by the schedule in Exhibit 54.

Changes in this distribution schedule would impact the total value of the bond proceeds received for project expenditures. For example, if the bond proceeds schedule is adjusted such that more of the proceeds are received later in the project's life cycle, the resulting funding received by the project would be greater. If the schedule is adjusted so that the proceeds are received earlier, then the project funding would decrease.

Exhibit 56: Toll Funding Potential with Tolling Beginning Mid-2018

	Tolling Begins Post Completion (July 1, 2018)					
Revenue Case	**Low Projection**		**Base Projection**		**High Projection**	
Financing Case / Scenario	**30 Year State-Backed Debt**	**40 Year Non-Recourse Debt**	**30 Year State-Backed Debt**	**40 Year Non-Recourse Debt**	**30 Year State-Backed Debt**	**40 Year Non-Recourse Debt**
Scenario 1	$1.20 B	$1.12 B	**$1.35 B**	$1.25 B	$1.52 B	$1.42 B
Scenario 2	$1.06 B	$0.99 B	**$1.19 B**	$1.11 B	$1.35 B	$1.25 B
Scenario 3	$1.04 B	$0.96 B	**$1.17 B**	$1.08 B	$1.32 B	$1.23 B
Scenario 4	$0.99 B	$0.92 B	**$1.12 B**	$1.04 B	$1.26 B	$1.17 B
Scenario 5	$0.92 B	$0.85 B	**$1.04 B**	$0.97 B	$1.17 B	$1.09 B

With financing provided by 30 year state-backed bonds, toll funding under the base traffic and revenue projections varies from $1.04 billion with modest tolls designed to optimize traffic throughput (Scenario 5) to $1.35 billion at the revenue maximizing tolls (Scenario 1). Future traffic levels would have to achieve their highest expectations and/or financial coverage assumptions would need to be reduced in order to reach the maximum toll funding level of $1.52 billion.

Detailed breakdown of potential bond proceeds for each Scenario by year and by level of traffic projection is shown in Exhibit 57 through Exhibit 61. In these exhibits, the highlighted column focuses on the funding contribution that would be available from the sale of 30 year state-backed bonds under the base projection for traffic and revenue.

Exhibit 57: Potential Funding from Toll Revenues for Scenario 1

Toll Scenario	SCENARIO 1					
Implementation Timing	Tolling Begins Post Completion (July 1, 2018)					
Revenue Case	Low Projection		**Base Projection**		High Projection	
Financing Case	30 Year State-Backed Debt	40 Year Non-Recourse Debt	**30 Year State-Backed Debt**	40 Year Non-Recourse Debt	30 Year State-Backed Debt	40 Year Non-Recourse Debt
Total Project Funding[1]	$1,204 M	$1,121 M	**$1,348 M**	$1,254 M	$1,524 M	$1,415 M
Funding by Fiscal Year						
2014	$78 M	$73 M	**$88 M**	$82 M	$99 M	$92 M
2015	$196 M	$183 M	**$220 M**	$204 M	$248 M	$231 M
2016	$321 M	$299 M	**$360 M**	$335 M	$407 M	$378 M
2017	$326 M	$304 M	**$365 M**	$340 M	$413 M	$383 M
2018	$282 M	$262 M	**$315 M**	$293 M	$356 M	$331 M
2019						

1 Revenue shown is in Year of Proceeds value

Exhibit 58: Potential Funding from Toll Revenues for Scenario 2

Toll Scenario	SCENARIO 2					
Implementation Timing	Tolling Begins Post Completion (July 1, 2018)					
Revenue Case	Low Projection		**Base Projection**		High Projection	
Financing Case	30 Year State-Backed Debt	40 Year Non-Recourse Debt	**30 Year State-Backed Debt**	40 Year Non-Recourse Debt	30 Year State-Backed Debt	40 Year Non-Recourse Debt
Total Project Funding[1]	$1,061 M	$986 M	**$1,195 M**	$1,110 M	$1,346 M	$1,250 M
Funding by Fiscal Year						
2014	$69 M	$64 M	**$78 M**	$72 M	$87 M	$81 M
2015	$173 M	$161 M	**$195 M**	$181 M	$219 M	$204 M
2016	$283 M	$263 M	**$319 M**	$296 M	$359 M	$334 M
2017	$288 M	$267 M	**$324 M**	$301 M	$365 M	$339 M
2018	$248 M	$231 M	**$279 M**	$260 M	$315 M	$293 M
2019						

1 Revenue shown is in Year of Proceeds value

Exhibit 59: Potential Funding from Toll Revenues for Scenario 3

Toll Scenario	**SCENARIO 3**					
Implementation Timing	Tolling Begins Post Completion (July 1, 2018)					
Revenue Case	Low Projection		**Base Projection**		High Projection	
Financing Case	30 Year State-Backed Debt	40 Year Non-Recourse Debt	**30 Year State-Backed Debt**	40 Year Non-Recourse Debt	30 Year State-Backed Debt	40 Year Non-Recourse Debt
Total Project Funding[1]	$1,036 M	$964 M	**$1,166 M**	$1,084 M	$1,322 M	$1,227 M
Funding by Fiscal Year						
2014	$67 M	$63 M	**$76 M**	$70 M	$86 M	$80 M
2015	$169 M	$157 M	**$190 M**	$177 M	$215 M	$200 M
2016	$277 M	$257 M	**$311 M**	$289 M	$353 M	$328 M
2017	$281 M	$261 M	**$316 M**	$294 M	$358 M	$333 M
2018	$242 M	$226 M	**$273 M**	$254 M	$309 M	$287 M
2019						

1 Revenue shown is in Year of Proceeds value

Exhibit 60: Potential Funding from Toll Revenues for Scenario 4

Toll Scenario	SCENARIO 4					
Implementation Timing	Tolling Begins Post Completion (July 1, 2018)					
Revenue Case	Low Projection		**Base Projection**		High Projection	
Financing Case	30 Year State-Backed Debt	40 Year Non-Recourse Debt	**30 Year State-Backed Debt**	40 Year Non-Recourse Debt	30 Year State-Backed Debt	40 Year Non-Recourse Debt
Total Project Funding[1]	$991 M	$920 M	**$1,121 M**	$1,040 M	$1,263 M	$1,172 M
Funding by Fiscal Year						
2014	$64 M	$60 M	**$73 M**	$68 M	$82 M	$76 M
2015	$161 M	$150 M	**$183 M**	$170 M	$206 M	$191 M
2016	$265 M	$246 M	**$299 M**	$278 M	$337 M	$313 M
2017	$268 M	$249 M	**$304 M**	$282 M	$342 M	$318 M
2018	$232 M	$215 M	**$262 M**	$243 M	$295 M	$274 M
2019						

1 Revenue shown is in Year of Proceeds value

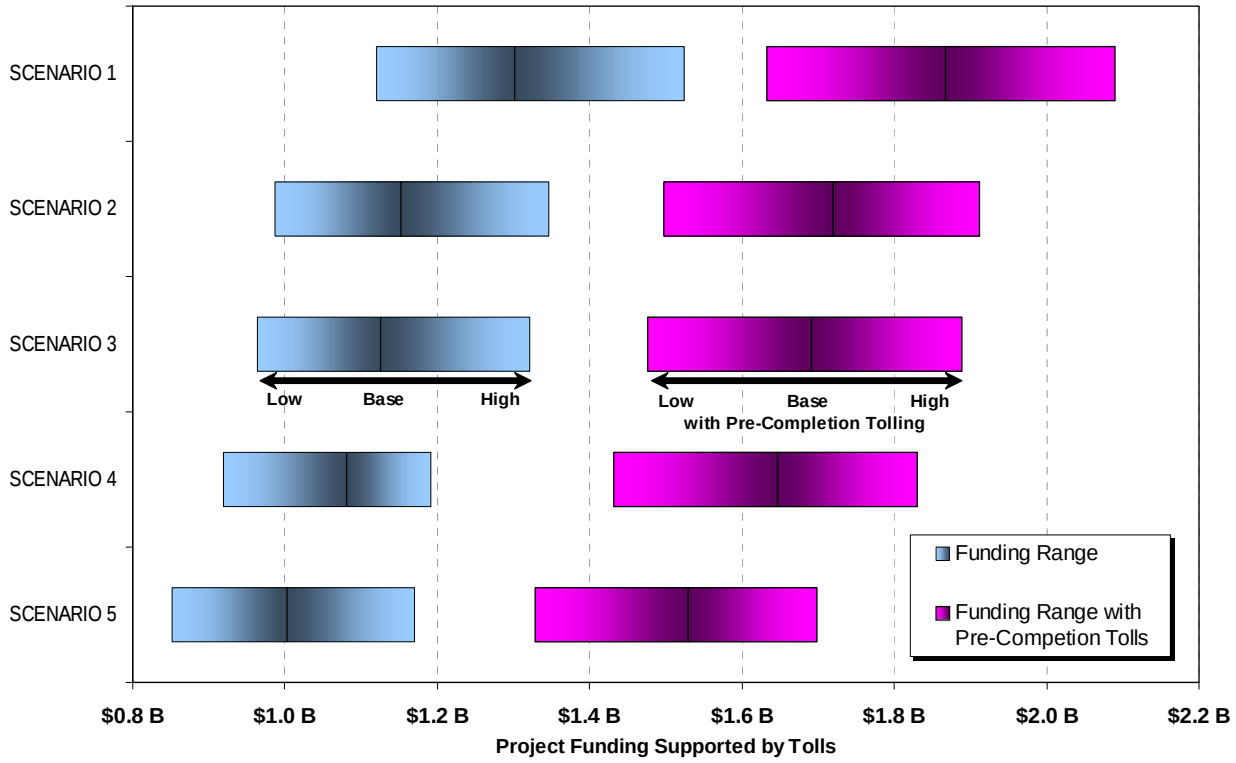
Exhibit 61: Potential Funding from Toll Revenues for Scenario 5

Toll Scenario	SCENARIO 5					
Implementation Timing	Tolling Begins Post Completion (July 1, 2018)					
Revenue Case	Low Projection		**Base Projection**		High Projection	
Financing Case	30 Year State-Backed Debt	40 Year Non-Recourse Debt	**30 Year State-Backed Debt**	40 Year Non-Recourse Debt	30 Year State-Backed Debt	40 Year Non-Recourse Debt
Total Project Funding[1]	$917 M	$851 M	**$1,039 M**	$965 M	$1,171 M	$1,087 M
Funding by Fiscal Year						
2014	$60 M	$55 M	$68 M	$63 M	$76 M	$71 M
2015	$149 M	$139 M	$169 M	$157 M	$191 M	$177 M
2016	$245 M	$227 M	$278 M	$258 M	$313 M	$290 M
2017	$248 M	$231 M	$282 M	$262 M	$317 M	$295 M
2018	$214 M	$199 M	$243 M	$226 M	$274 M	$254 M
2019						

1 Revenue shown is in Year of Proceeds value

The overall range of funding across the three traffic/revenue cases and the two financing scenarios is shown in Exhibit 62 for both tolling start dates.

Exhibit 62: Toll Funding Ranges by Scenario with and without Pre-Completion Tolls



7. FURTHER STUDY

7.1 NEXT STEPS

The process and results described in this traffic and revenue report represent the latest, but not the final steps that will be required to fully develop the tolling component of the financial plan for the SR 520 project. WSDOT will be required to submit a balanced finance plan to the Federal Highways Administration for approval prior to beginning construction.

Additional toll revenue scenarios may be needed. For example, the report completed by the Office of the State Treasurer in early 2007 raised the idea of tolling I-90 to supplement SR 520 toll revenue. I-90 tolls were outside of the analysis boundaries of the work underlying this report in support of the 2007 SR 520 Finance Plan, but there may be interest in the future to revisit I-90 tolling as a piece of the funding picture.

From a project financing perspective, additional refinements to the SR 520 Finance Plan may include, but are not limited to:

- Exploring additional toll rate structures;
- Expanding the limits of tolling SR 520 beyond the I-5 to I-405 corridor; and
- Refined travel demand modeling, including inputs and assumptions, and/or micro-simulation analysis.

Recently, the PSRC has developed an updated travel demand model that uses five time periods which will support future analyses.

The project definition also requires finalization, and with it the potential for a revised cost estimate, as the current mediation process yields a preferred solution for the west approach configuration and the environmental process moves forward. In addition, future work is likely to be needed to better define the timing and overall needs for project funding.

Depending on how the financing will be procured, a formal "investment-grade" traffic and revenue study may be required once the finance plan is finalized at a time closer to debt issuance. The purpose of such a study is to analyze traffic and revenue including validating and/or updating previous work specifically for the purpose of securing a debt issuance credit rating.

Appendix A provides a discussion of what an investment-grade traffic and revenue analysis entails and under what conditions it is required.

END NOTES

[1] Express toll lanes are also referred to as high occupancy toll (HOT) lanes.

[2] The SR 520 Bridge Replacement and HOV Project DEIS 6-Lane Alternative employs the 3+ HOV definition, and the Finance Plan analysis assumes that the rest of the network will have converted from the 2+ to the 3+ HOV definition by the year of opening (2018) or shortly thereafter. It was also assumed that HOVs making short segment trips not crossing the lake would be unable to avoid toll collection points on the general purpose lanes; as a result, these vehicles would not be exempted from tolls.

[3] The RTID and ST2 investments, which collectively became the Roads and Transit ballot measure put forth to voters in November 2007 as Proposition One, did not pass. However, the projects adjacent to SR 520 and most relevant to the analysis, such as the widening of I-405 and light rail transit across the lake on I-90 could likely be completed in the next 10 to 20 years.

[4] Washington State Department of Transportation. April, 2004. *SR 520 Toll Feasibility Study.*

[5] In the sensitivity test of Scenario 1 (post-completion without RTID/ST2), the I-90 segments have reversible express lanes, which means that the adjustment mentioned above is not applicable against the peak direction. In this case, the adjustment assigned to I-90 HOV lanes was split equally between SR 520 and I-90 GP lanes.

[6] Transportation Research Board. 2000. *Highway Capacity Manual*. Multilane Highways Methodology, Exhibit 21-1: LOS Criteria for Multilane Highways. p. 21-3. Assuming 60 mi/h free-flow speed and a minimum operating level of service D.

[7] Washington State Department of Transportation. April, 2004. *SR 520 Toll Feasibility Study*; and Washington State Department of Transportation. March, 2007. *SR-520 and I-90 Toll Feasibility Analysis: Traffic and Revenue Forecasts Technical Memorandum*

[8] Washington State Department of Transportation. December 17, 2007. *Memorandum: SR 520 Operating and Maintenance Costs*.

[9] Ibid.

[10] Ibid.

[11] In the Pre-Completion condition, only O&M expenses related to toll collection are deducted.

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APPENDIX A: INVESTMENT GRADE ANALYSIS DISCUSSION AND SR 520 ANNUAL TOLL TRAFFIC & REVENUE TABLES

INVESTMENT GRADE TRAFFIC AND REVENUE ANALYSIS

Depending on how the SR 520 project will be financed, a formal "investment-grade" traffic and revenue study may be required once the finance plan is finalized at a time closer to debt issuance. The purpose of such a study is to analyze traffic and revenue including validating and/or updating previous work specifically for the purpose of securing a debt issuance credit rating. An investment-grade traffic and revenue study may take up to a year to complete depending on what analyses are needed or required for the toll revenue bonds to achieve an investment-grade credit rating.

General Obligation/Motor Vehicle Fuel Tax Bond Issues

If the state were to issue general obligation/motor fuel tax backed (GO/MVFT) bonds that rely on the state's underlying AA credit rating, an investment-grade traffic and revenue study would not be required. Instead, the investment grade evaluation for a general obligation bond issue would focus on the state's financial condition, with the bonds carrying the state's overall ratings. The state would not typically be required to provide detailed, project-specific information or analysis. (Note that the State of Washington currently carries ratings of AA/AA/Aa1 by Fitch, Standard & Poor's, and Moody's, respectively.)

However, the state may still want to update and secure an independent review of their traffic and revenue forecasts prior to issuing bonds to fully understand and account for potential toll revenue risks that may come into play as the date of the first issuance approaches.

Non-Recourse Toll Revenue Bond Issues

If the state chooses to issue stand-alone, non-recourse toll revenue bonds, the state will need to secure a credit rating for the bond issuance. In order to access the appropriate institutional investors, the senior debt would need to be of "investment-grade" as opposed to a lower, speculative grade. Attainment of these ratings for a toll road requires the completion of an investment-grade toll traffic and revenue study prior to the issuance of bonds. This is the critical document to provide the credit rating agencies with the information they need to assess the viability of toll revenue stream and potential downside risks in the determination of their rating.

The scope, depth, and breadth of an investment-grade study will vary by project, depending on what analyses are needed to answer credit rating agency concerns and secure the desired credit rating. The credit evaluation would generally be focused on features specific to the project. Areas of emphasis would include:

- Demand for the facility:
  - Critical demographic inputs (including separate, independent forecasts of population and employment); and
  - Toll rates and toll escalation;

- Traffic diversion caused by competing facilities;
- Governance of the tolled facility; and
- Construction risks.

The study would need to consider risks to other revenue and funding sources to the extent that they may impact if or how the project gets built. The credit can be enhanced if commitments of other revenues are used to backstop the revenue bond debt service payments.

Because this traffic and revenue study was not undertaken for the purpose of securing a credit rating and because the results will be dated when the first bonds are assumed to be issued in 2014, it should not be labeled as an investment-grade analysis. However, this study does advance the previous toll analyses and becomes part of the body of work that informs decisions and moves the state closer to a final financing plan, and will support an investment-grade study, should one be undertaken in the future.

One benefit of pre-completion tolling is that a proven tolled traffic stream would be established prior to the expected timing of project debt, allowing the rating agencies to establish a measure of certainty in the future demand on a tolled SR 520 after the new facility is opened to traffic.

Other Investment-Grade Analysis Elements

Demand Analysis

The demand is the most critical factor impacting the success of a toll facility. As an existing facility, the SR 520 corridor has a proven traffic stream, albeit under a toll-free environment. The introduction of tolls would likely result in changes to traffic levels, as previously discussed. As a result, a traffic study would be an integral part of a required investment grade revenue forecast. This investment grade forecast may differ from the work performed to date in a number of ways, including but not limited to:

- The rating agencies will require a detailed examination of the demand model inputs and assumptions, including an independent forecast of population growth, employment, and land use;
- Micro-simulation analysis will be performed, consisting of street-level analysis of traffic demand and capacity constraints of individual routes and intersections. Current work to date has focused on system-wide and corridor analysis; and.
- Assessment of toll rates and associated diversion results.

For project planning purposes, a time period of at least 12 months should be allocated for performing the investment grade demand analysis.

Assessment of Competition

The existence of parallel or alternative roadways (I-90, SR 522) represents large implications to the potential success of a tolled SR 520 facility as it introduces significant uncertainty to how the traveling public will respond to the introduction of tolls.

The rating agencies will also examine the capital improvement plans and programs of WSDOT and local transportation agencies, including PSRC and Sound Transit, to assess the potential for additional *future* competition in the form of new or expanded roadways and/or transit service.

Governance Issues

The Washington Legislature is in the process of evaluating several options for managing a potentially tolled SR 520 facility. A key consideration for the rating agencies will be whether toll-setting policy on SR 520 is granted to an autonomous agency, or if rate policy, including periodic escalation of tolls, may be influenced by political interests. To achieve the highest-rated and thus the lowest cost credit, toll-setting decisions would need to be granted to a semi-independent body with the ability to alter rates to meet bond covenants. Stand-alone toll revenue bonds will require coverage covenants whereby the agency will agree to modify tolls if the future forecasts do not meet the stated coverage test.

Construction Risk

Credit rating agencies will be concerned about the risks facing WSDOT during the construction period. Project total cost, delivery schedule and quality will be scrutinized. WSDOT routinely attempts to mitigate risks by a variety of mechanisms, including intensive community and stakeholder involvement efforts during project planning and environmental development; planning and design-level probability-based cost and schedule estimating procedures; and robust quality assurance and control programs during construction.

WSDOT can further allocate construction risks among other various project participants. Risk in this manner can be shared through the use of alternative project delivery methods (e.g., design-build) and by including incentives and disincentives in the terms of the construction contract. Attaining an investment-grade rating will typically require either a date-certain, fixed price construction delivery contract in place or a commitment from the agency to backstop excess costs or loss of revenues resulting from delays.

SR 520 ANNUAL TOLL TRAFFIC AND REVENUE TABLES

The tables on the following pages present the annual toll traffic and revenue tables for the "low", "base" and "high" projections for each scenario, both with and without pre-completion tolling. Each table presents:

- The weighted average bridge toll rate (the average revenue per transaction);
- The total annual number of toll transactions;
- The passenger car equivalent (PCE) annual traffic volume in which medium and large trucks are counted as the equivalent of three cars on average;

- The above three items for the short segments in the applicable scenarios;
- The annual gross toll revenue potential;
- The pay-by-plate (video tolling) surcharge annual revenue;
- The revenue deductions for uncollectible accounts and credit card fees;
- The annual toll collection O&M costs;
- The annual routine facility O&M costs;
- The annual net revenue available for debt service before periodic R&R costs;
- The periodic R&R costs; and
- The annual net revenue after periodic R&R costs.

The remainder of Appendix A includes five charts, one each for the "base" traffic projection of each scenario with pre-completion tolling, that plot:

- Gross revenues net of ramp-up effects;
- Adjusted gross revenues after pay-by-plate surcharges and uncollectible account/credit card fee deductions; and
- The annual net revenue available for project financing before periodic R&R costs.

SR 520 Toll Traffic & Revenue Projections

Scenario 1 — Table 1: Low / Revenue Max / Corridor Tolling / 3+ HOVs Tolled

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$4.10	16.81	19.16	$0.60	8.75	10.18	84.69	2.50	(4.36)	(10.10)	(3.67)	69.07		69.07
	2020	$4.20	19.14	21.81	$0.62	9.76	11.30	98.70	2.56	(5.06)	(10.71)	(3.76)	81.73		81.73
	2021	$4.31	20.52	23.37	$0.64	10.27	11.88	108.35	2.43	(5.54)	(10.88)	(3.85)	90.50		90.50
	2022	$4.42	20.90	23.80	$0.65	10.29	11.93	113.01	2.16	(5.76)	(10.67)	(3.95)	94.79		94.79
	2023	$4.54	21.28	24.23	$0.66	10.31	11.98	117.87	1.88	(5.99)	(10.44)	(4.05)	99.27	(2.65)	96.62
	2024	$4.65	21.68	24.67	$0.68	10.34	12.03	122.95	1.59	(6.23)	(10.21)	(4.15)	103.95	(3.01)	100.94
	2025	$4.77	22.08	25.12	$0.69	10.36	12.09	128.24	1.30	(6.48)	(9.97)	(4.25)	108.84		108.84
	2026	$4.89	22.49	25.58	$0.71	10.38	12.14	133.77	0.99	(6.74)	(10.00)	(4.36)	113.66	(11.85)	101.81
	2027	$5.02	22.90	26.04	$0.72	10.40	12.20	139.54	0.67	(7.01)	(9.75)	(4.47)	118.99		118.99
	2028	$5.15	23.33	26.52	$0.74	10.43	12.26	145.57	0.68	(7.31)	(9.88)	(4.58)	124.48		124.48
	2029	$5.28	23.76	27.00	$0.75	10.45	12.32	151.86	0.69	(7.63)	(10.01)	(4.69)	130.22	(6.13)	124.09
	2030	$5.41	24.20	27.49	$0.77	10.48	12.38	158.42	0.71	(7.96)	(10.15)	(4.81)	136.21		136.21
	2031	$5.55	24.42	27.75	$0.79	10.49	12.41	163.83	0.71	(8.23)	(10.24)	(4.93)	141.14	(9.88)	131.26
	2032	$5.69	24.65	28.00	$0.81	10.51	12.45	169.42	0.72	(8.51)	(10.34)	(5.05)	146.23		146.23
	2033	$5.84	24.88	28.25	$0.82	10.52	12.48	175.20	0.73	(8.80)	(10.78)	(5.18)	151.17	(23.27)	127.91
	2034	$5.98	25.11	28.51	$0.84	10.54	12.52	181.18	0.74	(9.10)	(10.88)	(5.31)	156.63	(3.15)	153.48
	2035	$6.14	25.34	28.77	$0.86	10.55	12.55	187.37	0.74	(9.41)	(10.99)	(5.44)	162.28		162.28
	2036	$6.29	25.58	29.03	$0.88	10.56	12.59	193.77	0.75	(9.73)	(11.10)	(5.58)	168.12		168.12
	2037	$6.45	25.81	29.30	$0.90	10.58	12.62	200.39	0.76	(10.06)	(11.21)	(5.72)	174.17		174.17
	2038	$6.61	26.05	29.57	$0.92	10.59	12.66	207.24	0.77	(10.40)	(11.32)	(5.86)	180.43		180.43
	2039	$6.78	26.29	29.84	$0.94	10.61	12.70	214.32	0.78	(10.75)	(11.43)	(6.01)	186.90	(34.13)	152.77
	2040	$6.95	26.54	30.11	$0.97	10.62	12.73	221.64	0.79	(11.12)	(11.95)	(6.16)	193.21	(16.75)	176.46
	2041	$7.13	26.54	30.11	$0.99	10.62	12.73	227.18	0.79	(11.40)	(12.02)	(6.31)	198.25		198.25
	2042	$7.30	26.54	30.11	$1.02	10.62	12.73	232.86	0.80	(11.68)	(12.09)	(6.47)	203.42		203.42
	2043	$7.49	26.54	30.11	$1.04	10.62	12.73	238.69	0.80	(11.97)	(12.17)	(6.63)	208.71	(17.64)	191.08
	2044	$7.67	26.54	30.11	$1.07	10.62	12.73	244.65	0.80	(12.27)	(12.24)	(6.80)	214.14	(15.55)	198.59
	2045	$7.87	26.54	30.11	$1.09	10.62	12.73	250.77	0.81	(12.58)	(12.32)	(6.97)	219.71		219.71
	2046	$8.06	26.54	30.11	$1.12	10.62	12.73	257.04	0.81	(12.89)	(12.40)	(7.14)	225.42		225.42
	2047	$8.26	26.54	30.11	$1.15	10.62	12.73	263.46	0.82	(13.21)	(12.96)	(7.32)	230.79	(28.08)	202.71
	2048	$8.47	26.54	30.11	$1.18	10.62	12.73	270.05	0.82	(13.54)	(13.04)	(7.50)	236.78		236.78
	2049	$8.68	26.54	30.11	$1.21	10.62	12.73	276.80	0.83	(13.88)	(13.13)	(7.69)	242.93	(8.45)	234.47
	2050	$8.90	26.54	30.11	$1.24	10.62	12.73	283.72	0.83	(14.23)	(13.22)	(7.88)	249.22		249.22
	2051	$9.12	26.54	30.11	$1.27	10.62	12.73	290.81	0.83	(14.58)	(13.31)	(8.08)	255.68		255.68
	2052	$9.35	26.54	30.11	$1.30	10.62	12.73	298.08	0.84	(14.95)	(13.40)	(8.28)	262.30		262.30
	2053	$9.58	26.54	30.11	$1.33	10.62	12.73	305.54	0.84	(15.32)	(13.50)	(8.49)	269.08	(5.56)	263.51
	2054	$9.82	26.54	30.11	$1.37	10.62	12.73	313.18	0.85	(15.70)	(14.16)	(8.70)	275.46	(27.24)	248.23
	2055	$10.07	26.54	30.11	$1.40	10.62	12.73	321.00	0.86	(16.09)	(14.26)	(8.92)	282.59	(17.87)	264.72
	2056	$10.32	26.54	30.11	$1.43	10.62	12.73	329.03	0.86	(16.49)	(14.36)	(9.14)	289.89		289.89
	2057	$10.58	26.54	30.11	$1.47	10.62	12.73	337.26	0.87	(16.91)	(14.47)	(9.37)	297.38		297.38
	2058	$10.84	26.54	30.11	$1.51	10.62	12.73	345.69	0.87	(17.33)	(14.58)	(9.60)	305.05		305.05
	Totals FY 2010-18														
	Totals FY 2019-58		991.46	1125.92		419.04	497.62	8503.14	40.58	(427.19)	(470.66)	(247.06)	7398.82	(231.23)	7167.59

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 1 — Table 2: Low / Revenue Max / Corridor Tolling / 3+ HOVs Tolled / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	10.90	12.68				32.79	2.08	(1.74)	(5.72)		27.42		27.42
	2011	$2.65	16.76	19.51				51.70	2.89	(2.73)	(7.59)		44.27		44.27
	2012	$2.72	19.06	22.20				60.29	2.93	(3.16)	(8.02)		52.04		52.04
	2013	$2.78	20.42	23.78				66.21	2.75	(3.45)	(8.04)		57.47		57.47
	2014	$2.85	20.79	24.21				69.08	2.41	(3.57)	(7.72)		60.19	(2.50)	57.69
	2015	$2.93	21.16	24.64				72.07	2.05	(3.71)	(7.38)		63.03		63.03
	2016	$3.00	21.53	25.08				75.19	1.67	(3.84)	(7.05)		65.97	(1.00)	64.97
	2017	$3.07	21.92	25.53				78.45	1.28	(3.99)	(6.68)		69.06		69.06
	2018	$3.15	22.31	25.98				81.85	0.87	(4.14)	(6.29)		72.29		72.29
Post-Completion — Full Revenue Operations	2019	$4.10	18.79	21.42	$0.61	9.74	11.25	94.64	0.56	(4.76)	(8.30)	(3.67)	78.47	(2.50)	75.97
	2020	$4.20	20.15	22.96	$0.62	10.25	11.84	103.89	0.60	(5.22)	(8.67)	(3.76)	86.84		86.84
	2021	$4.31	20.52	23.37	$0.64	10.27	11.88	108.35	0.61	(5.45)	(8.78)	(3.85)	90.88	(7.91)	82.97
	2022	$4.42	20.90	23.80	$0.65	10.29	11.93	113.01	0.62	(5.68)	(8.89)	(3.95)	95.11		95.11
	2023	$4.54	21.28	24.23	$0.66	10.31	11.98	117.87	0.63	(5.92)	(9.01)	(4.05)	99.52	(2.65)	96.87
	2024	$4.65	21.68	24.67	$0.68	10.34	12.03	122.95	0.64	(6.18)	(9.13)	(4.15)	104.13	(3.01)	101.12
	2025	$4.77	22.08	25.12	$0.69	10.36	12.09	128.24	0.65	(6.44)	(9.49)	(4.25)	108.70	(11.85)	96.85
	2026	$4.89	22.49	25.58	$0.71	10.38	12.14	133.77	0.66	(6.72)	(9.62)	(4.36)	113.74		113.74
	2027	$5.02	22.90	26.04	$0.72	10.40	12.20	139.54	0.67	(7.01)	(9.75)	(4.47)	118.99		118.99
	2028	$5.15	23.33	26.52	$0.74	10.43	12.26	145.57	0.68	(7.31)	(9.88)	(4.58)	124.48		124.48
	2029	$5.28	23.76	27.00	$0.75	10.45	12.32	151.86	0.69	(7.63)	(10.01)	(4.69)	130.22	(6.13)	124.09
	2030	$5.41	24.20	27.49	$0.77	10.48	12.38	158.42	0.71	(7.96)	(10.15)	(4.81)	136.21		136.21
	2031	$5.55	24.42	27.75	$0.79	10.49	12.41	163.83	0.71	(8.23)	(10.24)	(4.93)	141.14		141.14
	2032	$5.69	24.65	28.00	$0.81	10.51	12.45	169.42	0.72	(8.51)	(10.68)	(5.05)	145.90	(14.09)	131.81
	2033	$5.84	24.88	28.25	$0.82	10.52	12.48	175.20	0.73	(8.80)	(10.78)	(5.18)	151.17	(19.82)	131.35
	2034	$5.98	25.11	28.51	$0.84	10.54	12.52	181.18	0.74	(9.10)	(10.88)	(5.31)	156.63	(3.15)	153.48
	2035	$6.14	25.34	28.77	$0.86	10.55	12.55	187.37	0.74	(9.41)	(10.99)	(5.44)	162.28		162.28
	2036	$6.29	25.58	29.03	$0.88	10.56	12.59	193.77	0.75	(9.73)	(11.10)	(5.58)	168.12		168.12
	2037	$6.45	25.81	29.30	$0.90	10.58	12.62	200.39	0.76	(10.06)	(11.21)	(5.72)	174.17		174.17
	2038	$6.61	26.05	29.57	$0.92	10.59	12.66	207.24	0.77	(10.40)	(11.32)	(5.86)	180.43		180.43
	2039	$6.78	26.29	29.84	$0.94	10.61	12.70	214.32	0.78	(10.75)	(11.83)	(6.01)	186.50	(50.88)	135.62
	2040	$6.95	26.54	30.11	$0.97	10.62	12.73	221.64	0.79	(11.12)	(11.95)	(6.16)	193.21		193.21
	2041	$7.13	26.54	30.11	$0.99	10.62	12.73	227.18	0.79	(11.40)	(12.02)	(6.31)	198.25		198.25
	2042	$7.30	26.54	30.11	$1.02	10.62	12.73	232.86	0.80	(11.68)	(12.09)	(6.47)	203.42		203.42
	2043	$7.49	26.54	30.11	$1.04	10.62	12.73	238.69	0.80	(11.97)	(12.17)	(6.63)	208.71	(4.35)	204.37
	2044	$7.67	26.54	30.11	$1.07	10.62	12.73	244.65	0.80	(12.27)	(12.24)	(6.80)	214.14	(15.55)	198.59
	2045	$7.87	26.54	30.11	$1.09	10.62	12.73	250.77	0.81	(12.58)	(12.32)	(6.97)	219.71	(14.31)	205.40
	2046	$8.06	26.54	30.11	$1.12	10.62	12.73	257.04	0.81	(12.89)	(12.88)	(7.14)	224.94	(19.91)	205.03
	2047	$8.26	26.54	30.11	$1.15	10.62	12.73	263.46	0.82	(13.21)	(12.96)	(7.32)	230.79	(8.17)	222.62
	2048	$8.47	26.54	30.11	$1.18	10.62	12.73	270.05	0.82	(13.54)	(13.04)	(7.50)	236.78		236.78
	2049	$8.68	26.54	30.11	$1.21	10.62	12.73	276.80	0.83	(13.88)	(13.13)	(7.69)	242.93	(8.45)	234.47
	2050	$8.90	26.54	30.11	$1.24	10.62	12.73	283.72	0.83	(14.23)	(13.22)	(7.88)	249.22		249.22
	2051	$9.12	26.54	30.11	$1.27	10.62	12.73	290.81	0.83	(14.58)	(13.31)	(8.08)	255.68		255.68
	2052	$9.35	26.54	30.11	$1.30	10.62	12.73	298.08	0.84	(14.95)	(13.40)	(8.28)	262.30		262.30
	2053	$9.58	26.54	30.11	$1.33	10.62	12.73	305.54	0.84	(15.32)	(14.06)	(8.49)	268.51	(29.23)	239.29
	2054	$9.82	26.54	30.11	$1.37	10.62	12.73	313.18	0.85	(15.70)	(14.16)	(8.70)	275.46	(3.57)	271.89
	2055	$10.07	26.54	30.11	$1.40	10.62	12.73	321.00	0.86	(16.09)	(14.26)	(8.92)	282.59		282.59
	2056	$10.32	26.54	30.11	$1.43	10.62	12.73	329.03	0.86	(16.49)	(14.36)	(9.14)	289.89		289.89
	2057	$10.58	26.54	30.11	$1.47	10.62	12.73	337.26	0.87	(16.91)	(14.47)	(9.37)	297.38	(19.25)	278.13
	2058	$10.84	26.54	30.11	$1.51	10.62	12.73	345.69	0.87	(17.33)	(14.58)	(9.60)	305.05		305.05
Totals FY 2010-18			174.85	203.61				587.62	18.94	(30.33)	(64.50)		511.73	(3.50)	508.23
Totals FY 2019-58			994.45	1129.33		420.53	499.23	8518.27	30.13	(427.42)	(461.32)	(247.06)	7412.60	(244.80)	7167.80

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 1 — Table 3: Base / Revenue Max / Corridor Tolling / 3+ HOVs Tolled

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$4.10	18.75	21.39	$0.60	9.84	11.45	94.53	2.80	(4.87)	(10.91)	(3.67)	77.88		77.88
	2020	$4.20	21.33	24.33	$0.62	10.98	12.71	110.12	2.86	(5.65)	(11.58)	(3.76)	91.99		91.99
	2021	$4.31	22.86	26.07	$0.64	11.56	13.37	120.85	2.71	(6.18)	(11.78)	(3.85)	101.76		101.76
	2022	$4.42	23.27	26.53	$0.65	11.58	13.42	126.00	2.41	(6.42)	(11.53)	(3.95)	106.51		106.51
	2023	$4.53	23.69	27.00	$0.66	11.60	13.48	131.37	2.10	(6.67)	(11.27)	(4.05)	111.48	(2.65)	108.83
	2024	$4.65	24.12	27.48	$0.68	11.63	13.54	136.98	1.78	(6.94)	(11.00)	(4.15)	116.67	(3.01)	113.66
	2025	$4.77	24.55	27.97	$0.69	11.65	13.60	142.83	1.45	(7.21)	(10.73)	(4.25)	122.08		122.08
	2026	$4.89	25.00	28.47	$0.71	11.68	13.66	148.93	1.10	(7.50)	(10.73)	(4.36)	127.45	(11.85)	115.59
	2027	$5.02	25.45	28.98	$0.72	11.71	13.72	155.29	0.75	(7.80)	(10.43)	(4.47)	133.34		133.34
	2028	$5.14	25.91	29.50	$0.74	11.73	13.79	161.94	0.76	(8.13)	(10.57)	(4.58)	139.42		139.42
	2029	$5.28	26.38	30.02	$0.75	11.76	13.86	168.87	0.77	(8.48)	(10.71)	(4.69)	145.76	(6.13)	139.62
	2030	$5.41	26.85	30.56	$0.77	11.79	13.93	176.10	0.79	(8.84)	(10.86)	(4.81)	152.38		152.38
	2031	$5.55	27.10	30.83	$0.79	11.81	13.97	182.07	0.79	(9.14)	(10.96)	(4.93)	157.84	(9.88)	147.96
	2032	$5.69	27.34	31.11	$0.81	11.82	14.00	188.25	0.80	(9.45)	(11.06)	(5.05)	163.49		163.49
	2033	$5.83	27.59	31.39	$0.82	11.84	14.04	194.64	0.81	(9.77)	(11.50)	(5.18)	169.00	(23.27)	145.73
	2034	$5.98	27.84	31.67	$0.84	11.85	14.08	201.25	0.82	(10.10)	(11.61)	(5.31)	175.04	(3.15)	171.89
	2035	$6.13	28.09	31.95	$0.86	11.87	14.12	208.08	0.83	(10.45)	(11.72)	(5.44)	181.30		181.30
	2036	$6.29	28.34	32.24	$0.88	11.88	14.16	215.14	0.84	(10.80)	(11.84)	(5.58)	187.77		187.77
	2037	$6.45	28.60	32.52	$0.90	11.90	14.20	222.45	0.85	(11.16)	(11.95)	(5.72)	194.47		194.47
	2038	$6.61	28.86	32.81	$0.92	11.92	14.24	230.01	0.86	(11.54)	(12.07)	(5.86)	201.39		201.39
	2039	$6.78	29.12	33.11	$0.94	11.93	14.28	237.82	0.87	(11.93)	(12.19)	(6.01)	208.56	(34.13)	174.43
	2040	$6.95	29.39	33.40	$0.97	11.95	14.33	245.90	0.88	(12.34)	(12.71)	(6.16)	215.58	(16.75)	198.83
	2041	$7.12	29.39	33.40	$0.99	11.95	14.33	252.05	0.88	(12.65)	(12.78)	(6.31)	221.19		221.19
	2042	$7.30	29.39	33.40	$1.02	11.95	14.33	258.35	0.89	(12.96)	(12.86)	(6.47)	226.95		226.95
	2043	$7.48	29.39	33.40	$1.04	11.95	14.33	264.81	0.89	(13.28)	(12.93)	(6.63)	232.85	(17.64)	215.22
	2044	$7.67	29.39	33.40	$1.07	11.95	14.33	271.43	0.89	(13.62)	(13.01)	(6.80)	238.90	(15.55)	223.35
	2045	$7.86	29.39	33.40	$1.09	11.95	14.33	278.22	0.90	(13.96)	(13.09)	(6.97)	245.10		245.10
	2046	$8.06	29.39	33.40	$1.12	11.95	14.33	285.17	0.90	(14.30)	(13.17)	(7.14)	251.46		251.46
	2047	$8.26	29.39	33.40	$1.15	11.95	14.33	292.30	0.91	(14.66)	(13.73)	(7.32)	257.50	(28.08)	229.42
	2048	$8.46	29.39	33.40	$1.18	11.95	14.33	299.61	0.91	(15.03)	(13.82)	(7.50)	264.18		264.18
	2049	$8.68	29.39	33.40	$1.21	11.95	14.33	307.10	0.92	(15.40)	(13.91)	(7.69)	271.02	(8.45)	262.57
	2050	$8.89	29.39	33.40	$1.24	11.95	14.33	314.78	0.92	(15.78)	(14.00)	(7.88)	278.04		278.04
	2051	$9.12	29.39	33.40	$1.27	11.95	14.33	322.65	0.93	(16.18)	(14.09)	(8.08)	285.23		285.23
	2052	$9.34	29.39	33.40	$1.30	11.95	14.33	330.71	0.93	(16.58)	(14.19)	(8.28)	292.60		292.60
	2053	$9.58	29.39	33.40	$1.33	11.95	14.33	338.98	0.94	(17.00)	(14.28)	(8.49)	300.15	(5.56)	294.59
	2054	$9.82	29.39	33.40	$1.37	11.95	14.33	347.45	0.95	(17.42)	(14.95)	(8.70)	307.33	(27.24)	280.10
	2055	$10.06	29.39	33.40	$1.40	11.95	14.33	356.14	0.95	(17.85)	(15.05)	(8.92)	315.27	(17.87)	297.40
	2056	$10.31	29.39	33.40	$1.43	11.95	14.33	365.04	0.96	(18.30)	(15.15)	(9.14)	323.41		323.41
	2057	$10.57	29.39	33.40	$1.47	11.95	14.33	374.17	0.96	(18.76)	(15.26)	(9.37)	331.75		331.75
	2058	$10.83	29.39	33.40	$1.51	11.95	14.33	383.52	0.97	(19.22)	(15.37)	(9.60)	340.29		340.29
Totals FY 2010-18															
Totals FY 2019-58			1099.34	1250.61		471.42	559.82	9441.90	45.23	(474.36)	(501.34)	(247.06)	8264.37	(231.23)	8033.14

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 1 — Table 4: Base / Revenue Max / Corridor Tolling / 3+ HOVs Tolled / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$4.10	20.95	23.91	$0.61	10.96	12.66	105.63	0.63	(5.31)	(8.89)	(3.67)	88.38	(2.50)	85.88
	2020	$4.20	22.45	25.61	$0.62	11.53	13.32	115.91	0.67	(5.83)	(9.30)	(3.76)	97.69		97.69
	2021	$4.31	22.86	26.07	$0.64	11.56	13.37	120.85	0.68	(6.08)	(9.42)	(3.85)	102.18	(7.91)	94.27
	2022	$4.42	23.27	26.53	$0.65	11.58	13.42	126.00	0.69	(6.33)	(9.54)	(3.95)	106.87		106.87
	2023	$4.53	23.69	27.00	$0.66	11.60	13.48	131.37	0.70	(6.60)	(9.66)	(4.05)	111.76	(2.65)	109.11
	2024	$4.65	24.12	27.48	$0.68	11.63	13.54	136.98	0.71	(6.88)	(9.79)	(4.15)	116.87	(3.01)	113.86
	2025	$4.77	24.55	27.97	$0.69	11.65	13.60	142.83	0.72	(7.18)	(10.16)	(4.25)	121.96	(11.85)	110.10
	2026	$4.89	25.00	28.47	$0.71	11.68	13.66	148.93	0.74	(7.48)	(10.29)	(4.36)	127.53		127.53
	2027	$5.02	25.45	28.98	$0.72	11.71	13.72	155.29	0.75	(7.80)	(10.43)	(4.47)	133.34		133.34
	2028	$5.14	25.91	29.50	$0.74	11.73	13.79	161.94	0.76	(8.13)	(10.57)	(4.58)	139.42		139.42
	2029	$5.28	26.38	30.02	$0.75	11.76	13.86	168.87	0.77	(8.48)	(10.71)	(4.69)	145.76	(6.13)	139.62
	2030	$5.41	26.85	30.56	$0.77	11.79	13.93	176.10	0.79	(8.84)	(10.86)	(4.81)	152.38		152.38
	2031	$5.55	27.10	30.83	$0.79	11.81	13.97	182.07	0.79	(9.14)	(10.96)	(4.93)	157.84		157.84
	2032	$5.69	27.34	31.11	$0.81	11.82	14.00	188.25	0.80	(9.45)	(11.40)	(5.05)	163.15	(14.09)	149.06
	2033	$5.83	27.59	31.39	$0.82	11.84	14.04	194.64	0.81	(9.77)	(11.50)	(5.18)	169.00	(19.82)	149.18
	2034	$5.98	27.84	31.67	$0.84	11.85	14.08	201.25	0.82	(10.10)	(11.61)	(5.31)	175.04	(3.15)	171.89
	2035	$6.13	28.09	31.95	$0.86	11.87	14.12	208.08	0.83	(10.45)	(11.72)	(5.44)	181.30		181.30
	2036	$6.29	28.34	32.24	$0.88	11.88	14.16	215.14	0.84	(10.80)	(11.84)	(5.58)	187.77		187.77
	2037	$6.45	28.60	32.52	$0.90	11.90	14.20	222.45	0.85	(11.16)	(11.95)	(5.72)	194.47		194.47
	2038	$6.61	28.86	32.81	$0.92	11.92	14.24	230.01	0.86	(11.54)	(12.07)	(5.86)	201.39		201.39
	2039	$6.78	29.12	33.11	$0.94	11.93	14.28	237.82	0.87	(11.93)	(12.59)	(6.01)	208.16	(50.88)	157.28
	2040	$6.95	29.39	33.40	$0.97	11.95	14.33	245.90	0.88	(12.34)	(12.71)	(6.16)	215.58		215.58
	2041	$7.12	29.39	33.40	$0.99	11.95	14.33	252.05	0.88	(12.65)	(12.78)	(6.31)	221.19		221.19
	2042	$7.30	29.39	33.40	$1.02	11.95	14.33	258.35	0.89	(12.96)	(12.86)	(6.47)	226.95		226.95
	2043	$7.48	29.39	33.40	$1.04	11.95	14.33	264.81	0.89	(13.28)	(12.93)	(6.63)	232.85	(4.35)	228.51
	2044	$7.67	29.39	33.40	$1.07	11.95	14.33	271.43	0.89	(13.62)	(13.01)	(6.80)	238.90	(15.55)	223.35
	2045	$7.86	29.39	33.40	$1.09	11.95	14.33	278.22	0.90	(13.96)	(13.09)	(6.97)	245.10	(14.31)	230.79
	2046	$8.06	29.39	33.40	$1.12	11.95	14.33	285.17	0.90	(14.30)	(13.65)	(7.14)	250.98	(19.91)	231.08
	2047	$8.26	29.39	33.40	$1.15	11.95	14.33	292.30	0.91	(14.66)	(13.73)	(7.32)	257.50	(8.17)	249.33
	2048	$8.46	29.39	33.40	$1.18	11.95	14.33	299.61	0.91	(15.03)	(13.82)	(7.50)	264.18		264.18
	2049	$8.68	29.39	33.40	$1.21	11.95	14.33	307.10	0.92	(15.40)	(13.91)	(7.69)	271.02	(8.45)	262.57
	2050	$8.89	29.39	33.40	$1.24	11.95	14.33	314.78	0.92	(15.78)	(14.00)	(7.88)	278.04		278.04
	2051	$9.12	29.39	33.40	$1.27	11.95	14.33	322.65	0.93	(16.18)	(14.09)	(8.08)	285.23		285.23
	2052	$9.34	29.39	33.40	$1.30	11.95	14.33	330.71	0.93	(16.58)	(14.19)	(8.28)	292.60		292.60
	2053	$9.58	29.39	33.40	$1.33	11.95	14.33	338.98	0.94	(17.00)	(14.85)	(8.49)	299.59	(29.23)	270.36
	2054	$9.82	29.39	33.40	$1.37	11.95	14.33	347.45	0.95	(17.42)	(14.95)	(8.70)	307.33	(3.57)	303.76
	2055	$10.06	29.39	33.40	$1.40	11.95	14.33	356.14	0.95	(17.85)	(15.05)	(8.92)	315.27		315.27
	2056	$10.31	29.39	33.40	$1.43	11.95	14.33	365.04	0.96	(18.30)	(15.15)	(9.14)	323.41		323.41
	2057	$10.57	29.39	33.40	$1.47	11.95	14.33	374.17	0.96	(18.76)	(15.26)	(9.37)	331.75	(19.25)	312.50
	2058	$10.83	29.39	33.40	$1.51	11.95	14.33	383.52	0.97	(19.22)	(15.37)	(9.60)	340.29		340.29
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1102.67	1254.41		473.09	561.64	9458.79	33.55	(474.62)	(490.64)	(247.06)	8280.02	(244.80)	8035.22

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 1 — Table 5: High / Revenue Max / Corridor Tolling / 3+ HOVs Tolled

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$4.12	21.63	24.56	$0.60	10.94	12.72	108.76	3.19	(5.60)	(11.98)	(3.67)	90.71		90.71
	2020	$4.22	24.54	27.87	$0.62	12.20	14.12	126.38	3.25	(6.48)	(12.72)	(3.76)	106.67		106.67
	2021	$4.33	26.22	29.79	$0.64	12.84	14.86	138.32	3.08	(7.07)	(12.92)	(3.85)	117.56		117.56
	2022	$4.44	26.62	30.25	$0.65	12.87	14.92	143.84	2.73	(7.33)	(12.62)	(3.95)	122.68		122.68
	2023	$4.55	27.03	30.71	$0.66	12.89	14.98	149.58	2.38	(7.60)	(12.31)	(4.05)	128.01	(2.65)	125.36
	2024	$4.66	27.44	31.18	$0.68	12.92	15.04	155.55	2.01	(7.88)	(11.98)	(4.15)	133.55	(3.01)	130.54
	2025	$4.78	27.86	31.66	$0.69	12.95	15.11	161.77	1.63	(8.17)	(11.65)	(4.25)	139.32		139.32
	2026	$4.90	28.28	32.14	$0.71	12.98	15.18	168.23	1.24	(8.47)	(11.59)	(4.36)	145.05	(11.85)	133.19
	2027	$5.02	28.71	32.64	$0.72	13.01	15.25	174.95	0.84	(8.79)	(11.24)	(4.47)	151.30		151.30
	2028	$5.15	29.15	33.14	$0.74	13.04	15.32	181.95	0.85	(9.14)	(11.38)	(4.58)	157.71		157.71
	2029	$5.28	29.59	33.64	$0.75	13.07	15.40	189.23	0.86	(9.50)	(11.52)	(4.69)	164.38	(6.13)	158.25
	2030	$5.41	30.04	34.16	$0.77	13.10	15.48	196.80	0.88	(9.88)	(11.66)	(4.81)	171.32		171.32
	2031	$5.55	30.27	34.42	$0.79	13.12	15.52	203.20	0.89	(10.20)	(11.76)	(4.93)	177.19	(9.88)	167.31
	2032	$5.69	30.50	34.69	$0.81	13.13	15.56	209.81	0.89	(10.54)	(11.86)	(5.05)	183.25		183.25
	2033	$5.83	30.73	34.95	$0.82	13.15	15.60	216.63	0.90	(10.88)	(12.31)	(5.18)	189.17	(23.27)	165.91
	2034	$5.98	30.97	35.22	$0.84	13.17	15.64	223.68	0.91	(11.23)	(12.41)	(5.31)	195.64	(3.15)	192.48
	2035	$6.13	31.20	35.49	$0.86	13.19	15.69	230.95	0.92	(11.59)	(12.52)	(5.44)	202.32		202.32
	2036	$6.28	31.44	35.76	$0.88	13.20	15.73	238.47	0.93	(11.97)	(12.63)	(5.58)	209.22		209.22
	2037	$6.44	31.68	36.04	$0.90	13.22	15.78	246.23	0.94	(12.36)	(12.75)	(5.72)	216.34		216.34
	2038	$6.60	31.92	36.31	$0.92	13.24	15.82	254.24	0.95	(12.76)	(12.86)	(5.86)	223.71		223.71
	2039	$6.76	32.16	36.59	$0.94	13.26	15.87	262.51	0.96	(13.17)	(12.98)	(6.01)	231.31	(34.13)	197.18
	2040	$6.93	32.41	36.87	$0.97	13.28	15.92	271.06	0.97	(13.60)	(13.50)	(6.16)	238.77	(16.75)	222.02
	2041	$7.11	32.41	36.87	$0.99	13.28	15.92	277.83	0.97	(13.94)	(13.57)	(6.31)	244.98		244.98
	2042	$7.29	32.41	36.87	$1.02	13.28	15.92	284.78	0.98	(14.29)	(13.65)	(6.47)	251.35		251.35
	2043	$7.47	32.41	36.87	$1.04	13.28	15.92	291.90	0.98	(14.64)	(13.73)	(6.63)	257.88	(17.64)	240.24
	2044	$7.65	32.41	36.87	$1.07	13.28	15.92	299.19	0.99	(15.01)	(13.81)	(6.80)	264.57	(15.55)	249.02
	2045	$7.85	32.41	36.87	$1.09	13.28	15.92	306.67	0.99	(15.38)	(13.89)	(6.97)	271.43		271.43
	2046	$8.04	32.41	36.87	$1.12	13.28	15.92	314.34	1.00	(15.77)	(13.98)	(7.14)	278.46		278.46
	2047	$8.24	32.41	36.87	$1.15	13.28	15.92	322.20	1.00	(16.16)	(14.54)	(7.32)	285.19	(28.08)	257.11
	2048	$8.45	32.41	36.87	$1.18	13.28	15.92	330.26	1.01	(16.56)	(14.62)	(7.50)	292.58		292.58
	2049	$8.66	32.41	36.87	$1.21	13.28	15.92	338.51	1.01	(16.98)	(14.71)	(7.69)	300.15	(8.45)	291.69
	2050	$8.88	32.41	36.87	$1.24	13.28	15.92	346.97	1.02	(17.40)	(14.81)	(7.88)	307.91		307.91
	2051	$9.10	32.41	36.87	$1.27	13.28	15.92	355.65	1.03	(17.83)	(14.90)	(8.08)	315.86		315.86
	2052	$9.33	32.41	36.87	$1.30	13.28	15.92	364.54	1.03	(18.28)	(15.00)	(8.28)	324.01		324.01
	2053	$9.56	32.41	36.87	$1.33	13.28	15.92	373.65	1.04	(18.73)	(15.10)	(8.49)	332.37	(5.56)	326.81
	2054	$9.80	32.41	36.87	$1.37	13.28	15.92	382.99	1.04	(19.20)	(15.77)	(8.70)	340.37	(27.24)	313.14
	2055	$10.04	32.41	36.87	$1.40	13.28	15.92	392.57	1.05	(19.68)	(15.87)	(8.92)	349.15	(17.87)	331.28
	2056	$10.29	32.41	36.87	$1.43	13.28	15.92	402.38	1.06	(20.17)	(15.98)	(9.14)	358.15		358.15
	2057	$10.55	32.41	36.87	$1.47	13.28	15.92	412.44	1.06	(20.68)	(16.09)	(9.37)	367.38		367.38
	2058	$10.81	32.41	36.87	$1.51	13.28	15.92	422.75	1.07	(21.19)	(16.20)	(9.60)	376.83		376.83
Totals FY 2010-18															
Totals FY 2019-58			1223.69	1391.77		523.80	622.02	10471.79	50.56	(526.12)	(535.39)	(247.06)	9213.78	(231.23)	8982.55

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 1 — Table 6: High / Revenue Max / Corridor Tolling / 3+ HOVs Tolled / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$4.12	24.17	27.45	$0.61	12.17	14.07	121.54	0.71	(6.11)	(9.67)	(3.67)	102.80	(2.50)	100.30
	2020	$4.22	25.83	29.34	$0.62	12.82	14.80	133.02	0.76	(6.69)	(10.12)	(3.76)	113.21		113.21
	2021	$4.33	26.22	29.79	$0.64	12.84	14.86	138.32	0.77	(6.95)	(10.24)	(3.85)	118.05	(7.91)	110.14
	2022	$4.44	26.62	30.25	$0.65	12.87	14.92	143.84	0.78	(7.23)	(10.36)	(3.95)	123.09		123.09
	2023	$4.55	27.03	30.71	$0.66	12.89	14.98	149.58	0.79	(7.52)	(10.48)	(4.05)	128.33	(2.65)	125.68
	2024	$4.66	27.44	31.18	$0.68	12.92	15.04	155.55	0.80	(7.82)	(10.61)	(4.15)	133.79	(3.01)	130.78
	2025	$4.78	27.86	31.66	$0.69	12.95	15.11	161.77	0.81	(8.13)	(10.98)	(4.25)	139.22	(11.85)	127.37
	2026	$4.90	28.28	32.14	$0.71	12.98	15.18	168.23	0.83	(8.45)	(11.11)	(4.36)	145.14		145.14
	2027	$5.02	28.71	32.64	$0.72	13.01	15.25	174.95	0.84	(8.79)	(11.24)	(4.47)	151.30		151.30
	2028	$5.15	29.15	33.14	$0.74	13.04	15.32	181.95	0.85	(9.14)	(11.38)	(4.58)	157.71		157.71
	2029	$5.28	29.59	33.64	$0.75	13.07	15.40	189.23	0.86	(9.50)	(11.52)	(4.69)	164.38	(6.13)	158.25
	2030	$5.41	30.04	34.16	$0.77	13.10	15.48	196.80	0.88	(9.88)	(11.66)	(4.81)	171.32		171.32
	2031	$5.55	30.27	34.42	$0.79	13.12	15.52	203.20	0.89	(10.20)	(11.76)	(4.93)	177.19		177.19
	2032	$5.69	30.50	34.69	$0.81	13.13	15.56	209.81	0.89	(10.54)	(12.20)	(5.05)	182.91	(14.09)	168.82
	2033	$5.83	30.73	34.95	$0.82	13.15	15.60	216.63	0.90	(10.88)	(12.31)	(5.18)	189.17	(19.82)	169.35
	2034	$5.98	30.97	35.22	$0.84	13.17	15.64	223.68	0.91	(11.23)	(12.41)	(5.31)	195.64	(3.15)	192.48
	2035	$6.13	31.20	35.49	$0.86	13.19	15.69	230.95	0.92	(11.59)	(12.52)	(5.44)	202.32		202.32
	2036	$6.28	31.44	35.76	$0.88	13.20	15.73	238.47	0.93	(11.97)	(12.63)	(5.58)	209.22		209.22
	2037	$6.44	31.68	36.04	$0.90	13.22	15.78	246.23	0.94	(12.36)	(12.75)	(5.72)	216.34		216.34
	2038	$6.60	31.92	36.31	$0.92	13.24	15.82	254.24	0.95	(12.76)	(12.86)	(5.86)	223.71		223.71
	2039	$6.76	32.16	36.59	$0.94	13.26	15.87	262.51	0.96	(13.17)	(13.38)	(6.01)	230.91	(50.88)	180.03
	2040	$6.93	32.41	36.87	$0.97	13.28	15.92	271.06	0.97	(13.60)	(13.50)	(6.16)	238.77		238.77
	2041	$7.11	32.41	36.87	$0.99	13.28	15.92	277.83	0.97	(13.94)	(13.57)	(6.31)	244.98		244.98
	2042	$7.29	32.41	36.87	$1.02	13.28	15.92	284.78	0.98	(14.29)	(13.65)	(6.47)	251.35		251.35
	2043	$7.47	32.41	36.87	$1.04	13.28	15.92	291.90	0.98	(14.64)	(13.73)	(6.63)	257.88	(4.35)	253.53
	2044	$7.65	32.41	36.87	$1.07	13.28	15.92	299.19	0.99	(15.01)	(13.81)	(6.80)	264.57	(15.55)	249.02
	2045	$7.85	32.41	36.87	$1.09	13.28	15.92	306.67	0.99	(15.38)	(13.89)	(6.97)	271.43	(14.31)	257.12
	2046	$8.04	32.41	36.87	$1.12	13.28	15.92	314.34	1.00	(15.77)	(14.45)	(7.14)	277.98	(19.91)	258.08
	2047	$8.24	32.41	36.87	$1.15	13.28	15.92	322.20	1.00	(16.16)	(14.54)	(7.32)	285.19	(8.17)	277.02
	2048	$8.45	32.41	36.87	$1.18	13.28	15.92	330.26	1.01	(16.56)	(14.62)	(7.50)	292.58		292.58
	2049	$8.66	32.41	36.87	$1.21	13.28	15.92	338.51	1.01	(16.98)	(14.71)	(7.69)	300.15	(8.45)	291.69
	2050	$8.88	32.41	36.87	$1.24	13.28	15.92	346.97	1.02	(17.40)	(14.81)	(7.88)	307.91		307.91
	2051	$9.10	32.41	36.87	$1.27	13.28	15.92	355.65	1.03	(17.83)	(14.90)	(8.08)	315.86		315.86
	2052	$9.33	32.41	36.87	$1.30	13.28	15.92	364.54	1.03	(18.28)	(15.00)	(8.28)	324.01		324.01
	2053	$9.56	32.41	36.87	$1.33	13.28	15.92	373.65	1.04	(18.73)	(15.66)	(8.49)	331.81	(29.23)	302.58
	2054	$9.80	32.41	36.87	$1.37	13.28	15.92	382.99	1.04	(19.20)	(15.77)	(8.70)	340.37	(3.57)	336.80
	2055	$10.04	32.41	36.87	$1.40	13.28	15.92	392.57	1.05	(19.68)	(15.87)	(8.92)	349.15		349.15
	2056	$10.29	32.41	36.87	$1.43	13.28	15.92	402.38	1.06	(20.17)	(15.98)	(9.14)	358.15		358.15
	2057	$10.55	32.41	36.87	$1.47	13.28	15.92	412.44	1.06	(20.68)	(16.09)	(9.37)	367.38	(19.25)	348.13
	2058	$10.81	32.41	36.87	$1.51	13.28	15.92	422.75	1.07	(21.19)	(16.20)	(9.60)	376.83		376.83
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1227.52	1396.12		525.66	624.04	10491.20	37.31	(526.43)	(522.94)	(247.06)	9232.08	(244.80)	8987.28

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 2 — Table 1: Low / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Tolled

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$3.07	20.71	23.73	$0.59	8.14	9.48	78.58	2.83	(4.07)	(10.98)	(3.67)	62.69		62.69
	2020	$3.15	23.50	26.92	$0.61	9.08	10.53	91.26	2.88	(4.71)	(11.65)	(3.76)	74.03		74.03
	2021	$3.23	25.11	28.76	$0.63	9.56	11.07	99.84	2.73	(5.13)	(11.84)	(3.85)	81.75		81.75
	2022	$3.31	25.50	29.19	$0.64	9.58	11.12	103.77	2.43	(5.31)	(11.58)	(3.95)	85.36		85.36
	2023	$3.39	25.89	29.63	$0.66	9.61	11.18	107.85	2.11	(5.50)	(11.32)	(4.05)	89.11	(2.65)	86.46
	2024	$3.48	26.28	30.07	$0.67	9.63	11.23	112.11	1.79	(5.69)	(11.04)	(4.15)	93.01	(3.01)	90.00
	2025	$3.56	26.68	30.52	$0.68	9.66	11.29	116.52	1.45	(5.90)	(10.76)	(4.25)	97.07		97.07
	2026	$3.65	27.09	30.98	$0.70	9.68	11.35	121.12	1.11	(6.11)	(10.75)	(4.36)	101.01	(11.85)	89.16
	2027	$3.74	27.51	31.44	$0.71	9.71	11.41	125.90	0.75	(6.33)	(10.44)	(4.47)	105.41		105.41
	2028	$3.84	27.93	31.92	$0.73	9.74	11.47	130.87	0.76	(6.58)	(10.57)	(4.58)	109.90		109.90
	2029	$3.93	28.36	32.39	$0.74	9.77	11.54	136.04	0.77	(6.84)	(10.71)	(4.69)	114.57	(6.13)	108.44
	2030	$4.03	28.79	32.88	$0.76	9.80	11.60	141.41	0.78	(7.11)	(10.85)	(4.81)	119.43		119.43
	2031	$4.13	29.01	33.13	$0.78	9.81	11.64	145.98	0.79	(7.34)	(10.94)	(4.93)	123.56	(9.88)	113.67
	2032	$4.24	29.23	33.37	$0.80	9.83	11.67	150.69	0.80	(7.57)	(11.04)	(5.05)	127.82		127.82
	2033	$4.34	29.46	33.62	$0.81	9.84	11.71	155.55	0.81	(7.82)	(11.48)	(5.18)	131.88	(23.27)	108.61
	2034	$4.45	29.68	33.88	$0.83	9.86	11.75	160.57	0.82	(8.07)	(11.59)	(5.31)	136.42	(3.15)	133.27
	2035	$4.56	29.91	34.13	$0.85	9.88	11.78	165.75	0.83	(8.33)	(11.69)	(5.44)	141.12		141.12
	2036	$4.68	30.14	34.39	$0.87	9.89	11.82	171.10	0.83	(8.60)	(11.80)	(5.58)	145.96		145.96
	2037	$4.79	30.37	34.64	$0.89	9.91	11.86	176.63	0.84	(8.87)	(11.91)	(5.72)	150.97		150.97
	2038	$4.91	30.60	34.90	$0.91	9.93	11.90	182.33	0.85	(9.16)	(12.02)	(5.86)	156.14		156.14
	2039	$5.04	30.84	35.17	$0.93	9.95	11.94	188.22	0.86	(9.45)	(12.14)	(6.01)	161.48	(34.13)	127.35
	2040	$5.16	31.07	35.43	$0.95	9.96	11.98	194.30	0.87	(9.76)	(12.65)	(6.16)	166.60	(16.75)	149.85
	2041	$5.29	31.07	35.43	$0.98	9.96	11.98	199.16	0.87	(10.00)	(12.73)	(6.31)	170.99		170.99
	2042	$5.42	31.07	35.43	$1.00	9.96	11.98	204.14	0.88	(10.25)	(12.80)	(6.47)	175.50		175.50
	2043	$5.56	31.07	35.43	$1.02	9.96	11.98	209.24	0.88	(10.51)	(12.88)	(6.63)	180.11	(17.64)	162.48
	2044	$5.70	31.07	35.43	$1.05	9.96	11.98	214.47	0.89	(10.77)	(12.95)	(6.80)	184.84	(15.55)	169.29
	2045	$5.84	31.07	35.43	$1.08	9.96	11.98	219.83	0.89	(11.04)	(13.04)	(6.97)	189.69		189.69
	2046	$5.99	31.07	35.43	$1.10	9.96	11.98	225.33	0.90	(11.31)	(13.12)	(7.14)	194.66		194.66
	2047	$6.14	31.07	35.43	$1.13	9.96	11.98	230.96	0.90	(11.59)	(13.68)	(7.32)	199.28	(28.08)	171.20
	2048	$6.29	31.07	35.43	$1.16	9.96	11.98	236.74	0.91	(11.88)	(13.76)	(7.50)	204.50		204.50
	2049	$6.45	31.07	35.43	$1.19	9.96	11.98	242.65	0.91	(12.18)	(13.85)	(7.69)	209.85	(8.45)	201.40
	2050	$6.61	31.07	35.43	$1.22	9.96	11.98	248.72	0.92	(12.48)	(13.94)	(7.88)	215.33		215.33
	2051	$6.77	31.07	35.43	$1.25	9.96	11.98	254.94	0.92	(12.79)	(14.03)	(8.08)	220.96		220.96
	2052	$6.94	31.07	35.43	$1.28	9.96	11.98	261.31	0.93	(13.11)	(14.13)	(8.28)	226.72		226.72
	2053	$7.12	31.07	35.43	$1.31	9.96	11.98	267.85	0.93	(13.44)	(14.23)	(8.49)	232.63	(5.56)	227.06
	2054	$7.29	31.07	35.43	$1.34	9.96	11.98	274.54	0.94	(13.77)	(14.89)	(8.70)	238.12	(27.24)	210.88
	2055	$7.48	31.07	35.43	$1.38	9.96	11.98	281.40	0.94	(14.12)	(14.99)	(8.92)	244.32	(17.87)	226.45
	2056	$7.66	31.07	35.43	$1.41	9.96	11.98	288.44	0.95	(14.47)	(15.10)	(9.14)	250.68		250.68
	2057	$7.86	31.07	35.43	$1.45	9.96	11.98	295.65	0.96	(14.83)	(15.21)	(9.37)	257.20		257.20
	2058	$8.05	31.07	35.43	$1.48	9.96	11.98	303.04	0.96	(15.20)	(15.32)	(9.60)	263.89		263.89
Totals FY 2010-18															
Totals FY 2019-58			1172.98	1338.84		392.16	466.99	7514.81	45.18	(378.00)	(500.38)	(247.06)	6434.55	(231.23)	6203.32

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 2 — Table 2: Low / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Tolled / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	10.90	12.68				32.79	2.08	(1.74)	(5.72)		27.42		27.42
	2011	$2.65	16.76	19.51				51.70	2.89	(2.73)	(7.59)		44.27		44.27
	2012	$2.72	19.06	22.20				60.29	2.93	(3.16)	(8.02)		52.04		52.04
	2013	$2.78	20.42	23.78				66.21	2.75	(3.45)	(8.04)		57.47		57.47
	2014	$2.85	20.79	24.21				69.08	2.41	(3.57)	(7.72)		60.19	(2.50)	57.69
	2015	$2.93	21.16	24.64				72.07	2.05	(3.71)	(7.38)		63.03		63.03
	2016	$3.00	21.53	25.08				75.19	1.67	(3.84)	(7.05)		65.97	(1.00)	64.97
	2017	$3.07	21.92	25.53				78.45	1.28	(3.99)	(6.68)		69.06		69.06
	2018	$3.15	22.31	25.98				81.85	0.87	(4.14)	(6.29)		72.29		72.29
Post-Completion — Full Revenue Operations	2019	$3.07	23.14	26.52	$0.60	9.05	10.48	87.81	0.63	(4.42)	(8.94)	(3.67)	71.41	(2.50)	68.91
	2020	$3.15	24.73	28.34	$0.62	9.54	11.02	96.06	0.67	(4.84)	(9.35)	(3.76)	78.79		78.79
	2021	$3.23	25.11	28.76	$0.63	9.56	11.07	99.84	0.68	(5.03)	(9.46)	(3.85)	82.18	(7.91)	74.27
	2022	$3.31	25.50	29.19	$0.64	9.58	11.12	103.77	0.69	(5.22)	(9.58)	(3.95)	85.71		85.71
	2023	$3.39	25.89	29.63	$0.66	9.61	11.18	107.85	0.70	(5.43)	(9.70)	(4.05)	89.39	(2.65)	86.74
	2024	$3.48	26.28	30.07	$0.67	9.63	11.23	112.11	0.71	(5.64)	(9.82)	(4.15)	93.21	(3.01)	90.20
	2025	$3.56	26.68	30.52	$0.68	9.66	11.29	116.52	0.73	(5.86)	(10.19)	(4.25)	96.95	(11.85)	85.10
	2026	$3.65	27.09	30.98	$0.70	9.68	11.35	121.12	0.74	(6.09)	(10.31)	(4.36)	101.09		101.09
	2027	$3.74	27.51	31.44	$0.71	9.71	11.41	125.90	0.75	(6.33)	(10.44)	(4.47)	105.41		105.41
	2028	$3.84	27.93	31.92	$0.73	9.74	11.47	130.87	0.76	(6.58)	(10.57)	(4.58)	109.90		109.90
	2029	$3.93	28.36	32.39	$0.74	9.77	11.54	136.04	0.77	(6.84)	(10.71)	(4.69)	114.57	(6.13)	108.44
	2030	$4.03	28.79	32.88	$0.76	9.80	11.60	141.41	0.78	(7.11)	(10.85)	(4.81)	119.43		119.43
	2031	$4.13	29.01	33.13	$0.78	9.81	11.64	145.98	0.79	(7.34)	(10.94)	(4.93)	123.56		123.56
	2032	$4.24	29.23	33.37	$0.80	9.83	11.67	150.69	0.80	(7.57)	(11.38)	(5.05)	127.48	(14.09)	113.39
	2033	$4.34	29.46	33.62	$0.81	9.84	11.71	155.55	0.81	(7.82)	(11.48)	(5.18)	131.88	(19.82)	112.06
	2034	$4.45	29.68	33.88	$0.83	9.86	11.75	160.57	0.82	(8.07)	(11.59)	(5.31)	136.42	(3.15)	133.27
	2035	$4.56	29.91	34.13	$0.85	9.88	11.78	165.75	0.83	(8.33)	(11.69)	(5.44)	141.12		141.12
	2036	$4.68	30.14	34.39	$0.87	9.89	11.82	171.10	0.83	(8.60)	(11.80)	(5.58)	145.96		145.96
	2037	$4.79	30.37	34.64	$0.89	9.91	11.86	176.63	0.84	(8.87)	(11.91)	(5.72)	150.97		150.97
	2038	$4.91	30.60	34.90	$0.91	9.93	11.90	182.33	0.85	(9.16)	(12.02)	(5.86)	156.14		156.14
	2039	$5.04	30.84	35.17	$0.93	9.95	11.94	188.22	0.86	(9.45)	(12.54)	(6.01)	161.09	(50.88)	110.20
	2040	$5.16	31.07	35.43	$0.95	9.96	11.98	194.30	0.87	(9.76)	(12.65)	(6.16)	166.60		166.60
	2041	$5.29	31.07	35.43	$0.98	9.96	11.98	199.16	0.87	(10.00)	(12.73)	(6.31)	170.99		170.99
	2042	$5.42	31.07	35.43	$1.00	9.96	11.98	204.14	0.88	(10.25)	(12.80)	(6.47)	175.50		175.50
	2043	$5.56	31.07	35.43	$1.02	9.96	11.98	209.24	0.88	(10.51)	(12.88)	(6.63)	180.11	(4.35)	175.77
	2044	$5.70	31.07	35.43	$1.05	9.96	11.98	214.47	0.89	(10.77)	(12.95)	(6.80)	184.84	(15.55)	169.29
	2045	$5.84	31.07	35.43	$1.08	9.96	11.98	219.83	0.89	(11.04)	(13.04)	(6.97)	189.69	(14.31)	175.38
	2046	$5.99	31.07	35.43	$1.10	9.96	11.98	225.33	0.90	(11.31)	(13.59)	(7.14)	194.18	(19.91)	174.27
	2047	$6.14	31.07	35.43	$1.13	9.96	11.98	230.96	0.90	(11.59)	(13.68)	(7.32)	199.28	(8.17)	191.11
	2048	$6.29	31.07	35.43	$1.16	9.96	11.98	236.74	0.91	(11.88)	(13.76)	(7.50)	204.50		204.50
	2049	$6.45	31.07	35.43	$1.19	9.96	11.98	242.65	0.91	(12.18)	(13.85)	(7.69)	209.85	(8.45)	201.40
	2050	$6.61	31.07	35.43	$1.22	9.96	11.98	248.72	0.92	(12.48)	(13.94)	(7.88)	215.33		215.33
	2051	$6.77	31.07	35.43	$1.25	9.96	11.98	254.94	0.92	(12.79)	(14.03)	(8.08)	220.96		220.96
	2052	$6.94	31.07	35.43	$1.28	9.96	11.98	261.31	0.93	(13.11)	(14.13)	(8.28)	226.72		226.72
	2053	$7.12	31.07	35.43	$1.31	9.96	11.98	267.85	0.93	(13.44)	(14.79)	(8.49)	232.06	(29.23)	202.83
	2054	$7.29	31.07	35.43	$1.34	9.96	11.98	274.54	0.94	(13.77)	(14.89)	(8.70)	238.12	(3.57)	234.54
	2055	$7.48	31.07	35.43	$1.38	9.96	11.98	281.40	0.94	(14.12)	(14.99)	(8.92)	244.32		244.32
	2056	$7.66	31.07	35.43	$1.41	9.96	11.98	288.44	0.95	(14.47)	(15.10)	(9.14)	250.68		250.68
	2057	$7.86	31.07	35.43	$1.45	9.96	11.98	295.65	0.96	(14.83)	(15.21)	(9.37)	257.20	(19.25)	237.96
	2058	$8.05	31.07	35.43	$1.48	9.96	11.98	303.04	0.96	(15.20)	(15.32)	(9.60)	263.89		263.89
Totals FY 2010-18			174.85	203.61				587.62	18.94	(30.33)	(64.50)		511.73	(3.50)	508.23
Totals FY 2019-58			1176.65	1343.05		393.53	468.49	7528.83	33.42	(378.11)	(489.59)	(247.06)	6447.48	(244.80)	6202.69

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 2 — Table 3: Base / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Tolled

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$3.07	23.16	26.57	$0.59	9.15	10.67	88.00	3.17	(4.56)	(11.91)	(3.67)	71.03		71.03
	2020	$3.15	26.28	30.13	$0.61	10.21	11.84	102.17	3.23	(5.27)	(12.66)	(3.76)	83.71		83.71
	2021	$3.23	28.07	32.18	$0.63	10.75	12.46	111.74	3.06	(5.74)	(12.86)	(3.85)	92.35		92.35
	2022	$3.31	28.49	32.65	$0.64	10.78	12.52	116.10	2.72	(5.94)	(12.57)	(3.95)	96.37		96.37
	2023	$3.39	28.92	33.13	$0.66	10.81	12.57	120.64	2.36	(6.15)	(12.26)	(4.05)	100.55	(2.65)	97.90
	2024	$3.48	29.35	33.61	$0.67	10.83	12.64	125.36	2.00	(6.37)	(11.95)	(4.15)	104.90	(3.01)	101.89
	2025	$3.56	29.79	34.11	$0.68	10.86	12.70	130.27	1.62	(6.59)	(11.62)	(4.25)	109.42		109.42
	2026	$3.65	30.23	34.61	$0.70	10.89	12.77	135.36	1.24	(6.83)	(11.57)	(4.36)	113.84	(11.85)	101.99
	2027	$3.74	30.69	35.11	$0.71	10.92	12.83	140.67	0.84	(7.08)	(11.22)	(4.47)	118.74		118.74
	2028	$3.84	31.14	35.63	$0.73	10.96	12.91	146.18	0.85	(7.35)	(11.36)	(4.58)	123.73		123.73
	2029	$3.93	31.61	36.15	$0.74	10.99	12.98	151.91	0.86	(7.64)	(11.51)	(4.69)	128.93	(6.13)	122.80
	2030	$4.03	32.08	36.68	$0.76	11.02	13.05	157.86	0.88	(7.94)	(11.65)	(4.81)	134.34		134.34
	2031	$4.13	32.32	36.95	$0.78	11.04	13.09	162.93	0.89	(8.19)	(11.76)	(4.93)	138.94	(9.88)	129.06
	2032	$4.24	32.57	37.22	$0.80	11.06	13.13	168.16	0.89	(8.45)	(11.86)	(5.05)	143.69		143.69
	2033	$4.34	32.81	37.50	$0.81	11.08	13.17	173.57	0.90	(8.72)	(12.31)	(5.18)	148.26	(23.27)	124.99
	2034	$4.45	33.05	37.77	$0.83	11.09	13.22	179.14	0.91	(9.00)	(12.42)	(5.31)	153.33	(3.15)	150.17
	2035	$4.56	33.30	38.05	$0.85	11.11	13.26	184.90	0.92	(9.29)	(12.53)	(5.44)	158.56		158.56
	2036	$4.68	33.55	38.33	$0.87	11.13	13.30	190.84	0.93	(9.59)	(12.64)	(5.58)	163.97		163.97
	2037	$4.79	33.80	38.61	$0.89	11.15	13.34	196.97	0.94	(9.90)	(12.76)	(5.72)	169.55		169.55
	2038	$4.91	34.06	38.90	$0.91	11.17	13.39	203.31	0.95	(10.21)	(12.87)	(5.86)	175.31		175.31
	2039	$5.04	34.31	39.18	$0.93	11.19	13.43	209.84	0.96	(10.54)	(13.00)	(6.01)	181.26	(34.13)	147.13
	2040	$5.16	34.57	39.47	$0.95	11.21	13.48	216.59	0.97	(10.88)	(13.52)	(6.16)	187.01	(16.75)	170.26
	2041	$5.29	34.57	39.47	$0.98	11.21	13.48	222.00	0.98	(11.15)	(13.59)	(6.31)	191.93		191.93
	2042	$5.42	34.57	39.47	$1.00	11.21	13.48	227.55	0.98	(11.43)	(13.67)	(6.47)	196.97		196.97
	2043	$5.56	34.57	39.47	$1.02	11.21	13.48	233.24	0.99	(11.71)	(13.75)	(6.63)	202.14	(17.64)	184.50
	2044	$5.70	34.57	39.47	$1.05	11.21	13.48	239.07	0.99	(12.00)	(13.83)	(6.80)	207.44	(15.55)	191.89
	2045	$5.84	34.57	39.47	$1.08	11.21	13.48	245.05	1.00	(12.30)	(13.91)	(6.97)	212.87		212.87
	2046	$5.99	34.57	39.47	$1.10	11.21	13.48	251.18	1.00	(12.61)	(13.99)	(7.14)	218.44		218.44
	2047	$6.14	34.57	39.47	$1.13	11.21	13.48	257.46	1.01	(12.92)	(14.55)	(7.32)	223.67	(28.08)	195.59
	2048	$6.29	34.57	39.47	$1.16	11.21	13.48	263.89	1.01	(13.25)	(14.64)	(7.50)	229.52		229.52
	2049	$6.45	34.57	39.47	$1.19	11.21	13.48	270.49	1.02	(13.58)	(14.73)	(7.69)	235.51	(8.45)	227.06
	2050	$6.61	34.57	39.47	$1.22	11.21	13.48	277.25	1.02	(13.91)	(14.82)	(7.88)	241.66		241.66
	2051	$6.77	34.57	39.47	$1.25	11.21	13.48	284.18	1.03	(14.26)	(14.92)	(8.08)	247.95		247.95
	2052	$6.94	34.57	39.47	$1.28	11.21	13.48	291.29	1.03	(14.62)	(15.02)	(8.28)	254.41		254.41
	2053	$7.12	34.57	39.47	$1.31	11.21	13.48	298.57	1.04	(14.98)	(15.12)	(8.49)	261.03	(5.56)	255.46
	2054	$7.29	34.57	39.47	$1.34	11.21	13.48	306.03	1.05	(15.35)	(15.78)	(8.70)	267.24	(27.24)	240.01
	2055	$7.48	34.57	39.47	$1.38	11.21	13.48	313.68	1.05	(15.74)	(15.89)	(8.92)	274.20	(17.87)	256.32
	2056	$7.66	34.57	39.47	$1.41	11.21	13.48	321.53	1.06	(16.13)	(16.00)	(9.14)	281.32		281.32
	2057	$7.86	34.57	39.47	$1.45	11.21	13.48	329.56	1.07	(16.53)	(16.11)	(9.37)	288.63		288.63
	2058	$8.05	34.57	39.47	$1.48	11.21	13.48	337.80	1.07	(16.94)	(16.22)	(9.60)	296.11		296.11
Totals FY 2010-18															
Totals FY 2019-58			1306.39	1492.98		441.18	525.37	8382.35	50.48	(421.64)	(535.32)	(247.06)	7228.81	(231.23)	6997.58

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 2 — Table 4: Base / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Tolled / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$3.07	25.89	29.69	$0.60	10.19	11.79	98.33	0.71	(4.95)	(9.63)	(3.67)	80.80	(2.50)	78.30
	2020	$3.15	27.66	31.71	$0.62	10.73	12.40	107.54	0.75	(5.41)	(10.08)	(3.76)	89.05		89.05
	2021	$3.23	28.07	32.18	$0.63	10.75	12.46	111.74	0.77	(5.63)	(10.20)	(3.85)	92.83	(7.91)	84.92
	2022	$3.31	28.49	32.65	$0.64	10.78	12.52	116.10	0.78	(5.84)	(10.32)	(3.95)	96.77		96.77
	2023	$3.39	28.92	33.13	$0.66	10.81	12.57	120.64	0.79	(6.07)	(10.45)	(4.05)	100.87	(2.65)	98.21
	2024	$3.48	29.35	33.61	$0.67	10.83	12.64	125.36	0.80	(6.31)	(10.58)	(4.15)	105.13	(3.01)	102.12
	2025	$3.56	29.79	34.11	$0.68	10.86	12.70	130.27	0.81	(6.55)	(10.95)	(4.25)	109.32	(11.85)	97.47
	2026	$3.65	30.23	34.61	$0.70	10.89	12.77	135.36	0.82	(6.81)	(11.09)	(4.36)	113.94		113.94
	2027	$3.74	30.69	35.11	$0.71	10.92	12.83	140.67	0.84	(7.08)	(11.22)	(4.47)	118.74		118.74
	2028	$3.84	31.14	35.63	$0.73	10.96	12.91	146.18	0.85	(7.35)	(11.36)	(4.58)	123.73		123.73
	2029	$3.93	31.61	36.15	$0.74	10.99	12.98	151.91	0.86	(7.64)	(11.51)	(4.69)	128.93	(6.13)	122.80
	2030	$4.03	32.08	36.68	$0.76	11.02	13.05	157.86	0.88	(7.94)	(11.65)	(4.81)	134.34		134.34
	2031	$4.13	32.32	36.95	$0.78	11.04	13.09	162.93	0.89	(8.19)	(11.76)	(4.93)	138.94		138.94
	2032	$4.24	32.57	37.22	$0.80	11.06	13.13	168.16	0.89	(8.45)	(12.20)	(5.05)	143.36	(14.09)	129.27
	2033	$4.34	32.81	37.50	$0.81	11.08	13.17	173.57	0.90	(8.72)	(12.31)	(5.18)	148.26	(19.82)	128.44
	2034	$4.45	33.05	37.77	$0.83	11.09	13.22	179.14	0.91	(9.00)	(12.42)	(5.31)	153.33	(3.15)	150.17
	2035	$4.56	33.30	38.05	$0.85	11.11	13.26	184.90	0.92	(9.29)	(12.53)	(5.44)	158.56		158.56
	2036	$4.68	33.55	38.33	$0.87	11.13	13.30	190.84	0.93	(9.59)	(12.64)	(5.58)	163.97		163.97
	2037	$4.79	33.80	38.61	$0.89	11.15	13.34	196.97	0.94	(9.90)	(12.76)	(5.72)	169.55		169.55
	2038	$4.91	34.06	38.90	$0.91	11.17	13.39	203.31	0.95	(10.21)	(12.87)	(5.86)	175.31		175.31
	2039	$5.04	34.31	39.18	$0.93	11.19	13.43	209.84	0.96	(10.54)	(13.39)	(6.01)	180.86	(50.88)	129.98
	2040	$5.16	34.57	39.47	$0.95	11.21	13.48	216.59	0.97	(10.88)	(13.52)	(6.16)	187.01		187.01
	2041	$5.29	34.57	39.47	$0.98	11.21	13.48	222.00	0.98	(11.15)	(13.59)	(6.31)	191.93		191.93
	2042	$5.42	34.57	39.47	$1.00	11.21	13.48	227.55	0.98	(11.43)	(13.67)	(6.47)	196.97		196.97
	2043	$5.56	34.57	39.47	$1.02	11.21	13.48	233.24	0.99	(11.71)	(13.75)	(6.63)	202.14	(4.35)	197.79
	2044	$5.70	34.57	39.47	$1.05	11.21	13.48	239.07	0.99	(12.00)	(13.83)	(6.80)	207.44	(15.55)	191.89
	2045	$5.84	34.57	39.47	$1.08	11.21	13.48	245.05	1.00	(12.30)	(13.91)	(6.97)	212.87	(14.31)	198.56
	2046	$5.99	34.57	39.47	$1.10	11.21	13.48	251.18	1.00	(12.61)	(14.47)	(7.14)	217.96	(19.91)	198.05
	2047	$6.14	34.57	39.47	$1.13	11.21	13.48	257.46	1.01	(12.92)	(14.55)	(7.32)	223.67	(8.17)	215.50
	2048	$6.29	34.57	39.47	$1.16	11.21	13.48	263.89	1.01	(13.25)	(14.64)	(7.50)	229.52		229.52
	2049	$6.45	34.57	39.47	$1.19	11.21	13.48	270.49	1.02	(13.58)	(14.73)	(7.69)	235.51	(8.45)	227.06
	2050	$6.61	34.57	39.47	$1.22	11.21	13.48	277.25	1.02	(13.91)	(14.82)	(7.88)	241.66		241.66
	2051	$6.77	34.57	39.47	$1.25	11.21	13.48	284.18	1.03	(14.26)	(14.92)	(8.08)	247.95		247.95
	2052	$6.94	34.57	39.47	$1.28	11.21	13.48	291.29	1.03	(14.62)	(15.02)	(8.28)	254.41		254.41
	2053	$7.12	34.57	39.47	$1.31	11.21	13.48	298.57	1.04	(14.98)	(15.68)	(8.49)	260.46	(29.23)	231.23
	2054	$7.29	34.57	39.47	$1.34	11.21	13.48	306.03	1.05	(15.35)	(15.78)	(8.70)	267.24	(3.57)	263.67
	2055	$7.48	34.57	39.47	$1.38	11.21	13.48	313.68	1.05	(15.74)	(15.89)	(8.92)	274.20		274.20
	2056	$7.66	34.57	39.47	$1.41	11.21	13.48	321.53	1.06	(16.13)	(16.00)	(9.14)	281.32		281.32
	2057	$7.86	34.57	39.47	$1.45	11.21	13.48	329.56	1.07	(16.53)	(16.11)	(9.37)	288.63	(19.25)	269.38
	2058	$8.05	34.57	39.47	$1.48	11.21	13.48	337.80	1.07	(16.94)	(16.22)	(9.60)	296.11		296.11
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1310.50	1497.70		442.72	527.05	8398.05	37.31	(421.77)	(522.97)	(247.06)	7243.57	(244.80)	6998.77

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 2 — Table 5: High / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Tolled

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$3.07	26.07	29.85	$0.59	10.17	11.85	98.79	3.55	(5.12)	(12.97)	(3.67)	80.60		80.60
	2020	$3.15	29.55	33.83	$0.61	11.35	13.16	114.65	3.62	(5.91)	(13.79)	(3.76)	94.81		94.81
	2021	$3.23	31.55	36.12	$0.63	11.95	13.84	125.34	3.43	(6.44)	(14.01)	(3.85)	104.46		104.46
	2022	$3.31	32.01	36.63	$0.64	11.98	13.91	130.17	3.04	(6.66)	(13.67)	(3.95)	108.94		108.94
	2023	$3.39	32.47	37.15	$0.66	12.01	13.97	135.20	2.65	(6.89)	(13.32)	(4.05)	113.59	(2.65)	110.93
	2024	$3.48	32.93	37.67	$0.67	12.04	14.04	140.43	2.24	(7.13)	(12.96)	(4.15)	118.42	(3.01)	115.41
	2025	$3.56	33.41	38.21	$0.68	12.07	14.11	145.85	1.82	(7.38)	(12.59)	(4.25)	123.44		123.44
	2026	$3.65	33.89	38.75	$0.70	12.10	14.19	151.49	1.38	(7.64)	(12.49)	(4.36)	128.38	(11.85)	116.53
	2027	$3.75	34.37	39.30	$0.71	12.14	14.26	157.35	0.94	(7.91)	(12.10)	(4.47)	133.81		133.81
	2028	$3.84	34.87	39.85	$0.73	12.17	14.34	163.44	0.95	(8.22)	(12.25)	(4.58)	139.35		139.35
	2029	$3.93	35.37	40.42	$0.74	12.21	14.42	169.77	0.96	(8.54)	(12.40)	(4.69)	145.10	(6.13)	138.97
	2030	$4.03	35.88	40.99	$0.76	12.25	14.51	176.34	0.98	(8.87)	(12.55)	(4.81)	151.09		151.09
	2031	$4.13	36.14	41.28	$0.78	12.27	14.55	181.96	0.99	(9.15)	(12.66)	(4.93)	156.21	(9.88)	146.33
	2032	$4.24	36.40	41.57	$0.80	12.29	14.59	187.76	1.00	(9.44)	(12.77)	(5.05)	161.49		161.49
	2033	$4.34	36.66	41.87	$0.81	12.31	14.64	193.74	1.01	(9.74)	(13.22)	(5.18)	166.61	(23.27)	143.35
	2034	$4.45	36.92	42.16	$0.83	12.33	14.68	199.92	1.02	(10.05)	(13.33)	(5.31)	172.25	(3.15)	169.09
	2035	$4.56	37.19	42.46	$0.85	12.35	14.73	206.29	1.03	(10.37)	(13.45)	(5.44)	178.06		178.06
	2036	$4.68	37.45	42.76	$0.87	12.37	14.78	212.87	1.04	(10.70)	(13.57)	(5.58)	184.06		184.06
	2037	$4.79	37.72	43.07	$0.89	12.39	14.83	219.65	1.05	(11.04)	(13.69)	(5.72)	190.26		190.26
	2038	$4.91	38.00	43.37	$0.91	12.41	14.88	226.66	1.06	(11.39)	(13.81)	(5.86)	196.66		196.66
	2039	$5.04	38.27	43.68	$0.93	12.43	14.93	233.89	1.07	(11.75)	(13.94)	(6.01)	203.26	(34.13)	169.13
	2040	$5.16	38.54	43.99	$0.95	12.45	14.98	241.35	1.08	(12.12)	(14.47)	(6.16)	209.68	(16.75)	192.94
	2041	$5.29	38.54	43.99	$0.98	12.45	14.98	247.38	1.09	(12.42)	(14.54)	(6.31)	215.19		215.19
	2042	$5.42	38.54	43.99	$1.00	12.45	14.98	253.57	1.09	(12.73)	(14.62)	(6.47)	220.84		220.84
	2043	$5.56	38.54	43.99	$1.02	12.45	14.98	259.91	1.10	(13.05)	(14.70)	(6.63)	226.62	(17.64)	208.99
	2044	$5.70	38.54	43.99	$1.05	12.45	14.98	266.40	1.10	(13.38)	(14.78)	(6.80)	232.55	(15.55)	217.00
	2045	$5.84	38.54	43.99	$1.08	12.45	14.98	273.06	1.11	(13.71)	(14.87)	(6.97)	238.63		238.63
	2046	$5.99	38.54	43.99	$1.10	12.45	14.98	279.89	1.11	(14.05)	(14.96)	(7.14)	244.86		244.86
	2047	$6.14	38.54	43.99	$1.13	12.45	14.98	286.89	1.12	(14.40)	(15.52)	(7.32)	250.77	(28.08)	222.69
	2048	$6.29	38.54	43.99	$1.16	12.45	14.98	294.06	1.13	(14.76)	(15.61)	(7.50)	257.32		257.32
	2049	$6.45	38.54	43.99	$1.19	12.45	14.98	301.41	1.13	(15.13)	(15.70)	(7.69)	264.03	(8.45)	255.57
	2050	$6.61	38.54	43.99	$1.22	12.45	14.98	308.95	1.14	(15.50)	(15.80)	(7.88)	270.90		270.90
	2051	$6.77	38.54	43.99	$1.25	12.45	14.98	316.67	1.15	(15.89)	(15.89)	(8.08)	277.95		277.95
	2052	$6.94	38.54	43.99	$1.28	12.45	14.98	324.59	1.15	(16.29)	(15.99)	(8.28)	285.18		285.18
	2053	$7.12	38.54	43.99	$1.31	12.45	14.98	332.70	1.16	(16.69)	(16.10)	(8.49)	292.58	(5.56)	287.02
	2054	$7.29	38.54	43.99	$1.34	12.45	14.98	341.02	1.17	(17.11)	(16.77)	(8.70)	299.61	(27.24)	272.37
	2055	$7.48	38.54	43.99	$1.38	12.45	14.98	349.54	1.17	(17.54)	(16.87)	(8.92)	307.39	(17.87)	289.52
	2056	$7.66	38.54	43.99	$1.41	12.45	14.98	358.28	1.18	(17.97)	(16.98)	(9.14)	315.37		315.37
	2057	$7.86	38.54	43.99	$1.45	12.45	14.98	367.24	1.19	(18.42)	(17.10)	(9.37)	323.54		323.54
	2058	$8.05	38.54	43.99	$1.48	12.45	14.98	376.42	1.20	(18.88)	(17.21)	(9.60)	331.92		331.92
Totals FY 2010-18															
Totals FY 2019-58			1459.44	1666.76		490.20	583.74	9350.88	56.38	(470.36)	(574.05)	(247.06)	8115.79	(231.23)	7884.56

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 2 — Table 6: High / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Tolled / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$3.07	29.13	33.36	$0.60	11.32	13.10	110.40	0.79	(5.56)	(10.40)	(3.67)	91.57	(2.50)	89.07
	2020	$3.15	31.11	35.61	$0.62	11.92	13.78	120.68	0.85	(6.08)	(10.89)	(3.76)	100.80		100.80
	2021	$3.23	31.55	36.12	$0.63	11.95	13.84	125.34	0.86	(6.31)	(11.02)	(3.85)	105.01	(7.91)	97.10
	2022	$3.31	32.01	36.63	$0.64	11.98	13.91	130.17	0.87	(6.55)	(11.15)	(3.95)	109.39		109.39
	2023	$3.39	32.47	37.15	$0.66	12.01	13.97	135.20	0.88	(6.80)	(11.29)	(4.05)	113.95	(2.65)	111.30
	2024	$3.48	32.93	37.67	$0.67	12.04	14.04	140.43	0.90	(7.07)	(11.42)	(4.15)	118.68	(3.01)	115.67
	2025	$3.56	33.41	38.21	$0.68	12.07	14.11	145.85	0.91	(7.34)	(11.81)	(4.25)	123.36	(11.85)	111.51
	2026	$3.65	33.89	38.75	$0.70	12.10	14.19	151.49	0.92	(7.62)	(11.95)	(4.36)	128.49		128.49
	2027	$3.75	34.37	39.30	$0.71	12.14	14.26	157.35	0.94	(7.91)	(12.10)	(4.47)	133.81		133.81
	2028	$3.84	34.87	39.85	$0.73	12.17	14.34	163.44	0.95	(8.22)	(12.25)	(4.58)	139.35		139.35
	2029	$3.93	35.37	40.42	$0.74	12.21	14.42	169.77	0.96	(8.54)	(12.40)	(4.69)	145.10	(6.13)	138.97
	2030	$4.03	35.88	40.99	$0.76	12.25	14.51	176.34	0.98	(8.87)	(12.55)	(4.81)	151.09		151.09
	2031	$4.13	36.14	41.28	$0.78	12.27	14.55	181.96	0.99	(9.15)	(12.66)	(4.93)	156.21		156.21
	2032	$4.24	36.40	41.57	$0.80	12.29	14.59	187.76	1.00	(9.44)	(13.11)	(5.05)	161.16	(14.09)	147.07
	2033	$4.34	36.66	41.87	$0.81	12.31	14.64	193.74	1.01	(9.74)	(13.22)	(5.18)	166.61	(19.82)	146.79
	2034	$4.45	36.92	42.16	$0.83	12.33	14.68	199.92	1.02	(10.05)	(13.33)	(5.31)	172.25	(3.15)	169.09
	2035	$4.56	37.19	42.46	$0.85	12.35	14.73	206.29	1.03	(10.37)	(13.45)	(5.44)	178.06		178.06
	2036	$4.68	37.45	42.76	$0.87	12.37	14.78	212.87	1.04	(10.70)	(13.57)	(5.58)	184.06		184.06
	2037	$4.79	37.72	43.07	$0.89	12.39	14.83	219.65	1.05	(11.04)	(13.69)	(5.72)	190.26		190.26
	2038	$4.91	38.00	43.37	$0.91	12.41	14.88	226.66	1.06	(11.39)	(13.81)	(5.86)	196.66		196.66
	2039	$5.04	38.27	43.68	$0.93	12.43	14.93	233.89	1.07	(11.75)	(14.34)	(6.01)	202.87	(50.88)	151.98
	2040	$5.16	38.54	43.99	$0.95	12.45	14.98	241.35	1.08	(12.12)	(14.47)	(6.16)	209.68		209.68
	2041	$5.29	38.54	43.99	$0.98	12.45	14.98	247.38	1.09	(12.42)	(14.54)	(6.31)	215.19		215.19
	2042	$5.42	38.54	43.99	$1.00	12.45	14.98	253.57	1.09	(12.73)	(14.62)	(6.47)	220.84		220.84
	2043	$5.56	38.54	43.99	$1.02	12.45	14.98	259.91	1.10	(13.05)	(14.70)	(6.63)	226.62	(4.35)	222.28
	2044	$5.70	38.54	43.99	$1.05	12.45	14.98	266.40	1.10	(13.38)	(14.78)	(6.80)	232.55	(15.55)	217.00
	2045	$5.84	38.54	43.99	$1.08	12.45	14.98	273.06	1.11	(13.71)	(14.87)	(6.97)	238.63	(14.31)	224.32
	2046	$5.99	38.54	43.99	$1.10	12.45	14.98	279.89	1.11	(14.05)	(15.43)	(7.14)	244.39	(19.91)	224.48
	2047	$6.14	38.54	43.99	$1.13	12.45	14.98	286.89	1.12	(14.40)	(15.52)	(7.32)	250.77	(8.17)	242.60
	2048	$6.29	38.54	43.99	$1.16	12.45	14.98	294.06	1.13	(14.76)	(15.61)	(7.50)	257.32		257.32
	2049	$6.45	38.54	43.99	$1.19	12.45	14.98	301.41	1.13	(15.13)	(15.70)	(7.69)	264.03	(8.45)	255.57
	2050	$6.61	38.54	43.99	$1.22	12.45	14.98	308.95	1.14	(15.50)	(15.80)	(7.88)	270.90		270.90
	2051	$6.77	38.54	43.99	$1.25	12.45	14.98	316.67	1.15	(15.89)	(15.89)	(8.08)	277.95		277.95
	2052	$6.94	38.54	43.99	$1.28	12.45	14.98	324.59	1.15	(16.29)	(15.99)	(8.28)	285.18		285.18
	2053	$7.12	38.54	43.99	$1.31	12.45	14.98	332.70	1.16	(16.69)	(16.66)	(8.49)	292.02	(29.23)	262.79
	2054	$7.29	38.54	43.99	$1.34	12.45	14.98	341.02	1.17	(17.11)	(16.77)	(8.70)	299.61	(3.57)	296.04
	2055	$7.48	38.54	43.99	$1.38	12.45	14.98	349.54	1.17	(17.54)	(16.87)	(8.92)	307.39		307.39
	2056	$7.66	38.54	43.99	$1.41	12.45	14.98	358.28	1.18	(17.97)	(16.98)	(9.14)	315.37		315.37
	2057	$7.86	38.54	43.99	$1.45	12.45	14.98	367.24	1.19	(18.42)	(17.10)	(9.37)	323.54	(19.25)	304.29
	2058	$8.05	38.54	43.99	$1.48	12.45	14.98	376.42	1.20	(18.88)	(17.21)	(9.60)	331.92		331.92
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1464.06	1672.05		491.92	585.61	9368.50	41.63	(470.51)	(559.93)	(247.06)	8132.63	(244.80)	7887.83

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 3 — Table 1: Low / Revenue Max / Single Point Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$4.04	15.50	17.79				71.81	1.52	(3.67)	(6.06)	(3.67)	59.94		59.94
	2020	$4.14	17.62	20.23				83.72	1.56	(4.26)	(6.47)	(3.76)	70.79		70.79
	2021	$4.24	18.87	21.66				91.92	1.49	(4.67)	(6.61)	(3.85)	78.28		78.28
	2022	$4.35	19.20	22.03				95.89	1.33	(4.86)	(6.51)	(3.95)	81.89		81.89
	2023	$4.46	19.53	22.41				100.02	1.16	(5.06)	(6.41)	(4.05)	85.67	(2.65)	83.02
	2024	$4.58	19.87	22.80				104.34	0.99	(5.27)	(6.29)	(4.15)	89.61	(3.01)	86.60
	2025	$4.69	20.21	23.19				108.84	0.81	(5.48)	(6.18)	(4.25)	93.73		93.73
	2026	$4.81	20.56	23.59				113.53	0.62	(5.71)	(6.08)	(4.36)	98.00	(1.25)	96.76
	2027	$4.93	20.92	24.00				118.43	0.42	(5.94)	(5.95)	(4.47)	102.49		102.49
	2028	$5.06	21.28	24.42				123.55	0.43	(6.20)	(6.06)	(4.58)	107.14		107.14
	2029	$5.19	21.65	24.84				128.88	0.44	(6.47)	(6.18)	(4.70)	111.98	(6.13)	105.85
	2030	$5.32	22.02	25.27				134.45	0.45	(6.74)	(6.29)	(4.81)	117.04		117.04
	2031	$5.46	22.22	25.49				139.03	0.45	(6.97)	(6.38)	(4.93)	121.20	(9.88)	111.32
	2032	$5.59	22.41	25.71				143.77	0.46	(7.21)	(6.46)	(5.06)	125.50		125.50
	2033	$5.73	22.60	25.93				148.67	0.47	(7.46)	(6.59)	(5.18)	129.91	(10.66)	119.25
	2034	$5.88	22.80	26.15				153.74	0.47	(7.71)	(6.68)	(5.31)	134.51	(3.15)	131.36
	2035	$6.03	23.00	26.38				158.99	0.48	(7.97)	(6.77)	(5.44)	139.27		139.27
	2036	$6.18	23.20	26.61				164.41	0.48	(8.24)	(6.87)	(5.58)	144.20		144.20
	2037	$6.34	23.40	26.84				170.02	0.49	(8.53)	(6.96)	(5.72)	149.30		149.30
	2038	$6.49	23.60	27.07				175.82	0.50	(8.82)	(7.06)	(5.86)	154.57		154.57
	2039	$6.66	23.81	27.30				181.82	0.50	(9.12)	(7.16)	(6.01)	160.03	(34.13)	125.90
	2040	$6.83	24.02	27.54				188.02	0.51	(9.43)	(7.31)	(6.16)	165.64	(1.76)	163.87
	2041	$7.00	24.02	27.54				192.72	0.51	(9.66)	(7.37)	(6.31)	169.88		169.88
	2042	$7.17	24.02	27.54				197.54	0.51	(9.90)	(7.44)	(6.47)	174.24		174.24
	2043	$7.35	24.02	27.54				202.48	0.52	(10.15)	(7.51)	(6.63)	178.70	(17.64)	161.06
	2044	$7.54	24.02	27.54				207.54	0.52	(10.40)	(7.58)	(6.80)	183.27	(15.55)	167.72
	2045	$7.72	24.02	27.54				212.73	0.52	(10.66)	(7.65)	(6.97)	187.96		187.96
	2046	$7.92	24.02	27.54				218.05	0.52	(10.93)	(7.73)	(7.14)	192.77		192.77
	2047	$8.11	24.02	27.54				223.50	0.53	(11.20)	(7.86)	(7.32)	197.64	(10.27)	187.38
	2048	$8.32	24.02	27.54				229.08	0.53	(11.48)	(7.93)	(7.51)	202.69		202.69
	2049	$8.53	24.02	27.54				234.81	0.53	(11.77)	(8.02)	(7.69)	207.87	(8.45)	199.42
	2050	$8.74	24.02	27.54				240.68	0.54	(12.06)	(8.10)	(7.89)	213.17		213.17
	2051	$8.96	24.02	27.54				246.70	0.54	(12.36)	(8.18)	(8.08)	218.61		218.61
	2052	$9.18	24.02	27.54				252.87	0.54	(12.67)	(8.27)	(8.29)	224.18		224.18
	2053	$9.41	24.02	27.54				259.19	0.55	(12.99)	(8.36)	(8.49)	229.90	(5.56)	224.33
	2054	$9.65	24.02	27.54				265.67	0.55	(13.31)	(8.51)	(8.70)	235.69	(6.06)	229.63
	2055	$9.89	24.02	27.54				272.31	0.55	(13.64)	(8.60)	(8.92)	241.69	(17.87)	223.82
	2056	$10.13	24.02	27.54				279.12	0.56	(13.98)	(8.70)	(9.15)	247.84		247.84
	2057	$10.39	24.02	27.54				286.09	0.56	(14.33)	(8.80)	(9.37)	254.15		254.15
	2058	$10.65	24.02	27.54				293.25	0.56	(14.69)	(8.90)	(9.61)	260.61		260.61
Totals FY 2010-18															
Totals FY 2019-58			900.58	1032.99				7213.97	25.66	(361.98)	(288.83)	(247.22)	6341.60	(154.04)	6187.55

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 3 — Table 2: Low / Revenue Max / Single Point Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	10.90	12.68				32.79	2.08	(1.74)	(5.72)		27.42		27.42
	2011	$2.65	16.76	19.51				51.70	2.89	(2.73)	(7.59)		44.27		44.27
	2012	$2.72	19.06	22.20				60.29	2.93	(3.16)	(8.02)		52.04		52.04
	2013	$2.78	20.42	23.78				66.21	2.75	(3.45)	(8.04)		57.47		57.47
	2014	$2.85	20.79	24.21				69.08	2.41	(3.57)	(7.72)		60.19	(2.50)	57.69
	2015	$2.93	21.16	24.64				72.07	2.05	(3.71)	(7.38)		63.03		63.03
	2016	$3.00	21.53	25.08				75.19	1.67	(3.84)	(7.05)		65.97	(1.00)	64.97
	2017	$3.07	21.92	25.53				78.45	1.28	(3.99)	(6.68)		69.06		69.06
	2018	$3.15	22.31	25.98				81.85	0.87	(4.14)	(6.29)		72.29		72.29
Post-Completion — Full Revenue Operations	2019	$4.04	17.32	19.89				80.26	0.34	(4.03)	(4.94)	(3.67)	67.96	(2.50)	65.46
	2020	$4.14	18.55	21.29				88.12	0.36	(4.42)	(5.19)	(3.76)	75.11		75.11
	2021	$4.24	18.87	21.66				91.92	0.37	(4.61)	(5.29)	(3.85)	78.54	(7.91)	70.62
	2022	$4.35	19.20	22.03				95.89	0.38	(4.81)	(5.39)	(3.95)	82.11		82.11
	2023	$4.46	19.53	22.41				100.02	0.39	(5.02)	(5.52)	(4.05)	85.82	(3.84)	81.98
	2024	$4.58	19.87	22.80				104.34	0.40	(5.24)	(5.62)	(4.15)	89.73	(3.01)	86.71
	2025	$4.69	20.21	23.19				108.84	0.40	(5.46)	(5.72)	(4.25)	93.80		93.80
	2026	$4.81	20.56	23.59				113.53	0.41	(5.70)	(5.83)	(4.36)	98.06		98.06
	2027	$4.93	20.92	24.00				118.43	0.42	(5.94)	(5.94)	(4.47)	102.50		102.50
	2028	$5.06	21.28	24.42				123.55	0.43	(6.20)	(6.05)	(4.58)	107.14		107.14
	2029	$5.19	21.65	24.84				128.88	0.44	(6.47)	(6.17)	(4.70)	111.99	(6.13)	105.86
	2030	$5.32	22.02	25.27				134.45	0.45	(6.74)	(6.32)	(4.81)	117.02	(1.41)	115.61
	2031	$5.46	22.22	25.49				139.03	0.45	(6.97)	(6.40)	(4.93)	121.17		121.17
	2032	$5.59	22.41	25.71				143.77	0.46	(7.21)	(6.49)	(5.06)	125.47		125.47
	2033	$5.73	22.60	25.93				148.67	0.47	(7.46)	(6.58)	(5.18)	129.92	(19.82)	110.10
	2034	$5.88	22.80	26.15				153.74	0.47	(7.71)	(6.67)	(5.31)	134.52	(3.15)	131.37
	2035	$6.03	23.00	26.38				158.99	0.48	(7.97)	(6.76)	(5.44)	139.29		139.29
	2036	$6.18	23.20	26.61				164.41	0.48	(8.24)	(6.86)	(5.58)	144.21		144.21
	2037	$6.34	23.40	26.84				170.02	0.49	(8.53)	(6.99)	(5.72)	149.27	(1.68)	147.59
	2038	$6.49	23.60	27.07				175.82	0.50	(8.82)	(7.09)	(5.86)	154.55		154.55
	2039	$6.66	23.81	27.30				181.82	0.50	(9.12)	(7.19)	(6.01)	160.00	(34.13)	125.87
	2040	$6.83	24.02	27.54				188.02	0.51	(9.43)	(7.29)	(6.16)	165.65		165.65
	2041	$7.00	24.02	27.54				192.72	0.51	(9.66)	(7.36)	(6.31)	169.90		169.90
	2042	$7.17	24.02	27.54				197.54	0.51	(9.90)	(7.43)	(6.47)	174.25		174.25
	2043	$7.35	24.02	27.54				202.48	0.52	(10.15)	(7.50)	(6.63)	178.71	(4.35)	174.37
	2044	$7.54	24.02	27.54				207.54	0.52	(10.40)	(7.62)	(6.80)	183.24	(17.55)	165.69
	2045	$7.72	24.02	27.54				212.73	0.52	(10.66)	(7.69)	(6.97)	187.93	(14.31)	173.62
	2046	$7.92	24.02	27.54				218.05	0.52	(10.93)	(7.76)	(7.14)	192.73		192.73
	2047	$8.11	24.02	27.54				223.50	0.53	(11.20)	(7.84)	(7.32)	197.66	(8.17)	189.49
	2048	$8.32	24.02	27.54				229.08	0.53	(11.48)	(7.92)	(7.51)	202.71		202.71
	2049	$8.53	24.02	27.54				234.81	0.53	(11.77)	(8.00)	(7.69)	207.88	(8.45)	199.43
	2050	$8.74	24.02	27.54				240.68	0.54	(12.06)	(8.08)	(7.89)	213.19		213.19
	2051	$8.96	24.02	27.54				246.70	0.54	(12.36)	(8.22)	(8.08)	218.57	(2.37)	216.20
	2052	$9.18	24.02	27.54				252.87	0.54	(12.67)	(8.31)	(8.29)	224.14		224.14
	2053	$9.41	24.02	27.54				259.19	0.55	(12.99)	(8.40)	(8.49)	229.85	(5.56)	224.29
	2054	$9.65	24.02	27.54				265.67	0.55	(13.31)	(8.49)	(8.70)	235.71	(3.57)	232.14
	2055	$9.89	24.02	27.54				272.31	0.55	(13.64)	(8.59)	(8.92)	241.71		241.71
	2056	$10.13	24.02	27.54				279.12	0.56	(13.98)	(8.68)	(9.15)	247.86		247.86
	2057	$10.39	24.02	27.54				286.09	0.56	(14.33)	(8.78)	(9.37)	254.17	(19.25)	234.92
	2058	$10.65	24.02	27.54				293.25	0.56	(14.69)	(8.88)	(9.61)	260.63	(2.82)	257.81
Totals FY 2010-18			174.85	203.61				587.62	18.94	(30.33)	(64.50)		511.73	(3.50)	508.23
Totals FY 2019-58			903.33	1036.15				7226.82	19.25	(362.30)	(281.85)	(247.22)	6354.70	(169.99)	6184.71

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 3 — Table 3: Base / Revenue Max / Single Point Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$4.04	17.36	19.94				80.49	1.70	(4.11)	(6.56)	(3.67)	67.86		67.86
	2020	$4.14	19.73	22.66				93.81	1.74	(4.78)	(7.01)	(3.76)	80.01		80.01
	2021	$4.25	21.12	24.26				102.98	1.67	(5.23)	(7.17)	(3.85)	88.39		88.39
	2022	$4.35	21.48	24.67				107.38	1.49	(5.44)	(7.05)	(3.95)	92.43		92.43
	2023	$4.46	21.84	25.09				111.98	1.30	(5.66)	(6.92)	(4.05)	96.65	(2.65)	94.00
	2024	$4.58	22.21	25.51				116.78	1.11	(5.89)	(6.79)	(4.15)	101.05	(3.01)	98.04
	2025	$4.69	22.59	25.94				121.78	0.90	(6.13)	(6.65)	(4.25)	105.64		105.64
	2026	$4.81	22.97	26.38				126.99	0.69	(6.38)	(6.54)	(4.36)	110.40	(1.25)	109.16
	2027	$4.94	23.36	26.83				132.43	0.47	(6.65)	(6.38)	(4.47)	115.41		115.41
	2028	$5.06	23.76	27.28				138.11	0.48	(6.93)	(6.50)	(4.58)	120.58		120.58
	2029	$5.19	24.16	27.75				144.03	0.49	(7.23)	(6.62)	(4.69)	125.97	(6.13)	119.84
	2030	$5.32	24.57	28.22				150.20	0.50	(7.54)	(6.75)	(4.81)	131.61		131.61
	2031	$5.46	24.78	28.46				155.30	0.51	(7.79)	(6.84)	(4.93)	136.25	(9.88)	126.36
	2032	$5.59	24.99	28.70				160.57	0.51	(8.05)	(6.93)	(5.05)	141.05		141.05
	2033	$5.74	25.20	28.94				166.02	0.52	(8.33)	(7.06)	(5.18)	145.97	(10.66)	135.31
	2034	$5.88	25.42	29.19				171.65	0.53	(8.61)	(7.15)	(5.31)	151.11	(3.15)	147.95
	2035	$6.03	25.64	29.44				177.48	0.53	(8.90)	(7.25)	(5.44)	156.42		156.42
	2036	$6.18	25.85	29.69				183.50	0.54	(9.20)	(7.35)	(5.58)	161.92		161.92
	2037	$6.34	26.07	29.94				189.73	0.55	(9.51)	(7.45)	(5.72)	167.60		167.60
	2038	$6.50	26.30	30.20				196.17	0.55	(9.84)	(7.55)	(5.86)	173.48		173.48
	2039	$6.66	26.52	30.45				202.83	0.56	(10.17)	(7.65)	(6.01)	179.56	(34.13)	145.43
	2040	$6.83	26.75	30.71				209.72	0.57	(10.51)	(7.80)	(6.16)	185.81	(1.76)	184.05
	2041	$7.00	26.75	30.71				214.96	0.57	(10.78)	(7.87)	(6.31)	190.58		190.58
	2042	$7.17	26.75	30.71				220.34	0.57	(11.05)	(7.94)	(6.47)	195.46		195.46
	2043	$7.35	26.75	30.71				225.85	0.58	(11.32)	(8.01)	(6.63)	200.46	(17.64)	182.83
	2044	$7.54	26.75	30.71				231.49	0.58	(11.60)	(8.08)	(6.80)	205.59	(15.55)	190.04
	2045	$7.73	26.75	30.71				237.28	0.58	(11.89)	(8.16)	(6.97)	210.85		210.85
	2046	$7.92	26.75	30.71				243.21	0.58	(12.19)	(8.23)	(7.14)	216.23		216.23
	2047	$8.12	26.75	30.71				249.29	0.59	(12.49)	(8.36)	(7.32)	221.71	(10.27)	211.44
	2048	$8.32	26.75	30.71				255.52	0.59	(12.81)	(8.44)	(7.50)	227.37		227.37
	2049	$8.53	26.75	30.71				261.91	0.59	(13.13)	(8.52)	(7.69)	233.17	(8.45)	224.72
	2050	$8.74	26.75	30.71				268.46	0.60	(13.45)	(8.61)	(7.88)	239.12		239.12
	2051	$8.96	26.75	30.71				275.17	0.60	(13.79)	(8.69)	(8.08)	245.21		245.21
	2052	$9.18	26.75	30.71				282.05	0.60	(14.13)	(8.78)	(8.28)	251.46		251.46
	2053	$9.41	26.75	30.71				289.10	0.61	(14.49)	(8.87)	(8.49)	257.87	(5.56)	252.30
	2054	$9.65	26.75	30.71				296.33	0.61	(14.85)	(9.02)	(8.70)	264.37	(6.06)	258.31
	2055	$9.89	26.75	30.71				303.74	0.62	(15.22)	(9.12)	(8.92)	271.10	(17.87)	253.23
	2056	$10.14	26.75	30.71				311.33	0.62	(15.60)	(9.22)	(9.14)	278.00		278.00
	2057	$10.39	26.75	30.71				319.11	0.62	(15.99)	(9.32)	(9.37)	285.07		285.07
	2058	$10.65	26.75	30.71				327.09	0.63	(16.39)	(9.42)	(9.60)	292.31		292.31
Totals FY 2010-18															
Totals FY 2019-58			1004.08	1153.05				8052.19	28.64	(404.04)	(308.62)	(247.06)	7121.10	(154.04)	6967.06

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 3 — Table 4: Base / Revenue Max / Single Point Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$4.04	19.40	22.29				89.96	0.38	(4.52)	(5.31)	(3.67)	76.86	(2.50)	74.36
	2020	$4.14	20.77	23.85				98.75	0.41	(4.96)	(5.59)	(3.76)	84.86		84.86
	2021	$4.25	21.12	24.26				102.98	0.42	(5.17)	(5.69)	(3.85)	88.69	(7.91)	80.77
	2022	$4.35	21.48	24.67				107.38	0.42	(5.39)	(5.79)	(3.95)	92.68		92.68
	2023	$4.46	21.84	25.09				111.98	0.43	(5.62)	(5.93)	(4.05)	96.82	(3.84)	92.98
	2024	$4.58	22.21	25.51				116.78	0.44	(5.86)	(6.03)	(4.15)	101.18	(3.01)	98.16
	2025	$4.69	22.59	25.94				121.78	0.45	(6.11)	(6.15)	(4.25)	105.72		105.72
	2026	$4.81	22.97	26.38				126.99	0.46	(6.37)	(6.26)	(4.36)	110.47		110.47
	2027	$4.94	23.36	26.83				132.43	0.47	(6.65)	(6.37)	(4.47)	115.42		115.42
	2028	$5.06	23.76	27.28				138.11	0.48	(6.93)	(6.49)	(4.58)	120.59		120.59
	2029	$5.19	24.16	27.75				144.03	0.49	(7.23)	(6.61)	(4.69)	125.98	(6.13)	119.85
	2030	$5.32	24.57	28.22				150.20	0.50	(7.54)	(6.77)	(4.81)	131.58	(1.41)	130.17
	2031	$5.46	24.78	28.46				155.30	0.51	(7.79)	(6.86)	(4.93)	136.22		136.22
	2032	$5.59	24.99	28.70				160.57	0.51	(8.05)	(6.95)	(5.05)	141.02		141.02
	2033	$5.74	25.20	28.94				166.02	0.52	(8.33)	(7.05)	(5.18)	145.98	(19.82)	126.17
	2034	$5.88	25.42	29.19				171.65	0.53	(8.61)	(7.14)	(5.31)	151.12	(3.15)	147.96
	2035	$6.03	25.64	29.44				177.48	0.53	(8.90)	(7.24)	(5.44)	156.43		156.43
	2036	$6.18	25.85	29.69				183.50	0.54	(9.20)	(7.34)	(5.58)	161.93		161.93
	2037	$6.34	26.07	29.94				189.73	0.55	(9.51)	(7.48)	(5.72)	167.57	(1.68)	165.89
	2038	$6.50	26.30	30.20				196.17	0.55	(9.84)	(7.58)	(5.86)	173.45		173.45
	2039	$6.66	26.52	30.45				202.83	0.56	(10.17)	(7.68)	(6.01)	179.53	(34.13)	145.40
	2040	$6.83	26.75	30.71				209.72	0.57	(10.51)	(7.79)	(6.16)	185.83		185.83
	2041	$7.00	26.75	30.71				214.96	0.57	(10.78)	(7.86)	(6.31)	190.59		190.59
	2042	$7.17	26.75	30.71				220.34	0.57	(11.05)	(7.93)	(6.47)	195.47		195.47
	2043	$7.35	26.75	30.71				225.85	0.58	(11.32)	(8.00)	(6.63)	200.47	(4.35)	196.13
	2044	$7.54	26.75	30.71				231.49	0.58	(11.60)	(8.12)	(6.80)	205.55	(17.55)	188.01
	2045	$7.73	26.75	30.71				237.28	0.58	(11.89)	(8.19)	(6.97)	210.81	(14.31)	196.50
	2046	$7.92	26.75	30.71				243.21	0.58	(12.19)	(8.27)	(7.14)	216.20		216.20
	2047	$8.12	26.75	30.71				249.29	0.59	(12.49)	(8.35)	(7.32)	221.72	(8.17)	213.55
	2048	$8.32	26.75	30.71				255.52	0.59	(12.81)	(8.43)	(7.50)	227.38		227.38
	2049	$8.53	26.75	30.71				261.91	0.59	(13.13)	(8.51)	(7.69)	233.18	(8.45)	224.73
	2050	$8.74	26.75	30.71				268.46	0.60	(13.45)	(8.59)	(7.88)	239.13		239.13
	2051	$8.96	26.75	30.71				275.17	0.60	(13.79)	(8.73)	(8.08)	245.17	(2.37)	242.80
	2052	$9.18	26.75	30.71				282.05	0.60	(14.13)	(8.82)	(8.28)	251.42		251.42
	2053	$9.41	26.75	30.71				289.10	0.61	(14.49)	(8.91)	(8.49)	257.83	(5.56)	252.26
	2054	$9.65	26.75	30.71				296.33	0.61	(14.85)	(9.01)	(8.70)	264.39	(3.57)	260.82
	2055	$9.89	26.75	30.71				303.74	0.62	(15.22)	(9.10)	(8.92)	271.12		271.12
	2056	$10.14	26.75	30.71				311.33	0.62	(15.60)	(9.20)	(9.14)	278.02		278.02
	2057	$10.39	26.75	30.71				319.11	0.62	(15.99)	(9.30)	(9.37)	285.09	(19.25)	265.84
	2058	$10.65	26.75	30.71				327.09	0.63	(16.39)	(9.40)	(9.60)	292.33	(2.82)	289.51
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1007.16	1156.59				8066.60	21.46	(404.40)	(300.79)	(247.06)	7135.80	(169.99)	6965.81

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 3 — Table 5: High / Revenue Max / Single Point Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$4.06	20.09	22.95				93.18	1.97	(4.76)	(7.29)	(3.67)	79.44		79.44
	2020	$4.16	22.77	26.02				108.28	2.01	(5.51)	(7.79)	(3.76)	93.24		93.24
	2021	$4.26	24.30	27.79				118.51	1.92	(6.02)	(7.95)	(3.85)	102.61		102.61
	2022	$4.37	24.64	28.19				123.23	1.71	(6.25)	(7.79)	(3.95)	106.95		106.95
	2023	$4.48	24.99	28.59				128.12	1.49	(6.48)	(7.63)	(4.05)	111.46	(2.65)	108.81
	2024	$4.59	25.34	29.01				133.22	1.26	(6.72)	(7.46)	(4.15)	116.15	(3.01)	113.14
	2025	$4.71	25.70	29.42				138.52	1.03	(6.98)	(7.28)	(4.25)	121.04		121.04
	2026	$4.83	26.06	29.85				144.02	0.78	(7.24)	(7.12)	(4.36)	126.09	(1.25)	124.84
	2027	$4.95	26.42	30.28				149.75	0.53	(7.51)	(6.93)	(4.47)	131.37		131.37
	2028	$5.07	26.80	30.72				155.71	0.54	(7.81)	(7.04)	(4.58)	136.81		136.81
	2029	$5.20	27.17	31.16				161.90	0.55	(8.12)	(7.16)	(4.69)	142.48	(6.13)	136.34
	2030	$5.33	27.56	31.61				168.34	0.56	(8.45)	(7.28)	(4.81)	148.37		148.37
	2031	$5.46	27.75	31.84				173.80	0.57	(8.72)	(7.37)	(4.93)	153.35	(9.88)	143.46
	2032	$5.60	27.95	32.07				179.43	0.57	(9.00)	(7.46)	(5.05)	158.49		158.49
	2033	$5.74	28.14	32.30				185.24	0.58	(9.29)	(7.58)	(5.18)	163.76	(10.66)	153.10
	2034	$5.88	28.34	32.53				191.24	0.59	(9.59)	(7.68)	(5.31)	169.25	(3.15)	166.09
	2035	$6.03	28.54	32.77				197.44	0.59	(9.90)	(7.77)	(5.44)	174.91		174.91
	2036	$6.18	28.74	33.00				203.83	0.60	(10.22)	(7.87)	(5.58)	180.76		180.76
	2037	$6.33	28.94	33.24				210.44	0.61	(10.55)	(7.97)	(5.72)	186.81		186.81
	2038	$6.49	29.15	33.48				217.26	0.61	(10.89)	(8.07)	(5.86)	193.05		193.05
	2039	$6.65	29.35	33.72				224.29	0.62	(11.25)	(8.17)	(6.01)	199.49	(34.13)	165.36
	2040	$6.82	29.56	33.97				231.56	0.63	(11.61)	(8.32)	(6.16)	206.11	(1.76)	204.35
	2041	$6.99	29.56	33.97				237.35	0.63	(11.90)	(8.38)	(6.31)	211.39		211.39
	2042	$7.16	29.56	33.97				243.29	0.63	(12.20)	(8.45)	(6.47)	216.80		216.80
	2043	$7.34	29.56	33.97				249.37	0.64	(12.50)	(8.53)	(6.63)	222.35	(17.64)	204.71
	2044	$7.53	29.56	33.97				255.60	0.64	(12.81)	(8.60)	(6.80)	228.03	(15.55)	212.48
	2045	$7.71	29.56	33.97				261.99	0.64	(13.13)	(8.67)	(6.97)	233.86		233.86
	2046	$7.91	29.56	33.97				268.54	0.65	(13.46)	(8.75)	(7.14)	239.84		239.84
	2047	$8.10	29.56	33.97				275.26	0.65	(13.80)	(8.88)	(7.32)	245.91	(10.27)	235.64
	2048	$8.31	29.56	33.97				282.14	0.65	(14.14)	(8.96)	(7.50)	252.19		252.19
	2049	$8.51	29.56	33.97				289.19	0.66	(14.49)	(9.05)	(7.69)	258.62	(8.45)	250.17
	2050	$8.73	29.56	33.97				296.42	0.66	(14.85)	(9.13)	(7.88)	265.21		265.21
	2051	$8.95	29.56	33.97				303.83	0.66	(15.22)	(9.22)	(8.08)	271.97		271.97
	2052	$9.17	29.56	33.97				311.43	0.67	(15.60)	(9.31)	(8.28)	278.90		278.90
	2053	$9.40	29.56	33.97				319.21	0.67	(15.99)	(9.40)	(8.49)	286.00	(5.56)	280.44
	2054	$9.63	29.56	33.97				327.19	0.68	(16.39)	(9.55)	(8.70)	293.22	(6.06)	287.16
	2055	$9.87	29.56	33.97				335.37	0.68	(16.80)	(9.65)	(8.92)	300.68	(17.87)	282.81
	2056	$10.12	29.56	33.97				343.76	0.68	(17.22)	(9.75)	(9.14)	308.33		308.33
	2057	$10.37	29.56	33.97				352.35	0.69	(17.65)	(9.85)	(9.37)	316.17		316.17
	2058	$10.63	29.56	33.97				361.16	0.69	(18.09)	(9.95)	(9.60)	324.20		324.20
Totals FY 2010-18															
Totals FY 2019-58			1120.35	1285.87				8950.76	32.18	(449.15)	(331.06)	(247.06)	7955.67	(154.04)	7801.63

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 3 — Table 6: High / Revenue Max / Single Point Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$4.06	22.45	25.66				104.15	0.44	(5.23)	(5.84)	(3.67)	89.85	(2.50)	87.35
	2020	$4.16	23.96	27.39				113.98	0.47	(5.72)	(6.15)	(3.76)	98.83		98.83
	2021	$4.26	24.30	27.79				118.51	0.48	(5.95)	(6.25)	(3.85)	102.94	(7.91)	95.03
	2022	$4.37	24.64	28.19				123.23	0.49	(6.19)	(6.35)	(3.95)	107.23		107.23
	2023	$4.48	24.99	28.59				128.12	0.50	(6.43)	(6.48)	(4.05)	111.66	(3.84)	107.82
	2024	$4.59	25.34	29.01				133.22	0.50	(6.69)	(6.59)	(4.15)	116.30	(3.01)	113.29
	2025	$4.71	25.70	29.42				138.52	0.51	(6.95)	(6.70)	(4.25)	121.13		121.13
	2026	$4.83	26.06	29.85				144.02	0.52	(7.23)	(6.81)	(4.36)	126.15		126.15
	2027	$4.95	26.42	30.28				149.75	0.53	(7.51)	(6.92)	(4.47)	131.38		131.38
	2028	$5.07	26.80	30.72				155.71	0.54	(7.81)	(7.04)	(4.58)	136.82		136.82
	2029	$5.20	27.17	31.16				161.90	0.55	(8.12)	(7.15)	(4.69)	142.49	(6.13)	136.35
	2030	$5.33	27.56	31.61				168.34	0.56	(8.45)	(7.31)	(4.81)	148.34	(1.41)	146.93
	2031	$5.46	27.75	31.84				173.80	0.57	(8.72)	(7.39)	(4.93)	153.32		153.32
	2032	$5.60	27.95	32.07				179.43	0.57	(9.00)	(7.48)	(5.05)	158.46		158.46
	2033	$5.74	28.14	32.30				185.24	0.58	(9.29)	(7.57)	(5.18)	163.77	(19.82)	143.96
	2034	$5.88	28.34	32.53				191.24	0.59	(9.59)	(7.67)	(5.31)	169.26	(3.15)	166.10
	2035	$6.03	28.54	32.77				197.44	0.59	(9.90)	(7.76)	(5.44)	174.92		174.92
	2036	$6.18	28.74	33.00				203.83	0.60	(10.22)	(7.86)	(5.58)	180.78		180.78
	2037	$6.33	28.94	33.24				210.44	0.61	(10.55)	(8.00)	(5.72)	186.78	(1.68)	185.10
	2038	$6.49	29.15	33.48				217.26	0.61	(10.89)	(8.10)	(5.86)	193.02		193.02
	2039	$6.65	29.35	33.72				224.29	0.62	(11.25)	(8.20)	(6.01)	199.46	(34.13)	165.33
	2040	$6.82	29.56	33.97				231.56	0.63	(11.61)	(8.30)	(6.16)	206.12		206.12
	2041	$6.99	29.56	33.97				237.35	0.63	(11.90)	(8.37)	(6.31)	211.40		211.40
	2042	$7.16	29.56	33.97				243.29	0.63	(12.20)	(8.44)	(6.47)	216.81		216.81
	2043	$7.34	29.56	33.97				249.37	0.64	(12.50)	(8.51)	(6.63)	222.36	(4.35)	218.02
	2044	$7.53	29.56	33.97				255.60	0.64	(12.81)	(8.63)	(6.80)	228.00	(17.55)	210.45
	2045	$7.71	29.56	33.97				261.99	0.64	(13.13)	(8.71)	(6.97)	233.83	(14.31)	219.52
	2046	$7.91	29.56	33.97				268.54	0.65	(13.46)	(8.79)	(7.14)	239.80		239.80
	2047	$8.10	29.56	33.97				275.26	0.65	(13.80)	(8.87)	(7.32)	245.93	(8.17)	237.76
	2048	$8.31	29.56	33.97				282.14	0.65	(14.14)	(8.95)	(7.50)	252.20		252.20
	2049	$8.51	29.56	33.97				289.19	0.66	(14.49)	(9.03)	(7.69)	258.64	(8.45)	250.18
	2050	$8.73	29.56	33.97				296.42	0.66	(14.85)	(9.12)	(7.88)	265.23		265.23
	2051	$8.95	29.56	33.97				303.83	0.66	(15.22)	(9.26)	(8.08)	271.93	(2.37)	269.56
	2052	$9.17	29.56	33.97				311.43	0.67	(15.60)	(9.35)	(8.28)	278.86		278.86
	2053	$9.40	29.56	33.97				319.21	0.67	(15.99)	(9.44)	(8.49)	285.96	(5.56)	280.40
	2054	$9.63	29.56	33.97				327.19	0.68	(16.39)	(9.54)	(8.70)	293.24	(3.57)	289.67
	2055	$9.87	29.56	33.97				335.37	0.68	(16.80)	(9.63)	(8.92)	300.70		300.70
	2056	$10.12	29.56	33.97				343.76	0.68	(17.22)	(9.73)	(9.14)	308.35		308.35
	2057	$10.37	29.56	33.97				352.35	0.69	(17.65)	(9.83)	(9.37)	316.19	(19.25)	296.94
	2058	$10.63	29.56	33.97				361.16	0.69	(18.09)	(9.94)	(9.60)	324.22	(2.82)	321.40
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1123.91	1289.94				8967.42	23.93	(449.57)	(322.04)	(247.06)	7972.69	(169.99)	7802.69

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 4 — Table 1: Low / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$3.05	19.54	22.57	$0.61	8.14	9.48	74.67	2.71	(3.87)	(10.67)	(3.67)	59.18		59.18
	2020	$3.13	22.15	25.57	$0.62	9.08	10.53	86.59	2.76	(4.47)	(11.30)	(3.76)	69.82		69.82
	2021	$3.21	23.64	27.29	$0.64	9.56	11.07	94.60	2.62	(4.86)	(11.48)	(3.85)	77.03		77.03
	2022	$3.29	23.96	27.66	$0.65	9.58	11.12	98.20	2.32	(5.03)	(11.22)	(3.95)	80.33		80.33
	2023	$3.37	24.30	28.04	$0.67	9.61	11.18	101.94	2.02	(5.20)	(10.96)	(4.05)	83.75	(2.65)	81.10
	2024	$3.45	24.64	28.43	$0.68	9.63	11.23	105.82	1.71	(5.38)	(10.69)	(4.15)	87.31	(3.01)	84.30
	2025	$3.54	24.98	28.82	$0.70	9.66	11.29	109.85	1.38	(5.56)	(10.41)	(4.25)	91.01		91.01
	2026	$3.63	25.33	29.21	$0.71	9.68	11.35	114.03	1.05	(5.75)	(10.41)	(4.36)	94.57	(11.85)	82.71
	2027	$3.72	25.68	29.62	$0.73	9.71	11.41	118.38	0.71	(5.95)	(10.12)	(4.47)	98.56		98.56
	2028	$3.81	26.04	30.02	$0.75	9.74	11.47	122.90	0.72	(6.18)	(10.24)	(4.58)	102.63		102.63
	2029	$3.90	26.40	30.44	$0.76	9.77	11.54	127.59	0.73	(6.42)	(10.36)	(4.69)	106.86	(6.13)	100.72
	2030	$4.00	26.77	30.86	$0.78	9.80	11.60	132.46	0.74	(6.66)	(10.48)	(4.81)	111.25		111.25
	2031	$4.10	26.96	31.07	$0.80	9.81	11.64	136.65	0.75	(6.87)	(10.58)	(4.93)	115.02	(9.88)	105.14
	2032	$4.20	27.14	31.28	$0.82	9.83	11.67	140.97	0.76	(7.09)	(10.67)	(5.05)	118.92		118.92
	2033	$4.31	27.33	31.50	$0.83	9.84	11.71	145.42	0.77	(7.31)	(11.10)	(5.18)	122.60	(23.27)	99.33
	2034	$4.41	27.52	31.72	$0.85	9.86	11.75	150.02	0.77	(7.54)	(11.20)	(5.31)	126.75	(3.15)	123.59
	2035	$4.52	27.72	31.94	$0.87	9.88	11.78	154.76	0.78	(7.78)	(11.30)	(5.44)	131.03		131.03
	2036	$4.64	27.91	32.16	$0.89	9.89	11.82	159.66	0.79	(8.02)	(11.40)	(5.58)	135.45		135.45
	2037	$4.75	28.10	32.38	$0.92	9.91	11.86	164.71	0.80	(8.28)	(11.50)	(5.72)	140.01		140.01
	2038	$4.87	28.30	32.60	$0.94	9.93	11.90	169.92	0.80	(8.54)	(11.61)	(5.86)	144.72		144.72
	2039	$4.99	28.50	32.83	$0.96	9.95	11.94	175.29	0.81	(8.81)	(11.71)	(6.01)	149.58	(34.13)	115.45
	2040	$5.12	28.70	33.05	$0.98	9.96	11.98	180.84	0.82	(9.08)	(12.22)	(6.16)	154.20	(16.75)	137.45
	2041	$5.24	28.70	33.05	$1.00	9.96	11.98	185.36	0.82	(9.31)	(12.29)	(6.31)	158.27		158.27
	2042	$5.37	28.70	33.05	$1.03	9.96	11.98	189.99	0.83	(9.54)	(12.37)	(6.47)	162.45		162.45
	2043	$5.51	28.70	33.05	$1.06	9.96	11.98	194.74	0.83	(9.78)	(12.44)	(6.63)	166.73	(17.64)	149.09
	2044	$5.65	28.70	33.05	$1.08	9.96	11.98	199.61	0.84	(10.02)	(12.52)	(6.80)	171.11	(15.55)	155.56
	2045	$5.79	28.70	33.05	$1.11	9.96	11.98	204.60	0.84	(10.27)	(12.60)	(6.97)	175.61		175.61
	2046	$5.93	28.70	33.05	$1.14	9.96	11.98	209.72	0.84	(10.53)	(12.68)	(7.14)	180.22		180.22
	2047	$6.08	28.70	33.05	$1.16	9.96	11.98	214.96	0.85	(10.79)	(13.24)	(7.32)	184.47	(28.08)	156.39
	2048	$6.23	28.70	33.05	$1.19	9.96	11.98	220.34	0.85	(11.06)	(13.32)	(7.50)	189.31		189.31
	2049	$6.39	28.70	33.05	$1.22	9.96	11.98	225.84	0.86	(11.34)	(13.41)	(7.69)	194.27	(8.45)	185.82
	2050	$6.55	28.70	33.05	$1.25	9.96	11.98	231.49	0.86	(11.62)	(13.50)	(7.88)	199.36		199.36
	2051	$6.71	28.70	33.05	$1.29	9.96	11.98	237.28	0.87	(11.91)	(13.59)	(8.08)	204.57		204.57
	2052	$6.88	28.70	33.05	$1.32	9.96	11.98	243.21	0.87	(12.20)	(13.68)	(8.28)	209.91		209.91
	2053	$7.05	28.70	33.05	$1.35	9.96	11.98	249.29	0.88	(12.51)	(13.78)	(8.49)	215.39	(5.56)	209.83
	2054	$7.23	28.70	33.05	$1.38	9.96	11.98	255.52	0.88	(12.82)	(14.44)	(8.70)	220.44	(27.24)	193.21
	2055	$7.41	28.70	33.05	$1.42	9.96	11.98	261.91	0.89	(13.14)	(14.54)	(8.92)	226.20	(17.87)	208.33
	2056	$7.59	28.70	33.05	$1.45	9.96	11.98	268.46	0.90	(13.47)	(14.65)	(9.14)	232.10		232.10
	2057	$7.78	28.70	33.05	$1.49	9.96	11.98	275.17	0.90	(13.80)	(14.75)	(9.37)	238.14		238.14
	2058	$7.98	28.70	33.05	$1.53	9.96	11.98	282.05	0.91	(14.15)	(14.86)	(9.60)	244.34		244.34
Totals FY 2010-18															
Totals FY 2019-58			1088.14	1254.00		392.16	466.99	7014.80	42.86	(352.88)	(484.28)	(247.06)	5973.43	(231.23)	5742.20

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 4 — Table 2: Low / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	10.90	12.68				32.79	2.08	(1.74)	(5.72)		27.42		27.42
	2011	$2.65	16.76	19.51				51.70	2.89	(2.73)	(7.59)		44.27		44.27
	2012	$2.72	19.06	22.20				60.29	2.93	(3.16)	(8.02)		52.04		52.04
	2013	$2.78	20.42	23.78				66.21	2.75	(3.45)	(8.04)		57.47		57.47
	2014	$2.85	20.79	24.21				69.08	2.41	(3.57)	(7.72)		60.19	(2.50)	57.69
	2015	$2.93	21.16	24.64				72.07	2.05	(3.71)	(7.38)		63.03		63.03
	2016	$3.00	21.53	25.08				75.19	1.67	(3.84)	(7.05)		65.97	(1.00)	64.97
	2017	$3.07	21.92	25.53				78.45	1.28	(3.99)	(6.68)		69.06		69.06
	2018	$3.15	22.31	25.98				81.85	0.87	(4.14)	(6.29)		72.29		72.29
Post-Completion — Full Revenue Operations	2019	$3.05	21.84	25.22	$0.61	9.05	10.48	83.42	0.61	(4.20)	(8.71)	(3.67)	67.45	(2.50)	64.95
	2020	$3.13	23.31	26.92	$0.63	9.54	11.02	91.13	0.65	(4.59)	(9.10)	(3.76)	74.34		74.34
	2021	$3.21	23.64	27.29	$0.64	9.56	11.07	94.60	0.65	(4.76)	(9.20)	(3.85)	77.44	(7.91)	69.53
	2022	$3.29	23.96	27.66	$0.65	9.58	11.12	98.20	0.66	(4.94)	(9.31)	(3.95)	80.66		80.66
	2023	$3.37	24.30	28.04	$0.67	9.61	11.18	101.94	0.67	(5.13)	(9.42)	(4.05)	84.02	(2.65)	81.36
	2024	$3.45	24.64	28.43	$0.68	9.63	11.23	105.82	0.68	(5.32)	(9.53)	(4.15)	87.50	(3.01)	84.49
	2025	$3.54	24.98	28.82	$0.70	9.66	11.29	109.85	0.69	(5.53)	(9.88)	(4.25)	90.88	(11.85)	79.02
	2026	$3.63	25.33	29.21	$0.71	9.68	11.35	114.03	0.70	(5.74)	(10.00)	(4.36)	94.64		94.64
	2027	$3.72	25.68	29.62	$0.73	9.71	11.41	118.38	0.71	(5.95)	(10.12)	(4.47)	98.56		98.56
	2028	$3.81	26.04	30.02	$0.75	9.74	11.47	122.90	0.72	(6.18)	(10.24)	(4.58)	102.63		102.63
	2029	$3.90	26.40	30.44	$0.76	9.77	11.54	127.59	0.73	(6.42)	(10.36)	(4.69)	106.86	(6.13)	100.72
	2030	$4.00	26.77	30.86	$0.78	9.80	11.60	132.46	0.74	(6.66)	(10.48)	(4.81)	111.25		111.25
	2031	$4.10	26.96	31.07	$0.80	9.81	11.64	136.65	0.75	(6.87)	(10.58)	(4.93)	115.02		115.02
	2032	$4.20	27.14	31.28	$0.82	9.83	11.67	140.97	0.76	(7.09)	(11.00)	(5.05)	118.58	(14.09)	104.49
	2033	$4.31	27.33	31.50	$0.83	9.84	11.71	145.42	0.77	(7.31)	(11.10)	(5.18)	122.60	(19.82)	102.78
	2034	$4.41	27.52	31.72	$0.85	9.86	11.75	150.02	0.77	(7.54)	(11.20)	(5.31)	126.75	(3.15)	123.59
	2035	$4.52	27.72	31.94	$0.87	9.88	11.78	154.76	0.78	(7.78)	(11.30)	(5.44)	131.03		131.03
	2036	$4.64	27.91	32.16	$0.89	9.89	11.82	159.66	0.79	(8.02)	(11.40)	(5.58)	135.45		135.45
	2037	$4.75	28.10	32.38	$0.92	9.91	11.86	164.71	0.80	(8.28)	(11.50)	(5.72)	140.01		140.01
	2038	$4.87	28.30	32.60	$0.94	9.93	11.90	169.92	0.80	(8.54)	(11.61)	(5.86)	144.72		144.72
	2039	$4.99	28.50	32.83	$0.96	9.95	11.94	175.29	0.81	(8.81)	(12.11)	(6.01)	149.18	(50.88)	98.30
	2040	$5.12	28.70	33.05	$0.98	9.96	11.98	180.84	0.82	(9.08)	(12.22)	(6.16)	154.20		154.20
	2041	$5.24	28.70	33.05	$1.00	9.96	11.98	185.36	0.82	(9.31)	(12.29)	(6.31)	158.27		158.27
	2042	$5.37	28.70	33.05	$1.03	9.96	11.98	189.99	0.83	(9.54)	(12.37)	(6.47)	162.45		162.45
	2043	$5.51	28.70	33.05	$1.06	9.96	11.98	194.74	0.83	(9.78)	(12.44)	(6.63)	166.73	(4.35)	162.38
	2044	$5.65	28.70	33.05	$1.08	9.96	11.98	199.61	0.84	(10.02)	(12.52)	(6.80)	171.11	(15.55)	155.56
	2045	$5.79	28.70	33.05	$1.11	9.96	11.98	204.60	0.84	(10.27)	(12.60)	(6.97)	175.61	(14.31)	161.30
	2046	$5.93	28.70	33.05	$1.14	9.96	11.98	209.72	0.84	(10.53)	(13.15)	(7.14)	179.74	(19.91)	159.83
	2047	$6.08	28.70	33.05	$1.16	9.96	11.98	214.96	0.85	(10.79)	(13.24)	(7.32)	184.47	(8.17)	176.30
	2048	$6.23	28.70	33.05	$1.19	9.96	11.98	220.34	0.85	(11.06)	(13.32)	(7.50)	189.31		189.31
	2049	$6.39	28.70	33.05	$1.22	9.96	11.98	225.84	0.86	(11.34)	(13.41)	(7.69)	194.27	(8.45)	185.82
	2050	$6.55	28.70	33.05	$1.25	9.96	11.98	231.49	0.86	(11.62)	(13.50)	(7.88)	199.36		199.36
	2051	$6.71	28.70	33.05	$1.29	9.96	11.98	237.28	0.87	(11.91)	(13.59)	(8.08)	204.57		204.57
	2052	$6.88	28.70	33.05	$1.32	9.96	11.98	243.21	0.87	(12.20)	(13.68)	(8.28)	209.91		209.91
	2053	$7.05	28.70	33.05	$1.35	9.96	11.98	249.29	0.88	(12.51)	(14.34)	(8.49)	214.83	(29.23)	185.60
	2054	$7.23	28.70	33.05	$1.38	9.96	11.98	255.52	0.88	(12.82)	(14.44)	(8.70)	220.44	(3.57)	216.87
	2055	$7.41	28.70	33.05	$1.42	9.96	11.98	261.91	0.89	(13.14)	(14.54)	(8.92)	226.20		226.20
	2056	$7.59	28.70	33.05	$1.45	9.96	11.98	268.46	0.90	(13.47)	(14.65)	(9.14)	232.10		232.10
	2057	$7.78	28.70	33.05	$1.49	9.96	11.98	275.17	0.90	(13.80)	(14.75)	(9.37)	238.14	(19.25)	218.90
	2058	$7.98	28.70	33.05	$1.53	9.96	11.98	282.05	0.91	(14.15)	(14.86)	(9.60)	244.34		244.34
Totals FY 2010-18			174.85	203.61				587.62	18.94	(30.33)	(64.50)		511.73	(3.50)	508.23
Totals FY 2019-58			1091.60	1258.00		393.53	468.49	7028.09	31.60	(352.98)	(474.05)	(247.06)	5985.60	(244.80)	5740.80

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 4 — Table 3: Base / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$3.05	21.95	25.35	$0.61	9.15	10.67	83.91	3.05	(4.35)	(11.59)	(3.67)	67.36		67.36
	2020	$3.13	24.86	28.71	$0.62	10.21	11.84	97.29	3.10	(5.02)	(12.30)	(3.76)	79.32		79.32
	2021	$3.21	26.53	30.63	$0.64	10.75	12.46	106.26	2.94	(5.46)	(12.48)	(3.85)	87.41		87.41
	2022	$3.29	26.89	31.05	$0.65	10.78	12.52	110.28	2.61	(5.64)	(12.19)	(3.95)	91.11		91.11
	2023	$3.37	27.25	31.46	$0.67	10.81	12.57	114.45	2.27	(5.84)	(11.89)	(4.05)	94.95	(2.65)	92.30
	2024	$3.45	27.62	31.89	$0.68	10.83	12.64	118.79	1.91	(6.04)	(11.58)	(4.15)	98.94	(3.01)	95.93
	2025	$3.54	28.00	32.32	$0.70	10.86	12.70	123.28	1.55	(6.24)	(11.26)	(4.25)	103.08		103.08
	2026	$3.63	28.38	32.76	$0.71	10.89	12.77	127.96	1.18	(6.46)	(11.22)	(4.36)	107.10	(11.85)	95.25
	2027	$3.72	28.77	33.20	$0.73	10.92	12.83	132.81	0.80	(6.68)	(10.88)	(4.47)	111.58		111.58
	2028	$3.81	29.16	33.65	$0.75	10.96	12.91	137.84	0.81	(6.93)	(11.01)	(4.58)	116.13		116.13
	2029	$3.90	29.56	34.10	$0.76	10.99	12.98	143.07	0.82	(7.19)	(11.14)	(4.69)	120.87	(6.13)	114.73
	2030	$4.00	29.97	34.57	$0.78	11.02	13.05	148.50	0.83	(7.47)	(11.27)	(4.81)	125.79		125.79
	2031	$4.10	30.17	34.80	$0.80	11.04	13.09	153.18	0.84	(7.70)	(11.37)	(4.93)	130.02	(9.88)	120.14
	2032	$4.20	30.38	35.04	$0.82	11.06	13.13	158.00	0.85	(7.94)	(11.47)	(5.05)	134.39		134.39
	2033	$4.31	30.58	35.27	$0.83	11.08	13.17	162.98	0.86	(8.19)	(11.91)	(5.18)	138.56	(23.27)	115.29
	2034	$4.42	30.79	35.51	$0.85	11.09	13.22	168.11	0.87	(8.45)	(12.01)	(5.31)	143.21	(3.15)	140.06
	2035	$4.53	31.00	35.75	$0.87	11.11	13.26	173.41	0.87	(8.71)	(12.11)	(5.44)	148.02		148.02
	2036	$4.64	31.22	35.99	$0.89	11.13	13.30	178.88	0.88	(8.99)	(12.22)	(5.58)	152.97		152.97
	2037	$4.75	31.43	36.24	$0.92	11.15	13.34	184.51	0.89	(9.27)	(12.33)	(5.72)	158.09		158.09
	2038	$4.87	31.65	36.48	$0.94	11.17	13.39	190.33	0.90	(9.56)	(12.44)	(5.86)	163.37		163.37
	2039	$4.99	31.86	36.73	$0.96	11.19	13.43	196.33	0.91	(9.86)	(12.55)	(6.01)	168.82	(34.13)	134.69
	2040	$5.12	32.08	36.98	$0.98	11.21	13.48	202.52	0.92	(10.17)	(13.06)	(6.16)	174.05	(16.75)	157.30
	2041	$5.25	32.08	36.98	$1.00	11.21	13.48	207.58	0.92	(10.43)	(13.14)	(6.31)	178.63		178.63
	2042	$5.38	32.08	36.98	$1.03	11.21	13.48	212.77	0.93	(10.68)	(13.21)	(6.47)	183.33		183.33
	2043	$5.51	32.08	36.98	$1.06	11.21	13.48	218.09	0.93	(10.95)	(13.29)	(6.63)	188.15	(17.64)	170.52
	2044	$5.65	32.08	36.98	$1.08	11.21	13.48	223.54	0.94	(11.22)	(13.37)	(6.80)	193.09	(15.55)	177.54
	2045	$5.79	32.08	36.98	$1.11	11.21	13.48	229.13	0.94	(11.50)	(13.45)	(6.97)	198.15		198.15
	2046	$5.94	32.08	36.98	$1.14	11.21	13.48	234.86	0.95	(11.79)	(13.53)	(7.14)	203.34		203.34
	2047	$6.09	32.08	36.98	$1.16	11.21	13.48	240.73	0.95	(12.08)	(14.09)	(7.32)	208.19	(28.08)	180.11
	2048	$6.24	32.08	36.98	$1.19	11.21	13.48	246.75	0.96	(12.39)	(14.18)	(7.50)	213.64		213.64
	2049	$6.39	32.08	36.98	$1.22	11.21	13.48	252.92	0.96	(12.69)	(14.27)	(7.69)	219.23	(8.45)	210.78
	2050	$6.55	32.08	36.98	$1.25	11.21	13.48	259.24	0.97	(13.01)	(14.36)	(7.88)	224.96		224.96
	2051	$6.72	32.08	36.98	$1.29	11.21	13.48	265.72	0.97	(13.33)	(14.45)	(8.08)	230.83		230.83
	2052	$6.88	32.08	36.98	$1.32	11.21	13.48	272.37	0.98	(13.67)	(14.55)	(8.28)	236.85		236.85
	2053	$7.06	32.08	36.98	$1.35	11.21	13.48	279.18	0.98	(14.01)	(14.65)	(8.49)	243.02	(5.56)	237.45
	2054	$7.23	32.08	36.98	$1.38	11.21	13.48	286.16	0.99	(14.36)	(15.31)	(8.70)	248.77	(27.24)	221.54
	2055	$7.41	32.08	36.98	$1.42	11.21	13.48	293.31	1.00	(14.72)	(15.42)	(8.92)	255.26	(17.87)	237.38
	2056	$7.60	32.08	36.98	$1.45	11.21	13.48	300.64	1.00	(15.08)	(15.52)	(9.14)	261.90		261.90
	2057	$7.79	32.08	36.98	$1.49	11.21	13.48	308.16	1.01	(15.46)	(15.63)	(9.37)	268.71		268.71
	2058	$7.98	32.08	36.98	$1.53	11.21	13.48	315.86	1.02	(15.84)	(15.75)	(9.60)	275.69		275.69
Totals FY 2010-18															
Totals FY 2019-58			1217.55	1404.14		441.18	525.37	7859.73	48.05	(395.39)	(518.46)	(247.06)	6746.87	(231.23)	6515.64

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 4 — Table 4: Base / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$3.05	24.53	28.33	$0.61	10.19	11.79	93.75	0.68	(4.72)	(9.39)	(3.67)	76.66	(2.50)	74.16
	2020	$3.13	26.17	30.22	$0.63	10.73	12.40	102.39	0.73	(5.16)	(9.81)	(3.76)	84.39		84.39
	2021	$3.21	26.53	30.63	$0.64	10.75	12.46	106.26	0.73	(5.35)	(9.92)	(3.85)	87.88	(7.91)	79.96
	2022	$3.29	26.89	31.05	$0.65	10.78	12.52	110.28	0.74	(5.55)	(10.04)	(3.95)	91.49		91.49
	2023	$3.37	27.25	31.46	$0.67	10.81	12.57	114.45	0.76	(5.76)	(10.15)	(4.05)	95.25	(2.65)	92.60
	2024	$3.45	27.62	31.89	$0.68	10.83	12.64	118.79	0.77	(5.98)	(10.27)	(4.15)	99.16	(3.01)	96.15
	2025	$3.54	28.00	32.32	$0.70	10.86	12.70	123.28	0.78	(6.20)	(10.63)	(4.25)	102.97	(11.85)	91.12
	2026	$3.63	28.38	32.76	$0.71	10.89	12.77	127.96	0.79	(6.44)	(10.76)	(4.36)	107.19		107.19
	2027	$3.72	28.77	33.20	$0.73	10.92	12.83	132.81	0.80	(6.68)	(10.88)	(4.47)	111.58		111.58
	2028	$3.81	29.16	33.65	$0.75	10.96	12.91	137.84	0.81	(6.93)	(11.01)	(4.58)	116.13		116.13
	2029	$3.90	29.56	34.10	$0.76	10.99	12.98	143.07	0.82	(7.19)	(11.14)	(4.69)	120.87	(6.13)	114.73
	2030	$4.00	29.97	34.57	$0.78	11.02	13.05	148.50	0.83	(7.47)	(11.27)	(4.81)	125.79		125.79
	2031	$4.10	30.17	34.80	$0.80	11.04	13.09	153.18	0.84	(7.70)	(11.37)	(4.93)	130.02		130.02
	2032	$4.20	30.38	35.04	$0.82	11.06	13.13	158.00	0.85	(7.94)	(11.81)	(5.05)	134.05	(14.09)	119.96
	2033	$4.31	30.58	35.27	$0.83	11.08	13.17	162.98	0.86	(8.19)	(11.91)	(5.18)	138.56	(19.82)	118.74
	2034	$4.42	30.79	35.51	$0.85	11.09	13.22	168.11	0.87	(8.45)	(12.01)	(5.31)	143.21	(3.15)	140.06
	2035	$4.53	31.00	35.75	$0.87	11.11	13.26	173.41	0.87	(8.71)	(12.11)	(5.44)	148.02		148.02
	2036	$4.64	31.22	35.99	$0.89	11.13	13.30	178.88	0.88	(8.99)	(12.22)	(5.58)	152.97		152.97
	2037	$4.75	31.43	36.24	$0.92	11.15	13.34	184.51	0.89	(9.27)	(12.33)	(5.72)	158.09		158.09
	2038	$4.87	31.65	36.48	$0.94	11.17	13.39	190.33	0.90	(9.56)	(12.44)	(5.86)	163.37		163.37
	2039	$4.99	31.86	36.73	$0.96	11.19	13.43	196.33	0.91	(9.86)	(12.95)	(6.01)	168.42	(50.88)	117.54
	2040	$5.12	32.08	36.98	$0.98	11.21	13.48	202.52	0.92	(10.17)	(13.06)	(6.16)	174.05		174.05
	2041	$5.25	32.08	36.98	$1.00	11.21	13.48	207.58	0.92	(10.43)	(13.14)	(6.31)	178.63		178.63
	2042	$5.38	32.08	36.98	$1.03	11.21	13.48	212.77	0.93	(10.68)	(13.21)	(6.47)	183.33		183.33
	2043	$5.51	32.08	36.98	$1.06	11.21	13.48	218.09	0.93	(10.95)	(13.29)	(6.63)	188.15	(4.35)	183.81
	2044	$5.65	32.08	36.98	$1.08	11.21	13.48	223.54	0.94	(11.22)	(13.37)	(6.80)	193.09	(15.55)	177.54
	2045	$5.79	32.08	36.98	$1.11	11.21	13.48	229.13	0.94	(11.50)	(13.45)	(6.97)	198.15	(14.31)	183.84
	2046	$5.94	32.08	36.98	$1.14	11.21	13.48	234.86	0.95	(11.79)	(14.01)	(7.14)	202.87	(19.91)	182.96
	2047	$6.09	32.08	36.98	$1.16	11.21	13.48	240.73	0.95	(12.08)	(14.09)	(7.32)	208.19	(8.17)	200.02
	2048	$6.24	32.08	36.98	$1.19	11.21	13.48	246.75	0.96	(12.39)	(14.18)	(7.50)	213.64		213.64
	2049	$6.39	32.08	36.98	$1.22	11.21	13.48	252.92	0.96	(12.69)	(14.27)	(7.69)	219.23	(8.45)	210.78
	2050	$6.55	32.08	36.98	$1.25	11.21	13.48	259.24	0.97	(13.01)	(14.36)	(7.88)	224.96		224.96
	2051	$6.72	32.08	36.98	$1.29	11.21	13.48	265.72	0.97	(13.33)	(14.45)	(8.08)	230.83		230.83
	2052	$6.88	32.08	36.98	$1.32	11.21	13.48	272.37	0.98	(13.67)	(14.55)	(8.28)	236.85		236.85
	2053	$7.06	32.08	36.98	$1.35	11.21	13.48	279.18	0.98	(14.01)	(15.21)	(8.49)	242.45	(29.23)	213.22
	2054	$7.23	32.08	36.98	$1.38	11.21	13.48	286.16	0.99	(14.36)	(15.31)	(8.70)	248.77	(3.57)	245.20
	2055	$7.41	32.08	36.98	$1.42	11.21	13.48	293.31	1.00	(14.72)	(15.42)	(8.92)	255.26		255.26
	2056	$7.60	32.08	36.98	$1.45	11.21	13.48	300.64	1.00	(15.08)	(15.52)	(9.14)	261.90		261.90
	2057	$7.79	32.08	36.98	$1.49	11.21	13.48	308.16	1.01	(15.46)	(15.63)	(9.37)	268.71	(19.25)	249.46
	2058	$7.98	32.08	36.98	$1.53	11.21	13.48	315.86	1.02	(15.84)	(15.75)	(9.60)	275.69		275.69
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1221.44	1408.64		442.72	527.05	7874.67	35.41	(395.50)	(506.70)	(247.06)	6760.82	(244.80)	6516.02

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 4 — Table 5: High / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$3.06	24.70	28.48	$0.61	10.17	11.85	94.20	3.42	(4.88)	(12.60)	(3.67)	76.47		76.47
	2020	$3.13	27.96	32.24	$0.62	11.35	13.16	109.18	3.48	(5.63)	(13.39)	(3.76)	89.88		89.88
	2021	$3.21	29.82	34.38	$0.64	11.95	13.84	119.19	3.29	(6.12)	(13.59)	(3.85)	98.93		98.93
	2022	$3.29	30.21	34.83	$0.65	11.98	13.91	123.65	2.92	(6.33)	(13.25)	(3.95)	103.04		103.04
	2023	$3.37	30.60	35.28	$0.67	12.01	13.97	128.27	2.54	(6.54)	(12.91)	(4.05)	107.31	(2.65)	104.66
	2024	$3.45	31.00	35.74	$0.68	12.04	14.04	133.06	2.14	(6.76)	(12.55)	(4.15)	111.74	(3.01)	108.73
	2025	$3.54	31.41	36.21	$0.70	12.07	14.11	138.04	1.74	(6.99)	(12.19)	(4.25)	116.34		116.34
	2026	$3.63	31.82	36.68	$0.71	12.10	14.19	143.20	1.32	(7.23)	(12.10)	(4.36)	120.84	(11.85)	108.99
	2027	$3.72	32.23	37.16	$0.73	12.14	14.26	148.56	0.89	(7.47)	(11.72)	(4.47)	125.80		125.80
	2028	$3.81	32.65	37.64	$0.75	12.17	14.34	154.12	0.90	(7.75)	(11.85)	(4.58)	130.85		130.85
	2029	$3.91	33.08	38.13	$0.76	12.21	14.42	159.90	0.92	(8.04)	(11.99)	(4.69)	136.09	(6.13)	129.96
	2030	$4.00	33.51	38.63	$0.78	12.25	14.51	165.89	0.93	(8.34)	(12.13)	(4.81)	141.54		141.54
	2031	$4.10	33.73	38.88	$0.80	12.27	14.55	171.07	0.94	(8.60)	(12.23)	(4.93)	146.25	(9.88)	136.37
	2032	$4.20	33.95	39.13	$0.82	12.29	14.59	176.41	0.95	(8.87)	(12.33)	(5.05)	151.11		151.11
	2033	$4.31	34.18	39.38	$0.83	12.31	14.64	181.92	0.96	(9.14)	(12.77)	(5.18)	155.79	(23.27)	132.52
	2034	$4.42	34.40	39.64	$0.85	12.33	14.68	187.61	0.97	(9.43)	(12.88)	(5.31)	160.96	(3.15)	157.80
	2035	$4.53	34.62	39.90	$0.87	12.35	14.73	193.47	0.97	(9.72)	(12.99)	(5.44)	166.30		166.30
	2036	$4.64	34.85	40.16	$0.89	12.37	14.78	199.52	0.98	(10.03)	(13.10)	(5.58)	171.80		171.80
	2037	$4.75	35.08	40.42	$0.92	12.39	14.83	205.76	0.99	(10.34)	(13.21)	(5.72)	177.48		177.48
	2038	$4.87	35.31	40.68	$0.94	12.41	14.88	212.19	1.00	(10.66)	(13.33)	(5.86)	183.35		183.35
	2039	$4.99	35.54	40.95	$0.96	12.43	14.93	218.82	1.01	(10.99)	(13.44)	(6.01)	189.39	(34.13)	155.26
	2040	$5.12	35.77	41.22	$0.98	12.45	14.98	225.67	1.02	(11.33)	(13.96)	(6.16)	195.24	(16.75)	178.49
	2041	$5.25	35.77	41.22	$1.00	12.45	14.98	231.31	1.03	(11.62)	(14.04)	(6.31)	200.37		200.37
	2042	$5.38	35.77	41.22	$1.03	12.45	14.98	237.09	1.03	(11.91)	(14.11)	(6.47)	205.63		205.63
	2043	$5.51	35.77	41.22	$1.06	12.45	14.98	243.02	1.04	(12.20)	(14.19)	(6.63)	211.03	(17.64)	193.39
	2044	$5.65	35.77	41.22	$1.08	12.45	14.98	249.09	1.04	(12.51)	(14.28)	(6.80)	216.56	(15.55)	201.01
	2045	$5.79	35.77	41.22	$1.11	12.45	14.98	255.32	1.05	(12.82)	(14.36)	(6.97)	222.23		222.23
	2046	$5.94	35.77	41.22	$1.14	12.45	14.98	261.70	1.05	(13.14)	(14.44)	(7.14)	228.04		228.04
	2047	$6.09	35.77	41.22	$1.16	12.45	14.98	268.25	1.06	(13.47)	(15.00)	(7.32)	233.52	(28.08)	205.44
	2048	$6.24	35.77	41.22	$1.19	12.45	14.98	274.95	1.07	(13.80)	(15.09)	(7.50)	239.62		239.62
	2049	$6.39	35.77	41.22	$1.22	12.45	14.98	281.83	1.07	(14.14)	(15.19)	(7.69)	245.88	(8.45)	237.43
	2050	$6.55	35.77	41.22	$1.25	12.45	14.98	288.87	1.08	(14.50)	(15.28)	(7.88)	252.29		252.29
	2051	$6.72	35.77	41.22	$1.29	12.45	14.98	296.09	1.08	(14.86)	(15.38)	(8.08)	258.86		258.86
	2052	$6.88	35.77	41.22	$1.32	12.45	14.98	303.50	1.09	(15.23)	(15.48)	(8.28)	265.60		265.60
	2053	$7.06	35.77	41.22	$1.35	12.45	14.98	311.08	1.10	(15.61)	(15.58)	(8.49)	272.51	(5.56)	266.94
	2054	$7.23	35.77	41.22	$1.38	12.45	14.98	318.86	1.10	(16.00)	(16.24)	(8.70)	279.02	(27.24)	251.79
	2055	$7.41	35.77	41.22	$1.42	12.45	14.98	326.83	1.11	(16.40)	(16.35)	(8.92)	286.28	(17.87)	268.40
	2056	$7.60	35.77	41.22	$1.45	12.45	14.98	335.00	1.12	(16.81)	(16.46)	(9.14)	293.72		293.72
	2057	$7.79	35.77	41.22	$1.49	12.45	14.98	343.38	1.12	(17.23)	(16.57)	(9.37)	301.34		301.34
	2058	$7.98	35.77	41.22	$1.53	12.45	14.98	351.96	1.13	(17.65)	(16.69)	(9.60)	309.15		309.15
Totals FY 2010-18															
Totals FY 2019-58			1360.30	1567.62		490.20	583.74	8767.84	53.66	(441.07)	(555.22)	(247.06)	7578.14	(231.23)	7346.91

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 4 — Table 6: High / Revenue-Traffic Balance / Corridor Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.59	12.02	14.01				36.22	2.30	(1.93)	(6.14)		30.45		30.45
	2011	$2.65	18.49	21.55				57.09	3.19	(3.01)	(8.21)		49.06		49.06
	2012	$2.72	21.03	24.51				66.56	3.23	(3.49)	(8.67)		57.63		57.63
	2013	$2.78	22.52	26.25				73.09	3.04	(3.81)	(8.70)		63.62		63.62
	2014	$2.85	22.92	26.72				76.24	2.66	(3.94)	(8.34)		66.62	(2.50)	64.12
	2015	$2.92	23.32	27.19				79.53	2.26	(4.09)	(7.96)		69.74		69.74
	2016	$3.00	23.73	27.67				82.96	1.84	(4.24)	(7.59)		72.98	(1.00)	71.98
	2017	$3.07	24.15	28.16				86.54	1.41	(4.40)	(7.18)		76.38		76.38
	2018	$3.15	24.58	28.66				90.28	0.96	(4.56)	(6.75)		79.93		79.93
Post-Completion — Full Revenue Operations	2019	$3.06	27.60	31.83	$0.61	11.32	13.10	105.25	0.76	(5.30)	(10.13)	(3.67)	86.92	(2.50)	84.42
	2020	$3.13	29.43	33.94	$0.63	11.92	13.78	114.90	0.81	(5.79)	(10.60)	(3.76)	95.58		95.58
	2021	$3.21	29.82	34.38	$0.64	11.95	13.84	119.19	0.82	(6.00)	(10.72)	(3.85)	99.45	(7.91)	91.54
	2022	$3.29	30.21	34.83	$0.65	11.98	13.91	123.65	0.83	(6.22)	(10.84)	(3.95)	103.47		103.47
	2023	$3.37	30.60	35.28	$0.67	12.01	13.97	128.27	0.85	(6.46)	(10.96)	(4.05)	107.65	(2.65)	105.00
	2024	$3.45	31.00	35.74	$0.68	12.04	14.04	133.06	0.86	(6.70)	(11.08)	(4.15)	111.99	(3.01)	108.98
	2025	$3.54	31.41	36.21	$0.70	12.07	14.11	138.04	0.87	(6.95)	(11.45)	(4.25)	116.26	(11.85)	104.40
	2026	$3.63	31.82	36.68	$0.71	12.10	14.19	143.20	0.88	(7.20)	(11.58)	(4.36)	120.94		120.94
	2027	$3.72	32.23	37.16	$0.73	12.14	14.26	148.56	0.89	(7.47)	(11.72)	(4.47)	125.80		125.80
	2028	$3.81	32.65	37.64	$0.75	12.17	14.34	154.12	0.90	(7.75)	(11.85)	(4.58)	130.85		130.85
	2029	$3.91	33.08	38.13	$0.76	12.21	14.42	159.90	0.92	(8.04)	(11.99)	(4.69)	136.09	(6.13)	129.96
	2030	$4.00	33.51	38.63	$0.78	12.25	14.51	165.89	0.93	(8.34)	(12.13)	(4.81)	141.54		141.54
	2031	$4.10	33.73	38.88	$0.80	12.27	14.55	171.07	0.94	(8.60)	(12.23)	(4.93)	146.25		146.25
	2032	$4.20	33.95	39.13	$0.82	12.29	14.59	176.41	0.95	(8.87)	(12.67)	(5.05)	150.77	(14.09)	136.68
	2033	$4.31	34.18	39.38	$0.83	12.31	14.64	181.92	0.96	(9.14)	(12.77)	(5.18)	155.79	(19.82)	135.97
	2034	$4.42	34.40	39.64	$0.85	12.33	14.68	187.61	0.97	(9.43)	(12.88)	(5.31)	160.96	(3.15)	157.80
	2035	$4.53	34.62	39.90	$0.87	12.35	14.73	193.47	0.97	(9.72)	(12.99)	(5.44)	166.30		166.30
	2036	$4.64	34.85	40.16	$0.89	12.37	14.78	199.52	0.98	(10.03)	(13.10)	(5.58)	171.80		171.80
	2037	$4.75	35.08	40.42	$0.92	12.39	14.83	205.76	0.99	(10.34)	(13.21)	(5.72)	177.48		177.48
	2038	$4.87	35.31	40.68	$0.94	12.41	14.88	212.19	1.00	(10.66)	(13.33)	(5.86)	183.35		183.35
	2039	$4.99	35.54	40.95	$0.96	12.43	14.93	218.82	1.01	(10.99)	(13.84)	(6.01)	189.00	(50.88)	138.11
	2040	$5.12	35.77	41.22	$0.98	12.45	14.98	225.67	1.02	(11.33)	(13.96)	(6.16)	195.24		195.24
	2041	$5.25	35.77	41.22	$1.00	12.45	14.98	231.31	1.03	(11.62)	(14.04)	(6.31)	200.37		200.37
	2042	$5.38	35.77	41.22	$1.03	12.45	14.98	237.09	1.03	(11.91)	(14.11)	(6.47)	205.63		205.63
	2043	$5.51	35.77	41.22	$1.06	12.45	14.98	243.02	1.04	(12.20)	(14.19)	(6.63)	211.03	(4.35)	206.68
	2044	$5.65	35.77	41.22	$1.08	12.45	14.98	249.09	1.04	(12.51)	(14.28)	(6.80)	216.56	(15.55)	201.01
	2045	$5.79	35.77	41.22	$1.11	12.45	14.98	255.32	1.05	(12.82)	(14.36)	(6.97)	222.23	(14.31)	207.92
	2046	$5.94	35.77	41.22	$1.14	12.45	14.98	261.70	1.05	(13.14)	(14.92)	(7.14)	227.56	(19.91)	207.65
	2047	$6.09	35.77	41.22	$1.16	12.45	14.98	268.25	1.06	(13.47)	(15.00)	(7.32)	233.52	(8.17)	225.35
	2048	$6.24	35.77	41.22	$1.19	12.45	14.98	274.95	1.07	(13.80)	(15.09)	(7.50)	239.62		239.62
	2049	$6.39	35.77	41.22	$1.22	12.45	14.98	281.83	1.07	(14.14)	(15.19)	(7.69)	245.88	(8.45)	237.43
	2050	$6.55	35.77	41.22	$1.25	12.45	14.98	288.87	1.08	(14.50)	(15.28)	(7.88)	252.29		252.29
	2051	$6.72	35.77	41.22	$1.29	12.45	14.98	296.09	1.08	(14.86)	(15.38)	(8.08)	258.86		258.86
	2052	$6.88	35.77	41.22	$1.32	12.45	14.98	303.50	1.09	(15.23)	(15.48)	(8.28)	265.60		265.60
	2053	$7.06	35.77	41.22	$1.35	12.45	14.98	311.08	1.10	(15.61)	(16.14)	(8.49)	271.94	(29.23)	242.72
	2054	$7.23	35.77	41.22	$1.38	12.45	14.98	318.86	1.10	(16.00)	(16.24)	(8.70)	279.02	(3.57)	275.45
	2055	$7.41	35.77	41.22	$1.42	12.45	14.98	326.83	1.11	(16.40)	(16.35)	(8.92)	286.28		286.28
	2056	$7.60	35.77	41.22	$1.45	12.45	14.98	335.00	1.12	(16.81)	(16.46)	(9.14)	293.72		293.72
	2057	$7.79	35.77	41.22	$1.49	12.45	14.98	343.38	1.12	(17.23)	(16.57)	(9.37)	301.34	(19.25)	282.09
	2058	$7.98	35.77	41.22	$1.53	12.45	14.98	351.96	1.13	(17.65)	(16.69)	(9.60)	309.15		309.15
Totals FY 2010-18			192.77	224.72				648.53	20.89	(33.47)	(69.54)		566.41	(3.50)	562.91
Totals FY 2019-58			1364.67	1572.67		491.92	585.61	8784.61	39.50	(441.21)	(541.77)	(247.06)	7594.07	(244.80)	7349.27

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 5 — Table 1: Low / Traffic Throughput / Corridor Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$2.79	20.15	23.25	$0.60	8.06	9.39	70.51	2.76	(3.66)	(10.81)	(3.67)	55.13		55.13
	2020	$2.86	22.81	26.32	$0.62	8.99	10.42	81.68	2.81	(4.22)	(11.45)	(3.76)	65.06		65.06
	2021	$2.93	24.32	28.05	$0.64	9.46	10.96	89.14	2.66	(4.59)	(11.62)	(3.85)	71.74		71.74
	2022	$3.00	24.64	28.41	$0.65	9.48	11.01	92.43	2.36	(4.74)	(11.36)	(3.95)	74.75		74.75
	2023	$3.08	24.95	28.77	$0.67	9.51	11.06	95.85	2.05	(4.90)	(11.08)	(4.05)	77.88	(2.65)	75.22
	2024	$3.15	25.27	29.14	$0.68	9.53	11.12	99.39	1.73	(5.06)	(10.80)	(4.15)	81.12	(3.01)	78.11
	2025	$3.23	25.60	29.51	$0.70	9.55	11.17	103.07	1.40	(5.22)	(10.52)	(4.25)	84.48		84.48
	2026	$3.31	25.93	29.88	$0.71	9.58	11.23	106.89	1.07	(5.40)	(10.50)	(4.36)	87.69	(11.85)	75.84
	2027	$3.39	26.26	30.26	$0.73	9.60	11.29	110.84	0.72	(5.58)	(10.20)	(4.47)	91.32		91.32
	2028	$3.47	26.60	30.65	$0.74	9.63	11.35	114.95	0.73	(5.78)	(10.32)	(4.58)	95.00		95.00
	2029	$3.56	26.94	31.04	$0.76	9.65	11.41	119.21	0.74	(6.00)	(10.44)	(4.69)	98.83	(6.13)	92.69
	2030	$3.65	27.29	31.44	$0.78	9.68	11.47	123.63	0.75	(6.22)	(10.56)	(4.81)	102.80		102.80
	2031	$3.74	27.47	31.64	$0.79	9.69	11.51	127.47	0.76	(6.41)	(10.65)	(4.93)	106.24	(9.88)	96.36
	2032	$3.83	27.64	31.84	$0.81	9.71	11.54	131.43	0.77	(6.61)	(10.74)	(5.05)	109.79		109.79
	2033	$3.93	27.82	32.04	$0.83	9.72	11.57	135.51	0.77	(6.81)	(11.17)	(5.18)	113.12	(23.27)	89.85
	2034	$4.03	28.00	32.25	$0.85	9.74	11.61	139.72	0.78	(7.02)	(11.26)	(5.31)	116.90	(3.15)	113.75
	2035	$4.13	28.18	32.45	$0.87	9.75	11.64	144.06	0.79	(7.24)	(11.36)	(5.44)	120.80		120.80
	2036	$4.23	28.37	32.66	$0.89	9.77	11.68	148.53	0.79	(7.47)	(11.46)	(5.58)	124.83		124.83
	2037	$4.33	28.55	32.87	$0.91	9.78	11.72	153.15	0.80	(7.70)	(11.56)	(5.72)	128.98		128.98
	2038	$4.44	28.73	33.08	$0.93	9.80	11.76	157.91	0.81	(7.94)	(11.66)	(5.86)	133.26		133.26
	2039	$4.55	28.92	33.29	$0.96	9.82	11.79	162.81	0.82	(8.18)	(11.77)	(6.01)	137.68	(34.13)	103.54
	2040	$4.67	29.11	33.50	$0.98	9.83	11.83	167.87	0.83	(8.44)	(12.27)	(6.16)	141.84	(16.75)	125.09
	2041	$4.78	29.11	33.50	$1.00	9.83	11.83	172.07	0.83	(8.65)	(12.34)	(6.31)	145.60		145.60
	2042	$4.90	29.11	33.50	$1.03	9.83	11.83	176.37	0.83	(8.86)	(12.42)	(6.47)	149.46		149.46
	2043	$5.02	29.11	33.50	$1.05	9.83	11.83	180.78	0.84	(9.08)	(12.49)	(6.63)	153.42	(17.64)	135.78
	2044	$5.15	29.11	33.50	$1.08	9.83	11.83	185.30	0.84	(9.31)	(12.57)	(6.80)	157.47	(15.55)	141.92
	2045	$5.28	29.11	33.50	$1.11	9.83	11.83	189.93	0.85	(9.54)	(12.65)	(6.97)	161.63		161.63
	2046	$5.41	29.11	33.50	$1.13	9.83	11.83	194.68	0.85	(9.78)	(12.73)	(7.14)	165.89		165.89
	2047	$5.55	29.11	33.50	$1.16	9.83	11.83	199.55	0.86	(10.02)	(13.29)	(7.32)	169.78	(28.08)	141.70
	2048	$5.68	29.11	33.50	$1.19	9.83	11.83	204.54	0.86	(10.27)	(13.37)	(7.50)	174.26		174.26
	2049	$5.83	29.11	33.50	$1.22	9.83	11.83	209.65	0.86	(10.53)	(13.46)	(7.69)	178.84	(8.45)	170.39
	2050	$5.97	29.11	33.50	$1.25	9.83	11.83	214.89	0.87	(10.79)	(13.55)	(7.88)	183.54		183.54
	2051	$6.12	29.11	33.50	$1.28	9.83	11.83	220.27	0.87	(11.06)	(13.64)	(8.08)	188.36		188.36
	2052	$6.27	29.11	33.50	$1.31	9.83	11.83	225.77	0.88	(11.33)	(13.74)	(8.28)	193.30		193.30
	2053	$6.43	29.11	33.50	$1.35	9.83	11.83	231.42	0.89	(11.62)	(13.83)	(8.49)	198.37	(5.56)	192.80
	2054	$6.59	29.11	33.50	$1.38	9.83	11.83	237.20	0.89	(11.90)	(14.49)	(8.70)	202.99	(27.24)	175.76
	2055	$6.76	29.11	33.50	$1.42	9.83	11.83	243.13	0.90	(12.20)	(14.60)	(8.92)	208.31	(17.87)	190.44
	2056	$6.93	29.11	33.50	$1.45	9.83	11.83	249.21	0.90	(12.51)	(14.70)	(9.14)	213.77		213.77
	2057	$7.10	29.11	33.50	$1.49	9.83	11.83	255.44	0.91	(12.82)	(14.81)	(9.37)	219.36		219.36
	2058	$7.28	29.11	33.50	$1.52	9.83	11.83	261.83	0.91	(13.14)	(14.92)	(9.60)	225.08		225.08
Totals FY 2010-18															
Totals FY 2019-58			1107.46	1275.43		387.30	461.52	6528.07	43.36	(328.57)	(487.13)	(247.06)	5508.67	(231.23)	5277.44

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 5 — Table 2: Low / Traffic Throughput / Corridor Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B5)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.35	11.36	13.22				31.02	2.17	(1.66)	(5.89)		25.63		25.63
	2011	$2.41	17.46	20.31				48.85	3.01	(2.59)	(7.84)		41.42		41.42
	2012	$2.47	19.84	23.08				56.90	3.05	(3.00)	(8.28)		48.67		48.67
	2013	$2.53	21.23	24.70				62.42	2.86	(3.26)	(8.30)		53.72		53.72
	2014	$2.59	21.59	25.12				65.06	2.50	(3.38)	(7.95)		56.23	(2.50)	53.73
	2015	$2.65	21.95	25.54				67.80	2.13	(3.50)	(7.60)		58.84		58.84
	2016	$2.72	22.32	25.97				70.67	1.73	(3.62)	(7.25)		61.54	(1.00)	60.54
	2017	$2.79	22.69	26.41				73.65	1.33	(3.75)	(6.85)		64.37		64.37
	2018	$2.86	23.07	26.85				76.76	0.90	(3.88)	(6.45)		67.33		67.33
Post-Completion — Full Revenue Operations	2019	$2.79	22.52	25.99	$0.61	8.97	10.38	78.77	0.62	(3.97)	(8.82)	(3.67)	62.94	(2.50)	60.44
	2020	$2.86	24.01	27.70	$0.62	9.44	10.92	85.97	0.66	(4.33)	(9.21)	(3.76)	69.33		69.33
	2021	$2.93	24.32	28.05	$0.64	9.46	10.96	89.14	0.67	(4.49)	(9.31)	(3.85)	72.16	(7.91)	64.25
	2022	$3.00	24.64	28.41	$0.65	9.48	11.01	92.43	0.67	(4.66)	(9.41)	(3.95)	75.10		75.10
	2023	$3.08	24.95	28.77	$0.67	9.51	11.06	95.85	0.68	(4.83)	(9.51)	(4.05)	78.15	(2.65)	75.49
	2024	$3.15	25.27	29.14	$0.68	9.53	11.12	99.39	0.69	(5.00)	(9.62)	(4.15)	81.31	(3.01)	78.30
	2025	$3.23	25.60	29.51	$0.70	9.55	11.17	103.07	0.70	(5.19)	(9.98)	(4.25)	84.36	(11.85)	72.50
	2026	$3.31	25.93	29.88	$0.71	9.58	11.23	106.89	0.71	(5.38)	(10.09)	(4.36)	87.77		87.77
	2027	$3.39	26.26	30.26	$0.73	9.60	11.29	110.84	0.72	(5.58)	(10.20)	(4.47)	91.32		91.32
	2028	$3.47	26.60	30.65	$0.74	9.63	11.35	114.95	0.73	(5.78)	(10.32)	(4.58)	95.00		95.00
	2029	$3.56	26.94	31.04	$0.76	9.65	11.41	119.21	0.74	(6.00)	(10.44)	(4.69)	98.83	(6.13)	92.69
	2030	$3.65	27.29	31.44	$0.78	9.68	11.47	123.63	0.75	(6.22)	(10.56)	(4.81)	102.80		102.80
	2031	$3.74	27.47	31.64	$0.79	9.69	11.51	127.47	0.76	(6.41)	(10.65)	(4.93)	106.24		106.24
	2032	$3.83	27.64	31.84	$0.81	9.71	11.54	131.43	0.77	(6.61)	(11.07)	(5.05)	109.46	(14.09)	95.37
	2033	$3.93	27.82	32.04	$0.83	9.72	11.57	135.51	0.77	(6.81)	(11.17)	(5.18)	113.12	(19.82)	93.30
	2034	$4.03	28.00	32.25	$0.85	9.74	11.61	139.72	0.78	(7.02)	(11.26)	(5.31)	116.90	(3.15)	113.75
	2035	$4.13	28.18	32.45	$0.87	9.75	11.64	144.06	0.79	(7.24)	(11.36)	(5.44)	120.80		120.80
	2036	$4.23	28.37	32.66	$0.89	9.77	11.68	148.53	0.79	(7.47)	(11.46)	(5.58)	124.83		124.83
	2037	$4.33	28.55	32.87	$0.91	9.78	11.72	153.15	0.80	(7.70)	(11.56)	(5.72)	128.98		128.98
	2038	$4.44	28.73	33.08	$0.93	9.80	11.76	157.91	0.81	(7.94)	(11.66)	(5.86)	133.26		133.26
	2039	$4.55	28.92	33.29	$0.96	9.82	11.79	162.81	0.82	(8.18)	(12.16)	(6.01)	137.28	(50.88)	86.40
	2040	$4.67	29.11	33.50	$0.98	9.83	11.83	167.87	0.83	(8.44)	(12.27)	(6.16)	141.84		141.84
	2041	$4.78	29.11	33.50	$1.00	9.83	11.83	172.07	0.83	(8.65)	(12.34)	(6.31)	145.60		145.60
	2042	$4.90	29.11	33.50	$1.03	9.83	11.83	176.37	0.83	(8.86)	(12.42)	(6.47)	149.46		149.46
	2043	$5.02	29.11	33.50	$1.05	9.83	11.83	180.78	0.84	(9.08)	(12.49)	(6.63)	153.42	(4.35)	149.07
	2044	$5.15	29.11	33.50	$1.08	9.83	11.83	185.30	0.84	(9.31)	(12.57)	(6.80)	157.47	(15.55)	141.92
	2045	$5.28	29.11	33.50	$1.11	9.83	11.83	189.93	0.85	(9.54)	(12.65)	(6.97)	161.63	(14.31)	147.32
	2046	$5.41	29.11	33.50	$1.13	9.83	11.83	194.68	0.85	(9.78)	(13.20)	(7.14)	165.41	(19.91)	145.50
	2047	$5.55	29.11	33.50	$1.16	9.83	11.83	199.55	0.86	(10.02)	(13.29)	(7.32)	169.78	(8.17)	161.61
	2048	$5.68	29.11	33.50	$1.19	9.83	11.83	204.54	0.86	(10.27)	(13.37)	(7.50)	174.26		174.26
	2049	$5.83	29.11	33.50	$1.22	9.83	11.83	209.65	0.86	(10.53)	(13.46)	(7.69)	178.84	(8.45)	170.39
	2050	$5.97	29.11	33.50	$1.25	9.83	11.83	214.89	0.87	(10.79)	(13.55)	(7.88)	183.54		183.54
	2051	$6.12	29.11	33.50	$1.28	9.83	11.83	220.27	0.87	(11.06)	(13.64)	(8.08)	188.36		188.36
	2052	$6.27	29.11	33.50	$1.31	9.83	11.83	225.77	0.88	(11.33)	(13.74)	(8.28)	193.30		193.30
	2053	$6.43	29.11	33.50	$1.35	9.83	11.83	231.42	0.89	(11.62)	(14.40)	(8.49)	197.80	(29.23)	168.58
	2054	$6.59	29.11	33.50	$1.38	9.83	11.83	237.20	0.89	(11.90)	(14.49)	(8.70)	202.99	(3.57)	199.42
	2055	$6.76	29.11	33.50	$1.42	9.83	11.83	243.13	0.90	(12.20)	(14.60)	(8.92)	208.31		208.31
	2056	$6.93	29.11	33.50	$1.45	9.83	11.83	249.21	0.90	(12.51)	(14.70)	(9.14)	213.77		213.77
	2057	$7.10	29.11	33.50	$1.49	9.83	11.83	255.44	0.91	(12.82)	(14.81)	(9.37)	219.36	(19.25)	200.11
	2058	$7.28	29.11	33.50	$1.52	9.83	11.83	261.83	0.91	(13.14)	(14.92)	(9.60)	225.08		225.08
Totals FY 2010-18			181.53	211.20				553.12	19.69	(28.64)	(66.40)		477.76	(3.50)	474.26
Totals FY 2019-58			1111.03	1279.55		388.66	463.00	6540.62	31.91	(328.63)	(476.69)	(247.06)	5520.15	(244.80)	5275.35

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 5 — Table 3: Base / Traffic Throughput / Corridor Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$2.79	22.59	26.07	$0.60	9.07	10.57	79.10	3.10	(4.11)	(11.73)	(3.67)	62.69		62.69
	2020	$2.86	25.57	29.51	$0.62	10.11	11.73	91.64	3.16	(4.74)	(12.45)	(3.76)	73.85		73.85
	2021	$2.93	27.26	31.46	$0.64	10.64	12.33	100.02	2.99	(5.15)	(12.64)	(3.85)	81.37		81.37
	2022	$3.00	27.62	31.86	$0.65	10.67	12.39	103.72	2.65	(5.32)	(12.34)	(3.95)	84.77		84.77
	2023	$3.08	27.97	32.27	$0.67	10.69	12.45	107.57	2.30	(5.49)	(12.03)	(4.05)	88.30	(2.65)	85.65
	2024	$3.15	28.33	32.68	$0.68	10.72	12.51	111.56	1.94	(5.67)	(11.71)	(4.15)	91.97	(3.01)	88.96
	2025	$3.23	28.70	33.10	$0.70	10.75	12.57	115.69	1.58	(5.86)	(11.38)	(4.25)	95.77		95.77
	2026	$3.31	29.07	33.52	$0.71	10.77	12.63	119.99	1.20	(6.06)	(11.33)	(4.36)	99.44	(11.85)	87.59
	2027	$3.39	29.45	33.95	$0.73	10.80	12.70	124.44	0.81	(6.26)	(10.98)	(4.47)	103.54		103.54
	2028	$3.48	29.83	34.39	$0.74	10.83	12.76	129.06	0.82	(6.49)	(11.11)	(4.58)	107.71		107.71
	2029	$3.56	30.22	34.83	$0.76	10.86	12.83	133.86	0.83	(6.73)	(11.24)	(4.69)	112.03	(6.13)	105.90
	2030	$3.65	30.61	35.28	$0.78	10.89	12.91	138.84	0.84	(6.98)	(11.37)	(4.81)	116.52		116.52
	2031	$3.74	30.81	35.50	$0.79	10.91	12.94	143.15	0.85	(7.20)	(11.46)	(4.93)	120.41	(9.88)	110.53
	2032	$3.84	31.01	35.73	$0.81	10.92	12.98	147.61	0.86	(7.42)	(11.56)	(5.05)	124.43		124.43
	2033	$3.93	31.21	35.96	$0.83	10.94	13.02	152.20	0.87	(7.65)	(11.99)	(5.18)	128.24	(23.27)	104.97
	2034	$4.03	31.41	36.19	$0.85	10.96	13.06	156.93	0.88	(7.89)	(12.09)	(5.31)	132.51	(3.15)	129.36
	2035	$4.13	31.62	36.42	$0.87	10.97	13.10	161.81	0.88	(8.13)	(12.20)	(5.44)	136.92		136.92
	2036	$4.23	31.82	36.66	$0.89	10.99	13.14	166.85	0.89	(8.39)	(12.30)	(5.58)	141.47		141.47
	2037	$4.34	32.03	36.89	$0.91	11.01	13.18	172.04	0.90	(8.65)	(12.41)	(5.72)	146.17		146.17
	2038	$4.45	32.24	37.13	$0.93	11.02	13.22	177.40	0.91	(8.92)	(12.52)	(5.86)	151.01		151.01
	2039	$4.56	32.45	37.37	$0.96	11.04	13.27	182.92	0.92	(9.19)	(12.63)	(6.01)	156.01	(34.13)	121.88
	2040	$4.67	32.66	37.61	$0.98	11.06	13.31	188.61	0.93	(9.48)	(13.14)	(6.16)	160.77	(16.75)	144.02
	2041	$4.79	32.66	37.61	$1.00	11.06	13.31	193.33	0.93	(9.71)	(13.22)	(6.31)	165.02		165.02
	2042	$4.91	32.66	37.61	$1.03	11.06	13.31	198.16	0.94	(9.95)	(13.29)	(6.47)	169.38		169.38
	2043	$5.03	32.66	37.61	$1.05	11.06	13.31	203.12	0.94	(10.20)	(13.37)	(6.63)	173.86	(17.64)	156.22
	2044	$5.15	32.66	37.61	$1.08	11.06	13.31	208.19	0.95	(10.46)	(13.45)	(6.80)	178.44	(15.55)	162.89
	2045	$5.28	32.66	37.61	$1.11	11.06	13.31	213.40	0.95	(10.72)	(13.53)	(6.97)	183.14		183.14
	2046	$5.42	32.66	37.61	$1.13	11.06	13.31	218.73	0.96	(10.98)	(13.61)	(7.14)	187.95		187.95
	2047	$5.55	32.66	37.61	$1.16	11.06	13.31	224.20	0.96	(11.26)	(14.17)	(7.32)	192.41	(28.08)	164.33
	2048	$5.69	32.66	37.61	$1.19	11.06	13.31	229.81	0.97	(11.54)	(14.26)	(7.50)	197.47		197.47
	2049	$5.83	32.66	37.61	$1.22	11.06	13.31	235.55	0.97	(11.83)	(14.35)	(7.69)	202.66	(8.45)	194.21
	2050	$5.98	32.66	37.61	$1.25	11.06	13.31	241.44	0.98	(12.12)	(14.44)	(7.88)	207.97		207.97
	2051	$6.13	32.66	37.61	$1.28	11.06	13.31	247.48	0.98	(12.42)	(14.53)	(8.08)	213.42		213.42
	2052	$6.28	32.66	37.61	$1.31	11.06	13.31	253.66	0.99	(12.73)	(14.63)	(8.28)	219.01		219.01
	2053	$6.44	32.66	37.61	$1.35	11.06	13.31	260.00	0.99	(13.05)	(14.73)	(8.49)	224.73	(5.56)	219.17
	2054	$6.60	32.66	37.61	$1.38	11.06	13.31	266.50	1.00	(13.38)	(15.39)	(8.70)	230.04	(27.24)	202.80
	2055	$6.76	32.66	37.61	$1.42	11.06	13.31	273.17	1.01	(13.71)	(15.50)	(8.92)	236.05	(17.87)	218.18
	2056	$6.93	32.66	37.61	$1.45	11.06	13.31	280.00	1.01	(14.05)	(15.61)	(9.14)	242.21		242.21
	2057	$7.11	32.66	37.61	$1.49	11.06	13.31	287.00	1.02	(14.40)	(15.71)	(9.37)	248.53		248.53
	2058	$7.28	32.66	37.61	$1.52	11.06	13.31	294.17	1.03	(14.76)	(15.83)	(9.60)	255.01		255.01
Totals FY 2010-18															
Totals FY 2019-58			1242.30	1431.26		435.71	519.21	7332.91	48.67	(369.08)	(522.21)	(247.06)	6243.23	(231.23)	6012.00

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

SR 520 Toll Traffic & Revenue Projections

Scenario 5 — Table 4: Base / Traffic Throughput / Corridor Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B5)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.35	12.55	14.61				34.27	2.40	(1.83)	(6.34)		28.50		28.50
	2011	$2.41	19.26	22.42				53.93	3.32	(2.86)	(8.48)		45.91		45.91
	2012	$2.47	21.86	25.46				62.76	3.36	(3.31)	(8.95)		53.86		53.86
	2013	$2.53	23.37	27.22				68.79	3.15	(3.60)	(8.96)		59.38		59.38
	2014	$2.59	23.74	27.66				71.63	2.75	(3.72)	(8.57)		62.08	(2.50)	59.58
	2015	$2.65	24.11	28.09				74.58	2.33	(3.85)	(8.17)		64.90		64.90
	2016	$2.72	24.49	28.54				77.66	1.90	(3.98)	(7.77)		67.81	(1.00)	66.81
	2017	$2.79	24.87	28.99				80.86	1.45	(4.12)	(7.34)		70.87		70.87
	2018	$2.86	25.26	29.45				84.20	0.99	(4.26)	(6.88)		74.05		74.05
Post-Completion — Full Revenue Operations	2019	$2.79	25.24	29.14	$0.61	10.09	11.68	88.37	0.69	(4.45)	(9.49)	(3.67)	71.45	(2.50)	68.95
	2020	$2.86	26.91	31.06	$0.62	10.62	12.28	96.45	0.74	(4.86)	(9.93)	(3.76)	78.64		78.64
	2021	$2.93	27.26	31.46	$0.64	10.64	12.33	100.02	0.75	(5.04)	(10.03)	(3.85)	81.84	(7.91)	73.93
	2022	$3.00	27.62	31.86	$0.65	10.67	12.39	103.72	0.76	(5.22)	(10.15)	(3.95)	85.16		85.16
	2023	$3.08	27.97	32.27	$0.67	10.69	12.45	107.57	0.77	(5.42)	(10.26)	(4.05)	88.61	(2.65)	85.96
	2024	$3.15	28.33	32.68	$0.68	10.72	12.51	111.56	0.78	(5.62)	(10.38)	(4.15)	92.19	(3.01)	89.18
	2025	$3.23	28.70	33.10	$0.70	10.75	12.57	115.69	0.79	(5.82)	(10.74)	(4.25)	95.67	(11.85)	83.82
	2026	$3.31	29.07	33.52	$0.71	10.77	12.63	119.99	0.80	(6.04)	(10.86)	(4.36)	99.53		99.53
	2027	$3.39	29.45	33.95	$0.73	10.80	12.70	124.44	0.81	(6.26)	(10.98)	(4.47)	103.54		103.54
	2028	$3.48	29.83	34.39	$0.74	10.83	12.76	129.06	0.82	(6.49)	(11.11)	(4.58)	107.71		107.71
	2029	$3.56	30.22	34.83	$0.76	10.86	12.83	133.86	0.83	(6.73)	(11.24)	(4.69)	112.03	(6.13)	105.90
	2030	$3.65	30.61	35.28	$0.78	10.89	12.91	138.84	0.84	(6.98)	(11.37)	(4.81)	116.52		116.52
	2031	$3.74	30.81	35.50	$0.79	10.91	12.94	143.15	0.85	(7.20)	(11.46)	(4.93)	120.41		120.41
	2032	$3.84	31.01	35.73	$0.81	10.92	12.98	147.61	0.86	(7.42)	(11.89)	(5.05)	124.09	(14.09)	110.00
	2033	$3.93	31.21	35.96	$0.83	10.94	13.02	152.20	0.87	(7.65)	(11.99)	(5.18)	128.24	(19.82)	108.42
	2034	$4.03	31.41	36.19	$0.85	10.96	13.06	156.93	0.88	(7.89)	(12.09)	(5.31)	132.51	(3.15)	129.36
	2035	$4.13	31.62	36.42	$0.87	10.97	13.10	161.81	0.88	(8.13)	(12.20)	(5.44)	136.92		136.92
	2036	$4.23	31.82	36.66	$0.89	10.99	13.14	166.85	0.89	(8.39)	(12.30)	(5.58)	141.47		141.47
	2037	$4.34	32.03	36.89	$0.91	11.01	13.18	172.04	0.90	(8.65)	(12.41)	(5.72)	146.17		146.17
	2038	$4.45	32.24	37.13	$0.93	11.02	13.22	177.40	0.91	(8.92)	(12.52)	(5.86)	151.01		151.01
	2039	$4.56	32.45	37.37	$0.96	11.04	13.27	182.92	0.92	(9.19)	(13.03)	(6.01)	155.61	(50.88)	104.73
	2040	$4.67	32.66	37.61	$0.98	11.06	13.31	188.61	0.93	(9.48)	(13.14)	(6.16)	160.77		160.77
	2041	$4.79	32.66	37.61	$1.00	11.06	13.31	193.33	0.93	(9.71)	(13.22)	(6.31)	165.02		165.02
	2042	$4.91	32.66	37.61	$1.03	11.06	13.31	198.16	0.94	(9.95)	(13.29)	(6.47)	169.38		169.38
	2043	$5.03	32.66	37.61	$1.05	11.06	13.31	203.12	0.94	(10.20)	(13.37)	(6.63)	173.86	(4.35)	169.51
	2044	$5.15	32.66	37.61	$1.08	11.06	13.31	208.19	0.95	(10.46)	(13.45)	(6.80)	178.44	(15.55)	162.89
	2045	$5.28	32.66	37.61	$1.11	11.06	13.31	213.40	0.95	(10.72)	(13.53)	(6.97)	183.14	(14.31)	168.83
	2046	$5.42	32.66	37.61	$1.13	11.06	13.31	218.73	0.96	(10.98)	(14.09)	(7.14)	187.48	(19.91)	167.57
	2047	$5.55	32.66	37.61	$1.16	11.06	13.31	224.20	0.96	(11.26)	(14.17)	(7.32)	192.41	(8.17)	184.24
	2048	$5.69	32.66	37.61	$1.19	11.06	13.31	229.81	0.97	(11.54)	(14.26)	(7.50)	197.47		197.47
	2049	$5.83	32.66	37.61	$1.22	11.06	13.31	235.55	0.97	(11.83)	(14.35)	(7.69)	202.66	(8.45)	194.21
	2050	$5.98	32.66	37.61	$1.25	11.06	13.31	241.44	0.98	(12.12)	(14.44)	(7.88)	207.97		207.97
	2051	$6.13	32.66	37.61	$1.28	11.06	13.31	247.48	0.98	(12.42)	(14.53)	(8.08)	213.42		213.42
	2052	$6.28	32.66	37.61	$1.31	11.06	13.31	253.66	0.99	(12.73)	(14.63)	(8.28)	219.01		219.01
	2053	$6.44	32.66	37.61	$1.35	11.06	13.31	260.00	0.99	(13.05)	(15.29)	(8.49)	224.17	(29.23)	194.94
	2054	$6.60	32.66	37.61	$1.38	11.06	13.31	266.50	1.00	(13.38)	(15.39)	(8.70)	230.04	(3.57)	226.46
	2055	$6.76	32.66	37.61	$1.42	11.06	13.31	273.17	1.01	(13.71)	(15.50)	(8.92)	236.05		236.05
	2056	$6.93	32.66	37.61	$1.45	11.06	13.31	280.00	1.01	(14.05)	(15.61)	(9.14)	242.21		242.21
	2057	$7.11	32.66	37.61	$1.49	11.06	13.31	287.00	1.02	(14.40)	(15.71)	(9.37)	248.53	(19.25)	229.28
	2058	$7.28	32.66	37.61	$1.52	11.06	13.31	294.17	1.03	(14.76)	(15.83)	(9.60)	255.01		255.01
Totals FY 2010-18			199.49	232.45				608.68	21.66	(31.52)	(71.47)		527.35	(3.50)	523.85
Totals FY 2019-58			1246.30	1435.88		437.25	520.87	7346.99	35.82	(369.14)	(510.22)	(247.06)	6256.39	(244.80)	6011.59

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 5 — Table 5: High / Traffic Throughput / Corridor Tolling / 3+ HOVs Exempt

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	N/A													
	2011	N/A													
	2012	N/A													
	2013	N/A													
	2014	N/A													
	2015	N/A													
	2016	N/A													
	2017	N/A													
	2018	N/A													
Post-Completion — Full Revenue Operations	2019	$2.79	25.38	29.26	$0.60	10.07	11.74	88.69	3.47	(4.61)	(12.76)	(3.67)	71.13		71.13
	2020	$2.86	28.72	33.10	$0.62	11.23	13.03	102.71	3.53	(5.31)	(13.55)	(3.76)	83.62		83.62
	2021	$2.93	30.61	35.27	$0.64	11.83	13.71	112.06	3.35	(5.77)	(13.75)	(3.85)	92.03		92.03
	2022	$3.00	30.99	35.71	$0.65	11.85	13.77	116.17	2.97	(5.96)	(13.41)	(3.95)	95.82		95.82
	2023	$3.08	31.38	36.15	$0.67	11.88	13.83	120.43	2.57	(6.15)	(13.05)	(4.05)	99.75	(2.65)	97.10
	2024	$3.15	31.77	36.60	$0.68	11.91	13.90	124.85	2.17	(6.35)	(12.69)	(4.15)	103.83	(3.01)	100.82
	2025	$3.23	32.16	37.05	$0.70	11.94	13.96	129.43	1.76	(6.56)	(12.32)	(4.25)	108.06		108.06
	2026	$3.31	32.57	37.51	$0.71	11.97	14.03	134.18	1.34	(6.78)	(12.22)	(4.36)	112.17	(11.85)	100.32
	2027	$3.39	32.97	37.97	$0.73	12.00	14.11	139.11	0.90	(7.00)	(11.82)	(4.47)	116.72		116.72
	2028	$3.48	33.38	38.44	$0.74	12.03	14.18	144.22	0.92	(7.26)	(11.96)	(4.58)	121.35		121.35
	2029	$3.56	33.80	38.92	$0.76	12.07	14.26	149.52	0.93	(7.52)	(12.09)	(4.69)	126.15	(6.13)	120.01
	2030	$3.65	34.22	39.40	$0.78	12.10	14.34	155.02	0.94	(7.80)	(12.23)	(4.81)	131.13		131.13
	2031	$3.74	34.43	39.65	$0.79	12.12	14.38	159.81	0.95	(8.04)	(12.33)	(4.93)	135.46	(9.88)	125.58
	2032	$3.84	34.65	39.89	$0.81	12.14	14.42	164.75	0.96	(8.29)	(12.43)	(5.05)	139.94		139.94
	2033	$3.93	34.86	40.14	$0.83	12.15	14.47	169.84	0.97	(8.54)	(12.87)	(5.18)	144.22	(23.27)	120.95
	2034	$4.03	35.08	40.39	$0.85	12.17	14.51	175.08	0.98	(8.80)	(12.97)	(5.31)	148.97	(3.15)	145.82
	2035	$4.13	35.30	40.64	$0.87	12.19	14.56	180.50	0.99	(9.07)	(13.08)	(5.44)	153.88		153.88
	2036	$4.23	35.52	40.89	$0.89	12.21	14.60	186.07	0.99	(9.35)	(13.19)	(5.58)	158.95		158.95
	2037	$4.34	35.74	41.14	$0.91	12.23	14.65	191.83	1.00	(9.64)	(13.30)	(5.72)	164.17		164.17
	2038	$4.45	35.96	41.40	$0.93	12.25	14.69	197.76	1.01	(9.94)	(13.42)	(5.86)	169.56		169.56
	2039	$4.56	36.19	41.65	$0.96	12.27	14.74	203.87	1.02	(10.24)	(13.53)	(6.01)	175.11	(34.13)	140.98
	2040	$4.67	36.41	41.91	$0.98	12.29	14.79	210.18	1.03	(10.56)	(14.05)	(6.16)	180.44	(16.75)	163.69
	2041	$4.79	36.41	41.91	$1.00	12.29	14.79	215.43	1.04	(10.82)	(14.13)	(6.31)	185.21		185.21
	2042	$4.91	36.41	41.91	$1.03	12.29	14.79	220.82	1.04	(11.09)	(14.20)	(6.47)	190.10		190.10
	2043	$5.03	36.41	41.91	$1.05	12.29	14.79	226.34	1.05	(11.37)	(14.28)	(6.63)	195.10	(17.64)	177.47
	2044	$5.15	36.41	41.91	$1.08	12.29	14.79	231.99	1.05	(11.65)	(14.36)	(6.80)	200.24	(15.55)	184.68
	2045	$5.28	36.41	41.91	$1.11	12.29	14.79	237.79	1.06	(11.94)	(14.45)	(6.97)	205.50		205.50
	2046	$5.42	36.41	41.91	$1.13	12.29	14.79	243.74	1.06	(12.24)	(14.53)	(7.14)	210.89		210.89
	2047	$5.55	36.41	41.91	$1.16	12.29	14.79	249.83	1.07	(12.55)	(15.09)	(7.32)	215.95	(28.08)	187.87
	2048	$5.69	36.41	41.91	$1.19	12.29	14.79	256.08	1.08	(12.86)	(15.18)	(7.50)	221.61		221.61
	2049	$5.83	36.41	41.91	$1.22	12.29	14.79	262.48	1.08	(13.18)	(15.27)	(7.69)	227.42	(8.45)	218.97
	2050	$5.98	36.41	41.91	$1.25	12.29	14.79	269.04	1.09	(13.51)	(15.37)	(7.88)	233.37		233.37
	2051	$6.13	36.41	41.91	$1.28	12.29	14.79	275.77	1.09	(13.84)	(15.47)	(8.08)	239.48		239.48
	2052	$6.28	36.41	41.91	$1.31	12.29	14.79	282.66	1.10	(14.19)	(15.56)	(8.28)	245.73		245.73
	2053	$6.44	36.41	41.91	$1.35	12.29	14.79	289.73	1.11	(14.54)	(15.67)	(8.49)	252.14	(5.56)	246.58
	2054	$6.60	36.41	41.91	$1.38	12.29	14.79	296.97	1.11	(14.90)	(16.33)	(8.70)	258.15	(27.24)	230.91
	2055	$6.76	36.41	41.91	$1.42	12.29	14.79	304.40	1.12	(15.28)	(16.44)	(8.92)	264.88	(17.87)	247.01
	2056	$6.93	36.41	41.91	$1.45	12.29	14.79	312.01	1.13	(15.66)	(16.55)	(9.14)	271.79		271.79
	2057	$7.11	36.41	41.91	$1.49	12.29	14.79	319.81	1.14	(16.05)	(16.66)	(9.37)	278.87		278.87
	2058	$7.28	36.41	41.91	$1.52	12.29	14.79	327.80	1.14	(16.45)	(16.78)	(9.60)	286.12		286.12
	Totals FY 2010-18														
	Totals FY 2019-58		1387.57	1597.53		484.13	576.90	8178.74	54.33	(411.65)	(559.35)	(247.06)	7015.02	(231.23)	6783.79

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

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Scenario 5 — Table 6: High / Traffic Throughput / Corridor Tolling / 3+ HOVs Exempt / Pre-Completion Tolling (Scenario B5)

	Fiscal Year	Weighted Average Bridge Toll Rate (one-way)[1]	Annual Bridge Toll Transactions Bridge Span (millions)[2]	Pass Car Equiv (PCE) Bridge Volumes (millions)[3]	Weighted Avg Short Segment Toll Rate (one-way)[1]	Annual Short Segment Toll Transactions (millions)[2]	Pass Car Equiv (PCE) Segment Volumes (millions)[3]	Gross Toll Revenue Potential ($ millions)[4]	Plus: Pay-by-Plate Surcharge Revenue ($ millions)[5]	Less: Uncollectible Accounts/ Credit Fees ($ millions)[6]	Less: Toll Collection O&M Costs ($ millions)[7]	Less: Routine Facility O&M Costs ($ millions)[8]	Net Revenue Before Periodic R&R Costs ($ millions)	Less: Periodic Rehab & Repair Costs ($ millions)[7]	Net Revenue After Periodic R&R Costs ($ millions)
Pre-Completion*	2010	$2.35	12.55	14.61				34.27	2.40	(1.83)	(6.34)		28.50		28.50
	2011	$2.41	19.26	22.42				53.93	3.32	(2.86)	(8.48)		45.91		45.91
	2012	$2.47	21.86	25.46				62.76	3.36	(3.31)	(8.95)		53.86		53.86
	2013	$2.53	23.37	27.22				68.79	3.15	(3.60)	(8.96)		59.38		59.38
	2014	$2.59	23.74	27.66				71.63	2.75	(3.72)	(8.57)		62.08	(2.50)	59.58
	2015	$2.65	24.11	28.09				74.58	2.33	(3.85)	(8.17)		64.90		64.90
	2016	$2.72	24.49	28.54				77.66	1.90	(3.98)	(7.77)		67.81	(1.00)	66.81
	2017	$2.79	24.87	28.99				80.86	1.45	(4.12)	(7.34)		70.87		70.87
	2018	$2.86	25.26	29.45				84.20	0.99	(4.26)	(6.88)		74.05		74.05
Post-Completion — Full Revenue Operations	2019	$2.79	28.37	32.70	$0.61	11.21	12.97	99.08	0.78	(4.99)	(10.24)	(3.67)	80.96	(2.50)	78.46
	2020	$2.86	30.24	34.84	$0.62	11.80	13.65	108.10	0.83	(5.45)	(10.72)	(3.76)	89.00		89.00
	2021	$2.93	30.61	35.27	$0.64	11.83	13.71	112.06	0.84	(5.64)	(10.83)	(3.85)	92.57	(7.91)	84.65
	2022	$3.00	30.99	35.71	$0.65	11.85	13.77	116.17	0.85	(5.85)	(10.95)	(3.95)	96.27		96.27
	2023	$3.08	31.38	36.15	$0.67	11.88	13.83	120.43	0.86	(6.06)	(11.07)	(4.05)	100.10	(2.65)	97.45
	2024	$3.15	31.77	36.60	$0.68	11.91	13.90	124.85	0.87	(6.29)	(11.19)	(4.15)	104.09	(3.01)	101.08
	2025	$3.23	32.16	37.05	$0.70	11.94	13.96	129.43	0.88	(6.52)	(11.56)	(4.25)	107.98	(11.85)	96.13
	2026	$3.31	32.57	37.51	$0.71	11.97	14.03	134.18	0.89	(6.75)	(11.69)	(4.36)	112.27		112.27
	2027	$3.39	32.97	37.97	$0.73	12.00	14.11	139.11	0.90	(7.00)	(11.82)	(4.47)	116.72		116.72
	2028	$3.48	33.38	38.44	$0.74	12.03	14.18	144.22	0.92	(7.26)	(11.96)	(4.58)	121.35		121.35
	2029	$3.56	33.80	38.92	$0.76	12.07	14.26	149.52	0.93	(7.52)	(12.09)	(4.69)	126.15	(6.13)	120.01
	2030	$3.65	34.22	39.40	$0.78	12.10	14.34	155.02	0.94	(7.80)	(12.23)	(4.81)	131.13		131.13
	2031	$3.74	34.43	39.65	$0.79	12.12	14.38	159.81	0.95	(8.04)	(12.33)	(4.93)	135.46		135.46
	2032	$3.84	34.65	39.89	$0.81	12.14	14.42	164.75	0.96	(8.29)	(12.77)	(5.05)	139.60	(14.09)	125.51
	2033	$3.93	34.86	40.14	$0.83	12.15	14.47	169.84	0.97	(8.54)	(12.87)	(5.18)	144.22	(19.82)	124.40
	2034	$4.03	35.08	40.39	$0.85	12.17	14.51	175.08	0.98	(8.80)	(12.97)	(5.31)	148.97	(3.15)	145.82
	2035	$4.13	35.30	40.64	$0.87	12.19	14.56	180.50	0.99	(9.07)	(13.08)	(5.44)	153.88		153.88
	2036	$4.23	35.52	40.89	$0.89	12.21	14.60	186.07	0.99	(9.35)	(13.19)	(5.58)	158.95		158.95
	2037	$4.34	35.74	41.14	$0.91	12.23	14.65	191.83	1.00	(9.64)	(13.30)	(5.72)	164.17		164.17
	2038	$4.45	35.96	41.40	$0.93	12.25	14.69	197.76	1.01	(9.94)	(13.42)	(5.86)	169.56		169.56
	2039	$4.56	36.19	41.65	$0.96	12.27	14.74	203.87	1.02	(10.24)	(13.93)	(6.01)	174.71	(50.88)	123.83
	2040	$4.67	36.41	41.91	$0.98	12.29	14.79	210.18	1.03	(10.56)	(14.05)	(6.16)	180.44		180.44
	2041	$4.79	36.41	41.91	$1.00	12.29	14.79	215.43	1.04	(10.82)	(14.13)	(6.31)	185.21		185.21
	2042	$4.91	36.41	41.91	$1.03	12.29	14.79	220.82	1.04	(11.09)	(14.20)	(6.47)	190.10		190.10
	2043	$5.03	36.41	41.91	$1.05	12.29	14.79	226.34	1.05	(11.37)	(14.28)	(6.63)	195.10	(4.35)	190.76
	2044	$5.15	36.41	41.91	$1.08	12.29	14.79	231.99	1.05	(11.65)	(14.36)	(6.80)	200.24	(15.55)	184.68
	2045	$5.28	36.41	41.91	$1.11	12.29	14.79	237.79	1.06	(11.94)	(14.45)	(6.97)	205.50	(14.31)	191.19
	2046	$5.42	36.41	41.91	$1.13	12.29	14.79	243.74	1.06	(12.24)	(15.01)	(7.14)	210.42	(19.91)	190.51
	2047	$5.55	36.41	41.91	$1.16	12.29	14.79	249.83	1.07	(12.55)	(15.09)	(7.32)	215.95	(8.17)	207.78
	2048	$5.69	36.41	41.91	$1.19	12.29	14.79	256.08	1.08	(12.86)	(15.18)	(7.50)	221.61		221.61
	2049	$5.83	36.41	41.91	$1.22	12.29	14.79	262.48	1.08	(13.18)	(15.27)	(7.69)	227.42	(8.45)	218.97
	2050	$5.98	36.41	41.91	$1.25	12.29	14.79	269.04	1.09	(13.51)	(15.37)	(7.88)	233.37		233.37
	2051	$6.13	36.41	41.91	$1.28	12.29	14.79	275.77	1.09	(13.84)	(15.47)	(8.08)	239.48		239.48
	2052	$6.28	36.41	41.91	$1.31	12.29	14.79	282.66	1.10	(14.19)	(15.56)	(8.28)	245.73		245.73
	2053	$6.44	36.41	41.91	$1.35	12.29	14.79	289.73	1.11	(14.54)	(16.23)	(8.49)	251.58	(29.23)	222.35
	2054	$6.60	36.41	41.91	$1.38	12.29	14.79	296.97	1.11	(14.90)	(16.33)	(8.70)	258.15	(3.57)	254.58
	2055	$6.76	36.41	41.91	$1.42	12.29	14.79	304.40	1.12	(15.28)	(16.44)	(8.92)	264.88		264.88
	2056	$6.93	36.41	41.91	$1.45	12.29	14.79	312.01	1.13	(15.66)	(16.55)	(9.14)	271.79		271.79
	2057	$7.11	36.41	41.91	$1.49	12.29	14.79	319.81	1.14	(16.05)	(16.66)	(9.37)	278.87	(19.25)	259.62
	2058	$7.28	36.41	41.91	$1.52	12.29	14.79	327.80	1.14	(16.45)	(16.78)	(9.60)	286.12		286.12
Totals FY 2010-18			199.49	232.45				608.68	21.66	(31.52)	(71.47)		527.35	(3.50)	523.85
Totals FY 2019-58			1392.07	1602.72		485.83	578.75	8194.53	39.95	(411.72)	(545.65)	(247.06)	7030.05	(244.80)	6785.25

Footnotes

[1] Reflects the average revenue per passenger car equivalent based on time-of-day variable weekday & weekend toll structures.

[2] Annual volume of vehicles subject to tolls in each travel direction after ramp up adjustment; includes autos and trucks.

[3] Converts medium & large trucks to their passenger car equivalent (PCE) based on trucks paying, on average, 3x the auto toll.

[4] Excludes toll surcharge revenue assessed to customers without transponders for pay-by-plate (video tolling/license plate list).

[5] Pay-by-plate toll surcharge revenue assessed to capture the additional collection costs of video tolling/license plate list payment.

[6] 5% deduction for credit card fees & revenue loss due to the net effects of evasion, processing errors & uncollectible accounts.

[7] Both toll collection O&M costs and toll systems R&R timing differ based on when tolling begins.

[8] Pre-completion facility O&M costs are assumed to be capitalized and/or included in existing maintenance budgets.

General Notes

* Nights from 11 PM to 5 AM are toll-free in cases with pre-completion tolling (FY 2010-2018).

– Ramp-up reduces demand in the initial years as customers get accustomed to tolls.

– All dollar amounts in year of collection / year of expenditure.

– Toll rate escalation and O&M inflation, where applicable, is projected at 2.5% per year.

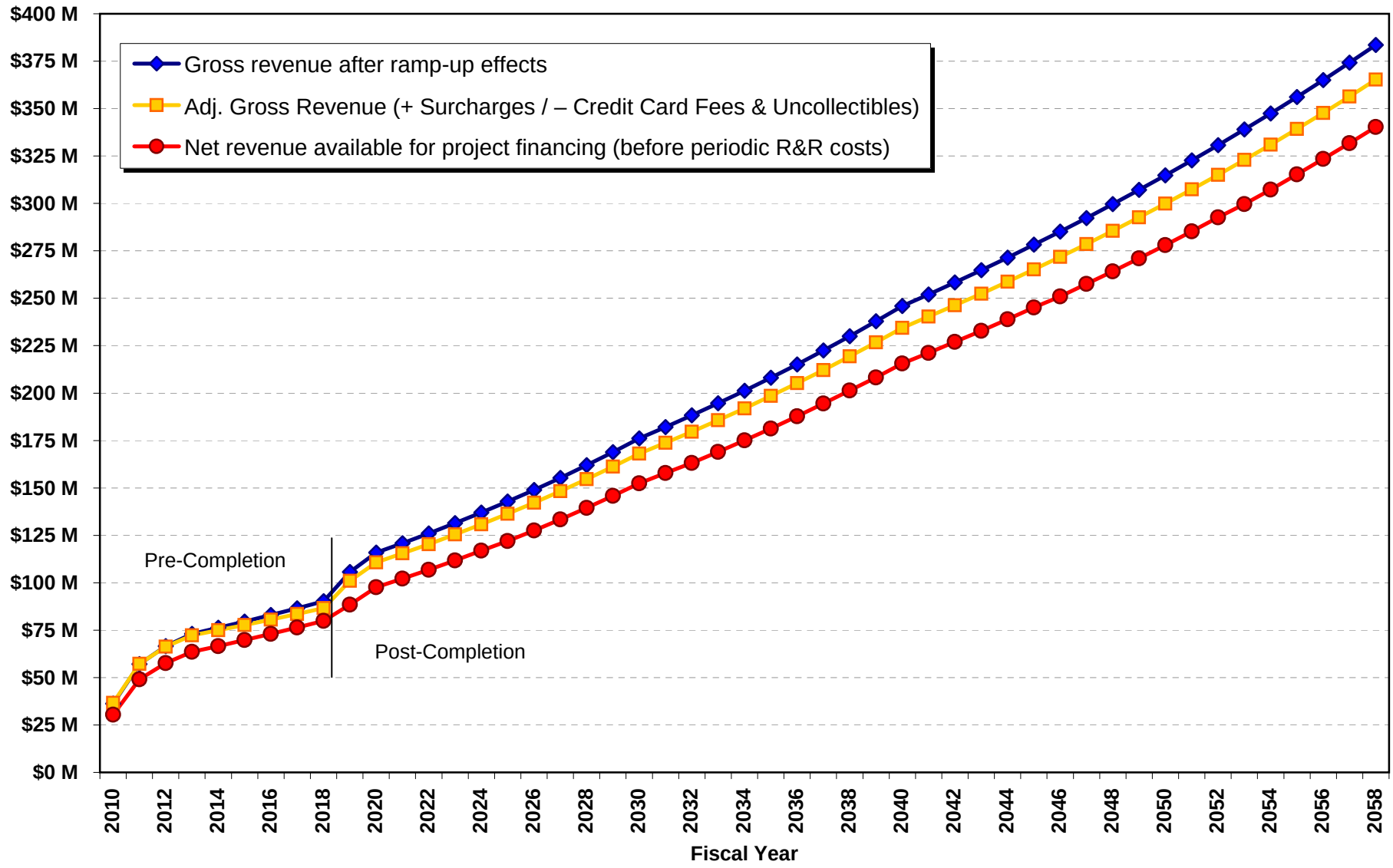
– 3+ HOVs travel toll-free in HOV lanes where noted in the table title.

– The weekday short segment toll rates & all weekend toll schedules do not vary by scenario.

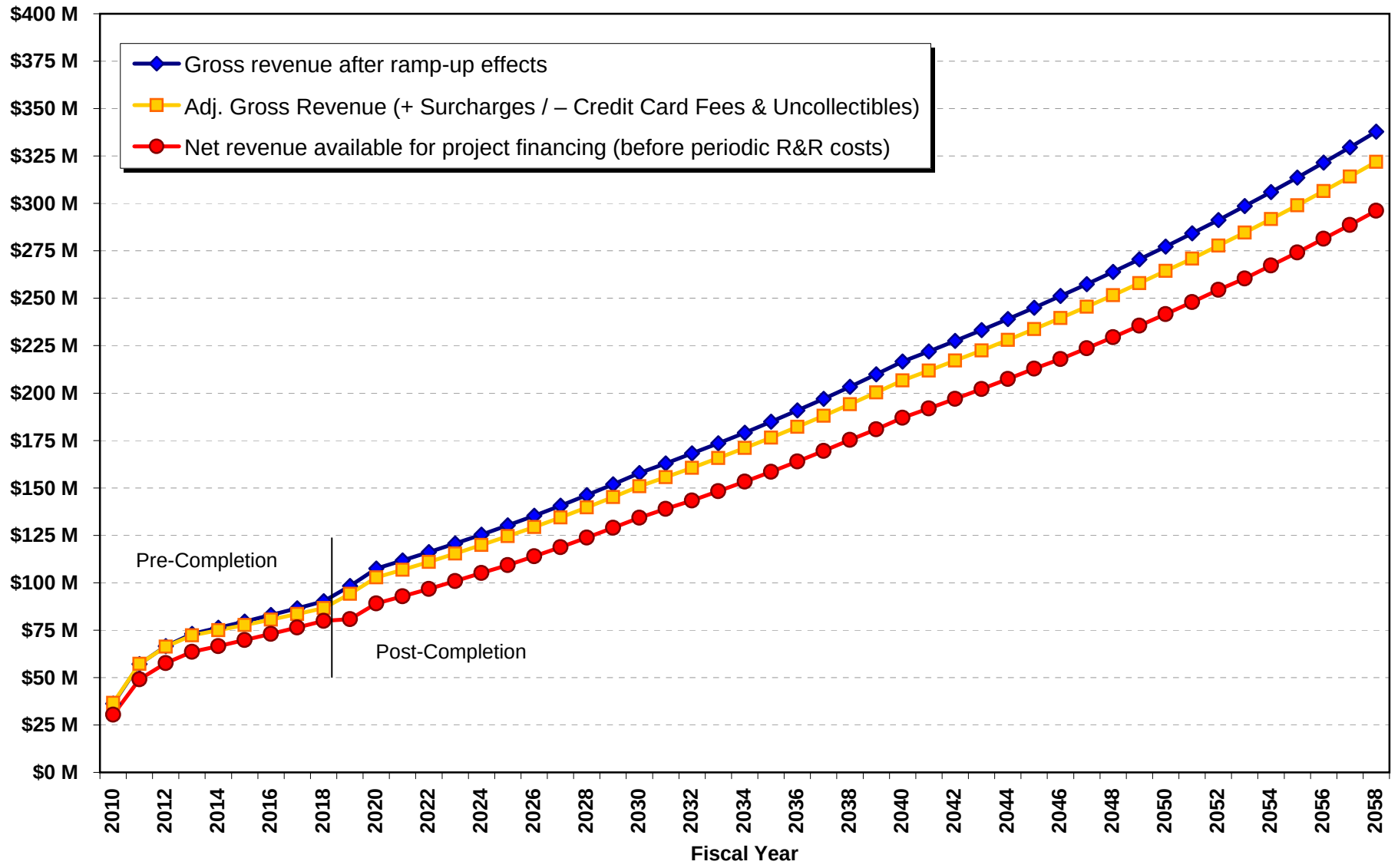
– Weekend daily auto demand equals 64% of Scenario 2's comparable weekday auto demand.

– Weekend daily truck demand equals 32% of Scenarios 2's weekday truck demand.

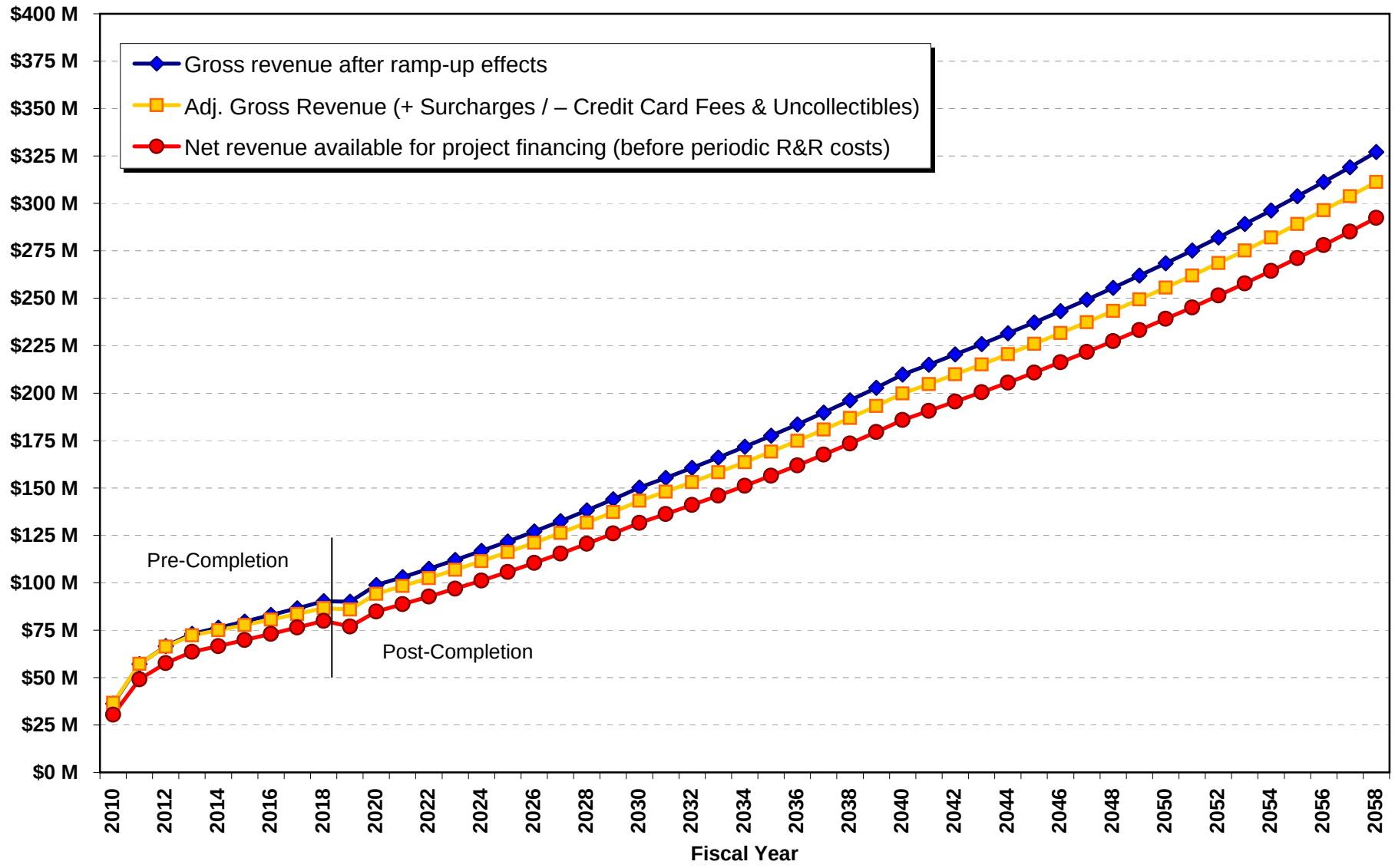
Scenario 1 Base Case with Pre-Completion Tolling — Gross and Net Toll Revenues



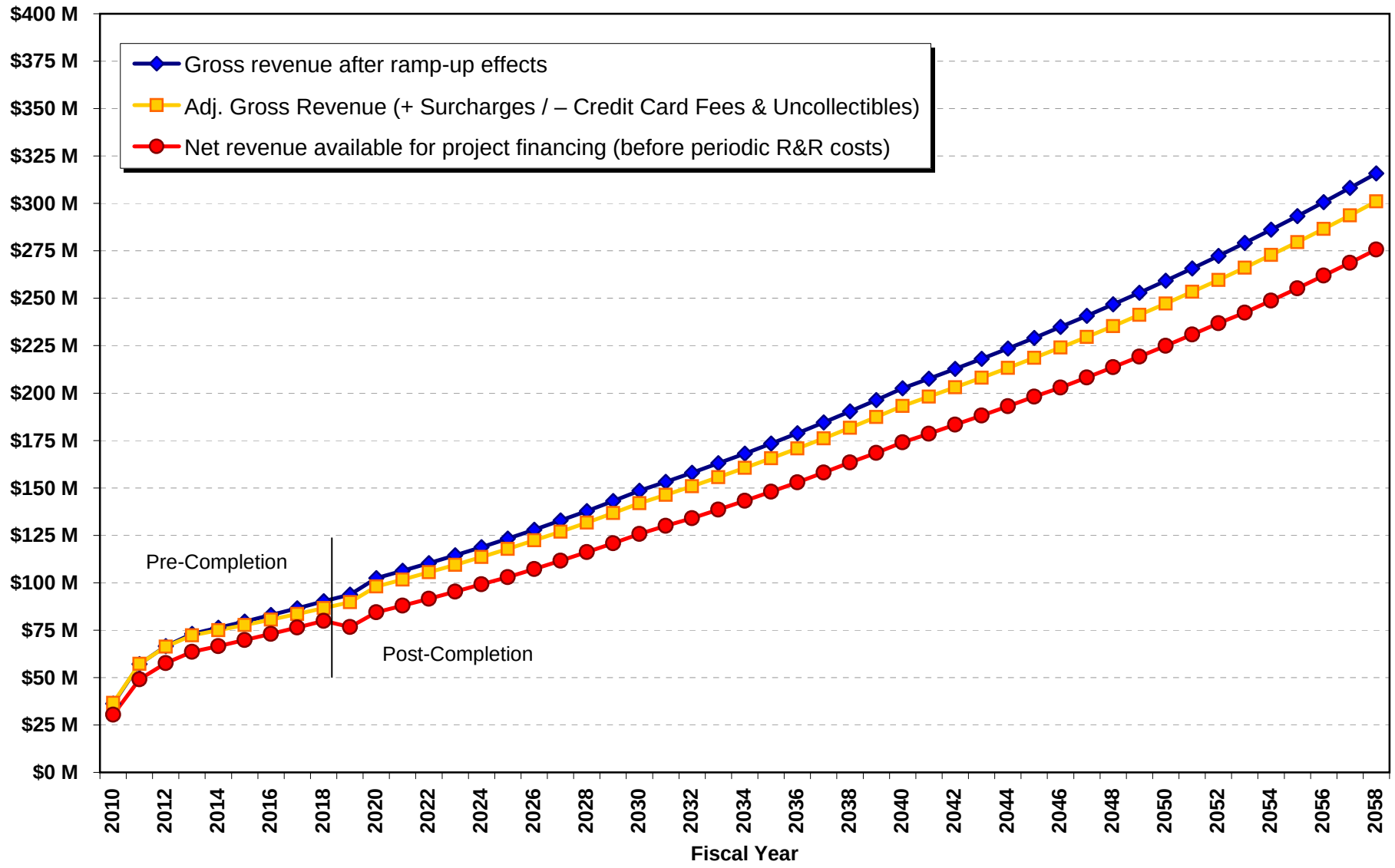
Scenario 2 Base Case with Pre-Completion Tolling — Gross and Net Toll Revenues



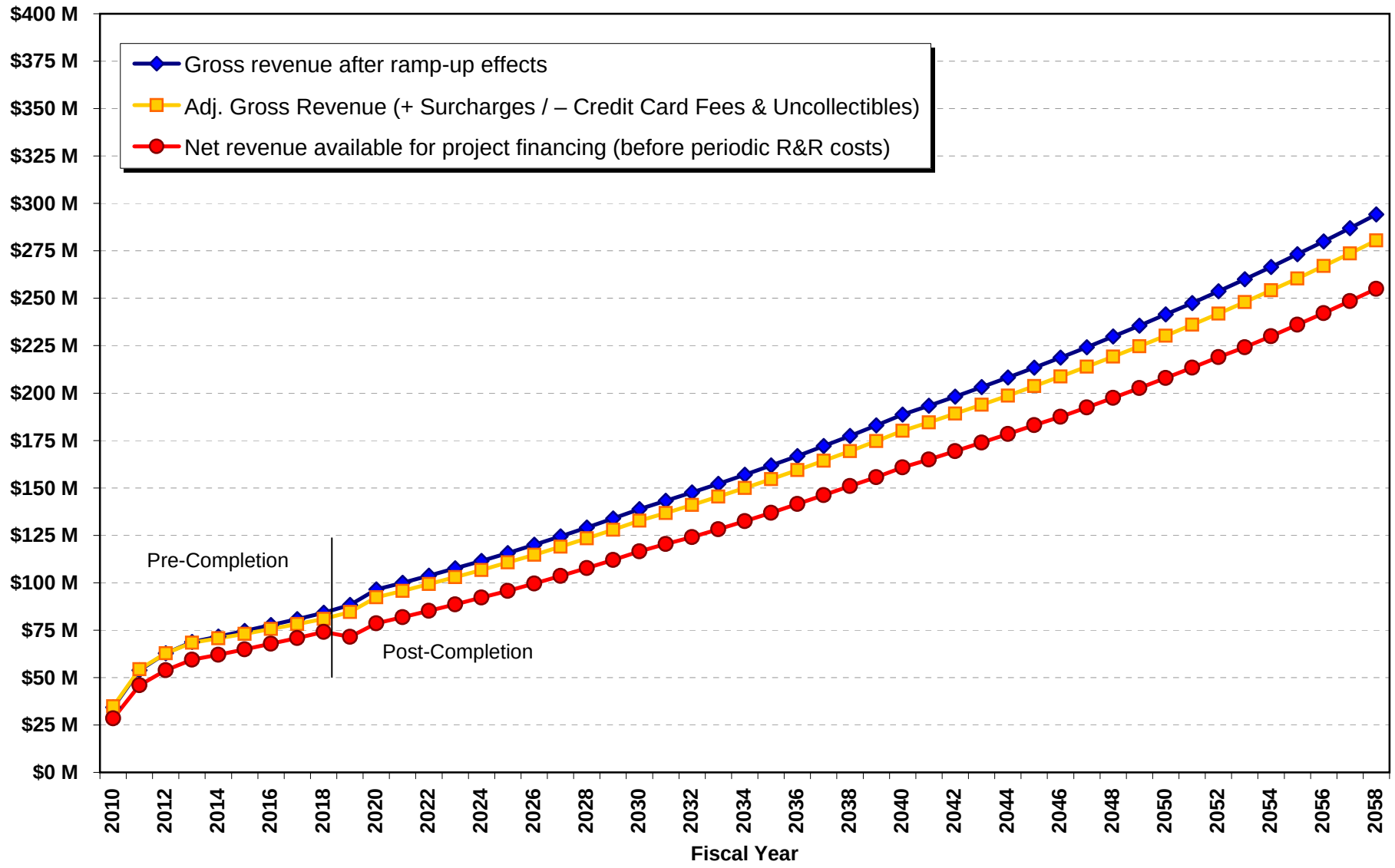
Scenario 3 Base Case with Pre-Completion Tolling — Gross and Net Toll Revenues



Scenario 4 Base Case with Pre-Completion Tolling — Gross and Net Toll Revenues



Scenario 5 Base Case with Pre-Completion Tolling — Gross and Net Toll Revenues



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APPENDIX B: SR 520 PROJECTED TOLL TRAVEL DEMAND RESULTS

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Exhibit B-1

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 1 Post-Processed High Projections

Scenario 1	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	57,110	29,654	33,227	27,456	4,472	6,738	269	50,078	36,230	39,836	13,848	3,231	2,808	469
% Change in GP Volumes								*-12%*	*22%*	*20%*	*-50%*	*-28%*	*-58%*	*74%*
V/C Ratio	0.95	0.82	0.92	1.14				0.83	1.01	1.11	0.58			
Medium and Heavy Trucks	2,730	1,313	1,378	1,417	124	292	6	2,572	1,955	2,023	617	106	100	11
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.1%*	*5.4%*	*5.1%*	*4.5%*	*3.3%*	*3.6%*	*2.3%*
3+ HOV Vehicles in GP Lanes	120	101	162	19	80	480	6	91	91	129	0	57	0	24
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*1.8%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,675	997	1,142	2,678				3,685	1,211	1,381	2,474			
% Change in HOV Volumes								*0%*	*21%*	*21%*	*-8%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	71,901	40,038	44,640	31,863	5,031	8,062	207	64,027	41,611	46,009	22,416	4,076	2,640	433
% Change in GP Volumes								*-11%*	*4%*	*3%*	*-30%*	*-19%*	*-67%*	*109%*
V/C Ratio	1.20	1.11	1.24	1.33				1.07	1.16	1.28	0.93			
Medium and Heavy Trucks	5,648	2,770	2,871	2,877	226	518	7	5,300	3,403	3,502	1,897	134	148	17
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.3%*	*8.2%*	*7.6%*	*8.5%*	*3.3%*	*5.6%*	*3.8%*
3+ HOV Vehicles in GP Lanes	80	77	134	3	465	277	5	1	1	17	0	674	0	15
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*16.5%*	*0.0%*	*3.5%*
3+ HOV Vehicles in HOV Lanes	2,507	906	1,018	1,600				2,630	1,062	1,215	1,567			
% Change in HOV Volumes								*5%*	*17%*	*19%*	*-2%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	141,980	71,764	84,239	70,216	14,719	18,926	833	123,589	91,066	103,274	32,522	12,772	11,543	983
% Change in GP Volumes								*-13%*	*27%*	*23%*	*-54%*	*-13%*	*-39%*	*18%*
V/C Ratio	0.89	0.75	0.88	1.10				0.77	0.95	1.08	0.51			
Medium and Heavy Trucks	11,574	5,622	5,850	5,952	714	1,289	34	10,883	7,680	7,902	3,203	618	751	39
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.8%*	*8.4%*	*7.7%*	*9.8%*	*4.8%*	*6.5%*	*4.0%*
3+ HOV Vehicles in GP Lanes	378	353	205	25	1,143	483	10	226	226	205	0	1,131	9	27
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*	*8.9%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	3,244	846	1,242	2,398				3,196	1,438	1,711	1,757			
% Change in HOV Volumes								*-1%*	*70%*	*38%*	*-27%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	270,991	141,456	162,105	129,535	24,223	33,727	1,309	237,694	168,908	189,119	68,786	20,079	16,991	1,885
% Change in GP Volumes								*-12%*	*19%*	*17%*	*-47%*	*-17%*	*-50%*	*44%*
Medium and Heavy Trucks	19,952	9,705	10,099	10,246	1,064	2,098	46	18,756	13,039	13,427	5,717	858	1,000	67
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.9%*	*7.7%*	*7.1%*	*8.3%*	*4.3%*	*5.9%*	*3.5%*
3+ HOV Vehicles in GP Lanes	578	530	501	48	1,687	1,241	21	319	319	351	0	1,862	9	67
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*9.3%*	*0.1%*	*3.5%*
3+ HOV Vehicles in HOV Lanes	9,426	2,750	3,402	6,676				9,510	3,711	4,307	5,799			
% Change in HOV Volumes								*1%*	*35%*	*27%*	*-13%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	280,417	144,206	165,507	136,211				247,204	172,619	193,427	74,585			
% Change in Crosslake Volumes								*-12%*	*20%*	*17%*	*-45%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-2

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 1 Post-Processed Base Projections

Scenario 1	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	45,070	34,143	37,388	10,927	2,908	2,527	422
% Change in GP Volumes								*-12%*	*28%*	*25%*	*-56%*	*-28%*	*-58%*	*74%*
V/C Ratio	0.86	0.74	0.83	1.03				0.75	0.95	1.04	0.46			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,315	1,760	1,820	556	96	90	10
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.1%*	*5.2%*	*4.9%*	*5.1%*	*3.3%*	*3.6%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	82	82	116	0	51	0	22
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*	*1.8%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,271	1,136	1,289	2,135			
% Change in HOV Volumes								*-1%*	*27%*	*25%*	*-11%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	57,625	38,804	42,762	18,820	3,669	2,376	390
% Change in GP Volumes								*-11%*	*8%*	*6%*	*-34%*	*-19%*	*-67%*	*109%*
V/C Ratio	1.08	1.00	1.12	1.19				0.96	1.08	1.19	0.78			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,770	3,063	3,152	1,707	121	133	15
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.3%*	*7.9%*	*7.4%*	*9.1%*	*3.3%*	*5.6%*	*3.8%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	1	1	16	0	606	0	14
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*16.5%*	*0.0%*	*3.5%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,350	973	1,110	1,377			
% Change in HOV Volumes								*4%*	*19%*	*21%*	*-4%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	111,230	81,959	92,947	29,270	11,495	10,388	885
% Change in GP Volumes								*-13%*	*27%*	*23%*	*-54%*	*-13%*	*-39%*	*18%*
V/C Ratio	0.80	0.67	0.79	0.99				0.70	0.85	0.97	0.46			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	9,795	6,912	7,112	2,883	556	676	35
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.8%*	*8.4%*	*7.7%*	*9.8%*	*4.8%*	*6.5%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	204	204	185	0	1,018	8	25
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*	*8.9%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				2,876	1,295	1,540	1,582			
% Change in HOV Volumes								*-1%*	*70%*	*38%*	*-27%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	213,925	154,907	173,097	59,018	18,071	15,292	1,697
% Change in GP Volumes								*-12%*	*22%*	*19%*	*-49%*	*-17%*	*-50%*	*44%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	16,880	11,735	12,084	5,146	772	900	60
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.9%*	*7.6%*	*7.0%*	*8.7%*	*4.3%*	*5.9%*	*3.5%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	287	287	316	0	1,675	8	60
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*9.3%*	*0.1%*	*3.5%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				8,497	3,403	3,939	5,094			
% Change in HOV Volumes								*0%*	*37%*	*29%*	*-15%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				222,421	158,310	177,036	64,112			
% Change in Crosslake Volumes								*-12%*	*22%*	*19%*	*-48%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-3

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 1 Post-Processed Low Projections

Scenario 1	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	43,916	34,143	37,388	9,773	2,585	2,247	375
% Change in GP Volumes								*-15%*	*28%*	*25%*	*-60%*	*-36%*	*-63%*	*55%*
V/C Ratio	0.86	0.74	0.83	1.03				0.73	0.95	1.04	0.41			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,253	1,760	1,820	494	85	80	9
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.1%*	*5.2%*	*4.9%*	*5.1%*	*3.3%*	*3.6%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	82	82	116	0	46	0	19
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*	*1.8%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,236	1,170	1,324	2,066			
% Change in HOV Volumes								*-2%*	*30%*	*29%*	*-14%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	55,671	38,804	42,762	16,867	3,261	2,112	346
% Change in GP Volumes								*-14%*	*8%*	*6%*	*-41%*	*-28%*	*-71%*	*86%*
V/C Ratio	1.08	1.00	1.12	1.19				0.93	1.08	1.19	0.70			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,581	3,063	3,152	1,518	107	119	13
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.2%*	*7.9%*	*7.4%*	*9.0%*	*3.3%*	*5.6%*	*3.8%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	1	1	16	0	539	0	12
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*16.5%*	*0.0%*	*3.5%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,322	1,001	1,138	1,321			
% Change in HOV Volumes								*3%*	*23%*	*24%*	*-8%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	107,977	81,959	92,947	26,018	10,217	9,234	787
% Change in GP Volumes								*-15%*	*27%*	*23%*	*-59%*	*-23%*	*-46%*	*5%*
V/C Ratio	0.80	0.67	0.79	0.99				0.67	0.85	0.97	0.41			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	9,475	6,912	7,112	2,562	494	601	31
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.8%*	*8.4%*	*7.7%*	*9.8%*	*4.8%*	*6.5%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	204	204	185	0	905	8	22
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*	*8.9%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				2,848	1,323	1,568	1,526			
% Change in HOV Volumes								*-2%*	*74%*	*40%*	*-29%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	207,564	154,907	173,097	52,658	16,063	13,592	1,508
% Change in GP Volumes								*-15%*	*22%*	*19%*	*-55%*	*-26%*	*-55%*	*28%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	16,309	11,735	12,084	4,574	687	800	53
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.9%*	*7.6%*	*7.0%*	*8.7%*	*4.3%*	*5.9%*	*3.5%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	287	287	316	0	1,489	8	53
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*9.3%*	*0.1%*	*3.5%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				8,406	3,494	4,030	4,912			
% Change in HOV Volumes								*-1%*	*41%*	*32%*	*-18%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				215,970	158,400	177,127	57,570			
% Change in Crosslake Volumes								*-14%*	*22%*	*19%*	*-53%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-4

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 1 Post-Processed High Projections

Scenario 1	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	61,882	32,389	35,862	29,493	3,768	7,374	318	54,647	39,999	43,290	14,648	2,297	2,935	527
% Change in GP Volumes								*-12%*	*23%*	*21%*	*-50%*	*-39%*	*-60%*	*66%*
V/C Ratio	1.03	0.90	1.00	1.23				0.91	1.11	1.20	0.61			
Medium and Heavy Trucks	2,933	1,434	1,497	1,499	116	253	8	2,814	2,148	2,209	667	94	105	12
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.2%*	*5.4%*	*5.1%*	*4.6%*	*4.1%*	*3.6%*	*2.3%*
3+ HOV Vehicles in GP Lanes	151	136	209	14	205	719	7	123	123	163	0	76	0	32
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*3.3%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	7,386	2,806	3,027	4,580				7,132	2,940	3,274	4,193			
% Change in HOV Volumes								*-3%*	*5%*	*8%*	*-8%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	78,385	44,107	49,329	34,278	3,872	10,261	224	70,022	46,022	51,026	24,000	2,870	4,330	631
% Change in GP Volumes								*-11%*	*4%*	*3%*	*-30%*	*-26%*	*-58%*	*182%*
V/C Ratio	1.31	1.23	1.37	1.43				1.17	1.28	1.42	1.00			
Medium and Heavy Trucks	5,984	2,878	2,995	3,107	186	617	9	5,582	3,532	3,650	2,050	137	239	26
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*8.0%*	*7.7%*	*7.2%*	*8.5%*	*4.8%*	*5.5%*	*4.1%*
3+ HOV Vehicles in GP Lanes	52	45	25	7	258	103	5	1	1	1	0	136	0	38
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.8%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	6,070	2,735	3,004	3,335				6,356	3,148	3,445	3,208			
% Change in HOV Volumes								*5%*	*15%*	*15%*	*-4%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	159,499	83,846	97,063	75,653	13,561	19,469	958	141,673	96,419	109,714	45,254	12,344	8,075	1,099
% Change in GP Volumes								*-11%*	*15%*	*13%*	*-40%*	*-9%*	*-59%*	*15%*
V/C Ratio	1.00	0.87	1.01	1.18				0.89	1.00	1.14	0.71			
Medium and Heavy Trucks	12,250	6,008	6,259	6,242	628	1,123	43	11,797	7,181	7,428	4,616	528	490	48
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.3%*	*7.4%*	*6.8%*	*10.2%*	*4.3%*	*6.1%*	*4.4%*
3+ HOV Vehicles in GP Lanes	382	362	265	20	1,991	762	9	164	164	265	0	1,979	12	32
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*16.0%*	*0.1%*	*2.9%*
3+ HOV Vehicles in HOV Lanes	4,452	1,187	1,655	3,264				4,440	1,827	2,097	2,613			
% Change in HOV Volumes								*0%*	*54%*	*27%*	*-20%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	299,766	160,343	182,254	139,423	21,201	37,104	1,500	266,342	182,440	204,030	83,902	17,512	15,340	2,257
% Change in GP Volumes								*-11%*	*14%*	*12%*	*-40%*	*-17%*	*-59%*	*50%*
Medium and Heavy Trucks	21,167	10,320	10,751	10,847	930	1,993	59	20,194	12,860	13,286	7,333	759	835	86
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.6%*	*7.0%*	*6.5%*	*8.7%*	*4.3%*	*5.4%*	*3.8%*
3+ HOV Vehicles in GP Lanes	585	543	500	42	2,455	1,584	21	288	288	428	0	2,191	12	102
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.5%*	*0.1%*	*4.5%*
3+ HOV Vehicles in HOV Lanes	17,908	6,729	7,686	11,179				17,929	7,914	8,817	10,014			
% Change in HOV Volumes								*0%*	*18%*	*15%*	*-10%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	317,674	167,072	189,940	150,603				284,271	190,354	212,847	93,917			
% Change in Crosslake Volumes								*-11%*	*14%*	*12%*	*-38%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-5

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 1 Post-Processed Base Projections

Scenario 1	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	49,183	36,396	39,358	12,786	2,067	2,641	474
% Change in GP Volumes								*-12%*	*25%*	*22%*	*-52%*	*-39%*	*-60%*	*66%*
V/C Ratio	0.93	0.81	0.90	1.11				0.82	1.01	1.09	0.53			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,533	1,933	1,988	600	84	95	11
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.2%*	*5.3%*	*5.1%*	*4.7%*	*4.1%*	*3.6%*	*2.3%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	111	111	146	0	68	0	29
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*3.3%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,400	2,665	2,965	3,736			
% Change in HOV Volumes								*-4%*	*5%*	*9%*	*-9%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	63,020	40,441	44,945	22,579	2,583	3,897	568
% Change in GP Volumes								*-11%*	*2%*	*1%*	*-27%*	*-26%*	*-58%*	*182%*
V/C Ratio	1.18	1.10	1.23	1.29				1.05	1.12	1.25	0.94			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,024	3,179	3,285	1,845	124	215	23
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*8.0%*	*7.9%*	*7.3%*	*8.2%*	*4.8%*	*5.5%*	*4.1%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	1	1	1	0	123	0	34
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.8%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,763	2,790	3,058	2,973			
% Change in HOV Volumes								*5%*	*13%*	*13%*	*-1%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	127,506	86,777	98,742	40,728	11,110	7,268	989
% Change in GP Volumes								*-11%*	*15%*	*13%*	*-40%*	*-9%*	*-59%*	*15%*
V/C Ratio	0.90	0.79	0.91	1.06				0.80	0.90	1.03	0.64			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,618	6,463	6,685	4,155	475	441	43
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.3%*	*7.4%*	*6.8%*	*10.2%*	*4.3%*	*6.1%*	*4.4%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	147	147	238	0	1,781	11	29
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*16.0%*	*0.1%*	*2.9%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				3,996	1,644	1,888	2,352			
% Change in HOV Volumes								*0%*	*54%*	*27%*	*-20%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	239,708	163,615	183,045	76,094	15,761	13,806	2,031
% Change in GP Volumes								*-11%*	*13%*	*12%*	*-39%*	*-17%*	*-59%*	*50%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	18,174	11,574	11,958	6,600	683	751	77
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.6%*	*7.1%*	*6.5%*	*8.7%*	*4.3%*	*5.4%*	*3.8%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	259	259	385	0	1,972	11	92
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.5%*	*0.1%*	*4.5%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				16,160	7,099	7,911	9,061			
% Change in HOV Volumes								*0%*	*17%*	*14%*	*-10%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				255,868	170,714	190,957	85,154			
% Change in Crosslake Volumes								*-11%*	*14%*	*12%*	*-37%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-6

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 1 Post-Processed Low Projections

Scenario 1	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	47,963	36,396	39,358	11,566	1,838	2,348	422
% Change in GP Volumes								*-14%*	*25%*	*22%*	*-56%*	*-46%*	*-65%*	*47%*
V/C Ratio	0.93	0.81	0.90	1.11				0.80	1.01	1.09	0.48			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,466	1,933	1,988	533	75	84	10
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.1%*	*5.3%*	*5.1%*	*4.6%*	*4.1%*	*3.6%*	*2.3%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	111	111	146	0	61	0	25
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*3.3%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,342	2,723	3,023	3,620			
% Change in HOV Volumes								*-5%*	*8%*	*11%*	*-12%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	60,920	40,441	44,945	20,479	2,296	3,464	505
% Change in GP Volumes								*-14%*	*2%*	*1%*	*-34%*	*-34%*	*-62%*	*151%*
V/C Ratio	1.18	1.10	1.23	1.29				1.02	1.12	1.25	0.85			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	4,819	3,179	3,285	1,640	110	191	21
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.9%*	*7.9%*	*7.3%*	*8.0%*	*4.8%*	*5.5%*	*4.1%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	1	1	1	0	109	0	30
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.8%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,704	2,849	3,117	2,855			
% Change in HOV Volumes								*4%*	*16%*	*15%*	*-5%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	122,980	86,777	98,742	36,203	9,876	6,460	879
% Change in GP Volumes								*-14%*	*15%*	*13%*	*-47%*	*-19%*	*-63%*	*2%*
V/C Ratio	0.90	0.79	0.91	1.06				0.77	0.90	1.03	0.57			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,156	6,463	6,685	3,693	422	392	38
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.3%*	*7.4%*	*6.8%*	*10.2%*	*4.3%*	*6.1%*	*4.4%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	147	147	238	0	1,583	10	26
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*16.0%*	*0.1%*	*2.9%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				3,947	1,693	1,937	2,254			
% Change in HOV Volumes								*-1%*	*58%*	*30%*	*-23%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	231,863	163,615	183,045	68,249	14,009	12,272	1,806
% Change in GP Volumes								*-14%*	*13%*	*12%*	*-46%*	*-27%*	*-63%*	*34%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	17,441	11,574	11,958	5,867	607	668	69
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.5%*	*7.1%*	*6.5%*	*8.6%*	*4.3%*	*5.4%*	*3.8%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	259	259	385	0	1,753	10	82
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.5%*	*0.1%*	*4.5%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				15,994	7,265	8,077	8,729			
% Change in HOV Volumes								*-1%*	*20%*	*17%*	*-13%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				247,857	170,880	191,123	76,977			
% Change in Crosslake Volumes								*-13%*	*14%*	*12%*	*-43%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-7

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 2 Post-Processed High Projections

Scenario 2	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	57,110	29,654	33,227	27,456	4,472	6,738	269	52,634	33,816	37,402	18,818	3,016	2,084	464
% Change in GP Volumes								*-8%*	*14%*	*13%*	*-31%*	*-33%*	*-69%*	*72%*
V/C Ratio	0.95	0.82	0.92	1.14				0.88	0.94	1.04	0.78			
Medium and Heavy Trucks	2,730	1,313	1,378	1,417	124	292	6	2,647	1,733	1,798	914	94	64	11
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*5.1%*	*4.8%*	*4.9%*	*3.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	120	101	162	19	80	480	6	96	96	162	0	48	0	24
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.6%*	*0.0%*	*5.2%*
3+ HOV Vehicles in HOV Lanes	3,675	997	1,142	2,678				3,790	1,065	1,207	2,725			
% Change in HOV Volumes								*3%*	*7%*	*6%*	*2%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	71,901	40,038	44,640	31,863	5,031	8,062	207	67,094	42,335	46,819	24,759	3,563	2,243	244
% Change in GP Volumes								*-7%*	*6%*	*5%*	*-22%*	*-29%*	*-72%*	*18%*
V/C Ratio	1.20	1.11	1.24	1.33				1.12	1.18	1.30	1.03			
Medium and Heavy Trucks	5,648	2,770	2,871	2,877	226	518	7	5,474	3,090	3,190	2,384	107	117	8
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.2%*	*7.3%*	*6.8%*	*9.6%*	*3.0%*	*5.2%*	*3.3%*
3+ HOV Vehicles in GP Lanes	80	77	134	3	465	277	5	67	67	95	0	664	0	15
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*18.6%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	2,507	906	1,018	1,600				2,603	988	1,129	1,615			
% Change in HOV Volumes								*4%*	*9%*	*11%*	*1%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	141,980	71,764	84,239	70,216	14,719	18,926	833	129,567	84,388	96,676	45,178	12,071	10,761	979
% Change in GP Volumes								*-9%*	*18%*	*15%*	*-36%*	*-18%*	*-43%*	*17%*
V/C Ratio	0.89	0.75	0.88	1.10				0.81	0.88	1.01	0.71			
Medium and Heavy Trucks	11,574	5,622	5,850	5,952	714	1,289	34	11,125	6,757	6,982	4,368	561	687	39
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.6%*	*8.0%*	*7.2%*	*9.7%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	378	353	205	25	1,143	483	10	281	281	206	0	1,097	9	27
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.1%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	3,244	846	1,242	2,398				3,258	1,286	1,613	1,972			
% Change in HOV Volumes								*0%*	*52%*	*30%*	*-18%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	270,991	141,456	162,105	129,535	24,223	33,727	1,309	249,294	160,539	180,897	88,755	18,649	15,088	1,687
% Change in GP Volumes								*-8%*	*13%*	*12%*	*-31%*	*-23%*	*-55%*	*29%*
Medium and Heavy Trucks	19,952	9,705	10,099	10,246	1,064	2,098	46	19,246	11,580	11,970	7,666	762	867	58
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.6%*	*4.1%*	*5.7%*	*3.4%*
3+ HOV Vehicles in GP Lanes	578	530	501	48	1,687	1,241	21	443	443	463	0	1,808	9	66
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.7%*	*0.1%*	*3.9%*
3+ HOV Vehicles in HOV Lanes	9,426	2,750	3,402	6,676				9,652	3,339	3,948	6,313			
% Change in HOV Volumes								*2%*	*21%*	*16%*	*-5%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	280,417	144,206	165,507	136,211				258,946	163,878	184,845	95,068			
% Change in Crosslake Volumes								*-8%*	*14%*	*12%*	*-30%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-8

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 2 Post-Processed Base Projections

Scenario 2	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	47,371	31,586	34,814	15,784	2,714	1,876	417
% Change in GP Volumes								*-8%*	*18%*	*16%*	*-36%*	*-33%*	*-69%*	*72%*
V/C Ratio	0.86	0.74	0.83	1.03				0.79	0.88	0.97	0.66			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,382	1,559	1,619	823	85	57	10
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*3.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	86	86	146	0	43	0	22
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.6%*	*0.0%*	*5.2%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,377	992	1,120	2,385			
% Change in HOV Volumes								*2%*	*11%*	*9%*	*-1%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	60,384	37,957	41,993	22,427	3,207	2,018	220
% Change in GP Volumes								*-7%*	*5%*	*5%*	*-22%*	*-29%*	*-72%*	*18%*
V/C Ratio	1.08	1.00	1.12	1.19				1.01	1.05	1.17	0.93			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,927	2,781	2,871	2,145	96	105	7
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.2%*	*7.3%*	*6.8%*	*9.6%*	*3.0%*	*5.2%*	*3.3%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	60	60	85	0	597	0	13
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*18.6%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,347	885	1,012	1,462			
% Change in HOV Volumes								*4%*	*9%*	*10%*	*2%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	116,610	75,950	87,008	40,661	10,864	9,685	881
% Change in GP Volumes								*-9%*	*18%*	*15%*	*-36%*	*-18%*	*-43%*	*17%*
V/C Ratio	0.80	0.67	0.79	0.99				0.73	0.79	0.91	0.64			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	10,012	6,081	6,284	3,931	505	618	35
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.6%*	*8.0%*	*7.2%*	*9.7%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	253	253	185	0	988	8	25
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.1%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				2,932	1,157	1,451	1,775			
% Change in HOV Volumes								*0%*	*52%*	*30%*	*-18%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	224,365	145,493	163,815	78,872	16,784	13,579	1,518
% Change in GP Volumes								*-8%*	*14%*	*12%*	*-32%*	*-23%*	*-55%*	*29%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	17,321	10,422	10,773	6,899	686	781	52
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.7%*	*4.1%*	*5.7%*	*3.4%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	399	399	416	0	1,628	8	59
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.7%*	*0.1%*	*3.9%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				8,657	3,035	3,583	5,622			
% Change in HOV Volumes								*2%*	*23%*	*17%*	*-6%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				233,022	148,528	167,398	84,493			
% Change in Crosslake Volumes								*-8%*	*14%*	*12%*	*-31%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-9

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 2 Post-Processed Low Projections

Scenario 2	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	45,617	31,586	34,814	14,030	2,412	1,668	371
% Change in GP Volumes								*-11%*	*18%*	*16%*	*-43%*	*-40%*	*-73%*	*53%*
V/C Ratio	0.86	0.74	0.83	1.03				0.76	0.88	0.97	0.58			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,291	1,559	1,619	731	76	51	9
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*3.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	86	86	146	0	38	0	19
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.6%*	*0.0%*	*5.2%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,325	1,044	1,172	2,281			
% Change in HOV Volumes								*1%*	*16%*	*14%*	*-5%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	57,943	37,957	41,993	19,986	2,850	1,794	195
% Change in GP Volumes								*-10%*	*5%*	*5%*	*-30%*	*-37%*	*-75%*	*5%*
V/C Ratio	1.08	1.00	1.12	1.19				0.97	1.05	1.17	0.83			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,688	2,781	2,871	1,907	86	93	7
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.1%*	*7.3%*	*6.8%*	*9.5%*	*3.0%*	*5.2%*	*3.3%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	60	60	85	0	531	0	12
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*18.6%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,312	920	1,047	1,392			
% Change in HOV Volumes								*2%*	*13%*	*14%*	*-3%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	112,092	75,950	87,008	36,143	9,657	8,608	783
% Change in GP Volumes								*-12%*	*18%*	*15%*	*-43%*	*-27%*	*-49%*	*4%*
V/C Ratio	0.80	0.67	0.79	0.99				0.70	0.79	0.91	0.56			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	9,575	6,081	6,284	3,494	449	550	31
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.5%*	*8.0%*	*7.2%*	*9.7%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	253	253	185	0	878	8	22
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.1%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				2,894	1,196	1,490	1,698			
% Change in HOV Volumes								*-1%*	*57%*	*33%*	*-21%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	215,652	145,493	163,815	70,159	14,920	12,070	1,349
% Change in GP Volumes								*-12%*	*14%*	*12%*	*-40%*	*-32%*	*-60%*	*15%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	16,554	10,422	10,773	6,132	610	694	46
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.7%*	*4.1%*	*5.7%*	*3.4%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	399	399	416	0	1,447	8	53
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.7%*	*0.1%*	*3.9%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				8,531	3,160	3,709	5,371			
% Change in HOV Volumes								*1%*	*28%*	*21%*	*-11%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				224,183	148,653	167,524	75,530			
% Change in Crosslake Volumes								*-11%*	*15%*	*12%*	*-38%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-10

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 2 Post-Processed High Projections

Scenario 2	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	61,882	32,389	35,862	29,493	3,768	7,374	318	57,471	35,663	39,140	21,808	2,111	2,313	582
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-44%*	*-69%*	*83%*
V/C Ratio	1.03	0.90	1.00	1.23				0.96	0.99	1.09	0.91			
Medium and Heavy Trucks	2,933	1,434	1,497	1,499	116	253	8	2,872	1,744	1,808	1,127	87	72	13
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*4.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	151	136	209	14	205	719	7	130	130	210	0	72	0	32
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.4%*	*0.0%*	*5.5%*
3+ HOV Vehicles in HOV Lanes	7,386	2,806	3,027	4,580				7,355	3,115	3,330	4,240			
% Change in HOV Volumes								*0%*	*11%*	*10%*	*-7%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	78,385	44,107	49,329	34,278	3,872	10,261	224	74,857	45,583	50,790	29,274	2,429	3,638	615
% Change in GP Volumes								*-5%*	*3%*	*3%*	*-15%*	*-37%*	*-65%*	*175%*
V/C Ratio	1.31	1.23	1.37	1.43				1.25	1.27	1.41	1.22			
Medium and Heavy Trucks	5,984	2,878	2,995	3,107	186	617	9	5,888	3,020	3,136	2,869	116	207	25
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.9%*	*6.6%*	*6.2%*	*9.8%*	*4.8%*	*5.7%*	*4.0%*
3+ HOV Vehicles in GP Lanes	52	45	25	7	258	103	5	4	4	5	0	106	0	38
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.4%*	*0.0%*	*6.1%*
3+ HOV Vehicles in HOV Lanes	6,070	2,735	3,004	3,335				6,219	2,773	3,023	3,446			
% Change in HOV Volumes								*2%*	*1%*	*1%*	*3%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	159,499	83,846	97,063	75,653	13,561	19,469	958	148,568	92,442	105,749	56,127	11,968	7,750	1,131
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-12%*	*-60%*	*18%*
V/C Ratio	1.00	0.87	1.01	1.18				0.93	0.96	1.10	0.88			
Medium and Heavy Trucks	12,250	6,008	6,259	6,242	628	1,123	43	11,962	6,696	6,944	5,266	498	478	48
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.1%*	*7.2%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	382	362	265	20	1,991	762	9	184	184	265	0	1,939	12	61
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.4%*
3+ HOV Vehicles in HOV Lanes	4,452	1,187	1,655	3,264				4,551	1,702	1,991	2,849			
% Change in HOV Volumes								*2%*	*43%*	*20%*	*-13%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	299,766	160,343	182,254	139,423	21,201	37,104	1,500	280,897	173,689	195,678	107,208	16,507	13,701	2,328
% Change in GP Volumes								*-6%*	*8%*	*7%*	*-23%*	*-22%*	*-63%*	*55%*
Medium and Heavy Trucks	21,167	10,320	10,751	10,847	930	1,993	59	20,722	11,460	11,888	9,262	701	757	86
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.4%*	*6.6%*	*6.1%*	*8.6%*	*4.2%*	*5.5%*	*3.7%*
3+ HOV Vehicles in GP Lanes	585	543	500	42	2,455	1,584	21	318	318	480	0	2,117	12	130
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.8%*	*0.1%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	17,908	6,729	7,686	11,179				18,125	7,590	8,344	10,535			
% Change in HOV Volumes								*1%*	*13%*	*9%*	*-6%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	317,674	167,072	189,940	150,603				299,022	181,279	204,022	117,743			
% Change in Crosslake Volumes								*-6%*	*9%*	*7%*	*-22%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-11

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 2 Post-Processed Base Projections

Scenario 2	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	51,724	32,495	35,623	19,229	1,900	2,082	524
% Change in GP Volumes								*-7%*	*11%*	*10%*	*-28%*	*-44%*	*-69%*	*83%*
V/C Ratio	0.93	0.81	0.90	1.11				0.86	0.90	0.99	0.80			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,584	1,570	1,627	1,014	78	65	12
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.0%*	*4.8%*	*4.6%*	*5.3%*	*4.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	117	117	189	0	65	0	29
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.4%*	*0.0%*	*5.5%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,603	2,820	3,013	3,783			
% Change in HOV Volumes								*-1%*	*12%*	*11%*	*-8%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	67,371	41,025	45,711	26,346	2,186	3,274	554
% Change in GP Volumes								*-5%*	*3%*	*3%*	*-15%*	*-37%*	*-65%*	*175%*
V/C Ratio	1.18	1.10	1.23	1.29				1.12	1.14	1.27	1.10			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,299	2,718	2,823	2,582	105	186	22
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.9%*	*6.6%*	*6.2%*	*9.8%*	*4.8%*	*5.7%*	*4.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	3	3	4	0	95	0	34
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.4%*	*0.0%*	*6.1%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,597	2,496	2,720	3,101			
% Change in HOV Volumes								*2%*	*1%*	*1%*	*3%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	133,712	83,198	95,174	50,514	10,771	6,975	1,018
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-12%*	*-60%*	*18%*
V/C Ratio	0.90	0.79	0.91	1.06				0.84	0.87	0.99	0.79			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,766	6,026	6,250	4,739	448	430	43
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.1%*	*7.2%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	165	165	239	0	1,745	11	55
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.4%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				4,096	1,531	1,792	2,564			
% Change in HOV Volumes								*2%*	*43%*	*20%*	*-13%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	252,807	156,717	176,508	96,090	14,857	12,331	2,095
% Change in GP Volumes								*-6%*	*9%*	*8%*	*-23%*	*-22%*	*-63%*	*55%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	18,650	10,314	10,699	8,336	631	681	77
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.4%*	*6.6%*	*6.1%*	*8.7%*	*4.2%*	*5.5%*	*3.7%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	286	286	432	0	1,905	11	117
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.8%*	*0.1%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				16,296	6,847	7,526	9,449			
% Change in HOV Volumes								*1%*	*13%*	*9%*	*-6%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				269,103	163,565	184,034	105,538			
% Change in Crosslake Volumes								*-6%*	*9%*	*8%*	*-22%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-12

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 2 Post-Processed Low Projections

Scenario 2	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	49,631	32,495	35,623	17,136	1,689	1,850	466
% Change in GP Volumes								*-11%*	*11%*	*10%*	*-35%*	*-50%*	*-72%*	*63%*
V/C Ratio	0.93	0.81	0.90	1.11				0.83	0.90	0.99	0.71			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,472	1,570	1,627	902	69	58	10
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.0%*	*4.8%*	*4.6%*	*5.3%*	*4.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	117	117	189	0	58	0	25
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.4%*	*0.0%*	*5.5%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,517	2,906	3,100	3,610			
% Change in HOV Volumes								*-2%*	*15%*	*14%*	*-12%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	64,444	40,678	45,364	23,766	1,943	2,910	492
% Change in GP Volumes								*-9%*	*2%*	*2%*	*-23%*	*-44%*	*-68%*	*144%*
V/C Ratio	1.18	1.10	1.23	1.29				1.07	1.13	1.26	0.99			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,013	2,718	2,823	2,295	93	165	20
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.8%*	*6.7%*	*6.2%*	*9.7%*	*4.8%*	*5.7%*	*4.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	3	3	4	0	85	0	30
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.4%*	*0.0%*	*6.1%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,532	2,562	2,786	2,970			
% Change in HOV Volumes								*1%*	*4%*	*3%*	*-1%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	128,099	83,198	95,174	44,901	9,574	6,200	905
% Change in GP Volumes								*-11%*	*10%*	*9%*	*-34%*	*-22%*	*-65%*	*5%*
V/C Ratio	0.90	0.79	0.91	1.06				0.80	0.87	0.99	0.70			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,239	6,026	6,250	4,213	398	382	38
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.0%*	*7.2%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	165	165	239	0	1,551	9	49
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.4%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				4,035	1,592	1,853	2,442			
% Change in HOV Volumes								*1%*	*49%*	*24%*	*-17%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	242,174	156,371	176,161	85,803	13,206	10,961	1,863
% Change in GP Volumes								*-10%*	*8%*	*7%*	*-32%*	*-31%*	*-67%*	*38%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	17,724	10,314	10,699	7,410	561	605	69
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.3%*	*6.6%*	*6.1%*	*8.6%*	*4.2%*	*5.5%*	*3.7%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	286	286	432	0	1,693	10	104
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.8%*	*0.1%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				16,083	7,060	7,739	9,023			
% Change in HOV Volumes								*0%*	*17%*	*12%*	*-10%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				258,257	163,431	183,900	94,826			
% Change in Crosslake Volumes								*-10%*	*9%*	*8%*	*-30%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-13

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 3 Post-Processed High Projections

Scenario 3	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	57,110	29,654	33,227	27,456	49,858	36,363	39,980	13,495
% Change in GP Volumes					*-13%*	*23%*	*20%*	*-51%*
V/C Ratio	0.95	0.82	0.92	1.14	0.83	1.01	1.11	0.56
Medium and Heavy Trucks	2,730	1,313	1,378	1,417	2,567	1,976	2,044	591
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*5.1%*	*5.4%*	*5.1%*	*4.4%*
3+ HOV Vehicles in GP Lanes	120	101	162	19	88	88	128	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,675	997	1,142	2,678	3,981	814	981	3,167
% Change in HOV Volumes					*8%*	*-18%*	*-14%*	*18%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	71,901	40,038	44,640	31,863	63,794	41,479	45,871	22,315
% Change in GP Volumes					*-11%*	*4%*	*3%*	*-30%*
V/C Ratio	1.20	1.11	1.24	1.33	1.06	1.15	1.27	0.93
Medium and Heavy Trucks	5,648	2,770	2,871	2,877	5,292	3,426	3,525	1,866
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*8.3%*	*8.3%*	*7.7%*	*8.4%*
3+ HOV Vehicles in GP Lanes	80	77	134	3	1	1	16	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,507	906	1,018	1,600	2,743	936	1,088	1,807
% Change in HOV Volumes					*9%*	*3%*	*7%*	*13%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	141,980	71,764	84,239	70,216	123,102	91,424	103,670	31,678
% Change in GP Volumes					*-13%*	*27%*	*23%*	*-55%*
V/C Ratio	0.89	0.75	0.88	1.10	0.77	0.95	1.08	0.49
Medium and Heavy Trucks	11,574	5,622	5,850	5,952	10,867	7,767	7,989	3,099
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*8.8%*	*8.5%*	*7.7%*	*9.8%*
3+ HOV Vehicles in GP Lanes	378	353	205	25	215	215	205	0
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,244	846	1,242	2,398	3,695	948	1,207	2,747
% Change in HOV Volumes					*14%*	*12%*	*-3%*	*15%*
Transit Person Trips	10,307	8,619	8,347	1,688	10,827	8,937	8,657	1,889
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Daily (24 hrs)								
Total GP Vehicle Volumes	270,991	141,456	162,105	129,535	236,754	169,266	189,521	67,488
% Change in GP Volumes					*-13%*	*20%*	*17%*	*-48%*
Medium and Heavy Trucks	19,952	9,705	10,099	10,246	18,726	13,170	13,558	5,557
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*7.9%*	*7.8%*	*7.2%*	*8.2%*
3+ HOV Vehicles in GP Lanes	578	530	501	48	305	305	350	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	9,426	2,750	3,402	6,676	10,419	2,698	3,276	7,721
% Change in HOV Volumes					*11%*	*-2%*	*-4%*	*16%*
Total Transit Person Trips	30,927	24,486	23,713	6,441	32,601	25,390	24,595	7,211
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Total Crosslake Vehicle Volumes	280,417	144,206	165,507	136,211	247,173	171,964	192,797	75,208
% Change in Crosslake Volumes					*-12%*	*19%*	*16%*	*-45%*

Exhibit B-14

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 3 Post-Processed Base Projections

Scenario 3	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	44,872	34,263	37,518	10,610
% Change in GP Volumes					*-13%*	*28%*	*25%*	*-57%*
V/C Ratio	0.86	0.74	0.83	1.03	0.75	0.95	1.04	0.44
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	2,311	1,778	1,839	532
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*5.1%*	*5.2%*	*4.9%*	*5.0%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	80	80	116	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410	3,583	733	883	2,850
% Change in HOV Volumes					*8%*	*-18%*	*-14%*	*18%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	57,415	38,823	42,776	18,591
% Change in GP Volumes					*-11%*	*8%*	*6%*	*-35%*
V/C Ratio	1.08	1.00	1.12	1.19	0.96	1.08	1.19	0.77
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	4,763	3,084	3,173	1,679
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*8.3%*	*7.9%*	*7.4%*	*9.0%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	1	1	15	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440	2,468	842	979	1,626
% Change in HOV Volumes					*9%*	*3%*	*7%*	*13%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	110,792	82,282	93,303	28,510
% Change in GP Volumes					*-13%*	*27%*	*23%*	*-55%*
V/C Ratio	0.80	0.67	0.79	0.99	0.69	0.86	0.97	0.45
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	9,780	6,991	7,190	2,789
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*8.8%*	*8.5%*	*7.7%*	*9.8%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	194	194	185	0
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158	3,325	853	1,087	2,472
% Change in HOV Volumes					*14%*	*12%*	*-3%*	*15%*
Transit Person Trips	10,307	8,619	8,347	1,688	10,827	8,937	8,657	1,889
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Daily (24 hrs)								
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	213,079	155,368	173,597	57,711
% Change in GP Volumes					*-13%*	*22%*	*19%*	*-50%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	16,854	11,853	12,202	5,001
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*7.9%*	*7.6%*	*7.0%*	*8.7%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	274	274	315	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008	9,377	2,428	2,949	6,949
% Change in HOV Volumes					*11%*	*-2%*	*-4%*	*16%*
Total Transit Person Trips	30,927	24,486	23,713	6,441	32,601	25,390	24,595	7,211
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590	222,455	157,796	176,546	64,660
% Change in Crosslake Volumes					*-12%*	*22%*	*19%*	*-47%*

Exhibit B-15

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 3 Post-Processed Low Projections

Scenario 3	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	43,757	34,263	37,518	9,494
% Change in GP Volumes					*-15%*	*28%*	*25%*	*-62%*
V/C Ratio	0.86	0.74	0.83	1.03	0.73	0.95	1.04	0.40
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	2,251	1,778	1,839	473
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*5.1%*	*5.2%*	*4.9%*	*5.0%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	80	80	116	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410	3,583	733	883	2,850
% Change in HOV Volumes					*8%*	*-18%*	*-14%*	*18%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	55,490	38,823	42,776	16,667
% Change in GP Volumes					*-14%*	*8%*	*6%*	*-42%*
V/C Ratio	1.08	1.00	1.12	1.19	0.92	1.08	1.19	0.69
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	4,577	3,084	3,173	1,493
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*8.2%*	*7.9%*	*7.4%*	*9.0%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	1	1	15	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440	2,468	842	979	1,626
% Change in HOV Volumes					*9%*	*3%*	*7%*	*13%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	107,624	82,282	93,303	25,342
% Change in GP Volumes					*-16%*	*27%*	*23%*	*-60%*
V/C Ratio	0.80	0.67	0.79	0.99	0.67	0.86	0.97	0.40
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	9,470	6,991	7,190	2,479
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*8.8%*	*8.5%*	*7.7%*	*9.8%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	194	194	185	0
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158	3,325	853	1,087	2,472
% Change in HOV Volumes					*14%*	*12%*	*-3%*	*15%*
Transit Person Trips	10,307	8,619	8,347	1,688	10,827	8,937	8,657	1,889
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Daily (24 hrs)								
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	206,871	155,368	173,597	51,503
% Change in GP Volumes					*-15%*	*22%*	*19%*	*-56%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	16,298	11,853	12,202	4,445
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*7.9%*	*7.6%*	*7.0%*	*8.6%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	274	274	315	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008	9,377	2,428	2,949	6,949
% Change in HOV Volumes					*11%*	*-2%*	*-4%*	*16%*
Total Transit Person Trips	30,927	24,486	23,713	6,441	32,601	25,390	24,595	7,211
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590	216,247	157,796	176,546	58,452
% Change in Crosslake Volumes					*-14%*	*22%*	*19%*	*-52%*

Exhibit B-16

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 3 Post-Processed High Projections

Scenario 3	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	61,882	32,389	35,862	29,493	54,420	40,153	43,452	14,268
% Change in GP Volumes					*-12%*	*24%*	*21%*	*-52%*
V/C Ratio	1.03	0.90	1.00	1.23	0.91	1.12	1.21	0.59
Medium and Heavy Trucks	2,933	1,434	1,497	1,499	2,811	2,171	2,232	640
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*5.2%*	*5.4%*	*5.1%*	*4.5%*
3+ HOV Vehicles in GP Lanes	151	136	209	14	120	120	163	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	7,386	2,806	3,027	4,580	7,653	2,271	2,596	5,382
% Change in HOV Volumes					*4%*	*-19%*	*-14%*	*18%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	78,385	44,107	49,329	34,278	69,773	45,773	50,771	24,000
% Change in GP Volumes					*-11%*	*4%*	*3%*	*-30%*
V/C Ratio	1.31	1.23	1.37	1.43	1.16	1.27	1.41	1.00
Medium and Heavy Trucks	5,984	2,878	2,995	3,107	5,572	3,555	3,674	2,017
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*8.0%*	*7.8%*	*7.2%*	*8.4%*
3+ HOV Vehicles in GP Lanes	52	45	25	7	1	1	1	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	6,070	2,735	3,004	3,335	6,598	2,881	3,177	3,717
% Change in HOV Volumes					*9%*	*5%*	*6%*	*11%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	159,499	83,846	97,063	75,653	141,178	96,395	109,694	44,783
% Change in GP Volumes					*-11%*	*15%*	*13%*	*-41%*
V/C Ratio	1.00	0.87	1.01	1.18	0.88	1.00	1.14	0.70
Medium and Heavy Trucks	12,250	6,008	6,259	6,242	11,784	7,225	7,472	4,559
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*8.3%*	*7.5%*	*6.8%*	*10.2%*
3+ HOV Vehicles in GP Lanes	382	362	265	20	165	165	266	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	4,452	1,187	1,655	3,264	4,917	1,315	1,587	3,602
% Change in HOV Volumes					*10%*	*11%*	*-4%*	*10%*
Transit Person Trips	14,671	12,996	12,823	1,675	15,128	13,061	12,888	2,067
% Change in Transit Trips					*3%*	*0%*	*1%*	*23%*
Daily (24 hrs)								
Total GP Vehicle Volumes	299,766	160,343	182,254	139,423	265,372	182,321	203,917	83,051
% Change in GP Volumes					*-11%*	*14%*	*12%*	*-40%*
Medium and Heavy Trucks	21,167	10,320	10,751	10,847	20,167	12,951	13,378	7,215
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*7.6%*	*7.1%*	*6.6%*	*8.7%*
3+ HOV Vehicles in GP Lanes	585	543	500	42	286	286	429	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	17,908	6,729	7,686	11,179	19,167	6,467	7,360	12,700
% Change in HOV Volumes					*7%*	*-4%*	*-4%*	*14%*
Total Transit Person Trips	43,314	36,921	36,428	6,393	44,994	37,104	36,613	7,890
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Total Crosslake Vehicle Volumes	317,674	167,072	189,940	150,603	284,539	188,788	211,277	95,751
% Change in Crosslake Volumes					*-10%*	*13%*	*11%*	*-36%*

Exhibit B-17

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 3 Post-Processed Base Projections

Scenario 3	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	48,978	36,535	39,505	12,443
% Change in GP Volumes					*-12%*	*25%*	*22%*	*-53%*
V/C Ratio	0.93	0.81	0.90	1.11	0.82	1.01	1.10	0.52
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	2,530	1,954	2,009	576
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*5.2%*	*5.3%*	*5.1%*	*4.6%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	108	108	146	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122	6,887	2,044	2,337	4,843
% Change in HOV Volumes					*4%*	*-19%*	*-14%*	*18%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	62,796	40,441	44,939	22,355
% Change in GP Volumes					*-11%*	*2%*	*1%*	*-28%*
V/C Ratio	1.18	1.10	1.23	1.29	1.05	1.12	1.25	0.93
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	5,015	3,200	3,306	1,815
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*8.0%*	*7.9%*	*7.4%*	*8.1%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	1	1	1	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002	5,938	2,593	2,859	3,345
% Change in HOV Volumes					*9%*	*5%*	*6%*	*11%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	127,060	86,755	98,724	40,305
% Change in GP Volumes					*-11%*	*15%*	*13%*	*-41%*
V/C Ratio	0.90	0.79	0.91	1.06	0.79	0.90	1.03	0.63
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	10,605	6,502	6,725	4,103
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*8.3%*	*7.5%*	*6.8%*	*10.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	149	149	239	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938	4,425	1,184	1,428	3,242
% Change in HOV Volumes					*10%*	*11%*	*-4%*	*10%*
Transit Person Trips	14,671	12,996	12,823	1,675	15,128	13,061	12,888	2,067
% Change in Transit Trips					*3%*	*0%*	*1%*	*23%*
Daily (24 hrs)								
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	238,835	163,731	183,167	75,104
% Change in GP Volumes					*-11%*	*13%*	*12%*	*-40%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	18,150	11,656	12,040	6,494
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*7.6%*	*7.1%*	*6.6%*	*8.6%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	258	258	386	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061	17,251	5,820	6,624	11,430
% Change in HOV Volumes					*7%*	*-4%*	*-4%*	*14%*
Total Transit Person Trips	43,314	36,921	36,428	6,393	44,994	37,104	36,613	7,890
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542	256,085	169,551	189,792	86,534
% Change in Crosslake Volumes					*-10%*	*13%*	*11%*	*-36%*

Exhibit B-18

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 3 Post-Processed Low Projections

Scenario 3	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	47,800	36,535	39,505	11,265
% Change in GP Volumes					*-14%*	*25%*	*22%*	*-58%*
V/C Ratio	0.93	0.81	0.90	1.11	0.80	1.01	1.10	0.47
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	2,466	1,954	2,009	512
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*5.2%*	*5.3%*	*5.1%*	*4.5%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	108	108	146	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122	6,887	2,044	2,337	4,843
% Change in HOV Volumes					*4%*	*-19%*	*-14%*	*18%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	60,728	40,441	44,939	20,287
% Change in GP Volumes					*-14%*	*2%*	*1%*	*-34%*
V/C Ratio	1.18	1.10	1.23	1.29	1.01	1.12	1.25	0.85
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	4,813	3,200	3,306	1,613
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*7.9%*	*7.9%*	*7.4%*	*8.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	1	1	1	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002	5,938	2,593	2,859	3,345
% Change in HOV Volumes					*9%*	*5%*	*6%*	*11%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	122,582	86,755	98,724	35,827
% Change in GP Volumes					*-15%*	*15%*	*13%*	*-47%*
V/C Ratio	0.90	0.79	0.91	1.06	0.77	0.90	1.03	0.56
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	10,150	6,502	6,725	3,647
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*8.3%*	*7.5%*	*6.8%*	*10.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	149	149	239	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938	4,425	1,184	1,428	3,242
% Change in HOV Volumes					*10%*	*11%*	*-4%*	*10%*
Transit Person Trips	14,671	12,996	12,823	1,675	15,128	13,061	12,888	2,067
% Change in Transit Trips					*3%*	*0%*	*1%*	*23%*
Daily (24 hrs)								
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	231,110	163,731	183,167	67,379
% Change in GP Volumes					*-14%*	*13%*	*12%*	*-46%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	17,428	11,656	12,040	5,772
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*7.5%*	*7.1%*	*6.6%*	*8.6%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	258	258	386	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061	17,251	5,820	6,624	11,430
% Change in HOV Volumes					*7%*	*-4%*	*-4%*	*14%*
Total Transit Person Trips	43,314	36,921	36,428	6,393	44,994	37,104	36,613	7,890
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542	248,360	169,551	189,792	78,809
% Change in Crosslake Volumes					*-13%*	*13%*	*11%*	*-42%*

Exhibit B-19

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 4 Post-Processed High Projections

Scenario 4	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	57,110	29,654	33,227	27,456	4,472	6,738	269	52,634	33,816	37,402	18,818	3,016	2,084	464
% Change in GP Volumes								*-8%*	*14%*	*13%*	*-31%*	*-33%*	*-69%*	*72%*
V/C Ratio	0.95	0.82	0.92	1.14				0.88	0.94	1.04	0.78			
Medium and Heavy Trucks	2,730	1,313	1,378	1,417	124	292	6	2,647	1,733	1,798	914	94	64	11
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*5.1%*	*4.8%*	*4.9%*	*3.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	120	101	162	19	80	480	6	96	96	162	0	48	0	24
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.6%*	*0.0%*	*5.2%*
3+ HOV Vehicles in HOV Lanes	3,675	997	1,142	2,678				4,044	811	953	3,234			
% Change in HOV Volumes								*10%*	*-19%*	*-17%*	*21%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	71,901	40,038	44,640	31,863	5,031	8,062	207	67,094	42,335	46,819	24,759	3,563	2,243	244
% Change in GP Volumes								*-7%*	*6%*	*5%*	*-22%*	*-29%*	*-72%*	*18%*
V/C Ratio	1.20	1.11	1.24	1.33				1.12	1.18	1.30	1.03			
Medium and Heavy Trucks	5,648	2,770	2,871	2,877	226	518	7	5,474	3,090	3,190	2,384	107	117	8
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.2%*	*7.3%*	*6.8%*	*9.6%*	*3.0%*	*5.2%*	*3.3%*
3+ HOV Vehicles in GP Lanes	80	77	134	3	465	277	5	67	67	95	0	664	0	15
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*18.6%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	2,507	906	1,018	1,600				2,704	887	1,028	1,817			
% Change in HOV Volumes								*8%*	*-2%*	*1%*	*14%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	141,980	71,764	84,239	70,216	14,719	18,926	833	129,567	84,388	96,676	45,178	12,071	10,761	979
% Change in GP Volumes								*-9%*	*18%*	*15%*	*-36%*	*-18%*	*-43%*	*17%*
V/C Ratio	0.89	0.75	0.88	1.10				0.81	0.88	1.01	0.71			
Medium and Heavy Trucks	11,574	5,622	5,850	5,952	714	1,289	34	11,125	6,757	6,982	4,368	561	687	39
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.6%*	*8.0%*	*7.2%*	*9.7%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	378	353	205	25	1,143	483	10	281	281	206	0	1,097	9	27
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.1%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	3,244	846	1,242	2,398				3,650	895	1,221	2,755			
% Change in HOV Volumes								*13%*	*6%*	*-2%*	*15%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	270,991	141,456	162,105	129,535	24,223	33,727	1,309	249,294	160,539	180,897	88,755	18,649	15,088	1,687
% Change in GP Volumes								*-8%*	*13%*	*12%*	*-31%*	*-23%*	*-55%*	*29%*
Medium and Heavy Trucks	19,952	9,705	10,099	10,246	1,064	2,098	46	19,246	11,580	11,970	7,666	762	867	58
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.6%*	*4.1%*	*5.7%*	*3.4%*
3+ HOV Vehicles in GP Lanes	578	530	501	48	1,687	1,241	21	443	443	463	0	1,808	9	66
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.7%*	*0.1%*	*3.9%*
3+ HOV Vehicles in HOV Lanes	9,426	2,750	3,402	6,676				10,398	2,593	3,202	7,805			
% Change in HOV Volumes								*10%*	*-6%*	*-6%*	*17%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	280,417	144,206	165,507	136,211				259,692	163,132	184,099	96,561			
% Change in Crosslake Volumes								*-7%*	*13%*	*11%*	*-29%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-20

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 4 Post-Processed Base Projections

Scenario 4	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	47,371	31,586	34,814	15,784	2,714	1,876	417
% Change in GP Volumes								*-8%*	*18%*	*16%*	*-36%*	*-33%*	*-69%*	*72%*
V/C Ratio	0.86	0.74	0.83	1.03				0.79	0.88	0.97	0.66			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,382	1,559	1,619	823	85	57	10
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*3.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	86	86	146	0	43	0	22
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.6%*	*0.0%*	*5.2%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,640	729	857	2,910			
% Change in HOV Volumes								*10%*	*-19%*	*-17%*	*21%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	60,384	37,957	41,993	22,427	3,207	2,018	220
% Change in GP Volumes								*-7%*	*5%*	*5%*	*-22%*	*-29%*	*-72%*	*18%*
V/C Ratio	1.08	1.00	1.12	1.19				1.01	1.05	1.17	0.93			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,927	2,781	2,871	2,145	96	105	7
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.2%*	*7.3%*	*6.8%*	*9.6%*	*3.0%*	*5.2%*	*3.3%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	60	60	85	0	597	0	13
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*18.6%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,434	799	925	1,635			
% Change in HOV Volumes								*8%*	*-2%*	*1%*	*14%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	116,610	75,950	87,008	40,661	10,864	9,685	881
% Change in GP Volumes								*-9%*	*18%*	*15%*	*-36%*	*-18%*	*-43%*	*17%*
V/C Ratio	0.80	0.67	0.79	0.99				0.73	0.79	0.91	0.64			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	10,012	6,081	6,284	3,931	505	618	35
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.6%*	*8.0%*	*7.2%*	*9.7%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	253	253	185	0	988	8	25
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.1%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				3,285	805	1,099	2,479			
% Change in HOV Volumes								*13%*	*6%*	*-2%*	*15%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	224,365	145,493	163,815	78,872	16,784	13,579	1,518
% Change in GP Volumes								*-8%*	*14%*	*12%*	*-32%*	*-23%*	*-55%*	*29%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	17,321	10,422	10,773	6,899	686	781	52
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.7%*	*4.1%*	*5.7%*	*3.4%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	399	399	416	0	1,628	8	59
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.7%*	*0.1%*	*3.9%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				9,358	2,333	2,882	7,025			
% Change in HOV Volumes								*10%*	*-6%*	*-6%*	*17%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				233,723	147,827	166,697	85,896			
% Change in Crosslake Volumes								*-7%*	*14%*	*12%*	*-30%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-21

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 4 Post-Processed Low Projections

Scenario 4	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	45,617	31,586	34,814	14,030	2,412	1,668	371
% Change in GP Volumes								*-11%*	*18%*	*16%*	*-43%*	*-40%*	*-73%*	*53%*
V/C Ratio	0.86	0.74	0.83	1.03				0.76	0.88	0.97	0.58			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,291	1,559	1,619	731	76	51	9
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*3.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	86	86	146	0	38	0	19
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.6%*	*0.0%*	*5.2%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,640	729	857	2,910			
% Change in HOV Volumes								*10%*	*-19%*	*-17%*	*21%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	57,943	37,957	41,993	19,986	2,850	1,794	195
% Change in GP Volumes								*-10%*	*5%*	*5%*	*-30%*	*-37%*	*-75%*	*5%*
V/C Ratio	1.08	1.00	1.12	1.19				0.97	1.05	1.17	0.83			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,688	2,781	2,871	1,907	86	93	7
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.1%*	*7.3%*	*6.8%*	*9.5%*	*3.0%*	*5.2%*	*3.3%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	60	60	85	0	531	0	12
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*18.6%*	*0.0%*	*6.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,434	799	925	1,635			
% Change in HOV Volumes								*8%*	*-2%*	*1%*	*14%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,858	8,207	7,949	2,651			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	112,092	75,950	87,008	36,143	9,657	8,608	783
% Change in GP Volumes								*-12%*	*18%*	*15%*	*-43%*	*-27%*	*-49%*	*4%*
V/C Ratio	0.80	0.67	0.79	0.99				0.70	0.79	0.91	0.56			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	9,575	6,081	6,284	3,494	449	550	31
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.5%*	*8.0%*	*7.2%*	*9.7%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	253	253	185	0	878	8	22
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.1%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				3,285	805	1,099	2,479			
% Change in HOV Volumes								*13%*	*6%*	*-2%*	*15%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,798	8,916	8,636	1,882			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	215,652	145,493	163,815	70,159	14,920	12,070	1,349
% Change in GP Volumes								*-12%*	*14%*	*12%*	*-40%*	*-32%*	*-60%*	*15%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	16,554	10,422	10,773	6,132	610	694	46
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.7%*	*4.1%*	*5.7%*	*3.4%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	399	399	416	0	1,447	8	53
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.7%*	*0.1%*	*3.9%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				9,358	2,333	2,882	7,025			
% Change in HOV Volumes								*10%*	*-6%*	*-6%*	*17%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,514	25,330	24,533	7,184			
% Change in Transit Trips								*5%*	*3%*	*3%*	*12%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				225,010	147,827	166,697	77,184			
% Change in Crosslake Volumes								*-11%*	*14%*	*12%*	*-37%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-22

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenaro 4 Post-Processed High Projections

Scenario 4	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	61,882	32,389	35,862	29,493	3,768	7,374	318	57,471	35,663	39,140	21,808	2,111	2,313	582
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-44%*	*-69%*	*83%*
V/C Ratio	1.03	0.90	1.00	1.23				0.96	0.99	1.09	0.91			
Medium and Heavy Trucks	2,933	1,434	1,497	1,499	116	253	8	2,872	1,744	1,808	1,127	87	72	13
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*4.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	151	136	209	14	205	719	7	130	130	210	0	72	0	32
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.4%*	*0.0%*	*5.5%*
3+ HOV Vehicles in HOV Lanes	7,386	2,806	3,027	4,580				7,673	2,797	3,012	4,875			
% Change in HOV Volumes								*4%*	*0%*	*0%*	*6%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	78,385	44,107	49,329	34,278	3,872	10,261	224	74,857	45,583	50,790	29,274	2,429	3,638	615
% Change in GP Volumes								*-5%*	*3%*	*3%*	*-15%*	*-37%*	*-65%*	*175%*
V/C Ratio	1.31	1.23	1.37	1.43				1.25	1.27	1.41	1.22			
Medium and Heavy Trucks	5,984	2,878	2,995	3,107	186	617	9	5,888	3,020	3,136	2,869	116	207	25
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.9%*	*6.6%*	*6.2%*	*9.8%*	*4.8%*	*5.7%*	*4.0%*
3+ HOV Vehicles in GP Lanes	52	45	25	7	258	103	5	4	4	5	0	106	0	38
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.4%*	*0.0%*	*6.1%*
3+ HOV Vehicles in HOV Lanes	6,070	2,735	3,004	3,335				6,356	2,637	2,886	3,719			
% Change in HOV Volumes								*5%*	*-4%*	*-4%*	*12%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	159,499	83,846	97,063	75,653	13,561	19,469	958	148,568	92,442	105,749	56,127	11,968	7,750	1,131
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-12%*	*-60%*	*18%*
V/C Ratio	1.00	0.87	1.01	1.18				0.93	0.96	1.10	0.88			
Medium and Heavy Trucks	12,250	6,008	6,259	6,242	628	1,123	43	11,962	6,696	6,944	5,266	498	478	48
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.1%*	*7.2%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	382	362	265	20	1,991	762	9	184	184	265	0	1,939	12	61
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.4%*
3+ HOV Vehicles in HOV Lanes	4,452	1,187	1,655	3,264				4,945	1,307	1,597	3,637			
% Change in HOV Volumes								*11%*	*10%*	*-4%*	*11%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	299,766	160,343	182,254	139,423	21,201	37,104	1,500	280,897	173,689	195,678	107,208	16,507	13,701	2,328
% Change in GP Volumes								*-6%*	*8%*	*7%*	*-23%*	*-22%*	*-63%*	*55%*
Medium and Heavy Trucks	21,167	10,320	10,751	10,847	930	1,993	59	20,722	11,460	11,888	9,262	701	757	86
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.4%*	*6.6%*	*6.1%*	*8.6%*	*4.2%*	*5.5%*	*3.7%*
3+ HOV Vehicles in GP Lanes	585	543	500	42	2,455	1,584	21	318	318	480	0	2,117	12	130
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.8%*	*0.1%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	17,908	6,729	7,686	11,179				18,973	6,742	7,495	12,231			
% Change in HOV Volumes								*6%*	*0%*	*-2%*	*9%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	317,674	167,072	189,940	150,603				299,870	180,431	203,174	119,439			
% Change in Crosslake Volumes								*-6%*	*8%*	*7%*	*-21%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-23

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 4 Post-Processed Base Projections

Scenario 4	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	51,724	32,495	35,623	19,229	1,900	2,082	524
% Change in GP Volumes								*-7%*	*11%*	*10%*	*-28%*	*-44%*	*-69%*	*83%*
V/C Ratio	0.93	0.81	0.90	1.11				0.86	0.90	0.99	0.80			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,584	1,570	1,627	1,014	78	65	12
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.0%*	*4.8%*	*4.6%*	*5.3%*	*4.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	117	117	189	0	65	0	29
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.4%*	*0.0%*	*5.5%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,905	2,518	2,711	4,388			
% Change in HOV Volumes								*4%*	*0%*	*0%*	*6%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	67,371	41,025	45,711	26,346	2,186	3,274	554
% Change in GP Volumes								*-5%*	*3%*	*3%*	*-15%*	*-37%*	*-65%*	*175%*
V/C Ratio	1.18	1.10	1.23	1.29				1.12	1.14	1.27	1.10			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,299	2,718	2,823	2,582	105	186	22
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.9%*	*6.6%*	*6.2%*	*9.8%*	*4.8%*	*5.7%*	*4.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	3	3	4	0	95	0	34
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.4%*	*0.0%*	*6.1%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,720	2,373	2,597	3,347			
% Change in HOV Volumes								*5%*	*-4%*	*-4%*	*12%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	133,712	83,198	95,174	50,514	10,771	6,975	1,018
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-12%*	*-60%*	*18%*
V/C Ratio	0.90	0.79	0.91	1.06				0.84	0.87	0.99	0.79			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,766	6,026	6,250	4,739	448	430	43
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.1%*	*7.2%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	165	165	239	0	1,745	11	55
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.4%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				4,450	1,177	1,438	3,274			
% Change in HOV Volumes								*11%*	*10%*	*-4%*	*11%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	252,807	156,717	176,508	96,090	14,857	12,331	2,095
% Change in GP Volumes								*-6%*	*9%*	*8%*	*-23%*	*-22%*	*-63%*	*55%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	18,650	10,314	10,699	8,336	631	681	77
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.4%*	*6.6%*	*6.1%*	*8.7%*	*4.2%*	*5.5%*	*3.7%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	286	286	432	0	1,905	11	117
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.8%*	*0.1%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				17,076	6,068	6,746	11,008			
% Change in HOV Volumes								*6%*	*0%*	*-2%*	*9%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				269,883	162,785	183,254	107,098			
% Change in Crosslake Volumes								*-6%*	*8%*	*7%*	*-21%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-24

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 4 Post-Processed Low Projections

Scenario 4	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	49,631	32,495	35,623	17,136	1,689	1,850	466
% Change in GP Volumes								*-11%*	*11%*	*10%*	*-35%*	*-50%*	*-72%*	*63%*
V/C Ratio	0.93	0.81	0.90	1.11				0.83	0.90	0.99	0.71			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,472	1,570	1,627	902	69	58	10
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*5.0%*	*4.8%*	*4.6%*	*5.3%*	*4.1%*	*3.1%*	*2.3%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	117	117	189	0	58	0	25
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.4%*	*0.0%*	*5.5%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,905	2,518	2,711	4,388			
% Change in HOV Volumes								*4%*	*0%*	*0%*	*6%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	64,444	40,678	45,364	23,766	1,943	2,910	492
% Change in GP Volumes								*-9%*	*2%*	*2%*	*-23%*	*-44%*	*-68%*	*144%*
V/C Ratio	1.18	1.10	1.23	1.29				1.07	1.13	1.26	0.99			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,013	2,718	2,823	2,295	93	165	20
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.8%*	*6.7%*	*6.2%*	*9.7%*	*4.8%*	*5.7%*	*4.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	3	3	4	0	85	0	30
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.4%*	*0.0%*	*6.1%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,720	2,373	2,597	3,347			
% Change in HOV Volumes								*5%*	*-4%*	*-4%*	*12%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,920	12,012	11,855	2,909			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	128,099	83,198	95,174	44,901	9,574	6,200	905
% Change in GP Volumes								*-11%*	*10%*	*9%*	*-34%*	*-22%*	*-65%*	*5%*
V/C Ratio	0.90	0.79	0.91	1.06				0.80	0.87	0.99	0.70			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,239	6,026	6,250	4,213	398	382	38
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.0%*	*7.2%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	165	165	239	0	1,551	9	49
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.4%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				4,450	1,177	1,438	3,274			
% Change in HOV Volumes								*11%*	*10%*	*-4%*	*11%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,115	13,050	12,879	2,065			
% Change in Transit Trips								*3%*	*0%*	*0%*	*23%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	242,174	156,371	176,161	85,803	13,206	10,961	1,863
% Change in GP Volumes								*-10%*	*8%*	*7%*	*-32%*	*-31%*	*-67%*	*38%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	17,724	10,314	10,699	7,410	561	605	69
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.3%*	*6.6%*	*6.1%*	*8.6%*	*4.2%*	*5.5%*	*3.7%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	286	286	432	0	1,693	10	104
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.8%*	*0.1%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				17,076	6,068	6,746	11,008			
% Change in HOV Volumes								*6%*	*0%*	*-2%*	*9%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,956	37,073	36,588	7,883			
% Change in Transit Trips								*4%*	*0%*	*0%*	*23%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				259,249	162,438	182,907	96,811			
% Change in Crosslake Volumes								*-9%*	*8%*	*7%*	*-29%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-25

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 5 Post-Processed High Projections

Scenario 5	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	57,110	29,654	33,227	27,456	4,472	6,738	269	53,524	32,924	36,503	20,600	2,998	1,866	475
% Change in GP Volumes								*-6%*	*11%*	*10%*	*-25%*	*-33%*	*-72%*	*76%*
V/C Ratio	0.95	0.82	0.92	1.14				0.89	0.91	1.01	0.86			
Medium and Heavy Trucks	2,730	1,313	1,378	1,417	124	292	6	2,661	1,650	1,716	1,010	91	51	11
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*5.0%*	*4.7%*	*4.9%*	*3.0%*	*2.7%*	*2.3%*
3+ HOV Vehicles in GP Lanes	120	101	162	19	80	480	6	96	96	162	0	46	0	24
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.5%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,675	997	1,142	2,678				4,013	810	952	3,202			
% Change in HOV Volumes								*9%*	*-19%*	*-17%*	*20%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,739	8,130	7,872	2,609			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	71,901	40,038	44,640	31,863	5,031	8,062	207	68,063	42,090	46,622	25,973	3,348	1,929	430
% Change in GP Volumes								*-5%*	*5%*	*4%*	*-18%*	*-33%*	*-76%*	*108%*
V/C Ratio	1.20	1.11	1.24	1.33				1.13	1.17	1.30	1.08			
Medium and Heavy Trucks	5,648	2,770	2,871	2,877	226	518	7	5,516	3,024	3,124	2,492	91	100	17
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.1%*	*7.2%*	*6.7%*	*9.6%*	*2.7%*	*5.2%*	*3.9%*
3+ HOV Vehicles in GP Lanes	80	77	134	3	465	277	5	68	68	122	0	663	0	16
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*19.8%*	*0.0%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	2,507	906	1,018	1,600				2,669	889	1,004	1,781			
% Change in HOV Volumes								*6%*	*-2%*	*-1%*	*11%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,739	8,130	7,872	2,609			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	141,980	71,764	84,239	70,216	14,719	18,926	833	130,040	84,689	96,951	45,351	12,137	10,811	977
% Change in GP Volumes								*-8%*	*18%*	*15%*	*-35%*	*-18%*	*-43%*	*17%*
V/C Ratio	0.89	0.75	0.88	1.10				0.81	0.88	1.01	0.71			
Medium and Heavy Trucks	11,574	5,622	5,850	5,952	714	1,289	34	11,131	6,762	6,986	4,369	564	693	39
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.6%*	*8.0%*	*7.2%*	*9.6%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	378	353	205	25	1,143	483	10	279	279	205	0	1,095	9	27
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.0%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	3,244	846	1,242	2,398				3,598	892	1,216	2,707			
% Change in HOV Volumes								*11%*	*5%*	*-2%*	*13%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,685	8,833	8,553	1,852			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	270,991	141,456	162,105	129,535	24,223	33,727	1,309	251,627	159,702	180,076	91,925	18,483	14,606	1,882
% Change in GP Volumes								*-7%*	*13%*	*11%*	*-29%*	*-24%*	*-57%*	*44%*
Medium and Heavy Trucks	19,952	9,705	10,099	10,246	1,064	2,098	46	19,308	11,436	11,826	7,872	745	844	67
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.2%*	*6.6%*	*8.6%*	*4.0%*	*5.8%*	*3.5%*
3+ HOV Vehicles in GP Lanes	578	530	501	48	1,687	1,241	21	443	443	489	0	1,804	9	67
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.8%*	*0.1%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	9,426	2,750	3,402	6,676				10,281	2,591	3,172	7,690			
% Change in HOV Volumes								*9%*	*-6%*	*-7%*	*15%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,164	25,094	24,297	7,070			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Total Crosslake Vehicle Volumes	280,417	144,206	165,507	136,211				261,908	162,293	183,248	99,615			
% Change in Crosslake Volumes								*-7%*	*13%*	*11%*	*-27%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-26

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 5 Post-Processed Base Projections

Scenario 5	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	48,172	30,537	33,758	17,634	2,698	1,679	427
% Change in GP Volumes								*-6%*	*14%*	*13%*	*-29%*	*-33%*	*-72%*	*76%*
V/C Ratio	0.86	0.74	0.83	1.03				0.80	0.85	0.94	0.73			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,395	1,485	1,544	909	82	46	10
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*3.0%*	*2.7%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	86	86	146	0	42	0	22
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.5%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,612	729	857	2,882			
% Change in HOV Volumes								*9%*	*-19%*	*-17%*	*20%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,739	8,130	7,872	2,609			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	61,257	37,881	41,960	23,376	3,013	1,736	387
% Change in GP Volumes								*-5%*	*5%*	*4%*	*-18%*	*-33%*	*-76%*	*108%*
V/C Ratio	1.08	1.00	1.12	1.19				1.02	1.05	1.17	0.97			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,964	2,721	2,811	2,243	82	90	15
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.1%*	*7.2%*	*6.7%*	*9.6%*	*2.7%*	*5.2%*	*3.9%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	62	62	110	0	597	0	14
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*19.8%*	*0.0%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,402	800	903	1,603			
% Change in HOV Volumes								*6%*	*-2%*	*-1%*	*11%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,739	8,130	7,872	2,609			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	117,036	76,220	87,256	40,816	10,923	9,730	880
% Change in GP Volumes								*-8%*	*18%*	*15%*	*-35%*	*-18%*	*-43%*	*17%*
V/C Ratio	0.80	0.67	0.79	0.99				0.73	0.79	0.91	0.64			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	10,018	6,086	6,288	3,932	507	624	35
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.6%*	*8.0%*	*7.2%*	*9.6%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	251	251	185	0	986	8	25
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.0%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				3,238	802	1,094	2,436			
% Change in HOV Volumes								*11%*	*5%*	*-2%*	*13%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,685	8,833	8,553	1,852			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	226,464	144,638	162,974	81,826	16,635	13,145	1,694
% Change in GP Volumes								*-7%*	*14%*	*12%*	*-30%*	*-24%*	*-57%*	*44%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	17,377	10,293	10,643	7,085	671	760	60
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.7%*	*7.1%*	*6.5%*	*8.7%*	*4.0%*	*5.8%*	*3.5%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	399	399	441	0	1,624	8	60
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.8%*	*0.1%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				9,252	2,332	2,855	6,921			
% Change in HOV Volumes								*9%*	*-6%*	*-7%*	*15%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,164	25,094	24,297	7,070			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				235,717	146,970	165,829	88,747			
% Change in Crosslake Volumes								*-7%*	*13%*	*11%*	*-28%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-27

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 5 Post-Processed Low Projections

Scenario 5	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	4,025	6,064	242	46,212	30,537	33,758	15,675	2,398	1,493	380
% Change in GP Volumes								*-10%*	*14%*	*13%*	*-37%*	*-40%*	*-75%*	*57%*
V/C Ratio	0.86	0.74	0.83	1.03				0.77	0.85	0.94	0.65			
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	112	262	5	2,294	1,485	1,544	808	73	40	9
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*2.8%*	*4.3%*	*2.2%*	*5.0%*	*4.9%*	*4.6%*	*5.2%*	*3.0%*	*2.7%*	*2.3%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	72	432	5	86	86	146	0	37	0	19
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*1.8%*	*7.1%*	*2.3%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*1.5%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410				3,612	729	857	2,882			
% Change in HOV Volumes								*9%*	*-19%*	*-17%*	*20%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,739	8,130	7,872	2,609			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	4,528	7,256	186	58,660	37,644	41,723	21,016	2,678	1,543	344
% Change in GP Volumes								*-9%*	*4%*	*4%*	*-27%*	*-41%*	*-79%*	*85%*
V/C Ratio	1.08	1.00	1.12	1.19				0.98	1.05	1.16	0.88			
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	204	466	6	4,715	2,721	2,811	1,994	73	80	13
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*4.5%*	*6.4%*	*3.2%*	*8.0%*	*7.2%*	*6.7%*	*9.5%*	*2.7%*	*5.2%*	*3.9%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	418	249	5	62	62	110	0	530	0	13
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*9.2%*	*3.4%*	*2.5%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*19.8%*	*0.0%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440				2,402	800	903	1,603			
% Change in HOV Volumes								*6%*	*-2%*	*-1%*	*11%*			
Transit Person Trips	10,310	7,933	7,683	2,377				10,739	8,130	7,872	2,609			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	13,248	17,034	750	112,501	76,220	87,256	36,281	9,710	8,649	782
% Change in GP Volumes								*-12%*	*18%*	*15%*	*-43%*	*-27%*	*-49%*	*4%*
V/C Ratio	0.80	0.67	0.79	0.99				0.70	0.79	0.91	0.57			
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	642	1,160	30	9,581	6,086	6,288	3,495	451	555	31
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*4.8%*	*6.8%*	*4.1%*	*8.5%*	*8.0%*	*7.2%*	*9.6%*	*4.6%*	*6.4%*	*4.0%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	1,028	435	9	251	251	185	0	876	8	22
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*7.8%*	*2.6%*	*1.2%*	*0.2%*	*0.3%*	*0.2%*	*0.0%*	*9.0%*	*0.1%*	*2.8%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158				3,238	802	1,094	2,436			
% Change in HOV Volumes								*11%*	*5%*	*-2%*	*13%*			
Transit Person Trips	10,307	8,619	8,347	1,688				10,685	8,833	8,553	1,852			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	21,801	30,354	1,178	217,373	144,401	162,737	72,971	14,786	11,684	1,506
% Change in GP Volumes								*-11%*	*13%*	*12%*	*-37%*	*-32%*	*-62%*	*28%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	958	1,888	42	16,590	10,293	10,643	6,298	596	675	53
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*4.4%*	*6.2%*	*3.5%*	*7.6%*	*7.1%*	*6.5%*	*8.6%*	*4.0%*	*5.8%*	*3.5%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	1,518	1,116	19	399	399	441	0	1,444	8	54
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*7.0%*	*3.7%*	*1.6%*	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*9.8%*	*0.1%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008				9,252	2,332	2,855	6,921			
% Change in HOV Volumes								*9%*	*-6%*	*-7%*	*15%*			
Total Transit Person Trips	30,927	24,486	23,713	6,441				32,164	25,094	24,297	7,070			
% Change in Transit Trips								*4%*	*2%*	*2%*	*10%*			
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590				226,625	146,733	165,592	79,892			
% Change in Crosslake Volumes								*-10%*	*13%*	*11%*	*-35%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-28

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 5 Post-Processed High Projections

Scenario 5	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	61,882	32,389	35,862	29,493	3,768	7,374	318	58,265	35,013	38,489	23,253	2,015	2,024	597
% Change in GP Volumes								*-6%*	*8%*	*7%*	*-21%*	*-47%*	*-73%*	*88%*
V/C Ratio	1.03	0.90	1.00	1.23				0.97	0.97	1.07	0.97			
Medium and Heavy Trucks	2,933	1,434	1,497	1,499	116	253	8	2,883	1,684	1,748	1,199	85	59	13
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*4.9%*	*4.8%*	*4.5%*	*5.2%*	*4.2%*	*2.9%*	*2.2%*
3+ HOV Vehicles in GP Lanes	151	136	209	14	205	719	7	130	130	209	0	71	0	32
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.5%*	*0.0%*	*5.3%*
3+ HOV Vehicles in HOV Lanes	7,386	2,806	3,027	4,580				7,601	2,785	2,999	4,817			
% Change in HOV Volumes								*3%*	*-1%*	*-1%*	*5%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,819	11,957	11,795	2,862			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	78,385	44,107	49,329	34,278	3,872	10,261	224	75,610	45,309	50,513	30,301	2,301	3,341	620
% Change in GP Volumes								*-4%*	*3%*	*2%*	*-12%*	*-41%*	*-67%*	*177%*
V/C Ratio	1.31	1.23	1.37	1.43				1.26	1.26	1.40	1.26			
Medium and Heavy Trucks	5,984	2,878	2,995	3,107	186	617	9	5,908	2,992	3,108	2,916	109	196	25
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.8%*	*6.6%*	*6.2%*	*9.6%*	*4.8%*	*5.9%*	*4.0%*
3+ HOV Vehicles in GP Lanes	52	45	25	7	258	103	5	4	4	5	0	97	0	43
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.2%*	*0.0%*	*7.0%*
3+ HOV Vehicles in HOV Lanes	6,070	2,735	3,004	3,335				6,310	2,633	2,881	3,677			
% Change in HOV Volumes								*4%*	*-4%*	*-4%*	*10%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,819	11,957	11,795	2,862			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	159,499	83,846	97,063	75,653	13,561	19,469	958	148,620	92,387	105,696	56,232	11,943	7,806	1,128
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-12%*	*-60%*	*18%*
V/C Ratio	1.00	0.87	1.01	1.18				0.93	0.96	1.10	0.88			
Medium and Heavy Trucks	12,250	6,008	6,259	6,242	628	1,123	43	11,966	6,706	6,954	5,260	497	480	48
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.1%*	*7.3%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	382	362	265	20	1,991	762	9	182	182	265	0	1,930	12	60
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.3%*
3+ HOV Vehicles in HOV Lanes	4,452	1,187	1,655	3,264				4,890	1,300	1,589	3,590			
% Change in HOV Volumes								*10%*	*10%*	*-4%*	*10%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,023	12,991	12,814	2,032			
% Change in Transit Trips								*2%*	*0%*	*0%*	*21%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	299,766	160,343	182,254	139,423	21,201	37,104	1,500	282,495	172,709	194,698	109,786	16,259	13,170	2,346
% Change in GP Volumes								*-6%*	*8%*	*7%*	*-21%*	*-23%*	*-65%*	*56%*
Medium and Heavy Trucks	21,167	10,320	10,751	10,847	930	1,993	59	20,757	11,382	11,810	9,375	691	736	86
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.3%*	*6.6%*	*6.1%*	*8.5%*	*4.3%*	*5.6%*	*3.7%*
3+ HOV Vehicles in GP Lanes	585	543	500	42	2,455	1,584	21	317	317	479	0	2,098	12	135
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.9%*	*0.1%*	*5.8%*
3+ HOV Vehicles in HOV Lanes	17,908	6,729	7,686	11,179				18,801	6,718	7,470	12,083			
% Change in HOV Volumes								*5%*	*0%*	*-3%*	*8%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,661	36,905	36,403	7,756			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
Total Crosslake Vehicle Volumes	317,674	167,072	189,940	150,603				301,297	179,427	202,168	121,870			
% Change in Crosslake Volumes								*-5%*	*7%*	*6%*	*-19%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-29

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 5 Post-Processed Base Projections

Scenario 5	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	52,439	31,909	35,038	20,530	1,813	1,822	538
% Change in GP Volumes								*-6%*	*9%*	*9%*	*-23%*	*-47%*	*-73%*	*88%*
V/C Ratio	0.93	0.81	0.90	1.11				0.87	0.89	0.97	0.86			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,594	1,516	1,573	1,079	76	53	12
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*4.9%*	*4.7%*	*4.5%*	*5.3%*	*4.2%*	*2.9%*	*2.2%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	117	117	188	0	64	0	29
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.5%*	*0.0%*	*5.3%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,841	2,506	2,699	4,335			
% Change in HOV Volumes								*3%*	*-1%*	*-1%*	*5%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,819	11,957	11,795	2,862			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	68,049	40,778	45,462	27,271	2,071	3,007	558
% Change in GP Volumes								*-4%*	*3%*	*2%*	*-12%*	*-41%*	*-67%*	*177%*
V/C Ratio	1.18	1.10	1.23	1.29				1.13	1.13	1.26	1.14			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,317	2,693	2,798	2,625	98	177	22
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.8%*	*6.6%*	*6.2%*	*9.6%*	*4.8%*	*5.9%*	*4.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	3	3	5	0	87	0	39
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.2%*	*0.0%*	*7.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,679	2,369	2,593	3,309			
% Change in HOV Volumes								*4%*	*-4%*	*-4%*	*10%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,819	11,957	11,795	2,862			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	133,758	83,149	95,126	50,609	10,749	7,025	1,016
% Change in GP Volumes								*-7%*	*10%*	*9%*	*-26%*	*-12%*	*-60%*	*18%*
V/C Ratio	0.90	0.79	0.91	1.06				0.84	0.87	0.99	0.79			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,770	6,036	6,259	4,734	447	432	43
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.1%*	*7.3%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	164	164	238	0	1,737	11	54
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.3%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				4,401	1,170	1,430	3,231			
% Change in HOV Volumes								*10%*	*10%*	*-4%*	*10%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,023	12,991	12,814	2,032			
% Change in Transit Trips								*2%*	*0%*	*0%*	*21%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	254,246	155,836	175,626	98,410	14,633	11,853	2,111
% Change in GP Volumes								*-6%*	*8%*	*7%*	*-22%*	*-23%*	*-65%*	*56%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	18,681	10,244	10,629	8,437	622	662	77
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.3%*	*6.6%*	*6.1%*	*8.6%*	*4.3%*	*5.6%*	*3.7%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	285	285	431	0	1,888	11	122
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.9%*	*0.1%*	*5.8%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				16,921	6,046	6,723	10,875			
% Change in HOV Volumes								*5%*	*0%*	*-3%*	*8%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,661	36,905	36,403	7,756			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				271,167	161,882	182,349	109,285			
% Change in Crosslake Volumes								*-5%*	*8%*	*7%*	*-19%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-30

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 5 Post-Processed Low Projections

Scenario 5	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	3,391	6,637	287	50,184	31,909	35,038	18,275	1,612	1,619	478
% Change in GP Volumes								*-10%*	*9%*	*9%*	*-31%*	*-52%*	*-76%*	*67%*
V/C Ratio	0.93	0.81	0.90	1.11				0.84	0.89	0.97	0.76			
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	105	228	7	2,474	1,516	1,573	959	68	47	11
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*3.1%*	*3.4%*	*2.5%*	*4.9%*	*4.7%*	*4.5%*	*5.2%*	*4.2%*	*2.9%*	*2.2%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	185	647	6	117	117	188	0	57	0	25
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*5.4%*	*9.7%*	*2.1%*	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*3.5%*	*0.0%*	*5.3%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122				6,841	2,506	2,699	4,335			
% Change in HOV Volumes								*3%*	*-1%*	*-1%*	*5%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,819	11,957	11,795	2,862			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	3,485	9,235	202	65,019	40,778	45,462	24,241	1,841	2,672	496
% Change in GP Volumes								*-8%*	*3%*	*2%*	*-21%*	*-47%*	*-71%*	*146%*
V/C Ratio	1.18	1.10	1.23	1.29				1.08	1.13	1.26	1.01			
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	167	555	8	5,026	2,693	2,798	2,333	88	157	20
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.8%*	*6.0%*	*3.9%*	*7.7%*	*6.6%*	*6.2%*	*9.6%*	*4.8%*	*5.9%*	*4.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	232	93	4	3	3	5	0	78	0	35
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*6.7%*	*1.0%*	*2.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.2%*	*0.0%*	*7.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002				5,679	2,369	2,593	3,309			
% Change in HOV Volumes								*4%*	*-4%*	*-4%*	*10%*			
Transit Person Trips	14,321	11,962	11,803	2,359				14,819	11,957	11,795	2,862			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	12,205	17,522	862	128,134	83,149	95,126	44,986	9,554	6,245	903
% Change in GP Volumes								*-11%*	*10%*	*9%*	*-34%*	*-22%*	*-64%*	*5%*
V/C Ratio	0.90	0.79	0.91	1.06				0.80	0.87	0.99	0.70			
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	566	1,011	38	10,244	6,036	6,259	4,208	398	384	38
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*4.6%*	*5.8%*	*4.5%*	*8.0%*	*7.3%*	*6.6%*	*9.4%*	*4.2%*	*6.2%*	*4.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	1,792	686	8	164	164	238	0	1,544	10	48
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*14.7%*	*3.9%*	*1.0%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*16.2%*	*0.2%*	*5.3%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938				4,401	1,170	1,430	3,231			
% Change in HOV Volumes								*10%*	*10%*	*-4%*	*10%*			
Transit Person Trips	14,671	12,996	12,823	1,675				15,023	12,991	12,814	2,032			
% Change in Transit Trips								*2%*	*0%*	*0%*	*21%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	19,081	33,394	1,350	243,338	155,836	175,626	87,502	13,007	10,536	1,877
% Change in GP Volumes								*-10%*	*8%*	*7%*	*-30%*	*-32%*	*-68%*	*39%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	837	1,794	53	17,744	10,244	10,629	7,500	553	589	69
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*4.4%*	*5.4%*	*3.9%*	*7.3%*	*6.6%*	*6.1%*	*8.6%*	*4.3%*	*5.6%*	*3.7%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	2,209	1,426	19	285	285	431	0	1,679	10	108
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*11.6%*	*4.3%*	*1.4%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*12.9%*	*0.1%*	*5.8%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061				16,921	6,046	6,723	10,875			
% Change in HOV Volumes								*5%*	*0%*	*-3%*	*8%*			
Total Transit Person Trips	43,314	36,921	36,428	6,393				44,661	36,905	36,403	7,756			
% Change in Transit Trips								*3%*	*0%*	*0%*	*21%*			
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542				260,259	161,882	182,349	98,377			
% Change in Crosslake Volumes								*-9%*	*8%*	*7%*	*-27%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-31

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2010 Scenario B Post-Processed High Projections

Scenario B	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	54,638	31,287	34,557	23,351	49,600	35,655	38,832	13,945
% Change in GP Volumes					*-9%*	*14%*	*12%*	*-40%*
V/C Ratio	0.91	0.87	0.96	0.97	0.83	0.99	1.08	0.58
Medium and Heavy Trucks	2,517	1,378	1,432	1,140	2,418	1,782	1,837	636
% Medium and Heavy Trucks	*4.6%*	*4.4%*	*4.1%*	*4.9%*	*4.9%*	*5.0%*	*4.7%*	*4.6%*
2+ HOV Vehicles in GP Lanes	2,293	833	1,111	1,460	1,672	1,401	1,679	271
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.7%*	*3.2%*	*6.3%*	*3.4%*	*3.9%*	*4.3%*	*1.9%*
2+ HOV Vehicles in HOV Lanes	2,673	2,673	2,709	0	3,102	3,102	3,137	0
% Change in HOV Volumes					*16%*	*16%*	*16%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	68,780	41,320	45,580	27,460	62,783	41,320	45,499	21,463
% Change in GP Volumes					*-9%*	*0%*	*0%*	*-22%*
V/C Ratio	1.15	1.15	1.27	1.14	1.05	1.15	1.26	0.89
Medium and Heavy Trucks	5,245	2,773	2,865	2,472	5,015	3,164	3,254	1,851
% Medium and Heavy Trucks	*7.6%*	*6.7%*	*6.3%*	*9.0%*	*8.0%*	*7.7%*	*7.2%*	*8.6%*
2+ HOV Vehicles in GP Lanes	1,604	756	862	848	1,054	818	922	236
% 2+ HOV Vehicles in GP Lanes	*2.3%*	*1.8%*	*1.9%*	*3.1%*	*1.7%*	*2.0%*	*2.0%*	*1.1%*
2+ HOV Vehicles in HOV Lanes	2,273	2,273	2,426	0	2,551	2,551	2,706	0
% Change in HOV Volumes					*12%*	*12%*	*12%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	138,427	79,255	91,372	59,172	123,517	91,155	102,677	32,362
% Change in GP Volumes					*-11%*	*15%*	*12%*	*-45%*
V/C Ratio	0.87	0.83	0.95	0.92	0.77	0.95	1.07	0.51
Medium and Heavy Trucks	10,797	5,740	5,947	5,057	10,251	6,995	7,195	3,256
% Medium and Heavy Trucks	*7.8%*	*7.2%*	*6.5%*	*8.5%*	*8.3%*	*7.7%*	*7.0%*	*10.1%*
2+ HOV Vehicles in GP Lanes	2,846	693	1,002	2,153	654	355	401	299
% 2+ HOV Vehicles in GP Lanes	*2.1%*	*0.9%*	*1.1%*	*3.6%*	*0.5%*	*0.4%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	2,987	2,987	3,067	0	4,913	4,913	5,253	0
% Change in HOV Volumes					*64%*	*64%*	*71%*	-
Transit Person Trips	6,072	3,145	3,158	2,927	6,368	2,991	2,949	3,377
% Change in Transit Trips					*5%*	*-5%*	*-7%*	*15%*
Daily (24 hrs)								
Total GP Vehicle Volumes	261,845	151,862	171,510	109,983	235,901	168,130	187,008	67,771
% Change in GP Volumes					*-10%*	*11%*	*9%*	*-38%*
Medium and Heavy Trucks	18,559	9,890	10,244	8,669	17,684	11,941	12,286	5,743
% Medium and Heavy Trucks	*7.1%*	*6.5%*	*6.0%*	*7.9%*	*7.5%*	*7.1%*	*6.6%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,742	2,282	2,975	4,460	3,380	2,574	3,002	806
% 2+ HOV Vehicles in GP Lanes	*2.6%*	*1.5%*	*1.7%*	*4.1%*	*1.4%*	*1.5%*	*1.6%*	*1.2%*
2+ HOV Vehicles in HOV Lanes	7,933	7,933	8,203	0	10,566	10,566	11,096	0
% Change in HOV Volumes					*33%*	*33%*	*35%*	-
Total Transit Person Trips	20,194	9,319	9,124	10,875	21,410	8,861	8,519	12,549
% Change in Transit Trips					*6%*	*-5%*	*-7%*	*15%*
Total Crosslake Vehicle Volumes	269,779	159,796	179,713	109,983	246,467	178,696	198,104	67,771
% Change in Crosslake Volumes					*-9%*	*12%*	*10%*	*-38%*

Exhibit B-32

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2010 Scenario B Post-Processed Base Projections

Scenario B	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	54,638	31,287	34,557	23,351	49,600	35,655	38,832	13,945
% Change in GP Volumes					*-9%*	*14%*	*12%*	*-40%*
V/C Ratio	0.91	0.87	0.96	0.97	0.83	0.99	1.08	0.58
Medium and Heavy Trucks	2,517	1,378	1,432	1,140	2,418	1,782	1,837	636
% Medium and Heavy Trucks	*4.6%*	*4.4%*	*4.1%*	*4.9%*	*4.9%*	*5.0%*	*4.7%*	*4.6%*
2+ HOV Vehicles in GP Lanes	2,293	833	1,111	1,460	1,672	1,401	1,679	271
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.7%*	*3.2%*	*6.3%*	*3.4%*	*3.9%*	*4.3%*	*1.9%*
2+ HOV Vehicles in HOV Lanes	2,673	2,673	2,709	0	3,102	3,102	3,137	0
% Change in HOV Volumes					*16%*	*16%*	*16%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	68,780	41,320	45,580	27,460	62,783	41,320	45,499	21,463
% Change in GP Volumes					*-9%*	*0%*	*0%*	*-22%*
V/C Ratio	1.15	1.15	1.27	1.14	1.05	1.15	1.26	0.89
Medium and Heavy Trucks	5,245	2,773	2,865	2,472	5,015	3,164	3,254	1,851
% Medium and Heavy Trucks	*7.6%*	*6.7%*	*6.3%*	*9.0%*	*8.0%*	*7.7%*	*7.2%*	*8.6%*
2+ HOV Vehicles in GP Lanes	1,604	756	862	848	1,054	818	922	236
% 2+ HOV Vehicles in GP Lanes	*2.3%*	*1.8%*	*1.9%*	*3.1%*	*1.7%*	*2.0%*	*2.0%*	*1.1%*
2+ HOV Vehicles in HOV Lanes	2,273	2,273	2,426	0	2,551	2,551	2,706	0
% Change in HOV Volumes					*12%*	*12%*	*12%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	138,427	79,255	91,372	59,172	123,517	91,155	102,677	32,362
% Change in GP Volumes					*-11%*	*15%*	*12%*	*-45%*
V/C Ratio	0.87	0.83	0.95	0.92	0.77	0.95	1.07	0.51
Medium and Heavy Trucks	10,797	5,740	5,947	5,057	10,251	6,995	7,195	3,256
% Medium and Heavy Trucks	*7.8%*	*7.2%*	*6.5%*	*8.5%*	*8.3%*	*7.7%*	*7.0%*	*10.1%*
2+ HOV Vehicles in GP Lanes	2,846	693	1,002	2,153	654	355	401	299
% 2+ HOV Vehicles in GP Lanes	*2.1%*	*0.9%*	*1.1%*	*3.6%*	*0.5%*	*0.4%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	2,987	2,987	3,067	0	4,913	4,913	5,253	0
% Change in HOV Volumes					*64%*	*64%*	*71%*	-
Transit Person Trips	6,072	3,145	3,158	2,927	6,368	2,991	2,949	3,377
% Change in Transit Trips					*5%*	*-5%*	*-7%*	*15%*
Daily (24 hrs)								
Total GP Vehicle Volumes	261,845	151,862	171,510	109,983	235,901	168,130	187,008	67,771
% Change in GP Volumes					*-10%*	*11%*	*9%*	*-38%*
Medium and Heavy Trucks	18,559	9,890	10,244	8,669	17,684	11,941	12,286	5,743
% Medium and Heavy Trucks	*7.1%*	*6.5%*	*6.0%*	*7.9%*	*7.5%*	*7.1%*	*6.6%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,742	2,282	2,975	4,460	3,380	2,574	3,002	806
% 2+ HOV Vehicles in GP Lanes	*2.6%*	*1.5%*	*1.7%*	*4.1%*	*1.4%*	*1.5%*	*1.6%*	*1.2%*
2+ HOV Vehicles in HOV Lanes	7,933	7,933	8,203	0	10,566	10,566	11,096	0
% Change in HOV Volumes					*33%*	*33%*	*35%*	-
Total Transit Person Trips	20,194	9,319	9,124	10,875	21,410	8,861	8,519	12,549
% Change in Transit Trips					*6%*	*-5%*	*-7%*	*15%*
Total Crosslake Vehicle Volumes	269,779	159,796	179,713	109,983	246,467	178,696	198,104	67,771
% Change in Crosslake Volumes					*-9%*	*12%*	*10%*	*-38%*

Exhibit B-33

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2010 Scenario B Post-Processed Low Projections

Scenario B	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	54,638	31,287	34,557	23,351	48,335	35,655	38,832	12,680
% Change in GP Volumes					*-12%*	*14%*	*12%*	*-46%*
V/C Ratio	0.91	0.87	0.96	0.97	0.81	0.99	1.08	0.53
Medium and Heavy Trucks	2,517	1,378	1,432	1,140	2,354	1,782	1,837	572
% Medium and Heavy Trucks	*4.6%*	*4.4%*	*4.1%*	*4.9%*	*4.9%*	*5.0%*	*4.7%*	*4.5%*
2+ HOV Vehicles in GP Lanes	2,293	833	1,111	1,460	1,645	1,401	1,679	244
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.7%*	*3.2%*	*6.3%*	*3.4%*	*3.9%*	*4.3%*	*1.9%*
2+ HOV Vehicles in HOV Lanes	2,673	2,673	2,709	0	3,102	3,102	3,137	0
% Change in HOV Volumes					*16%*	*16%*	*16%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	68,780	41,320	45,580	27,460	60,919	41,320	45,499	19,599
% Change in GP Volumes					*-11%*	*0%*	*0%*	*-29%*
V/C Ratio	1.15	1.15	1.27	1.14	1.02	1.15	1.26	0.82
Medium and Heavy Trucks	5,245	2,773	2,865	2,472	4,830	3,164	3,254	1,666
% Medium and Heavy Trucks	*7.6%*	*6.7%*	*6.3%*	*9.0%*	*7.9%*	*7.7%*	*7.2%*	*8.5%*
2+ HOV Vehicles in GP Lanes	1,604	756	862	848	1,031	818	922	213
% 2+ HOV Vehicles in GP Lanes	*2.3%*	*1.8%*	*1.9%*	*3.1%*	*1.7%*	*2.0%*	*2.0%*	*1.1%*
2+ HOV Vehicles in HOV Lanes	2,273	2,273	2,426	0	2,551	2,551	2,706	0
% Change in HOV Volumes					*12%*	*12%*	*12%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	138,427	79,255	91,372	59,172	120,281	91,155	102,677	29,126
% Change in GP Volumes					*-13%*	*15%*	*12%*	*-51%*
V/C Ratio	0.87	0.83	0.95	0.92	0.75	0.95	1.07	0.46
Medium and Heavy Trucks	10,797	5,740	5,947	5,057	9,925	6,995	7,195	2,930
% Medium and Heavy Trucks	*7.8%*	*7.2%*	*6.5%*	*8.5%*	*8.3%*	*7.7%*	*7.0%*	*10.1%*
2+ HOV Vehicles in GP Lanes	2,846	693	1,002	2,153	624	355	401	269
% 2+ HOV Vehicles in GP Lanes	*2.1%*	*0.9%*	*1.1%*	*3.6%*	*0.5%*	*0.4%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	2,987	2,987	3,067	0	4,913	4,913	5,253	0
% Change in HOV Volumes					*64%*	*64%*	*71%*	-
Transit Person Trips	6,072	3,145	3,158	2,927	6,368	2,991	2,949	3,377
% Change in Transit Trips					*5%*	*-5%*	*-7%*	*15%*
Daily (24 hrs)								
Total GP Vehicle Volumes	261,845	151,862	171,510	109,983	229,535	168,130	187,008	61,405
% Change in GP Volumes					*-12%*	*11%*	*9%*	*-44%*
Medium and Heavy Trucks	18,559	9,890	10,244	8,669	17,110	11,941	12,286	5,169
% Medium and Heavy Trucks	*7.1%*	*6.5%*	*6.0%*	*7.9%*	*7.5%*	*7.1%*	*6.6%*	*8.4%*
2+ HOV Vehicles in GP Lanes	6,742	2,282	2,975	4,460	3,299	2,574	3,002	725
% 2+ HOV Vehicles in GP Lanes	*2.6%*	*1.5%*	*1.7%*	*4.1%*	*1.4%*	*1.5%*	*1.6%*	*1.2%*
2+ HOV Vehicles in HOV Lanes	7,933	7,933	8,203	0	10,566	10,566	11,096	0
% Change in HOV Volumes					*33%*	*33%*	*35%*	-
Total Transit Person Trips	20,194	9,319	9,124	10,875	21,410	8,861	8,519	12,549
% Change in Transit Trips					*6%*	*-5%*	*-7%*	*15%*
Total Crosslake Vehicle Volumes	269,779	159,796	179,713	109,983	240,102	178,696	198,104	61,405
% Change in Crosslake Volumes					*-11%*	*12%*	*10%*	*-44%*

Exhibit B-34

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2020 Scenario B Post-Processed High Projections

Scenario B	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	59,419	34,578	38,087	24,841	54,407	37,867	41,345	16,539
% Change in GP Volumes					*-8%*	*10%*	*9%*	*-33%*
V/C Ratio	0.99	0.96	1.06	1.04	0.91	1.05	1.15	0.69
Medium and Heavy Trucks	2,605	1,420	1,480	1,184	2,525	1,727	1,787	797
% Medium and Heavy Trucks	*4.4%*	*4.1%*	*3.9%*	*4.8%*	*4.6%*	*4.6%*	*4.3%*	*4.8%*
2+ HOV Vehicles in GP Lanes	2,494	896	1,230	1,597	1,892	1,371	1,704	522
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.6%*	*3.2%*	*6.4%*	*3.5%*	*3.6%*	*4.1%*	*3.2%*
2+ HOV Vehicles in HOV Lanes	3,190	3,190	3,224	0	3,554	3,554	3,586	0
% Change in HOV Volumes					*11%*	*11%*	*11%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	73,610	44,196	49,368	29,414	68,526	44,599	49,704	23,928
% Change in GP Volumes					*-7%*	*1%*	*1%*	*-19%*
V/C Ratio	1.23	1.23	1.37	1.23	1.14	1.24	1.38	1.00
Medium and Heavy Trucks	5,269	2,689	2,803	2,580	5,145	2,923	3,036	2,222
% Medium and Heavy Trucks	*7.2%*	*6.1%*	*5.7%*	*8.8%*	*7.5%*	*6.6%*	*6.1%*	*9.3%*
2+ HOV Vehicles in GP Lanes	1,409	672	830	736	1,053	659	816	394
% 2+ HOV Vehicles in GP Lanes	*1.9%*	*1.5%*	*1.7%*	*2.5%*	*1.5%*	*1.5%*	*1.6%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	2,951	2,951	3,091	0	3,079	3,079	3,217	0
% Change in HOV Volumes					*4%*	*4%*	*4%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	150,544	87,342	100,283	63,201	136,883	96,655	109,485	40,228
% Change in GP Volumes					*-9%*	*11%*	*9%*	*-36%*
V/C Ratio	0.94	0.91	1.04	0.99	0.86	1.01	1.14	0.63
Medium and Heavy Trucks	10,875	5,836	6,076	5,039	10,514	6,652	6,888	3,862
% Medium and Heavy Trucks	*7.2%*	*6.7%*	*6.1%*	*8.0%*	*7.7%*	*6.9%*	*6.3%*	*9.6%*
2+ HOV Vehicles in GP Lanes	2,340	369	463	1,971	671	324	452	347
% 2+ HOV Vehicles in GP Lanes	*1.6%*	*0.4%*	*0.5%*	*3.1%*	*0.5%*	*0.3%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	3,806	3,806	4,192	0	5,182	5,182	5,531	0
% Change in HOV Volumes					*36%*	*36%*	*32%*	-
Transit Person Trips	7,821	4,123	4,126	3,698	8,147	3,859	3,808	4,288
% Change in Transit Trips					*4%*	*-6%*	*-8%*	*16%*
Daily (24 hrs)								
Total GP Vehicle Volumes	283,572	166,115	187,739	117,457	259,816	179,121	200,535	80,695
% Change in GP Volumes					*-8%*	*8%*	*7%*	*-31%*
Medium and Heavy Trucks	18,749	9,946	10,359	8,803	18,184	11,302	11,710	6,882
% Medium and Heavy Trucks	*6.6%*	*6.0%*	*5.5%*	*7.5%*	*7.0%*	*6.3%*	*5.8%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,243	1,938	2,523	4,305	3,616	2,353	2,972	1,263
% 2+ HOV Vehicles in GP Lanes	*2.2%*	*1.2%*	*1.3%*	*3.7%*	*1.4%*	*1.3%*	*1.5%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	9,946	9,946	10,507	0	11,815	11,815	12,335	0
% Change in HOV Volumes					*19%*	*19%*	*17%*	-
Total Transit Person Trips	26,003	12,287	11,936	13,716	27,403	11,501	11,014	15,902
% Change in Transit Trips					*5%*	*-6%*	*-8%*	*16%*
Total Crosslake Vehicle Volumes	293,518	176,062	198,245	117,457	271,631	190,936	212,869	80,695
% Change in Crosslake Volumes					*-7%*	*8%*	*7%*	*-31%*

Exhibit B-35

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2020 Scenario B Post-Processed Base Projections

Scenario B	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	59,419	34,578	38,087	24,841	54,407	37,867	41,345	16,539
% Change in GP Volumes					*-8%*	*10%*	*9%*	*-33%*
V/C Ratio	0.99	0.96	1.06	1.04	0.91	1.05	1.15	0.69
Medium and Heavy Trucks	2,605	1,420	1,480	1,184	2,525	1,727	1,787	797
% Medium and Heavy Trucks	*4.4%*	*4.1%*	*3.9%*	*4.8%*	*4.6%*	*4.6%*	*4.3%*	*4.8%*
2+ HOV Vehicles in GP Lanes	2,494	896	1,230	1,597	1,892	1,371	1,704	522
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.6%*	*3.2%*	*6.4%*	*3.5%*	*3.6%*	*4.1%*	*3.2%*
2+ HOV Vehicles in HOV Lanes	3,190	3,190	3,224	0	3,554	3,554	3,586	0
% Change in HOV Volumes					*11%*	*11%*	*11%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	73,610	44,196	49,368	29,414	68,526	44,599	49,704	23,928
% Change in GP Volumes					*-7%*	*1%*	*1%*	*-19%*
V/C Ratio	1.23	1.23	1.37	1.23	1.14	1.24	1.38	1.00
Medium and Heavy Trucks	5,269	2,689	2,803	2,580	5,145	2,923	3,036	2,222
% Medium and Heavy Trucks	*7.2%*	*6.1%*	*5.7%*	*8.8%*	*7.5%*	*6.6%*	*6.1%*	*9.3%*
2+ HOV Vehicles in GP Lanes	1,409	672	830	736	1,053	659	816	394
% 2+ HOV Vehicles in GP Lanes	*1.9%*	*1.5%*	*1.7%*	*2.5%*	*1.5%*	*1.5%*	*1.6%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	2,951	2,951	3,091	0	3,079	3,079	3,217	0
% Change in HOV Volumes					*4%*	*4%*	*4%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	150,544	87,342	100,283	63,201	136,883	96,655	109,485	40,228
% Change in GP Volumes					*-9%*	*11%*	*9%*	*-36%*
V/C Ratio	0.94	0.91	1.04	0.99	0.86	1.01	1.14	0.63
Medium and Heavy Trucks	10,875	5,836	6,076	5,039	10,514	6,652	6,888	3,862
% Medium and Heavy Trucks	*7.2%*	*6.7%*	*6.1%*	*8.0%*	*7.7%*	*6.9%*	*6.3%*	*9.6%*
2+ HOV Vehicles in GP Lanes	2,340	369	463	1,971	671	324	452	347
% 2+ HOV Vehicles in GP Lanes	*1.6%*	*0.4%*	*0.5%*	*3.1%*	*0.5%*	*0.3%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	3,806	3,806	4,192	0	5,182	5,182	5,531	0
% Change in HOV Volumes					*36%*	*36%*	*32%*	-
Transit Person Trips	7,821	4,123	4,126	3,698	8,147	3,859	3,808	4,288
% Change in Transit Trips					*4%*	*-6%*	*-8%*	*16%*
Daily (24 hrs)								
Total GP Vehicle Volumes	283,572	166,115	187,739	117,457	259,816	179,121	200,535	80,695
% Change in GP Volumes					*-8%*	*8%*	*7%*	*-31%*
Medium and Heavy Trucks	18,749	9,946	10,359	8,803	18,184	11,302	11,710	6,882
% Medium and Heavy Trucks	*6.6%*	*6.0%*	*5.5%*	*7.5%*	*7.0%*	*6.3%*	*5.8%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,243	1,938	2,523	4,305	3,616	2,353	2,972	1,263
% 2+ HOV Vehicles in GP Lanes	*2.2%*	*1.2%*	*1.3%*	*3.7%*	*1.4%*	*1.3%*	*1.5%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	9,946	9,946	10,507	0	11,815	11,815	12,335	0
% Change in HOV Volumes					*19%*	*19%*	*17%*	-
Total Transit Person Trips	26,003	12,287	11,936	13,716	27,403	11,501	11,014	15,902
% Change in Transit Trips					*5%*	*-6%*	*-8%*	*16%*
Total Crosslake Vehicle Volumes	293,518	176,062	198,245	117,457	271,631	190,936	212,869	80,695
% Change in Crosslake Volumes					*-7%*	*8%*	*7%*	*-31%*

Exhibit B-36

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2020 Scenario B Post-Processed Low Projections

Scenario B	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	59,419	34,578	38,087	24,841	52,849	37,867	41,345	14,982
% Change in GP Volumes					*-11%*	*10%*	*9%*	*-40%*
V/C Ratio	0.99	0.96	1.06	1.04	0.88	1.05	1.15	0.62
Medium and Heavy Trucks	2,605	1,420	1,480	1,184	2,445	1,727	1,787	718
% Medium and Heavy Trucks	*4.4%*	*4.1%*	*3.9%*	*4.8%*	*4.6%*	*4.6%*	*4.3%*	*4.8%*
2+ HOV Vehicles in GP Lanes	2,494	896	1,230	1,597	1,840	1,371	1,704	470
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.6%*	*3.2%*	*6.4%*	*3.5%*	*3.6%*	*4.1%*	*3.1%*
2+ HOV Vehicles in HOV Lanes	3,190	3,190	3,224	0	3,554	3,554	3,586	0
% Change in HOV Volumes					*11%*	*11%*	*11%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	73,610	44,196	49,368	29,414	66,266	44,196	49,301	22,070
% Change in GP Volumes					*-10%*	*0%*	*0%*	*-25%*
V/C Ratio	1.23	1.23	1.37	1.23	1.10	1.23	1.37	0.92
Medium and Heavy Trucks	5,269	2,689	2,803	2,580	4,923	2,923	3,036	2,000
% Medium and Heavy Trucks	*7.2%*	*6.1%*	*5.7%*	*8.8%*	*7.4%*	*6.6%*	*6.2%*	*9.1%*
2+ HOV Vehicles in GP Lanes	1,409	672	830	736	1,013	659	816	355
% 2+ HOV Vehicles in GP Lanes	*1.9%*	*1.5%*	*1.7%*	*2.5%*	*1.5%*	*1.5%*	*1.7%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	2,951	2,951	3,091	0	3,079	3,079	3,217	0
% Change in HOV Volumes					*4%*	*4%*	*4%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	150,544	87,342	100,283	63,201	132,861	96,655	109,485	36,205
% Change in GP Volumes					*-12%*	*11%*	*9%*	*-43%*
V/C Ratio	0.94	0.91	1.04	0.99	0.83	1.01	1.14	0.57
Medium and Heavy Trucks	10,875	5,836	6,076	5,039	10,128	6,652	6,888	3,476
% Medium and Heavy Trucks	*7.2%*	*6.7%*	*6.1%*	*8.0%*	*7.6%*	*6.9%*	*6.3%*	*9.6%*
2+ HOV Vehicles in GP Lanes	2,340	369	463	1,971	636	324	452	312
% 2+ HOV Vehicles in GP Lanes	*1.6%*	*0.4%*	*0.5%*	*3.1%*	*0.5%*	*0.3%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	3,806	3,806	4,192	0	5,182	5,182	5,531	0
% Change in HOV Volumes					*36%*	*36%*	*32%*	-
Transit Person Trips	7,821	4,123	4,126	3,698	8,147	3,859	3,808	4,288
% Change in Transit Trips					*4%*	*-6%*	*-8%*	*16%*
Daily (24 hrs)								
Total GP Vehicle Volumes	283,572	166,115	187,739	117,457	251,976	178,718	200,132	73,258
% Change in GP Volumes					*-11%*	*8%*	*7%*	*-38%*
Medium and Heavy Trucks	18,749	9,946	10,359	8,803	17,496	11,302	11,710	6,194
% Medium and Heavy Trucks	*6.6%*	*6.0%*	*5.5%*	*7.5%*	*6.9%*	*6.3%*	*5.9%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,243	1,938	2,523	4,305	3,490	2,353	2,972	1,136
% 2+ HOV Vehicles in GP Lanes	*2.2%*	*1.2%*	*1.3%*	*3.7%*	*1.4%*	*1.3%*	*1.5%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	9,946	9,946	10,507	0	11,815	11,815	12,335	0
% Change in HOV Volumes					*19%*	*19%*	*17%*	-
Total Transit Person Trips	26,003	12,287	11,936	13,716	27,403	11,501	11,014	15,902
% Change in Transit Trips					*5%*	*-6%*	*-8%*	*16%*
Total Crosslake Vehicle Volumes	293,518	176,062	198,245	117,457	263,791	190,533	212,467	73,258
% Change in Crosslake Volumes					*-10%*	*8%*	*7%*	*-38%*

Exhibit B-37

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2010 Scenario B5 Post-Processed High Projections

Scenario B5	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	54,638	31,287	34,557	23,351	50,517	34,892	38,110	15,625
% Change in GP Volumes					*-8%*	*12%*	*10%*	*-33%*
V/C Ratio	0.91	0.87	0.96	0.97	0.84	0.97	1.06	0.65
Medium and Heavy Trucks	2,517	1,378	1,432	1,140	2,443	1,717	1,772	726
% Medium and Heavy Trucks	*4.6%*	*4.4%*	*4.1%*	*4.9%*	*4.8%*	*4.9%*	*4.6%*	*4.6%*
2+ HOV Vehicles in GP Lanes	2,293	833	1,111	1,460	1,771	1,285	1,563	487
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.7%*	*3.2%*	*6.3%*	*3.5%*	*3.7%*	*4.1%*	*3.1%*
2+ HOV Vehicles in HOV Lanes	2,673	2,673	2,709	0	3,023	3,023	3,059	0
% Change in HOV Volumes					*13%*	*13%*	*13%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	68,780	41,320	45,580	27,460	64,143	41,320	45,484	22,823
% Change in GP Volumes					*-7%*	*0%*	*0%*	*-17%*
V/C Ratio	1.15	1.15	1.27	1.14	1.07	1.15	1.26	0.95
Medium and Heavy Trucks	5,245	2,773	2,865	2,472	5,067	3,080	3,169	1,988
% Medium and Heavy Trucks	*7.6%*	*6.7%*	*6.3%*	*9.0%*	*7.9%*	*7.5%*	*7.0%*	*8.7%*
2+ HOV Vehicles in GP Lanes	1,604	756	862	848	1,130	787	862	342
% 2+ HOV Vehicles in GP Lanes	*2.3%*	*1.8%*	*1.9%*	*3.1%*	*1.8%*	*1.9%*	*1.9%*	*1.5%*
2+ HOV Vehicles in HOV Lanes	2,273	2,273	2,426	0	2,484	2,484	2,668	0
% Change in HOV Volumes					*9%*	*9%*	*10%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	138,427	79,255	91,372	59,172	123,495	91,083	102,556	32,412
% Change in GP Volumes					*-11%*	*15%*	*12%*	*-45%*
V/C Ratio	0.87	0.83	0.95	0.92	0.77	0.95	1.07	0.51
Medium and Heavy Trucks	10,797	5,740	5,947	5,057	10,248	7,000	7,199	3,248
% Medium and Heavy Trucks	*7.8%*	*7.2%*	*6.5%*	*8.5%*	*8.3%*	*7.7%*	*7.0%*	*10.0%*
2+ HOV Vehicles in GP Lanes	2,846	693	1,002	2,153	654	353	401	301
% 2+ HOV Vehicles in GP Lanes	*2.1%*	*0.9%*	*1.1%*	*3.6%*	*0.5%*	*0.4%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	2,987	2,987	3,067	0	4,863	4,863	5,202	0
% Change in HOV Volumes					*63%*	*63%*	*70%*	-
Transit Person Trips	6,072	3,145	3,158	2,927	6,368	2,991	2,949	3,377
% Change in Transit Trips					*5%*	*-5%*	*-7%*	*15%*
Daily (24 hrs)								
Total GP Vehicle Volumes	261,845	151,862	171,510	109,983	238,155	167,296	186,150	70,860
% Change in GP Volumes					*-9%*	*10%*	*9%*	*-36%*
Medium and Heavy Trucks	18,559	9,890	10,244	8,669	17,758	11,797	12,141	5,961
% Medium and Heavy Trucks	*7.1%*	*6.5%*	*6.0%*	*7.9%*	*7.5%*	*7.1%*	*6.5%*	*8.4%*
2+ HOV Vehicles in GP Lanes	6,742	2,282	2,975	4,460	3,554	2,425	2,826	1,130
% 2+ HOV Vehicles in GP Lanes	*2.6%*	*1.5%*	*1.7%*	*4.1%*	*1.5%*	*1.4%*	*1.5%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	7,933	7,933	8,203	0	10,371	10,371	10,929	0
% Change in HOV Volumes					*31%*	*31%*	*33%*	-
Total Transit Person Trips	20,194	9,319	9,124	10,875	21,410	8,861	8,519	12,549
% Change in Transit Trips					*6%*	*-5%*	*-7%*	*15%*
Total Crosslake Vehicle Volumes	269,779	159,796	179,713	109,983	248,526	177,666	197,078	70,860
% Change in Crosslake Volumes					*-8%*	*11%*	*10%*	*-36%*

Exhibit B-38

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2010 Scenario B5 Post-Processed Base Projections

Scenario B5	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	54,638	31,287	34,557	23,351	50,517	34,892	38,110	15,625
% Change in GP Volumes					*-8%*	*12%*	*10%*	*-33%*
V/C Ratio	0.91	0.87	0.96	0.97	0.84	0.97	1.06	0.65
Medium and Heavy Trucks	2,517	1,378	1,432	1,140	2,443	1,717	1,772	726
% Medium and Heavy Trucks	*4.6%*	*4.4%*	*4.1%*	*4.9%*	*4.8%*	*4.9%*	*4.6%*	*4.6%*
2+ HOV Vehicles in GP Lanes	2,293	833	1,111	1,460	1,771	1,285	1,563	487
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.7%*	*3.2%*	*6.3%*	*3.5%*	*3.7%*	*4.1%*	*3.1%*
2+ HOV Vehicles in HOV Lanes	2,673	2,673	2,709	0	3,023	3,023	3,059	0
% Change in HOV Volumes					*13%*	*13%*	*13%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	68,780	41,320	45,580	27,460	64,143	41,320	45,484	22,823
% Change in GP Volumes					*-7%*	*0%*	*0%*	*-17%*
V/C Ratio	1.15	1.15	1.27	1.14	1.07	1.15	1.26	0.95
Medium and Heavy Trucks	5,245	2,773	2,865	2,472	5,067	3,080	3,169	1,988
% Medium and Heavy Trucks	*7.6%*	*6.7%*	*6.3%*	*9.0%*	*7.9%*	*7.5%*	*7.0%*	*8.7%*
2+ HOV Vehicles in GP Lanes	1,604	756	862	848	1,130	787	862	342
% 2+ HOV Vehicles in GP Lanes	*2.3%*	*1.8%*	*1.9%*	*3.1%*	*1.8%*	*1.9%*	*1.9%*	*1.5%*
2+ HOV Vehicles in HOV Lanes	2,273	2,273	2,426	0	2,484	2,484	2,668	0
% Change in HOV Volumes					*9%*	*9%*	*10%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	138,427	79,255	91,372	59,172	123,495	91,083	102,556	32,412
% Change in GP Volumes					*-11%*	*15%*	*12%*	*-45%*
V/C Ratio	0.87	0.83	0.95	0.92	0.77	0.95	1.07	0.51
Medium and Heavy Trucks	10,797	5,740	5,947	5,057	10,248	7,000	7,199	3,248
% Medium and Heavy Trucks	*7.8%*	*7.2%*	*6.5%*	*8.5%*	*8.3%*	*7.7%*	*7.0%*	*10.0%*
2+ HOV Vehicles in GP Lanes	2,846	693	1,002	2,153	654	353	401	301
% 2+ HOV Vehicles in GP Lanes	*2.1%*	*0.9%*	*1.1%*	*3.6%*	*0.5%*	*0.4%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	2,987	2,987	3,067	0	4,863	4,863	5,202	0
% Change in HOV Volumes					*63%*	*63%*	*70%*	-
Transit Person Trips	6,072	3,145	3,158	2,927	6,368	2,991	2,949	3,377
% Change in Transit Trips					*5%*	*-5%*	*-7%*	*15%*
Daily (24 hrs)								
Total GP Vehicle Volumes	261,845	151,862	171,510	109,983	238,155	167,296	186,150	70,860
% Change in GP Volumes					*-9%*	*10%*	*9%*	*-36%*
Medium and Heavy Trucks	18,559	9,890	10,244	8,669	17,758	11,797	12,141	5,961
% Medium and Heavy Trucks	*7.1%*	*6.5%*	*6.0%*	*7.9%*	*7.5%*	*7.1%*	*6.5%*	*8.4%*
2+ HOV Vehicles in GP Lanes	6,742	2,282	2,975	4,460	3,554	2,425	2,826	1,130
% 2+ HOV Vehicles in GP Lanes	*2.6%*	*1.5%*	*1.7%*	*4.1%*	*1.5%*	*1.4%*	*1.5%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	7,933	7,933	8,203	0	10,371	10,371	10,929	0
% Change in HOV Volumes					*31%*	*31%*	*33%*	-
Total Transit Person Trips	20,194	9,319	9,124	10,875	21,410	8,861	8,519	12,549
% Change in Transit Trips					*6%*	*-5%*	*-7%*	*15%*
Total Crosslake Vehicle Volumes	269,779	159,796	179,713	109,983	248,526	177,666	197,078	70,860
% Change in Crosslake Volumes					*-8%*	*11%*	*10%*	*-36%*

Exhibit B-39

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2010 Scenario B5 Post-Processed Low Projections

Scenario B5	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	54,638	31,287	34,557	23,351	49,057	34,892	38,110	14,165
% Change in GP Volumes					*-10%*	*12%*	*10%*	*-39%*
V/C Ratio	0.91	0.87	0.96	0.97	0.82	0.97	1.06	0.59
Medium and Heavy Trucks	2,517	1,378	1,432	1,140	2,371	1,717	1,772	653
% Medium and Heavy Trucks	*4.6%*	*4.4%*	*4.1%*	*4.9%*	*4.8%*	*4.9%*	*4.6%*	*4.6%*
2+ HOV Vehicles in GP Lanes	2,293	833	1,111	1,460	1,722	1,285	1,563	438
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.7%*	*3.2%*	*6.3%*	*3.5%*	*3.7%*	*4.1%*	*3.1%*
2+ HOV Vehicles in HOV Lanes	2,673	2,673	2,709	0	3,023	3,023	3,059	0
% Change in HOV Volumes					*13%*	*13%*	*13%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	68,780	41,320	45,580	27,460	62,095	41,320	45,484	20,775
% Change in GP Volumes					*-10%*	*0%*	*0%*	*-24%*
V/C Ratio	1.15	1.15	1.27	1.14	1.03	1.15	1.26	0.87
Medium and Heavy Trucks	5,245	2,773	2,865	2,472	4,868	3,080	3,169	1,789
% Medium and Heavy Trucks	*7.6%*	*6.7%*	*6.3%*	*9.0%*	*7.8%*	*7.5%*	*7.0%*	*8.6%*
2+ HOV Vehicles in GP Lanes	1,604	756	862	848	1,095	787	862	308
% 2+ HOV Vehicles in GP Lanes	*2.3%*	*1.8%*	*1.9%*	*3.1%*	*1.8%*	*1.9%*	*1.9%*	*1.5%*
2+ HOV Vehicles in HOV Lanes	2,273	2,273	2,426	0	2,484	2,484	2,668	0
% Change in HOV Volumes					*9%*	*9%*	*10%*	-
Transit Person Trips	7,061	3,087	2,983	3,974	7,521	2,935	2,785	4,586
% Change in Transit Trips					*7%*	*-5%*	*-7%*	*15%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	138,427	79,255	91,372	59,172	120,254	91,083	102,556	29,171
% Change in GP Volumes					*-13%*	*15%*	*12%*	*-51%*
V/C Ratio	0.87	0.83	0.95	0.92	0.75	0.95	1.07	0.46
Medium and Heavy Trucks	10,797	5,740	5,947	5,057	9,923	7,000	7,199	2,923
% Medium and Heavy Trucks	*7.8%*	*7.2%*	*6.5%*	*8.5%*	*8.3%*	*7.7%*	*7.0%*	*10.0%*
2+ HOV Vehicles in GP Lanes	2,846	693	1,002	2,153	623	353	401	271
% 2+ HOV Vehicles in GP Lanes	*2.1%*	*0.9%*	*1.1%*	*3.6%*	*0.5%*	*0.4%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	2,987	2,987	3,067	0	4,863	4,863	5,202	0
% Change in HOV Volumes					*63%*	*63%*	*70%*	-
Transit Person Trips	6,072	3,145	3,158	2,927	6,368	2,991	2,949	3,377
% Change in Transit Trips					*5%*	*-5%*	*-7%*	*15%*
Daily (24 hrs)								
Total GP Vehicle Volumes	261,845	151,862	171,510	109,983	231,406	167,296	186,150	64,111
% Change in GP Volumes					*-12%*	*10%*	*9%*	*-42%*
Medium and Heavy Trucks	18,559	9,890	10,244	8,669	17,162	11,797	12,141	5,365
% Medium and Heavy Trucks	*7.1%*	*6.5%*	*6.0%*	*7.9%*	*7.4%*	*7.1%*	*6.5%*	*8.4%*
2+ HOV Vehicles in GP Lanes	6,742	2,282	2,975	4,460	3,441	2,425	2,826	1,017
% 2+ HOV Vehicles in GP Lanes	*2.6%*	*1.5%*	*1.7%*	*4.1%*	*1.5%*	*1.4%*	*1.5%*	*1.6%*
2+ HOV Vehicles in HOV Lanes	7,933	7,933	8,203	0	10,371	10,371	10,929	0
% Change in HOV Volumes					*31%*	*31%*	*33%*	-
Total Transit Person Trips	20,194	9,319	9,124	10,875	21,410	8,861	8,519	12,549
% Change in Transit Trips					*6%*	*-5%*	*-7%*	*15%*
Total Crosslake Vehicle Volumes	269,779	159,796	179,713	109,983	241,777	177,666	197,078	64,111
% Change in Crosslake Volumes					*-10%*	*11%*	*10%*	*-42%*

Exhibit B-40

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2020 Scenario B5 Post-Processed High Projections

Scenario B5	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	59,419	34,578	38,087	24,841	55,309	37,286	40,769	18,023
% Change in GP Volumes					*-7%*	*8%*	*7%*	*-27%*
V/C Ratio	0.99	0.96	1.06	1.04	0.92	1.04	1.13	0.75
Medium and Heavy Trucks	2,605	1,420	1,480	1,184	2,539	1,660	1,720	879
% Medium and Heavy Trucks	*4.4%*	*4.1%*	*3.9%*	*4.8%*	*4.6%*	*4.5%*	*4.2%*	*4.9%*
2+ HOV Vehicles in GP Lanes	2,494	896	1,230	1,597	1,983	1,315	1,647	668
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.6%*	*3.2%*	*6.4%*	*3.6%*	*3.5%*	*4.0%*	*3.7%*
2+ HOV Vehicles in HOV Lanes	3,190	3,190	3,224	0	3,512	3,512	3,544	0
% Change in HOV Volumes					*10%*	*10%*	*10%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	73,610	44,196	49,368	29,414	69,610	45,279	50,396	24,331
% Change in GP Volumes					*-5%*	*2%*	*2%*	*-17%*
V/C Ratio	1.23	1.23	1.37	1.23	1.16	1.26	1.40	1.01
Medium and Heavy Trucks	5,269	2,689	2,803	2,580	5,171	2,858	2,971	2,313
% Medium and Heavy Trucks	*7.2%*	*6.1%*	*5.7%*	*8.8%*	*7.4%*	*6.3%*	*5.9%*	*9.5%*
2+ HOV Vehicles in GP Lanes	1,409	672	830	736	1,104	652	807	452
% 2+ HOV Vehicles in GP Lanes	*1.9%*	*1.5%*	*1.7%*	*2.5%*	*1.6%*	*1.4%*	*1.6%*	*1.9%*
2+ HOV Vehicles in HOV Lanes	2,951	2,951	3,091	0	3,093	3,093	3,234	0
% Change in HOV Volumes					*5%*	*5%*	*5%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	150,544	87,342	100,283	63,201	137,235	96,810	109,643	40,425
% Change in GP Volumes					*-9%*	*11%*	*9%*	*-36%*
V/C Ratio	0.94	0.91	1.04	0.99	0.86	1.01	1.14	0.63
Medium and Heavy Trucks	10,875	5,836	6,076	5,039	10,519	6,650	6,885	3,869
% Medium and Heavy Trucks	*7.2%*	*6.7%*	*6.1%*	*8.0%*	*7.7%*	*6.9%*	*6.3%*	*9.6%*
2+ HOV Vehicles in GP Lanes	2,340	369	463	1,971	669	323	451	346
% 2+ HOV Vehicles in GP Lanes	*1.6%*	*0.4%*	*0.5%*	*3.1%*	*0.5%*	*0.3%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	3,806	3,806	4,192	0	5,154	5,154	5,501	0
% Change in HOV Volumes					*35%*	*35%*	*31%*	-
Transit Person Trips	7,821	4,123	4,126	3,698	8,147	3,859	3,808	4,288
% Change in Transit Trips					*4%*	*-6%*	*-8%*	*16%*
Daily (24 hrs)								
Total GP Vehicle Volumes	283,572	166,115	187,739	117,457	262,154	179,375	200,809	82,779
% Change in GP Volumes					*-8%*	*8%*	*7%*	*-30%*
Medium and Heavy Trucks	18,749	9,946	10,359	8,803	18,229	11,168	11,576	7,061
% Medium and Heavy Trucks	*6.6%*	*6.0%*	*5.5%*	*7.5%*	*7.0%*	*6.2%*	*5.8%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,243	1,938	2,523	4,305	3,755	2,289	2,906	1,466
% 2+ HOV Vehicles in GP Lanes	*2.2%*	*1.2%*	*1.3%*	*3.7%*	*1.4%*	*1.3%*	*1.4%*	*1.8%*
2+ HOV Vehicles in HOV Lanes	9,946	9,946	10,507	0	11,759	11,759	12,278	0
% Change in HOV Volumes					*18%*	*18%*	*17%*	-
Total Transit Person Trips	26,003	12,287	11,936	13,716	27,403	11,501	11,014	15,902
% Change in Transit Trips					*5%*	*-6%*	*-8%*	*16%*
Total Crosslake Vehicle Volumes	293,518	176,062	198,245	117,457	273,913	191,134	213,087	82,779
% Change in Crosslake Volumes					*-7%*	*9%*	*7%*	*-30%*

Exhibit B-41

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2020 Scenario B5 Post-Processed Base Projections

Scenario B5	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	59,419	34,578	38,087	24,841	55,309	37,286	40,769	18,023
% Change in GP Volumes					*-7%*	*8%*	*7%*	*-27%*
V/C Ratio	0.99	0.96	1.06	1.04	0.92	1.04	1.13	0.75
Medium and Heavy Trucks	2,605	1,420	1,480	1,184	2,539	1,660	1,720	879
% Medium and Heavy Trucks	*4.4%*	*4.1%*	*3.9%*	*4.8%*	*4.6%*	*4.5%*	*4.2%*	*4.9%*
2+ HOV Vehicles in GP Lanes	2,494	896	1,230	1,597	1,983	1,315	1,647	668
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.6%*	*3.2%*	*6.4%*	*3.6%*	*3.5%*	*4.0%*	*3.7%*
2+ HOV Vehicles in HOV Lanes	3,190	3,190	3,224	0	3,512	3,512	3,544	0
% Change in HOV Volumes					*10%*	*10%*	*10%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	73,610	44,196	49,368	29,414	69,610	45,279	50,396	24,331
% Change in GP Volumes					*-5%*	*2%*	*2%*	*-17%*
V/C Ratio	1.23	1.23	1.37	1.23	1.16	1.26	1.40	1.01
Medium and Heavy Trucks	5,269	2,689	2,803	2,580	5,171	2,858	2,971	2,313
% Medium and Heavy Trucks	*7.2%*	*6.1%*	*5.7%*	*8.8%*	*7.4%*	*6.3%*	*5.9%*	*9.5%*
2+ HOV Vehicles in GP Lanes	1,409	672	830	736	1,104	652	807	452
% 2+ HOV Vehicles in GP Lanes	*1.9%*	*1.5%*	*1.7%*	*2.5%*	*1.6%*	*1.4%*	*1.6%*	*1.9%*
2+ HOV Vehicles in HOV Lanes	2,951	2,951	3,091	0	3,093	3,093	3,234	0
% Change in HOV Volumes					*5%*	*5%*	*5%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	150,544	87,342	100,283	63,201	137,235	96,810	109,643	40,425
% Change in GP Volumes					*-9%*	*11%*	*9%*	*-36%*
V/C Ratio	0.94	0.91	1.04	0.99	0.86	1.01	1.14	0.63
Medium and Heavy Trucks	10,875	5,836	6,076	5,039	10,519	6,650	6,885	3,869
% Medium and Heavy Trucks	*7.2%*	*6.7%*	*6.1%*	*8.0%*	*7.7%*	*6.9%*	*6.3%*	*9.6%*
2+ HOV Vehicles in GP Lanes	2,340	369	463	1,971	669	323	451	346
% 2+ HOV Vehicles in GP Lanes	*1.6%*	*0.4%*	*0.5%*	*3.1%*	*0.5%*	*0.3%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	3,806	3,806	4,192	0	5,154	5,154	5,501	0
% Change in HOV Volumes					*35%*	*35%*	*31%*	-
Transit Person Trips	7,821	4,123	4,126	3,698	8,147	3,859	3,808	4,288
% Change in Transit Trips					*4%*	*-6%*	*-8%*	*16%*
Daily (24 hrs)								
Total GP Vehicle Volumes	283,572	166,115	187,739	117,457	262,154	179,375	200,809	82,779
% Change in GP Volumes					*-8%*	*8%*	*7%*	*-30%*
Medium and Heavy Trucks	18,749	9,946	10,359	8,803	18,229	11,168	11,576	7,061
% Medium and Heavy Trucks	*6.6%*	*6.0%*	*5.5%*	*7.5%*	*7.0%*	*6.2%*	*5.8%*	*8.5%*
2+ HOV Vehicles in GP Lanes	6,243	1,938	2,523	4,305	3,755	2,289	2,906	1,466
% 2+ HOV Vehicles in GP Lanes	*2.2%*	*1.2%*	*1.3%*	*3.7%*	*1.4%*	*1.3%*	*1.4%*	*1.8%*
2+ HOV Vehicles in HOV Lanes	9,946	9,946	10,507	0	11,759	11,759	12,278	0
% Change in HOV Volumes					*18%*	*18%*	*17%*	-
Total Transit Person Trips	26,003	12,287	11,936	13,716	27,403	11,501	11,014	15,902
% Change in Transit Trips					*5%*	*-6%*	*-8%*	*16%*
Total Crosslake Vehicle Volumes	293,518	176,062	198,245	117,457	273,913	191,134	213,087	82,779
% Change in Crosslake Volumes					*-7%*	*9%*	*7%*	*-30%*

Exhibit B-42

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2020 Scenario B5 Post-Processed Low Projections

Scenario B5	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	59,419	34,578	38,087	24,841	53,583	37,286	40,769	16,297
% Change in GP Volumes					*-10%*	*8%*	*7%*	*-34%*
V/C Ratio	0.99	0.96	1.06	1.04	0.89	1.04	1.13	0.68
Medium and Heavy Trucks	2,605	1,420	1,480	1,184	2,451	1,660	1,720	791
% Medium and Heavy Trucks	*4.4%*	*4.1%*	*3.9%*	*4.8%*	*4.6%*	*4.5%*	*4.2%*	*4.9%*
2+ HOV Vehicles in GP Lanes	2,494	896	1,230	1,597	1,916	1,315	1,647	601
% 2+ HOV Vehicles in GP Lanes	*4.2%*	*2.6%*	*3.2%*	*6.4%*	*3.6%*	*3.5%*	*4.0%*	*3.7%*
2+ HOV Vehicles in HOV Lanes	3,190	3,190	3,224	0	3,512	3,512	3,544	0
% Change in HOV Volumes					*10%*	*10%*	*10%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	73,610	44,196	49,368	29,414	67,214	44,196	49,313	23,018
% Change in GP Volumes					*-9%*	*0%*	*0%*	*-22%*
V/C Ratio	1.23	1.23	1.37	1.23	1.12	1.23	1.37	0.96
Medium and Heavy Trucks	5,269	2,689	2,803	2,580	4,940	2,858	2,971	2,082
% Medium and Heavy Trucks	*7.2%*	*6.1%*	*5.7%*	*8.8%*	*7.3%*	*6.5%*	*6.0%*	*9.0%*
2+ HOV Vehicles in GP Lanes	1,409	672	830	736	1,059	652	807	407
% 2+ HOV Vehicles in GP Lanes	*1.9%*	*1.5%*	*1.7%*	*2.5%*	*1.6%*	*1.5%*	*1.6%*	*1.8%*
2+ HOV Vehicles in HOV Lanes	2,951	2,951	3,091	0	3,093	3,093	3,234	0
% Change in HOV Volumes					*5%*	*5%*	*5%*	-
Transit Person Trips	9,091	4,082	3,905	5,009	9,628	3,821	3,603	5,807
% Change in Transit Trips					*6%*	*-6%*	*-8%*	*16%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	150,544	87,342	100,283	63,201	133,192	96,810	109,643	36,383
% Change in GP Volumes					*-12%*	*11%*	*9%*	*-42%*
V/C Ratio	0.94	0.91	1.04	0.99	0.83	1.01	1.14	0.57
Medium and Heavy Trucks	10,875	5,836	6,076	5,039	10,132	6,650	6,885	3,482
% Medium and Heavy Trucks	*7.2%*	*6.7%*	*6.1%*	*8.0%*	*7.6%*	*6.9%*	*6.3%*	*9.6%*
2+ HOV Vehicles in GP Lanes	2,340	369	463	1,971	634	323	451	311
% 2+ HOV Vehicles in GP Lanes	*1.6%*	*0.4%*	*0.5%*	*3.1%*	*0.5%*	*0.3%*	*0.4%*	*0.9%*
2+ HOV Vehicles in HOV Lanes	3,806	3,806	4,192	0	5,154	5,154	5,501	0
% Change in HOV Volumes					*35%*	*35%*	*31%*	-
Transit Person Trips	7,821	4,123	4,126	3,698	8,147	3,859	3,808	4,288
% Change in Transit Trips					*4%*	*-6%*	*-8%*	*16%*
Daily (24 hrs)								
Total GP Vehicle Volumes	283,572	166,115	187,739	117,457	253,989	178,292	199,726	75,698
% Change in GP Volumes					*-10%*	*7%*	*6%*	*-36%*
Medium and Heavy Trucks	18,749	9,946	10,359	8,803	17,523	11,168	11,576	6,355
% Medium and Heavy Trucks	*6.6%*	*6.0%*	*5.5%*	*7.5%*	*6.9%*	*6.3%*	*5.8%*	*8.4%*
2+ HOV Vehicles in GP Lanes	6,243	1,938	2,523	4,305	3,609	2,289	2,906	1,320
% 2+ HOV Vehicles in GP Lanes	*2.2%*	*1.2%*	*1.3%*	*3.7%*	*1.4%*	*1.3%*	*1.5%*	*1.7%*
2+ HOV Vehicles in HOV Lanes	9,946	9,946	10,507	0	11,759	11,759	12,278	0
% Change in HOV Volumes					*18%*	*18%*	*17%*	-
Total Transit Person Trips	26,003	12,287	11,936	13,716	27,403	11,501	11,014	15,902
% Change in Transit Trips					*5%*	*-6%*	*-8%*	*16%*
Total Crosslake Vehicle Volumes	293,518	176,062	198,245	117,457	265,748	190,051	212,004	75,698
% Change in Crosslake Volumes					*-9%*	*8%*	*7%*	*-36%*

Exhibit B-43

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 1 Sensitivity Test Post-Processed High Projections

Scenario 1 Sensitivity Test	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	61,858	33,707	36,841	28,151	4,094	6,375	239	54,382	39,494	42,475	14,887	3,013	2,884	470
% Change in GP Volumes								*-12%*	*17%*	*15%*	*-47%*	*-26%*	*-55%*	*97%*
V/C Ratio	1.03	0.94	1.02	1.17				0.91	1.10	1.18	0.62			
Medium and Heavy Trucks	2,877	1,446	1,503	1,431	108	281	5	2,695	1,991	2,048	704	95	102	11
% Medium and Heavy Trucks	*4.7%*	*4.3%*	*4.1%*	*5.1%*	*2.6%*	*4.4%*	*2.0%*	*5.0%*	*5.0%*	*4.8%*	*4.7%*	*3.1%*	*3.5%*	*2.2%*
3+ HOV Vehicles in GP Lanes	388	373	519	16	82	469	6	259	259	354	0	56	0	24
% 3+ HOV Vehicles in GP Lanes	*0.6%*	*1.1%*	*1.4%*	*0.1%*	*2.0%*	*7.4%*	*2.7%*	*0.5%*	*0.7%*	*0.8%*	*0.0%*	*1.8%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	3,184	667	718	2,517				3,023	826	931	2,197			
% Change in HOV Volumes								*-5%*	*24%*	*30%*	*-13%*			
Transit Person Trips	8,134	3,091	2,955	5,043				8,639	2,805	2,626	5,834			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	77,542	44,697	49,159	32,845	4,664	8,021	211	70,061	46,029	50,190	24,032	3,411	2,388	351
% Change in GP Volumes								*-10%*	*3%*	*2%*	*-27%*	*-27%*	*-70%*	*66%*
V/C Ratio	1.29	1.24	1.37	1.37				1.17	1.28	1.39	1.00			
Medium and Heavy Trucks	5,900	2,918	3,016	2,982	206	508	7	5,547	3,380	3,469	2,166	103	118	13
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.4%*	*6.3%*	*3.3%*	*7.9%*	*7.3%*	*6.9%*	*9.0%*	*3.0%*	*4.9%*	*3.7%*
3+ HOV Vehicles in GP Lanes	74	73	155	0	413	317	5	27	27	100	0	711	0	15
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*8.9%*	*4.0%*	*2.5%*	*0.0%*	*0.1%*	*0.2%*	*0.0%*	*20.8%*	*0.0%*	*4.4%*
3+ HOV Vehicles in HOV Lanes	2,650	734	824	1,915				2,679	831	943	1,848			
% Change in HOV Volumes								*1%*	*13%*	*15%*	*-4%*			
Transit Person Trips	8,134	3,091	2,955	5,043				8,639	2,805	2,626	5,834			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	158,905	87,200	99,770	71,706	13,893	19,277	859	140,149	101,476	113,450	38,673	12,067	10,752	1,028
% Change in GP Volumes								*-12%*	*16%*	*14%*	*-46%*	*-13%*	*-44%*	*20%*
V/C Ratio	0.99	0.91	1.04	1.12				0.88	1.06	1.18	0.60			
Medium and Heavy Trucks	12,185	6,033	6,251	6,152	648	1,301	34	11,485	7,683	7,891	3,802	555	724	40
% Medium and Heavy Trucks	*7.7%*	*6.9%*	*6.3%*	*8.6%*	*4.7%*	*6.7%*	*4.0%*	*8.2%*	*7.6%*	*7.0%*	*9.8%*	*4.6%*	*6.7%*	*3.9%*
3+ HOV Vehicles in GP Lanes	206	194	213	12	1,217	499	10	120	120	205	0	1,192	10	28
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*8.8%*	*2.6%*	*1.2%*	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*9.9%*	*0.1%*	*2.7%*
3+ HOV Vehicles in HOV Lanes	3,692	1,092	1,315	2,600				3,642	1,637	1,797	2,005			
% Change in HOV Volumes								*-1%*	*50%*	*37%*	*-23%*			
Transit Person Trips	6,822	3,091	3,108	3,730				7,121	2,805	2,763	4,316			
% Change in Transit Trips								*4%*	*-9%*	*-11%*	*16%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	298,305	165,604	185,771	132,701	22,651	33,673	1,309	264,591	186,999	206,115	77,592	18,491	16,024	1,849
% Change in GP Volumes								*-11%*	*13%*	*11%*	*-42%*	*-18%*	*-52%*	*41%*
Medium and Heavy Trucks	20,962	10,397	10,770	10,566	962	2,090	46	19,726	13,054	13,409	6,672	752	944	64
% Medium and Heavy Trucks	*7.0%*	*6.3%*	*5.8%*	*8.0%*	*4.2%*	*6.2%*	*3.5%*	*7.5%*	*7.0%*	*6.5%*	*8.6%*	*4.1%*	*5.9%*	*3.5%*
3+ HOV Vehicles in GP Lanes	668	640	887	28	1,712	1,284	22	406	406	658	0	1,959	10	67
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*7.6%*	*3.8%*	*1.7%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*	*10.6%*	*0.1%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	9,526	2,493	2,856	7,032				9,344	3,295	3,671	6,049			
% Change in HOV Volumes								*-2%*	*32%*	*29%*	*-14%*			
Total Transit Person Trips	23,091	9,274	9,018	13,816				24,399	8,415	8,015	15,984			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
Total Crosslake Vehicle Volumes	307,831	168,097	188,627	139,734				273,935	190,294	209,786	83,641			
% Change in Crosslake Volumes								*-11%*	*13%*	*11%*	*-40%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-44

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 1 Sensitivity Test Post-Processed Base Projections

Scenario 1 Sensitivity Test	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,672	30,336	33,157	25,336	3,685	5,737	215	48,943	35,699	38,383	13,244	2,712	2,596	423
% Change in GP Volumes								*-12%*	*18%*	*16%*	*-48%*	*-26%*	*-55%*	*97%*
V/C Ratio	0.93	0.84	0.92	1.06				0.82	0.99	1.07	0.55			
Medium and Heavy Trucks	2,589	1,301	1,353	1,288	97	253	4	2,425	1,791	1,843	634	85	91	9
% Medium and Heavy Trucks	*4.7%*	*4.3%*	*4.1%*	*5.1%*	*2.6%*	*4.4%*	*2.0%*	*5.0%*	*5.0%*	*4.8%*	*4.8%*	*3.1%*	*3.5%*	*2.2%*
3+ HOV Vehicles in GP Lanes	350	335	467	14	74	422	6	233	233	318	0	50	0	22
% 3+ HOV Vehicles in GP Lanes	*0.6%*	*1.1%*	*1.4%*	*0.1%*	*2.0%*	*7.4%*	*2.7%*	*0.5%*	*0.7%*	*0.8%*	*0.0%*	*1.8%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	2,866	600	646	2,265				2,717	748	842	1,969			
% Change in HOV Volumes								*-5%*	*25%*	*30%*	*-13%*			
Transit Person Trips	8,134	3,091	2,955	5,043				8,639	2,805	2,626	5,834			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	69,788	40,227	44,243	29,560	4,197	7,219	190	63,057	40,529	44,273	22,529	3,070	2,149	315
% Change in GP Volumes								*-10%*	*1%*	*0%*	*-24%*	*-27%*	*-70%*	*66%*
V/C Ratio	1.16	1.12	1.23	1.23				1.05	1.13	1.23	0.94			
Medium and Heavy Trucks	5,310	2,626	2,714	2,684	185	457	6	4,992	3,042	3,122	1,950	93	106	12
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.4%*	*6.3%*	*3.3%*	*7.9%*	*7.5%*	*7.1%*	*8.7%*	*3.0%*	*4.9%*	*3.7%*
3+ HOV Vehicles in GP Lanes	66	66	140	0	372	285	5	24	24	90	0	640	0	14
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*8.9%*	*4.0%*	*2.5%*	*0.0%*	*0.1%*	*0.2%*	*0.0%*	*20.8%*	*0.0%*	*4.4%*
3+ HOV Vehicles in HOV Lanes	2,385	661	741	1,724				2,424	729	831	1,694			
% Change in HOV Volumes								*2%*	*10%*	*12%*	*-2%*			
Transit Person Trips	8,134	3,091	2,955	5,043				8,639	2,805	2,626	5,834			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,015	78,480	89,793	64,535	12,504	17,349	773	126,134	91,328	102,105	34,806	10,860	9,677	925
% Change in GP Volumes								*-12%*	*16%*	*14%*	*-46%*	*-13%*	*-44%*	*20%*
V/C Ratio	0.89	0.82	0.94	1.01				0.79	0.95	1.06	0.54			
Medium and Heavy Trucks	10,967	5,429	5,626	5,537	583	1,171	31	10,336	6,915	7,102	3,422	499	652	36
% Medium and Heavy Trucks	*7.7%*	*6.9%*	*6.3%*	*8.6%*	*4.7%*	*6.7%*	*4.0%*	*8.2%*	*7.6%*	*7.0%*	*9.8%*	*4.6%*	*6.7%*	*3.9%*
3+ HOV Vehicles in GP Lanes	185	175	192	11	1,096	449	9	108	108	184	0	1,073	9	25
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*8.8%*	*2.6%*	*1.2%*	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*9.9%*	*0.1%*	*2.7%*
3+ HOV Vehicles in HOV Lanes	3,323	983	1,183	2,340				3,278	1,474	1,617	1,804			
% Change in HOV Volumes								*-1%*	*50%*	*37%*	*-23%*			
Transit Person Trips	6,822	3,091	3,108	3,730				7,121	2,805	2,763	4,316			
% Change in Transit Trips								*4%*	*-9%*	*-11%*	*16%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	268,474	149,043	167,193	119,431	20,386	30,306	1,178	238,135	167,556	184,761	70,579	16,642	14,422	1,664
% Change in GP Volumes								*-11%*	*12%*	*11%*	*-41%*	*-18%*	*-52%*	*41%*
Medium and Heavy Trucks	18,866	9,357	9,693	9,509	866	1,881	41	17,753	11,748	12,068	6,005	677	849	57
% Medium and Heavy Trucks	*7.0%*	*6.3%*	*5.8%*	*8.0%*	*4.2%*	*6.2%*	*3.5%*	*7.5%*	*7.0%*	*6.5%*	*8.5%*	*4.1%*	*5.9%*	*3.5%*
3+ HOV Vehicles in GP Lanes	601	576	798	25	1,541	1,156	20	366	366	592	0	1,763	9	61
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*7.6%*	*3.8%*	*1.7%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*	*10.6%*	*0.1%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	8,573	2,244	2,570	6,329				8,418	2,951	3,289	5,468			
% Change in HOV Volumes								*-2%*	*31%*	*28%*	*-14%*			
Total Transit Person Trips	23,091	9,274	9,018	13,816				24,399	8,415	8,015	15,984			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
Total Crosslake Vehicle Volumes	277,048	151,287	169,764	125,760				246,553	170,507	188,050	76,046			
% Change in Crosslake Volumes								*-11%*	*13%*	*11%*	*-40%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-45

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 1 Sensitivity Test Post-Processed Low Projections

Scenario 1 Sensitivity Test	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	55,672	30,336	33,157	25,336	3,685	5,737	215	47,655	35,708	38,391	11,948	2,411	2,308	376
% Change in GP Volumes								*-14%*	*18%*	*16%*	*-53%*	*-35%*	*-60%*	*75%*
V/C Ratio	0.93	0.84	0.92	1.06				0.79	0.99	1.07	0.50			
Medium and Heavy Trucks	2,589	1,301	1,353	1,288	97	253	4	2,355	1,791	1,843	563	76	81	8
% Medium and Heavy Trucks	*4.7%*	*4.3%*	*4.1%*	*5.1%*	*2.6%*	*4.4%*	*2.0%*	*4.9%*	*5.0%*	*4.8%*	*4.7%*	*3.1%*	*3.5%*	*2.2%*
3+ HOV Vehicles in GP Lanes	350	335	467	14	74	422	6	233	233	318	0	45	0	19
% 3+ HOV Vehicles in GP Lanes	*0.6%*	*1.1%*	*1.4%*	*0.1%*	*2.0%*	*7.4%*	*2.7%*	*0.5%*	*0.7%*	*0.8%*	*0.0%*	*1.8%*	*0.0%*	*5.1%*
3+ HOV Vehicles in HOV Lanes	2,866	600	646	2,265				2,667	764	858	1,902			
% Change in HOV Volumes								*-7%*	*27%*	*33%*	*-16%*			
Transit Person Trips	8,134	3,091	2,955	5,043				8,639	2,805	2,626	5,834			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	69,788	40,227	44,243	29,560	4,197	7,219	190	60,839	40,537	44,281	20,303	2,729	1,910	280
% Change in GP Volumes								*-13%*	*1%*	*0%*	*-31%*	*-35%*	*-74%*	*48%*
V/C Ratio	1.16	1.12	1.23	1.23				1.01	1.13	1.23	0.85			
Medium and Heavy Trucks	5,310	2,626	2,714	2,684	185	457	6	4,775	3,042	3,122	1,733	82	94	10
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*4.4%*	*6.3%*	*3.3%*	*7.8%*	*7.5%*	*7.1%*	*8.5%*	*3.0%*	*4.9%*	*3.7%*
3+ HOV Vehicles in GP Lanes	66	66	140	0	372	285	5	24	24	90	0	569	0	12
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*8.9%*	*4.0%*	*2.5%*	*0.0%*	*0.1%*	*0.2%*	*0.0%*	*20.8%*	*0.0%*	*4.4%*
3+ HOV Vehicles in HOV Lanes	2,385	661	741	1,724				2,371	750	851	1,621			
% Change in HOV Volumes								*-1%*	*13%*	*15%*	*-6%*			
Transit Person Trips	8,134	3,091	2,955	5,043				8,639	2,805	2,626	5,834			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	143,015	78,480	89,793	64,535	12,504	17,349	773	122,267	91,328	102,105	30,939	9,654	8,602	822
% Change in GP Volumes								*-15%*	*16%*	*14%*	*-52%*	*-23%*	*-50%*	*6%*
V/C Ratio	0.89	0.82	0.94	1.01				0.76	0.95	1.06	0.48			
Medium and Heavy Trucks	10,967	5,429	5,626	5,537	583	1,171	31	9,956	6,915	7,102	3,042	444	579	32
% Medium and Heavy Trucks	*7.7%*	*6.9%*	*6.3%*	*8.6%*	*4.7%*	*6.7%*	*4.0%*	*8.1%*	*7.6%*	*7.0%*	*9.8%*	*4.6%*	*6.7%*	*3.9%*
3+ HOV Vehicles in GP Lanes	185	175	192	11	1,096	449	9	108	108	184	0	954	8	22
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.2%*	*0.0%*	*8.8%*	*2.6%*	*1.2%*	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*9.9%*	*0.1%*	*2.7%*
3+ HOV Vehicles in HOV Lanes	3,323	983	1,183	2,340				3,243	1,509	1,652	1,734			
% Change in HOV Volumes								*-2%*	*53%*	*40%*	*-26%*			
Transit Person Trips	6,822	3,091	3,108	3,730				7,121	2,805	2,763	4,316			
% Change in Transit Trips								*4%*	*-9%*	*-11%*	*16%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	268,474	149,043	167,193	119,431	20,386	30,306	1,178	230,761	167,573	184,777	63,189	14,793	12,819	1,479
% Change in GP Volumes								*-14%*	*12%*	*11%*	*-47%*	*-27%*	*-58%*	*26%*
Medium and Heavy Trucks	18,866	9,357	9,693	9,509	866	1,881	41	17,086	11,748	12,068	5,338	602	755	51
% Medium and Heavy Trucks	*7.0%*	*6.3%*	*5.8%*	*8.0%*	*4.2%*	*6.2%*	*3.5%*	*7.4%*	*7.0%*	*6.5%*	*8.4%*	*4.1%*	*5.9%*	*3.5%*
3+ HOV Vehicles in GP Lanes	601	576	798	25	1,541	1,156	20	366	366	592	0	1,567	8	54
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.5%*	*0.0%*	*7.6%*	*3.8%*	*1.7%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*	*10.6%*	*0.1%*	*3.6%*
3+ HOV Vehicles in HOV Lanes	8,573	2,244	2,570	6,329				8,280	3,023	3,361	5,258			
% Change in HOV Volumes								*-3%*	*35%*	*31%*	*-17%*			
Total Transit Person Trips	23,091	9,274	9,018	13,816				24,399	8,415	8,015	15,984			
% Change in Transit Trips								*6%*	*-9%*	*-11%*	*16%*			
Total Crosslake Vehicle Volumes	277,048	151,287	169,764	125,760				239,042	170,595	188,138	68,446			
% Change in Crosslake Volumes								*-14%*	*13%*	*11%*	*-46%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-46

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 1 Sensitivity Test Post-Processed High Projections

Scenario 1 Sensitivity Test	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	67,465	37,677	40,647	29,788	3,901	7,298	273	60,374	42,668	45,220	17,706	2,966	3,098	542
% Change in GP Volumes								*-11%*	*13%*	*11%*	*-41%*	*-24%*	*-58%*	*98%*
V/C Ratio	1.12	1.05	1.13	1.24				1.01	1.19	1.26	0.74			
Medium and Heavy Trucks	2,859	1,415	1,478	1,445	101	267	6	2,670	1,950	2,016	720	86	82	13
% Medium and Heavy Trucks	*4.2%*	*3.8%*	*3.6%*	*4.8%*	*2.6%*	*3.7%*	*2.3%*	*4.4%*	*4.6%*	*4.5%*	*4.1%*	*2.9%*	*2.6%*	*2.4%*
3+ HOV Vehicles in GP Lanes	328	319	457	9	155	523	7	222	222	323	0	59	0	30
% 3+ HOV Vehicles in GP Lanes	*0.5%*	*0.8%*	*1.1%*	*0.0%*	*4.0%*	*7.2%*	*2.4%*	*0.4%*	*0.5%*	*0.7%*	*0.0%*	*2.0%*	*0.0%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	3,746	994	1,068	2,753				3,707	1,177	1,331	2,530			
% Change in HOV Volumes								*-1%*	*18%*	*25%*	*-8%*			
Transit Person Trips	11,189	4,399	4,167	6,790				11,813	3,916	3,650	7,897			
% Change in Transit Trips								*6%*	*-11%*	*-12%*	*16%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	83,476	48,384	53,217	35,091	4,281	10,060	220	75,539	51,066	55,573	24,473	2,956	4,311	601
% Change in GP Volumes								*-10%*	*6%*	*4%*	*-30%*	*-31%*	*-57%*	*174%*
V/C Ratio	1.39	1.34	1.48	1.46				1.26	1.42	1.54	1.02			
Medium and Heavy Trucks	5,733	2,655	2,780	3,078	171	598	9	5,312	3,073	3,196	2,238	108	208	25
% Medium and Heavy Trucks	*6.9%*	*5.5%*	*5.2%*	*8.8%*	*4.0%*	*5.9%*	*3.9%*	*7.0%*	*6.0%*	*5.8%*	*9.1%*	*3.7%*	*4.8%*	*4.2%*
3+ HOV Vehicles in GP Lanes	30	29	120	0	534	74	5	11	11	83	0	517	6	8
% 3+ HOV Vehicles in GP Lanes	*0.0%*	*0.1%*	*0.2%*	*0.0%*	*12.5%*	*0.7%*	*2.1%*	*0.0%*	*0.0%*	*0.2%*	*0.0%*	*17.5%*	*0.1%*	*1.4%*
3+ HOV Vehicles in HOV Lanes	2,925	932	1,034	1,993				2,929	1,029	1,160	1,900			
% Change in HOV Volumes								*0%*	*10%*	*12%*	*-5%*			
Transit Person Trips	11,189	4,399	4,167	6,790				11,813	3,916	3,650	7,897			
% Change in Transit Trips								*6%*	*-11%*	*-12%*	*16%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	176,734	99,731	111,254	77,002	13,269	21,165	1,003	158,259	109,105	120,602	49,154	12,405	14,135	1,150
% Change in GP Volumes								*-10%*	*9%*	*8%*	*-36%*	*-7%*	*-33%*	*15%*
V/C Ratio	1.10	1.04	1.16	1.20				0.99	1.14	1.26	0.77			
Medium and Heavy Trucks	12,006	5,924	6,177	6,083	497	1,224	44	11,601	6,690	6,942	4,911	458	687	50
% Medium and Heavy Trucks	*6.8%*	*5.9%*	*5.6%*	*7.9%*	*3.7%*	*5.8%*	*4.4%*	*7.3%*	*6.1%*	*5.8%*	*10.0%*	*3.7%*	*4.9%*	*4.3%*
3+ HOV Vehicles in GP Lanes	151	146	218	5	988	539	12	116	116	216	0	922	190	12
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*7.4%*	*2.5%*	*1.2%*	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*7.4%*	*1.3%*	*1.1%*
3+ HOV Vehicles in HOV Lanes	4,389	1,287	1,481	3,101				4,292	1,745	1,911	2,547			
% Change in HOV Volumes								*-2%*	*36%*	*29%*	*-18%*			
Transit Person Trips	9,422	4,399	4,383	5,023				9,757	3,916	3,839	5,841			
% Change in Transit Trips								*4%*	*-11%*	*-12%*	*16%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	327,675	185,793	205,118	141,882	21,451	38,523	1,496	294,172	202,840	221,394	91,332	18,327	21,544	2,293
% Change in GP Volumes								*-10%*	*9%*	*8%*	*-36%*	*-15%*	*-44%*	*53%*
Medium and Heavy Trucks	20,598	9,993	10,435	10,605	769	2,089	59	19,582	11,714	12,154	7,869	652	976	88
% Medium and Heavy Trucks	*6.3%*	*5.4%*	*5.1%*	*7.5%*	*3.6%*	*5.4%*	*3.9%*	*6.7%*	*5.8%*	*5.5%*	*8.6%*	*3.6%*	*4.5%*	*3.8%*
3+ HOV Vehicles in GP Lanes	508	494	794	14	1,677	1,136	23	349	349	622	0	1,497	196	51
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*7.8%*	*3.0%*	*1.5%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*8.2%*	*0.9%*	*2.2%*
3+ HOV Vehicles in HOV Lanes	11,060	3,213	3,583	7,847				10,928	3,951	4,402	6,977			
% Change in HOV Volumes								*-1%*	*23%*	*23%*	*-11%*			
Total Transit Person Trips	31,799	13,196	12,718	18,603				33,383	11,748	11,138	21,634			
% Change in Transit Trips								*5%*	*-11%*	*-12%*	*16%*			
Total Crosslake Vehicle Volumes	338,735	189,006	208,701	149,729				305,100	206,791	225,796	98,309			
% Change in Crosslake Volumes								*-10%*	*9%*	*8%*	*-34%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-47

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 1 Sensitivity Test Post-Processed Base Projections

Scenario 1 Sensitivity Test	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	60,719	33,909	36,583	26,810	3,511	6,568	246	54,389	40,408	42,704	13,982	2,670	2,788	487
% Change in GP Volumes								*-10%*	*19%*	*17%*	*-48%*	*-24%*	*-58%*	*98%*
V/C Ratio	1.01	0.94	1.02	1.12				0.91	1.12	1.19	0.58			
Medium and Heavy Trucks	2,573	1,273	1,330	1,300	91	241	6	2,403	1,755	1,814	648	77	74	11
% Medium and Heavy Trucks	*4.2%*	*3.8%*	*3.6%*	*4.8%*	*2.6%*	*3.7%*	*2.3%*	*4.4%*	*4.3%*	*4.2%*	*4.6%*	*2.9%*	*2.6%*	*2.4%*
3+ HOV Vehicles in GP Lanes	295	287	411	8	140	471	6	200	200	290	0	53	0	27
% 3+ HOV Vehicles in GP Lanes	*0.5%*	*0.8%*	*1.1%*	*0.0%*	*4.0%*	*7.2%*	*2.4%*	*0.4%*	*0.5%*	*0.7%*	*0.0%*	*2.0%*	*0.0%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	3,372	894	961	2,477				3,231	1,060	1,198	2,171			
% Change in HOV Volumes								*-4%*	*18%*	*25%*	*-12%*			
Transit Person Trips	11,189	4,399	4,167	6,790				11,813	3,916	3,650	7,897			
% Change in Transit Trips								*6%*	*-11%*	*-12%*	*16%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	75,128	43,546	47,895	31,582	3,853	9,054	198	67,967	44,090	48,146	23,877	2,660	3,880	541
% Change in GP Volumes								*-10%*	*1%*	*1%*	*-24%*	*-31%*	*-57%*	*174%*
V/C Ratio	1.25	1.21	1.33	1.32				1.13	1.22	1.34	0.99			
Medium and Heavy Trucks	5,159	2,390	2,502	2,770	154	538	8	4,780	2,766	2,876	2,015	97	187	23
% Medium and Heavy Trucks	*6.9%*	*5.5%*	*5.2%*	*8.8%*	*4.0%*	*5.9%*	*3.9%*	*7.0%*	*6.3%*	*6.0%*	*8.4%*	*3.7%*	*4.8%*	*4.2%*
3+ HOV Vehicles in GP Lanes	27	27	108	0	480	67	4	10	10	75	0	465	5	7
% 3+ HOV Vehicles in GP Lanes	*0.0%*	*0.1%*	*0.2%*	*0.0%*	*12.5%*	*0.7%*	*2.1%*	*0.0%*	*0.0%*	*0.2%*	*0.0%*	*17.5%*	*0.1%*	*1.4%*
3+ HOV Vehicles in HOV Lanes	2,633	839	931	1,794				2,684	914	1,032	1,770			
% Change in HOV Volumes								*2%*	*9%*	*11%*	*-1%*			
Transit Person Trips	11,189	4,399	4,167	6,790				11,813	3,916	3,650	7,897			
% Change in Transit Trips								*6%*	*-11%*	*-12%*	*16%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	159,060	89,758	100,128	69,302	11,942	19,048	903	142,433	98,195	108,542	44,238	11,164	12,721	1,035
% Change in GP Volumes								*-10%*	*9%*	*8%*	*-36%*	*-7%*	*-33%*	*15%*
V/C Ratio	0.99	0.93	1.04	1.08				0.89	1.02	1.13	0.69			
Medium and Heavy Trucks	10,806	5,331	5,560	5,474	447	1,101	39	10,441	6,021	6,248	4,420	413	618	45
% Medium and Heavy Trucks	*6.8%*	*5.9%*	*5.6%*	*7.9%*	*3.7%*	*5.8%*	*4.4%*	*7.3%*	*6.1%*	*5.8%*	*10.0%*	*3.7%*	*4.9%*	*4.3%*
3+ HOV Vehicles in GP Lanes	135	131	196	4	889	485	10	104	104	194	0	829	171	11
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*7.4%*	*2.5%*	*1.2%*	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*7.4%*	*1.3%*	*1.1%*
3+ HOV Vehicles in HOV Lanes	3,950	1,159	1,333	2,791				3,862	1,571	1,720	2,292			
% Change in HOV Volumes								*-2%*	*36%*	*29%*	*-18%*			
Transit Person Trips	9,422	4,399	4,383	5,023				9,757	3,916	3,839	5,841			
% Change in Transit Trips								*4%*	*-11%*	*-12%*	*16%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	294,907	167,213	184,606	127,694	19,306	34,670	1,346	264,790	182,693	199,391	82,097	16,494	19,390	2,064
% Change in GP Volumes								*-10%*	*9%*	*8%*	*-36%*	*-15%*	*-44%*	*53%*
Medium and Heavy Trucks	18,539	8,994	9,392	9,544	692	1,880	53	17,624	10,542	10,939	7,082	587	879	79
% Medium and Heavy Trucks	*6.3%*	*5.4%*	*5.1%*	*7.5%*	*3.6%*	*5.4%*	*3.9%*	*6.7%*	*5.8%*	*5.5%*	*8.6%*	*3.6%*	*4.5%*	*3.8%*
3+ HOV Vehicles in GP Lanes	457	445	715	13	1,509	1,023	21	314	314	559	0	1,348	176	46
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*7.8%*	*3.0%*	*1.5%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*8.2%*	*0.9%*	*2.2%*
3+ HOV Vehicles in HOV Lanes	9,954	2,892	3,224	7,063				9,777	3,544	3,949	6,233			
% Change in HOV Volumes								*-2%*	*23%*	*22%*	*-12%*			
Total Transit Person Trips	31,799	13,196	12,718	18,603				33,383	11,748	11,138	21,634			
% Change in Transit Trips								*5%*	*-11%*	*-12%*	*16%*			
Total Crosslake Vehicle Volumes	304,861	170,105	187,831	134,756				274,567	186,237	203,341	88,330			
% Change in Crosslake Volumes								*-10%*	*9%*	*8%*	*-34%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-48

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 1 Sensitivity Test Post-Processed Low Projections

Scenario 1 Sensitivity Test	Toll-Free Baseline							Facility Tolled: Bridge & Ramp-to-Ramp Segment Tolls on SR 520						
	Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments			Cross-Lake Bridge Segments				SR-520: Short Ramp-to-Ramp Segments		
Description	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)	Total X-lake (a)+(c)	I-90 Mid-Span Segments MI-Seattle (a)	I-90 Mid-Span Segments MI-Bellevue (b)	SR-520 Mid-Span (c)	I-5 to/from Montlake	I-405 to/from east side I/Cs (D,E,F,G)	Intra east side I/Cs (D,E,F,G)
AM Peak (3 hrs)														
Total GP Vehicle Volumes	60,719	33,909	36,583	26,810	3,511	6,568	246	53,049	40,417	42,713	12,632	2,373	2,479	433
% Change in GP Volumes								*-13%*	*19%*	*17%*	*-53%*	*-32%*	*-62%*	*76%*
V/C Ratio	1.01	0.94	1.02	1.12				0.88	1.12	1.19	0.53			
Medium and Heavy Trucks	2,573	1,273	1,330	1,300	91	241	6	2,331	1,755	1,814	576	68	65	10
% Medium and Heavy Trucks	*4.2%*	*3.8%*	*3.6%*	*4.8%*	*2.6%*	*3.7%*	*2.3%*	*4.4%*	*4.3%*	*4.2%*	*4.6%*	*2.9%*	*2.6%*	*2.4%*
3+ HOV Vehicles in GP Lanes	295	287	411	8	140	471	6	200	200	290	0	47	0	24
% 3+ HOV Vehicles in GP Lanes	*0.5%*	*0.8%*	*1.1%*	*0.0%*	*4.0%*	*7.2%*	*2.4%*	*0.4%*	*0.5%*	*0.7%*	*0.0%*	*2.0%*	*0.0%*	*5.6%*
3+ HOV Vehicles in HOV Lanes	3,372	894	961	2,477				3,176	1,078	1,216	2,099			
% Change in HOV Volumes								*-6%*	*21%*	*27%*	*-15%*			
Transit Person Trips	11,189	4,399	4,167	6,790				11,813	3,916	3,650	7,897			
% Change in Transit Trips								*6%*	*-11%*	*-12%*	*16%*			
PM Peak (3 hrs)														
Total GP Vehicle Volumes	75,128	43,546	47,895	31,582	3,853	9,054	198	65,601	43,589	47,644	22,012	2,364	3,449	481
% Change in GP Volumes								*-13%*	*0%*	*-1%*	*-30%*	*-39%*	*-62%*	*143%*
V/C Ratio	1.25	1.21	1.33	1.32				1.09	1.21	1.32	0.92			
Medium and Heavy Trucks	5,159	2,390	2,502	2,770	154	538	8	4,557	2,766	2,876	1,791	86	166	20
% Medium and Heavy Trucks	*6.9%*	*5.5%*	*5.2%*	*8.8%*	*4.0%*	*5.9%*	*3.9%*	*6.9%*	*6.3%*	*6.0%*	*8.1%*	*3.7%*	*4.8%*	*4.2%*
3+ HOV Vehicles in GP Lanes	27	27	108	0	480	67	4	10	10	75	0	413	4	7
% 3+ HOV Vehicles in GP Lanes	*0.0%*	*0.1%*	*0.2%*	*0.0%*	*12.5%*	*0.7%*	*2.1%*	*0.0%*	*0.0%*	*0.2%*	*0.0%*	*17.5%*	*0.1%*	*1.4%*
3+ HOV Vehicles in HOV Lanes	2,633	839	931	1,794				2,634	925	1,043	1,709			
% Change in HOV Volumes								*0%*	*10%*	*12%*	*-5%*			
Transit Person Trips	11,189	4,399	4,167	6,790				11,813	3,916	3,650	7,897			
% Change in Transit Trips								*6%*	*-11%*	*-12%*	*16%*			
Off-Peak (18 hrs)														
Total GP Vehicle Volumes	159,060	89,758	100,128	69,302	11,942	19,048	903	137,518	98,195	108,542	39,323	9,924	11,308	920
% Change in GP Volumes								*-14%*	*9%*	*8%*	*-43%*	*-17%*	*-41%*	*2%*
V/C Ratio	0.99	0.93	1.04	1.08				0.86	1.02	1.13	0.61			
Medium and Heavy Trucks	10,806	5,331	5,560	5,474	447	1,101	39	9,950	6,021	6,248	3,928	367	549	40
% Medium and Heavy Trucks	*6.8%*	*5.9%*	*5.6%*	*7.9%*	*3.7%*	*5.8%*	*4.4%*	*7.2%*	*6.1%*	*5.8%*	*10.0%*	*3.7%*	*4.9%*	*4.3%*
3+ HOV Vehicles in GP Lanes	135	131	196	4	889	485	10	104	104	194	0	737	152	10
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*7.4%*	*2.5%*	*1.2%*	*0.1%*	*0.1%*	*0.2%*	*0.0%*	*7.4%*	*1.3%*	*1.1%*
3+ HOV Vehicles in HOV Lanes	3,950	1,159	1,333	2,791				3,813	1,620	1,769	2,192			
% Change in HOV Volumes								*-3%*	*40%*	*33%*	*-21%*			
Transit Person Trips	9,422	4,399	4,383	5,023				9,757	3,916	3,839	5,841			
% Change in Transit Trips								*4%*	*-11%*	*-12%*	*16%*			
Daily (24 hrs)														
Total GP Vehicle Volumes	294,907	167,213	184,606	127,694	19,306	34,670	1,346	256,168	182,201	198,899	73,967	14,661	17,235	1,834
% Change in GP Volumes								*-13%*	*9%*	*8%*	*-42%*	*-24%*	*-50%*	*36%*
Medium and Heavy Trucks	18,539	8,994	9,392	9,544	692	1,880	53	16,837	10,542	10,939	6,295	522	781	70
% Medium and Heavy Trucks	*6.3%*	*5.4%*	*5.1%*	*7.5%*	*3.6%*	*5.4%*	*3.9%*	*6.6%*	*5.8%*	*5.5%*	*8.5%*	*3.6%*	*4.5%*	*3.8%*
3+ HOV Vehicles in GP Lanes	457	445	715	13	1,509	1,023	21	314	314	559	0	1,198	157	41
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.4%*	*0.0%*	*7.8%*	*3.0%*	*1.5%*	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*8.2%*	*0.9%*	*2.2%*
3+ HOV Vehicles in HOV Lanes	9,954	2,892	3,224	7,063				9,623	3,623	4,028	6,000			
% Change in HOV Volumes								*-3%*	*25%*	*25%*	*-15%*			
Total Transit Person Trips	31,799	13,196	12,718	18,603				33,383	11,748	11,138	21,634			
% Change in Transit Trips								*5%*	*-11%*	*-12%*	*16%*			
Total Crosslake Vehicle Volumes	304,861	170,105	187,831	134,756				265,791	185,823	202,927	79,968			
% Change in Crosslake Volumes								*-13%*	*9%*	*8%*	*-41%*			

Note: All HOVs making short segment ramp-to-ramp movements are assumed to use the GP lanes, paying the applicable GP lane short segment toll.

Exhibit B-49

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 3 Sensitivity Test Post-Processed High Projections

Scenario 3 Sensitivity Test	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	57,110	29,654	33,227	27,456	49,858	36,363	39,980	13,495
% Change in GP Volumes					*-13%*	*23%*	*20%*	*-51%*
V/C Ratio	0.95	0.82	0.92	1.14	0.83	1.01	1.11	0.56
Medium and Heavy Trucks	2,730	1,313	1,378	1,417	2,567	1,976	2,044	591
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*5.1%*	*5.4%*	*5.1%*	*4.4%*
3+ HOV Vehicles in GP Lanes	120	101	162	19	88	88	128	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,675	997	1,142	2,678	3,578	1,217	1,383	2,362
% Change in HOV Volumes					*-3%*	*22%*	*21%*	*-12%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	71,901	40,038	44,640	31,863	63,794	41,479	45,871	22,315
% Change in GP Volumes					*-11%*	*4%*	*3%*	*-30%*
V/C Ratio	1.20	1.11	1.24	1.33	1.06	1.15	1.27	0.93
Medium and Heavy Trucks	5,648	2,770	2,871	2,877	5,292	3,426	3,525	1,866
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*8.3%*	*8.3%*	*7.7%*	*8.4%*
3+ HOV Vehicles in GP Lanes	80	77	134	3	1	1	16	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,507	906	1,018	1,600	2,611	1,068	1,220	1,543
% Change in HOV Volumes					*4%*	*18%*	*20%*	*-4%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	141,980	71,764	84,239	70,216	123,102	91,424	103,670	31,678
% Change in GP Volumes					*-13%*	*27%*	*23%*	*-55%*
V/C Ratio	0.89	0.75	0.88	1.10	0.77	0.95	1.08	0.49
Medium and Heavy Trucks	11,574	5,622	5,850	5,952	10,867	7,767	7,989	3,099
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*8.8%*	*8.5%*	*7.7%*	*9.8%*
3+ HOV Vehicles in GP Lanes	378	353	205	25	215	215	205	0
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,244	846	1,242	2,398	3,193	1,450	1,710	1,743
% Change in HOV Volumes					*-2%*	*71%*	*38%*	*-27%*
Transit Person Trips	10,307	8,619	8,347	1,688	10,827	8,937	8,657	1,889
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Daily (24 hrs)								
Total GP Vehicle Volumes	270,991	141,456	162,105	129,535	236,754	169,266	189,521	67,488
% Change in GP Volumes					*-13%*	*20%*	*17%*	*-48%*
Medium and Heavy Trucks	19,952	9,705	10,099	10,246	18,726	13,170	13,558	5,557
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*7.9%*	*7.8%*	*7.2%*	*8.2%*
3+ HOV Vehicles in GP Lanes	578	530	501	48	305	305	350	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	9,426	2,750	3,402	6,676	9,382	3,735	4,313	5,647
% Change in HOV Volumes					*0%*	*36%*	*27%*	*-15%*
Total Transit Person Trips	30,927	24,486	23,713	6,441	32,601	25,390	24,595	7,211
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Total Crosslake Vehicle Volumes	280,417	144,206	165,507	136,211	246,136	173,001	193,834	73,135
% Change in Crosslake Volumes					*-12%*	*20%*	*17%*	*-46%*

Exhibit B-50

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 3 Sensitivity Test Post-Processed Base Projections

Scenario 3 Sensitivity Test	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	44,872	34,263	37,518	10,610
% Change in GP Volumes					*-13%*	*28%*	*25%*	*-57%*
V/C Ratio	0.86	0.74	0.83	1.03	0.75	0.95	1.04	0.44
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	2,311	1,778	1,839	532
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*5.1%*	*5.2%*	*4.9%*	*5.0%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	80	80	116	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410	3,176	1,139	1,289	2,037
% Change in HOV Volumes					*-4%*	*27%*	*25%*	*-15%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	57,415	38,823	42,776	18,591
% Change in GP Volumes					*-11%*	*8%*	*6%*	*-35%*
V/C Ratio	1.08	1.00	1.12	1.19	0.96	1.08	1.19	0.77
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	4,763	3,084	3,173	1,679
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*8.3%*	*7.9%*	*7.4%*	*9.0%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	1	1	15	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440	2,331	980	1,117	1,351
% Change in HOV Volumes					*3%*	*20%*	*22%*	*-6%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	110,792	82,282	93,303	28,510
% Change in GP Volumes					*-13%*	*27%*	*23%*	*-55%*
V/C Ratio	0.80	0.67	0.79	0.99	0.69	0.86	0.97	0.45
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	9,780	6,991	7,190	2,789
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*8.8%*	*8.5%*	*7.7%*	*9.8%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	194	194	185	0
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158	2,874	1,305	1,539	1,569
% Change in HOV Volumes					*-2%*	*71%*	*38%*	*-27%*
Transit Person Trips	10,307	8,619	8,347	1,688	10,827	8,937	8,657	1,889
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Daily (24 hrs)								
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	213,079	155,368	173,597	57,711
% Change in GP Volumes					*-13%*	*22%*	*19%*	*-50%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	16,854	11,853	12,202	5,001
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*7.9%*	*7.6%*	*7.0%*	*8.7%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	274	274	315	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008	8,381	3,424	3,944	4,957
% Change in HOV Volumes					*-1%*	*38%*	*29%*	*-17%*
Total Transit Person Trips	30,927	24,486	23,713	6,441	32,601	25,390	24,595	7,211
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590	221,460	158,792	177,542	62,668
% Change in Crosslake Volumes					*-12%*	*22%*	*19%*	*-49%*

Exhibit B-51

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2015 Scenario 3 Sensitivity Test Post-Processed Low Projections

Scenario 3 Sensitivity Test	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	51,399	26,689	29,904	24,711	43,757	34,263	37,518	9,494
% Change in GP Volumes					*-15%*	*28%*	*25%*	*-62%*
V/C Ratio	0.86	0.74	0.83	1.03	0.73	0.95	1.04	0.40
Medium and Heavy Trucks	2,457	1,182	1,241	1,275	2,251	1,778	1,839	473
% Medium and Heavy Trucks	*4.8%*	*4.4%*	*4.1%*	*5.2%*	*5.1%*	*5.2%*	*4.9%*	*5.0%*
3+ HOV Vehicles in GP Lanes	108	91	146	17	80	80	116	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.5%*	*0.1%*	*0.2%*	*0.2%*	*0.3%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	3,308	898	1,028	2,410	3,144	1,172	1,321	1,973
% Change in HOV Volumes					*-5%*	*31%*	*29%*	*-18%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	64,711	36,034	40,176	28,677	55,490	38,823	42,776	16,667
% Change in GP Volumes					*-14%*	*8%*	*6%*	*-42%*
V/C Ratio	1.08	1.00	1.12	1.19	0.92	1.08	1.19	0.69
Medium and Heavy Trucks	5,083	2,493	2,584	2,590	4,577	3,084	3,173	1,493
% Medium and Heavy Trucks	*7.9%*	*6.9%*	*6.4%*	*9.0%*	*8.2%*	*7.9%*	*7.4%*	*9.0%*
3+ HOV Vehicles in GP Lanes	72	69	121	3	1	1	15	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.2%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,256	816	916	1,440	2,304	1,007	1,144	1,296
% Change in HOV Volumes					*2%*	*23%*	*25%*	*-10%*
Transit Person Trips	10,310	7,933	7,683	2,377	10,887	8,226	7,969	2,661
% Change in Transit Trips					*6%*	*4%*	*4%*	*12%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	127,782	64,588	75,815	63,194	107,624	82,282	93,303	25,342
% Change in GP Volumes					*-16%*	*27%*	*23%*	*-60%*
V/C Ratio	0.80	0.67	0.79	0.99	0.67	0.86	0.97	0.40
Medium and Heavy Trucks	10,417	5,059	5,265	5,357	9,470	6,991	7,190	2,479
% Medium and Heavy Trucks	*8.2%*	*7.8%*	*6.9%*	*8.5%*	*8.8%*	*8.5%*	*7.7%*	*9.8%*
3+ HOV Vehicles in GP Lanes	340	317	184	23	194	194	185	0
% 3+ HOV Vehicles in GP Lanes	*0.3%*	*0.5%*	*0.2%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	2,919	761	1,118	2,158	2,846	1,332	1,566	1,514
% Change in HOV Volumes					*-2%*	*75%*	*40%*	*-30%*
Transit Person Trips	10,307	8,619	8,347	1,688	10,827	8,937	8,657	1,889
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Daily (24 hrs)								
Total GP Vehicle Volumes	243,892	127,311	145,895	116,581	206,871	155,368	173,597	51,503
% Change in GP Volumes					*-15%*	*22%*	*19%*	*-56%*
Medium and Heavy Trucks	17,956	8,735	9,090	9,222	16,298	11,853	12,202	4,445
% Medium and Heavy Trucks	*7.4%*	*6.9%*	*6.2%*	*7.9%*	*7.9%*	*7.6%*	*7.0%*	*8.6%*
3+ HOV Vehicles in GP Lanes	520	477	451	43	274	274	315	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	8,483	2,475	3,062	6,008	8,294	3,511	4,031	4,783
% Change in HOV Volumes					*-2%*	*42%*	*32%*	*-20%*
Total Transit Person Trips	30,927	24,486	23,713	6,441	32,601	25,390	24,595	7,211
% Change in Transit Trips					*5%*	*4%*	*4%*	*12%*
Total Crosslake Vehicle Volumes	252,375	129,786	148,956	122,590	215,165	158,878	177,628	56,286
% Change in Crosslake Volumes					*-15%*	*22%*	*19%*	*-54%*

Exhibit B-52

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 3 Sensitivity Test Post-Processed High Projections

Scenario 3 Sensitivity Test	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	61,882	32,389	35,862	29,493	54,420	40,153	43,452	14,268
% Change in GP Volumes					*-12%*	*24%*	*21%*	*-52%*
V/C Ratio	1.03	0.90	1.00	1.23	0.91	1.12	1.21	0.59
Medium and Heavy Trucks	2,933	1,434	1,497	1,499	2,811	2,171	2,232	640
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*5.2%*	*5.4%*	*5.1%*	*4.5%*
3+ HOV Vehicles in GP Lanes	151	136	209	14	120	120	163	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	7,386	2,806	3,027	4,580	6,958	2,966	3,291	3,992
% Change in HOV Volumes					*-6%*	*6%*	*9%*	*-13%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	78,385	44,107	49,329	34,278	69,773	45,773	50,771	24,000
% Change in GP Volumes					*-11%*	*4%*	*3%*	*-30%*
V/C Ratio	1.31	1.23	1.37	1.43	1.16	1.27	1.41	1.00
Medium and Heavy Trucks	5,984	2,878	2,995	3,107	5,572	3,555	3,674	2,017
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*8.0%*	*7.8%*	*7.2%*	*8.4%*
3+ HOV Vehicles in GP Lanes	52	45	25	7	1	1	1	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	6,070	2,735	3,004	3,335	6,320	3,159	3,455	3,161
% Change in HOV Volumes					*4%*	*15%*	*15%*	*-5%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	159,499	83,846	97,063	75,653	141,178	96,395	109,694	44,783
% Change in GP Volumes					*-11%*	*15%*	*13%*	*-41%*
V/C Ratio	1.00	0.87	1.01	1.18	0.88	1.00	1.14	0.70
Medium and Heavy Trucks	12,250	6,008	6,259	6,242	11,784	7,225	7,472	4,559
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*8.3%*	*7.5%*	*6.8%*	*10.2%*
3+ HOV Vehicles in GP Lanes	382	362	265	20	165	165	266	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	4,452	1,187	1,655	3,264	4,418	1,814	2,086	2,603
% Change in HOV Volumes					*-1%*	*53%*	*26%*	*-20%*
Transit Person Trips	14,671	12,996	12,823	1,675	15,128	13,061	12,888	2,067
% Change in Transit Trips					*3%*	*0%*	*1%*	*23%*
Daily (24 hrs)								
Total GP Vehicle Volumes	299,766	160,343	182,254	139,423	265,372	182,321	203,917	83,051
% Change in GP Volumes					*-11%*	*14%*	*12%*	*-40%*
Medium and Heavy Trucks	21,167	10,320	10,751	10,847	20,167	12,951	13,378	7,215
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*7.6%*	*7.1%*	*6.6%*	*8.7%*
3+ HOV Vehicles in GP Lanes	585	543	500	42	286	286	429	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	17,908	6,729	7,686	11,179	17,696	7,938	8,832	9,757
% Change in HOV Volumes					*-1%*	*18%*	*15%*	*-13%*
Total Transit Person Trips	43,314	36,921	36,428	6,393	44,994	37,104	36,613	7,890
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Total Crosslake Vehicle Volumes	317,674	167,072	189,940	150,603	283,068	190,259	212,749	92,808
% Change in Crosslake Volumes					*-11%*	*14%*	*12%*	*-38%*

Exhibit B-53

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 3 Sensitivity Test Post-Processed Base Projections

Scenario 3 Sensitivity Test	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	48,978	36,535	39,505	12,443
% Change in GP Volumes					*-12%*	*25%*	*22%*	*-53%*
V/C Ratio	0.93	0.81	0.90	1.11	0.82	1.01	1.10	0.52
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	2,530	1,954	2,009	576
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*5.2%*	*5.3%*	*5.1%*	*4.6%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	108	108	146	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122	6,244	2,687	2,980	3,557
% Change in HOV Volumes					*-6%*	*6%*	*9%*	*-14%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	62,796	40,441	44,939	22,355
% Change in GP Volumes					*-11%*	*2%*	*1%*	*-28%*
V/C Ratio	1.18	1.10	1.23	1.29	1.05	1.12	1.25	0.93
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	5,015	3,200	3,306	1,815
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*8.0%*	*7.9%*	*7.4%*	*8.1%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	1	1	1	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002	5,724	2,807	3,073	2,917
% Change in HOV Volumes					*5%*	*14%*	*14%*	*-3%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	127,060	86,755	98,724	40,305
% Change in GP Volumes					*-11%*	*15%*	*13%*	*-41%*
V/C Ratio	0.90	0.79	0.91	1.06	0.79	0.90	1.03	0.63
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	10,605	6,502	6,725	4,103
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*8.3%*	*7.5%*	*6.8%*	*10.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	149	149	239	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938	3,976	1,633	1,878	2,343
% Change in HOV Volumes					*-1%*	*53%*	*26%*	*-20%*
Transit Person Trips	14,671	12,996	12,823	1,675	15,128	13,061	12,888	2,067
% Change in Transit Trips					*3%*	*0%*	*1%*	*23%*
Daily (24 hrs)								
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	238,835	163,731	183,167	75,104
% Change in GP Volumes					*-11%*	*13%*	*12%*	*-40%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	18,150	11,656	12,040	6,494
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*7.6%*	*7.1%*	*6.6%*	*8.6%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	258	258	386	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061	15,944	7,127	7,931	8,817
% Change in HOV Volumes					*-1%*	*18%*	*15%*	*-12%*
Total Transit Person Trips	43,314	36,921	36,428	6,393	44,994	37,104	36,613	7,890
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542	254,778	170,858	191,098	83,920
% Change in Crosslake Volumes					*-11%*	*14%*	*12%*	*-38%*

Exhibit B-54

SR-520 Bridge Toll-Free & Toll Traffic Vehicle Volumes - Both Directions

2030 Scenario 3 Sensitivity Test Post-Processed Low Projections

Scenario 3 Sensitivity Test	Toll-Free Baseline				Facility Tolled: Single Point Bridge Toll on SR 520			
	Cross-Lake Bridge Segments				Cross-Lake Bridge Segments			
	Total X-lake	I-90 Mid-Span Segments		SR-520	Total X-lake	I-90 Mid-Span Segments		SR-520
		MI-Seattle	MI-Bellevue	Mid-Span		MI-Seattle	MI-Bellevue	Mid-Span
Description	(a)+(c)	(a)	(b)	(c)	(a)+(c)	(a)	(b)	(c)
AM Peak (3 hrs)								
Total GP Vehicle Volumes	55,694	29,150	32,276	26,543	47,800	36,535	39,505	11,265
% Change in GP Volumes					*-14%*	*25%*	*22%*	*-58%*
V/C Ratio	0.93	0.81	0.90	1.11	0.80	1.01	1.10	0.47
Medium and Heavy Trucks	2,640	1,291	1,348	1,349	2,466	1,954	2,009	512
% Medium and Heavy Trucks	*4.7%*	*4.4%*	*4.2%*	*5.1%*	*5.2%*	*5.3%*	*5.1%*	*4.5%*
3+ HOV Vehicles in GP Lanes	136	123	188	13	108	108	146	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.6%*	*0.0%*	*0.2%*	*0.3%*	*0.4%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	6,647	2,526	2,724	4,122	6,190	2,741	3,034	3,449
% Change in HOV Volumes					*-7%*	*9%*	*11%*	*-16%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
PM Peak (3 hrs)								
Total GP Vehicle Volumes	70,546	39,696	44,396	30,850	60,728	40,441	44,939	20,287
% Change in GP Volumes					*-14%*	*2%*	*1%*	*-34%*
V/C Ratio	1.18	1.10	1.23	1.29	1.01	1.12	1.25	0.85
Medium and Heavy Trucks	5,386	2,590	2,695	2,796	4,813	3,200	3,306	1,613
% Medium and Heavy Trucks	*7.6%*	*6.5%*	*6.1%*	*9.1%*	*7.9%*	*7.9%*	*7.4%*	*8.0%*
3+ HOV Vehicles in GP Lanes	47	40	23	7	1	1	1	0
% 3+ HOV Vehicles in GP Lanes	*0.1%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	5,463	2,462	2,703	3,002	5,666	2,864	3,131	2,802
% Change in HOV Volumes					*4%*	*16%*	*16%*	*-7%*
Transit Person Trips	14,321	11,962	11,803	2,359	14,933	12,022	11,863	2,912
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Off-Peak (18 hrs)								
Total GP Vehicle Volumes	143,549	75,462	87,357	68,088	122,582	86,755	98,724	35,827
% Change in GP Volumes					*-15%*	*15%*	*13%*	*-47%*
V/C Ratio	0.90	0.79	0.91	1.06	0.77	0.90	1.03	0.56
Medium and Heavy Trucks	11,025	5,407	5,633	5,617	10,150	6,502	6,725	3,647
% Medium and Heavy Trucks	*7.7%*	*7.2%*	*6.4%*	*8.3%*	*8.3%*	*7.5%*	*6.8%*	*10.2%*
3+ HOV Vehicles in GP Lanes	344	326	239	18	149	149	239	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.4%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	4,007	1,069	1,490	2,938	3,927	1,682	1,926	2,246
% Change in HOV Volumes					*-2%*	*57%*	*29%*	*-24%*
Transit Person Trips	14,671	12,996	12,823	1,675	15,128	13,061	12,888	2,067
% Change in Transit Trips					*3%*	*0%*	*1%*	*23%*
Daily (24 hrs)								
Total GP Vehicle Volumes	269,789	144,308	164,029	125,481	231,110	163,731	183,167	67,379
% Change in GP Volumes					*-14%*	*13%*	*12%*	*-46%*
Medium and Heavy Trucks	19,050	9,288	9,676	9,762	17,428	11,656	12,040	5,772
% Medium and Heavy Trucks	*7.1%*	*6.4%*	*5.9%*	*7.8%*	*7.5%*	*7.1%*	*6.6%*	*8.6%*
3+ HOV Vehicles in GP Lanes	526	488	450	38	258	258	386	0
% 3+ HOV Vehicles in GP Lanes	*0.2%*	*0.3%*	*0.3%*	*0.0%*	*0.1%*	*0.2%*	*0.2%*	*0.0%*
3+ HOV Vehicles in HOV Lanes	16,117	6,056	6,918	10,061	15,784	7,287	8,091	8,497
% Change in HOV Volumes					*-2%*	*20%*	*17%*	*-16%*
Total Transit Person Trips	43,314	36,921	36,428	6,393	44,994	37,104	36,613	7,890
% Change in Transit Trips					*4%*	*0%*	*1%*	*23%*
Total Crosslake Vehicle Volumes	285,907	150,365	170,946	135,542	246,894	171,018	191,258	75,876
% Change in Crosslake Volumes					*-14%*	*14%*	*12%*	*-44%*

APPENDIX C: SR 520 DEMAND MODEL TOLL RATES

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Exhibit C-1
Initial and Final Toll Rates for Scenario 1 in 1990, 2007 and 2018 Dollars

Scenario 1							
		Initial			**Final**		
		1990$	2007$	2018$	**1990$**	**2007$**	**2018$**
Midspan	AM	$2.01	$3.05	$4.00	**$3.01**	**$4.57**	**$6.00**
	PM	$2.51	$3.81	$5.00	**$3.76**	**$5.72**	**$7.50**
	Off-Peak	$1.25	$1.91	$2.50	**$1.76**	**$2.66**	**$3.50**
Between I-5 and Montlake	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
Intra-Eastside Movements	AM	$0.20	$0.30	$0.40	**$0.20**	**$0.30**	**$0.40**
	PM	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
	Off-Peak	$0.13	$0.19	$0.25	**$0.13**	**$0.19**	**$0.25**
Between I-405 and Eastside Interchanges	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**

Exhibit C-2
Initial and Final Toll Rates for Scenario 2 in 1990, 2007 and 2018 Dollars

Scenario 2							
		Initial			**Final**		
		1990$	2007$	2018$	**1990$**	**2007$**	**2018$**
Midspan	AM	$2.01	$3.05	$4.00	**$2.01**	**$3.05**	**$4.00**
	PM	$2.51	$3.81	$5.00	**$2.51**	**$3.81**	**$5.00**
	Off-Peak	$1.25	$1.91	$2.50	**$1.25**	**$1.91**	**$2.50**
Between I-5 and Montlake	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
Intra-Eastside Movements	AM	$0.20	$0.30	$0.40	**$0.20**	**$0.30**	**$0.40**
	PM	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
	Off-Peak	$0.13	$0.19	$0.25	**$0.13**	**$0.19**	**$0.25**
Between I-405 and Eastside Interchanges	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**

Exhibit C-3
Initial and Final Toll Rates for Scenario 3 in 1990, 2007 and 2018 Dollars

Scenario 3							
		Initial			**Final**		
		1990$	2007$	2018$	**1990$**	**2007$**	**2018$**
Midspan	AM	$2.01	$3.05	$4.00	**$3.01**	**$4.57**	**$6.00**
	PM	$2.51	$3.81	$5.00	**$3.76**	**$5.72**	**$7.50**
	Off-Peak	$1.25	$1.91	$2.50	**$1.76**	**$2.66**	**$3.50**
Between I-5 and Montlake	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**
Intra-Eastside Movements	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**
Between I-405 and Eastside Interchanges	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**

Exhibit C-4
Initial and Final Toll Rates for Scenario 4 in 1990, 2007 and 2018 Dollars

Scenario 4							
		Initial			**Final**		
		1990$	2007$	2018$	**1990$**	**2007$**	**2018$**
Midspan	AM	$2.01	$3.05	$4.00	**$2.01**	**$3.05**	**$4.00**
	PM	$2.51	$3.81	$5.00	**$2.51**	**$3.81**	**$5.00**
	Off-Peak	$1.25	$1.91	$2.50	**$1.25**	**$1.91**	**$2.50**
Between I-5 and Montlake	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
Intra-Eastside Movements	AM	$0.20	$0.30	$0.40	**$0.20**	**$0.30**	**$0.40**
	PM	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
	Off-Peak	$0.13	$0.19	$0.25	**$0.13**	**$0.19**	**$0.25**
Between I-405 and Eastside Interchanges	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**

Exhibit C-5
Initial and Final Toll Rates for Scenario 5 in 1990, 2007 and 2018 Dollars

Scenario 5							
		Initial			**Final**		
		1990$	2007$	2018$	**1990$**	**2007$**	**2018$**
Midspan	AM	$1.71	$2.59	$3.40	**$1.71**	**$2.59**	**$3.40**
	PM	$2.13	$3.24	$4.25	**$2.13**	**$3.24**	**$4.25**
	Off-Peak	$1.25	$1.91	$2.50	**$1.25**	**$1.91**	**$2.50**
Between I-5 and Montlake	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
Intra-Eastside Movements	AM	$0.20	$0.30	$0.40	**$0.20**	**$0.30**	**$0.40**
	PM	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**
	Off-Peak	$0.13	$0.19	$0.25	**$0.13**	**$0.19**	**$0.25**
Between I-405 and Eastside Interchanges	AM	$0.40	$0.61	$0.80	**$0.40**	**$0.61**	**$0.80**
	PM	$0.50	$0.76	$1.00	**$0.50**	**$0.76**	**$1.00**
	Off-Peak	$0.25	$0.38	$0.50	**$0.25**	**$0.38**	**$0.50**

Exhibit C-6
Initial and Final Toll Rates for Scenario B in 1990, 2007 and 2009 Dollars

Scenario B							
		Initial			**Final**		
		1990$	2007$	2009$	**1990$**	**2007$**	**2009$**
Midspan	AM	$2.01	$3.05	$3.21	**$2.01**	**$3.05**	**$3.21**
	PM	$2.51	$3.81	$4.01	**$2.51**	**$3.81**	**$4.01**
	Off-Peak	$1.25	$1.91	$1.99	**$1.25**	**$1.91**	**$1.99**
Between I-5 and Montlake	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**
Intra-Eastside Movements	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**
Between I-405 and Eastside Interchanges	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**

Exhibit C-7
Initial and Final Toll Rates for Scenario B5 in 1990, 2007 and 2009 Dollars

Scenario B5							
		Initial			**Final**		
		1990$	2007$	2009$	**1990$**	**2007$**	**2009$**
Midspan	AM	$1.71	$2.59	$2.73	$1.71	$2.59	$2.73
	PM	$2.13	$3.24	$3.40	$2.13	$3.24	$3.40
	Off-Peak	$1.25	$1.91	$1.99	$1.25	$1.91	$1.99
Between I-5 and Montlake	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**
Intra-Eastside Movements	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**
Between I-405 and Eastside Interchanges	AM	NA	NA	NA	**NA**	**NA**	**NA**
	PM	NA	NA	NA	**NA**	**NA**	**NA**
	Off-Peak	NA	NA	NA	**NA**	**NA**	**NA**

SR 520 Bridge Replacement and HOV Project

SR 520 Toll Traffic and Revenue Technical Report

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