

January 2, 2018

The Honorable Paul Torkelson, Chair
House Transportation Finance Committee
381 State Office Building
Saint Paul, MN 55155

The Honorable Scott Newman, Chair
Senate Transportation Finance & Policy Committee
3105 Minnesota Senate Building
Saint Paul, MN 55155

The Honorable Linda Runbeck, Chair
House Transportation & Regional Governance Policy
Committee
417 State Office Building
Saint Paul, MN 55155

The Honorable Scott Dibble
Ranking Minority Member
Senate Transportation Finance & Policy Committee
2213 Minnesota Senate Building
Saint Paul, MN 55155

The Honorable Frank Hornstein, DFL Lead
House Transportation Policy & Finance Committee
243 State Office Building
Saint Paul, MN 55155

The Honorable Connie Bernardy, DFL Lead
House Transportation & Regional Governance
Policy Committee
253 State Office Building
Saint Paul, MN 55155

RE: 2018 MnPASS Express Lane Financial Report

Dear Legislators:

The Minnesota Department of Transportation is pleased to provide the report on MnPASS, Minnesota's system of priced managed lanes, as required by [Laws of Minnesota 2017, 1st Spec. Sess., Chapter 3, Section 137 \[\(a\) and \(b\)\]](#).

The report details the history, statutory framework, operating structure and enforcement of the three MnPASS facilities in the Twin Cities. It also gives data related to all the MnPASS lanes on I-394, I-35W and I-35E.

Please let me know if you have questions, or contact Bradley Larsen at brad.larsen@state.mn.us or 651-234-7024.

Sincerely,



Charles A. Zelle
Commissioner

MnPASS Express Lane Financial Report

January 2018

Prepared by:

The Minnesota Department of Transportation
395 John Ireland Boulevard
Saint Paul, Minnesota 55155-1899

Phone: 651-296-3000
Toll-Free: 1-800-657-3774
TTY, Voice or ASCII: 1-800-627-3529

To request this document in an alternative format, call 651-366-4718 or 1-800-657-3774 (Greater Minnesota). You may also send an email to ADArequest.dot@state.mn.us

Contents

- Legislative Request5**
- MnPASS Express Lane Background6**
 - Introduction6
 - MnPASS Statutory Framework6
 - MnPASS History and Location.....6
 - Operations9
 - Enforcement 12
 - Organization Structure..... 12
- MnPASS Lane Use Summary14**
- MnPASS Financial Summary16**
 - Funding Sources and Uses Overview 16
 - MnPASS Corridor Account Funding Sources..... 16
 - MnPASS Corridor Account Funding Uses..... 18
 - MnPASS Administrative/Transponder Account Funding Sources 21
 - MnPASS Administrative/Transponder Account Funding Uses 21
- I-394 Corridor22**
 - Capital Costs, Current Condition and Projected Life Expectancy 22
 - Revenue and Expenditure Summary 22
- I-35W Corridor25**
 - Capital Costs, Current Condition and Projected Life Expectancy 25
 - Revenue and Expenditure Summary 26
- I-35E Corridor28**
 - Capital Costs, Current Condition and Projected Life Expectancy 28
 - Revenue and Expenditure Summary 28
- Administrative/Transponder Account.....30**
 - Revenue and Expenditure Summary 30
- Other MnPASS Expenditures32**
- Appendix A: MnPASS Statutory Language.....34**

Appendix B: March 2017 Audit Memo	40
Appendix C: Memorandum of Understanding for Revenue Sharing	44
Appendix D: I-394 Corridor Map	53
Appendix E: I-35W Corridor Map	54
Appendix F: I-35E Corridor Map.....	55
Appendix G: MnPASS Current and Future Facilities Map	56

Legislative Request

This report is issued to comply with [Laws of Minnesota 2017, 1st Spec. Sess., Chapter 3, Section 137 \[\(a\) and \(b\)\]](#).

Sec. 137 – Report by Commissioner of Transportation on MnPASS Lanes and Tolling

- (a) On or before January 2, 2018, the commissioner of transportation must report to the chairs and ranking minority members of the senate and house of representatives committees and divisions with jurisdiction over transportation policy and finance concerning MnPASS lanes and tolling to reduce congestion and raise revenue.
- (b) At a minimum, the report must, with respect to MnPASS lanes:
 - (1) for each lane, state the capital costs, maintenance and repair costs, and operation costs;
 - (2) for each lane, indicate the current condition and the projected life expectancy;
 - (3) for each lane, list and explain the cost recovery ratio;
 - (4) list the amounts of the deposit of revenues made each year since pursuant to Minnesota Statutes, section 160.93, subdivisions 2 and 2a, including a breakdown of deposits for each lane for each year the lane has been in existence;
 - (5) list the cost to participate in the MnPASS program, broken down by each year a lane has been in existence;
 - (6) for each lane, list the total number of users, including a breakdown of the total number of each type of user; and
 - (7) provide an explanation of how MnPASS lane regulations are enforced.

The cost of preparing this report was less than \$5,000.

MnPASS Express Lane Background

Introduction

MnPASS is the name of Minnesota’s system of priced managed lanes, also known as High Occupancy Toll lanes. MnPASS Express Lanes have operated successfully in the Twin Cities metropolitan area since 2005. MnPASS uses market-based, congestion pricing principles to manage travel demand during peak-travel times and provide a congestion-free option for transit, carpools, motorcycles and a fee-based option to solo motorists. MnPASS is a key strategy for cost-effectively improving the efficiency and sustainability of the region’s highway and transit systems.

MnPASS Statutory Framework

[Minn. Stat. 160.93](#) governs MnPASS Express Lane finance. The federal statute applicable to MnPASS lane finance are [23 U.S.C. §129](#). The language of Minn. Stat. 160.93 and 23 U.S.C. §129 (a) are in Appendix A. As required by federal law, MnDOT conducts regular audits of MnPASS operations and finance. The most recent MnPASS audit memo is in Appendix B.

MnPASS History and Location

During the late 1990s, the Twin Cities Metro area and surrounding communities experienced significant economic and population growth. With growth came increased traffic and traffic delays.

In 1992, Interstate 394 included a section of road between Interstate 94 in Minneapolis and Highway 100 reserved for transit buses, vehicles with two or more occupants (carpools) and motorcycles. These two High Occupancy Vehicle lanes were open to commuters traveling eastbound in the morning and westbound in the afternoon. West of Hwy 100, I-394 included a single HOV lane in each direction also reserved for carpools, buses and motorcycles.

Unfortunately, the HOV lanes failed to attract enough vehicles and the lanes were underused. Even during peak-travel times, the HOV lanes were not operating at full capacity.

The Minnesota Department of Transportation engaged numerous stakeholders to weigh in on options to increase the usage of the HOV lanes. Opening the lanes to all motorists was not a good option because the state would be out of compliance with federal law. Opening the lanes to all motorists was also not a practical option because doing so would eliminate any advantage for transit users and carpools. Since the advantage was the major qualifier for receiving federal funds to construct the HOV lanes, any money received to build the lanes may have to be repaid.

The preferred option that emerged from the stakeholder engagement was to open the excess HOV lane capacity to motorists willing to pay for a faster more reliable commute. This maintained the incentive for transit users and carpoolers while increasing the use of the HOV lanes.

In 2003, with very little money to build new roads, Minnesota's governor and state legislature endorsed a project converting the I-394 HOV lanes to High Occupancy Toll lanes, also known as priced managed lanes. In May 2005, the state's first MnPASS Express Lanes were opened on I-394.

During peak-travel times, transit buses, carpools and motorcycles used the MnPASS Express Lanes for free while solo motorists drove in the lanes by paying a fee. The fee for solo motorists to use the lanes varied based on the level of traffic, or available capacity, in the MnPASS lane. The pricing managed demand for the lanes and maintained congestion-free (50-55 mph) speeds in the MnPASS lanes. The more vehicles in the lanes (less available capacity), the higher the fee paid by solo motorists to use the lanes. The fee for solo motorists was collected electronically, not through a toll booth.

Following the success of MnPASS on I-394, MnDOT worked with numerous regional and local partners to secure a federal Urban Partnership Agreement grant to make several significant highway and transit improvements along the I-35W corridor south of Minneapolis in 2009. These improvements included the conversion of the region's remaining HOV lanes to MnPASS lanes on I-35W between Burnsville and Richfield and the addition of MnPASS lanes on I-35W between Richfield and downtown Minneapolis in coordination with the Crosstown Commons reconstruction project. These MnPASS lanes were later extended further south on I-35W through Burnsville in 2011.

The improvements on I-35W resulted in a southbound MnPASS lane between 46th Street in Minneapolis and Hwy. 13 in Burnsville, and a northbound MnPASS lane between Crystal Lake Road in Burnsville and 26th Street in Minneapolis. The northbound MnPASS lane between 46th Street and 26th Street operates as a Priced Dynamic Shoulder Lane. This lane is a MnPASS lane during peak-travel times and a shoulder during off-peak times. As part of the I-35W Downtown to Crosstown project that began in 2017, the southbound MnPASS lane will be extended between 46th Street and 26th Street and the PDSL will be converted to a regular MnPASS lane. Once completed, all 27 miles of the MnPASS lanes on I-35W will have normal MnPASS operations during peak-travel times, and during off-peak times they will be regular general purpose lanes open to all motorists.

In 2015, the first MnPASS lanes were added in the east metro. The new MnPASS lanes on I-35E between Cayuga Street in St. Paul and County Road J in White Bear Lake provide a long-term congestion free option for commuters. Through the I-35E/I-694 commons area, the existing inside southbound lane is converted to a MnPASS lane during the morning peak, and there is no MnPASS lane in the northbound direction.

The MnPASS hours of operation are summarized in Table 1 below.

Table 1: MnPASS Hours of Operation Summary

MnPASS Corridor	Direction	Segment	AM Hours	PM Hours
I-394	Eastbound	Wayzata Blvd. to Hwy 100	6:00 AM to 10:00 AM	Not Restricted
	Westbound	Hwy 100 to I-494	Not Restricted	3:00 PM to 7:00 PM
	Reversible *	Hwy 100 to I-94	5:00 AM to 1:00 PM	2:00 PM to 4:00 AM
I-35W	Northbound	Crystal Lake Road to Hwy 62	6:00 AM to 10:00 AM	Not Restricted
	Northbound**	Hwy 62 to 26th Street	6:00 AM to 10:00 AM	3:00 PM to 7:00 PM
	Southbound	46th Street to I-494	6:00 AM to 10:00 AM	3:00 PM to 7:00 PM
	Southbound	I-494 to Hwy 13	Not Restricted	3:00 PM to 7:00 PM
I-35E	Northbound	Cayuga Street to Little Canada Road	Not Restricted	3:00 PM to 7:00 PM
	Northbound	I-694 to County Road J	Not Restricted	3:00 PM to 7:00 PM
	Southbound	County Road 96 to Cayuga Street	6:00 AM to 10:00 AM	Not Restricted

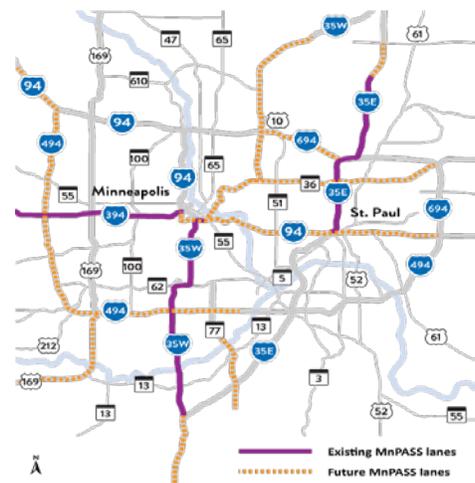
* The I-394 Reversible hours shown are for Monday through Friday. Weekend hours vary depending on events downtown.

** Segment includes the Priced Dynamic Shoulder Lane from 46th Street to 26th Street. The PDSL is typically open Monday through Friday from 6:00 AM to 7:00 PM but may be opened outside of these hours for special events. The PDSL is always tolled when open.

Work continues to expand the MnPASS Express Lane system. Projects underway or soon to enter construction include:

- 2017-2021 - I-35W Downtown to Crosstown in Minneapolis extending the southbound MnPASS lane between 26th and 46th streets and converting the northbound PDSL to a regular MnPASS lane
- 2019-2021/22 - I-35W North MnPASS between Hwy. 36 in Roseville and Lexington Ave. in Blaine adding a MnPASS lane in each direction

Figure 1: MnPASS Express Lane map*



*This map is also available in a larger format in Appendix G.

Other corridors under study and consideration for MnPASS expansion include:

- I-94 between Minneapolis and St. Paul
- I-35W between Roseville and downtown Minneapolis
- Hwy. 36 between Roseville and Maplewood
- I-494 between Eden Prairie and the MSP Airport
- Hwy. 77 between Apple Valley and Bloomington
- Hwy. 169 between Shakopee and Golden Valley

Operations

MnPASS Express Lanes are a key strategy for improving travel time reliability and increasing person throughput along the region's most congested highways. MnPASS lanes provide a significant advantage for bus transit, encourage more carpooling and give solo motorists an option to bypass congestion and plan for a reliable trip. During peak-travel times, transit buses, vehicles with two or more occupants including children or infants (HOV 2+), and motorcycles may drive in designated MnPASS lanes for free. Solo motorists who have a MnPASS account and a MnPASS tag can choose to pay a fee to drive in the MnPASS lanes during peak-travel times. The fees to drive in the lanes are posted on overhead signs.

MnPASS lanes operate as regular general purpose lanes nearly 90 percent of the time. During off-peak times, all motorists may drive in the MnPASS Express Lanes. Overhead MnPASS signs will read OPEN TO ALL TRAFFIC or OPEN when the lanes are open to all motorists.

How it works

Transit buses, vehicles with two or more occupants (HOV 2+), and motorcycles can use the MnPASS lanes any time for free without a MnPASS account or a MnPASS tag. If solo motorists want the option to use the MnPASS lanes during peak-travel times, they must open a MnPASS account and properly mount a MnPASS tag in their vehicle. A tag (or transponder) is an electronic device placed on the inside of a vehicle's windshield which communicates with overhead toll reading equipment located on structures above the lanes. Toll readers record the tag ID and transfer the information back to the central MnPASS operating system. The system analyzes each time the tag is read, determines the length of the trip and records the fee for the trip. This information is passed onto the MnPASS customer account system, which automatically deducts the fee from the customer's prepaid account.

Individuals can open a MnPASS account online at mnpass.org, by phone or at one of five MnPASS customer service locations in the metro area. A MnPASS account is like a debit account that is set up using either a credit or debit card. The initial prepaid amount is \$25. When the account balance drops below \$15, \$40 is automatically added to the account via the credit or debit card on file.

When opening an account, a customer must also choose between two tag options – a switchable tag that has a one-time \$15 fee and a sticker tag that is free. The switchable tag can be transferred between vehicles and gives the motorist an option to switch the tag to HOV 2+/free mode if a passenger is in the

vehicle. The sticker tag cannot be transferred between vehicles and cannot be switched into HOV 2+/free mode.

Figure 2: MnPASS Switchable Tag



Figure 3: MnPASS Sticker Tag



MnPASS lanes are typically separated from adjacent general purpose lanes by either solid double white lines or dashed double white lines. The MnPASS lanes can only be entered or exited where there are dashed double white lines. It is illegal to cross solid double white lines at any time, whether or not MnPASS is in operation.

Figure 4: MnPASS Lane Separation



Understanding pricing

Overhead digital signs display the fee solo motorists must pay to use the MnPASS lanes. The fees to drive in the MnPASS lanes during peak-travel times range between \$.25 and \$8. The fee is updated every three minutes depending on how many vehicles are currently in the MnPASS lane. Detectors in the pavement measure traffic volumes and speeds in the MnPASS lane. As the number of vehicles in the MnPASS lane increases, the fee to drive in the lane increases; when the number of vehicles in the lane decreases, the fee decreases. Having variable pricing helps keep traffic in the MnPASS lanes flowing between 50 and 55 mph during peak-travel times.

Figure 5: MnPASS Pricing Sign Example



The purpose of the pricing is to maintain congestion-free (50-55mph) speeds, not to generate a specific amount of revenue. HOT lane systems like MnPASS are not major revenue-generators. They are designed for the purpose of reducing and managing congestion, and the revenue generated from a mature facility generally only covers the facility's operations and routine maintenance costs. The largest revenue-generating toll facilities are fully tolled (shoulder-to-shoulder) roads and bridges in highly congested corridors with few alternative routes. For a HOT lane facility to generate significant revenue, it must be in a highly congested corridor (in terms of both severity and duration) and have most, if not all, of the following attributes:

- **Multiple tolled lanes** – at least two lanes in each direction or a three-lane reversible facility that allows two lanes in the peak direction and one lane in the opposite direction – these lanes are almost always added lanes, but they can include the conversion of existing lanes to tolled lanes
- **24-7 Tolling** - tolled all day, every day of the year
- **Few exemptions to paying the toll** – at most transit buses and vehicles with three or more passengers (HOV3+) should be allowed to use the facility for free
- **Require all exempted vehicles to have transponders** – use either a switchable tag or require HOV3+ carpoolers to pre-register
- **Use camera-based license plate tolling** for all vehicles that do not have a transponder (and charge higher toll rates for such vehicles)
- **No limitation on toll rates** (or very high maximum toll rate limits)

There are very few locations in the Twin Cities where such a revenue-generating HOT lane facility would be viable due to insufficient congestion levels, right of way limitations and the significant environmental and economic cost associated with acquiring additional right of way to add lanes in fully developed urban corridors. Changing HOV policies, raising toll rates and implementing camera-based license plate tolling are also complex and controversial decisions.

Enforcement

The MnPASS lanes are enforced by the Minnesota State Patrol. Prior to 2016, MnDOT contracted with MSP to dedicate two troopers to enforce the I-394 MnPASS lanes (one during the morning peak and one during the afternoon peak) and four troopers to enforce the I-35W MnPASS lanes (two during the morning peak and two during the afternoon peak). Under this arrangement, existing troopers were paid overtime for MnPASS enforcement rather than hiring new troopers. In 2016 with the addition of the new I-35E MnPASS lanes, MnDOT and MSP took a new approach by hiring six full-time troopers to enforce the MnPASS lanes. This approach allows one trooper to be enforcing in each corridor during each peak period. MnDOT and MSP are in the process of hiring two additional troopers to restore the ability to have two troopers enforcing the I-35W lanes during each peak period, to offer more opportunities for saturation enforcement on specific corridors, and to help cover shifts when troopers are on leave.

During peak-travel times, troopers identify vehicles that do not have a MnPASS tag attached to the windshield. They then look for whether or not there is another occupant in the car. If there is not another occupant in the car, the driver can be pulled over and issued a citation. The troopers also look for vehicles that illegally cross the double solid white lines, which separate the MnPASS lanes from the general purpose lanes. Depending on the county in which they are issued, citations can cost motorists up to \$300. The typical fine plus court fees ranges between \$150-200. None of the revenue from fines is returned to the MnPASS program or the State Patrol. The revenue is used and distributed through the standard process for moving violation fines.

Troopers use a variety of tools and techniques to identify MnPASS lane violations. Troopers generally park on the inside shoulder or drive in the adjacent general purpose lane to identify violations. When they see a potential violation, they pull the suspected vehicle over to the left inside shoulder if there is sufficient shoulder width. Otherwise they pull the vehicle to the right outside shoulder and issue either a citation if a violation is confirmed or a warning. The troopers are able to verify if a MnPASS tag is functioning properly, when it was last read and if an individual's account is in good standing. MnDOT and MSP are also testing other new equipment to improve the troopers' efficiency, effectiveness and safety, such as beacons above the lanes that indicate when a motorist has a valid MnPASS tag and cameras to assist troopers in identifying potential violations.

While the troopers' primary focus is to identify MnPASS lane violations, they do not ignore other violations such as speeding, distracted driving or expired tabs. They also assist with other incidents when needed.

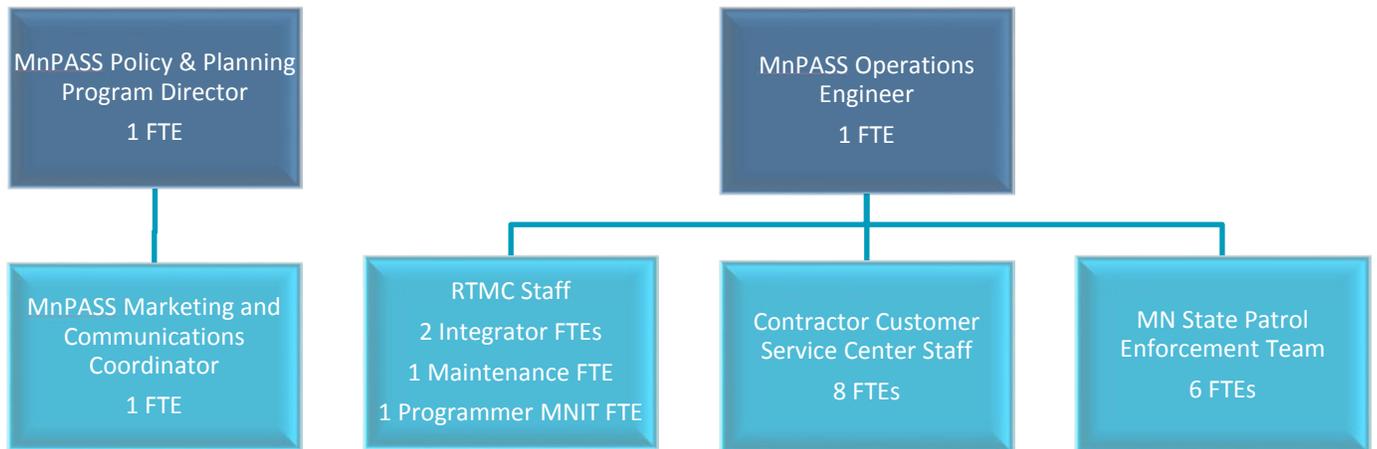
Organization Structure

Figure 6 below provides an overview of the current organization structure for the MnPASS Express Lane program. This includes all of the full time staff who work on MnPASS.

Figure 6: MnDOT Organizational Structure for MnPASS Program

Metro Planning, Program Mgmt.
& Transit Office

Metro Regional Transportation
Mgmt. Center (RTMC)



In addition to the full-time staff, there are three other MnDOT staff who regularly spend part of their time each month on MnPASS finance and operations tasks. There are also many other MnDOT staff who occasionally work on MnPASS related projects and tasks in areas such as planning, program management, public engagement and communications, project design and construction, traffic operations and analysis, finance, contract management, audit, legal and research.

The MnPASS organizational structure has evolved over time as the system grew, and more detail on MnPASS staffing is provided throughout the report.

MnPASS Lane Use Summary

Table 2 below provides a summary of MnPASS lane users. The pie charts in the table show the percentage of vehicles and people moved on average each day in each MnPASS corridor by vehicle type:

- tolled (solo motorists using a MnPASS tag)
- transit buses and car/vanpools (vehicles with two or more occupants or HOV 2+)
- violators (solo motorists who do not have a MnPASS tag and are using the lane illegally)
- The number of vehicles and people on which these percentages are based is included following the pie charts. The data is from the Quarterly MnPASS Operations Report for July-September 2017.

Figure 7: Summary of MnPASS Lane Users

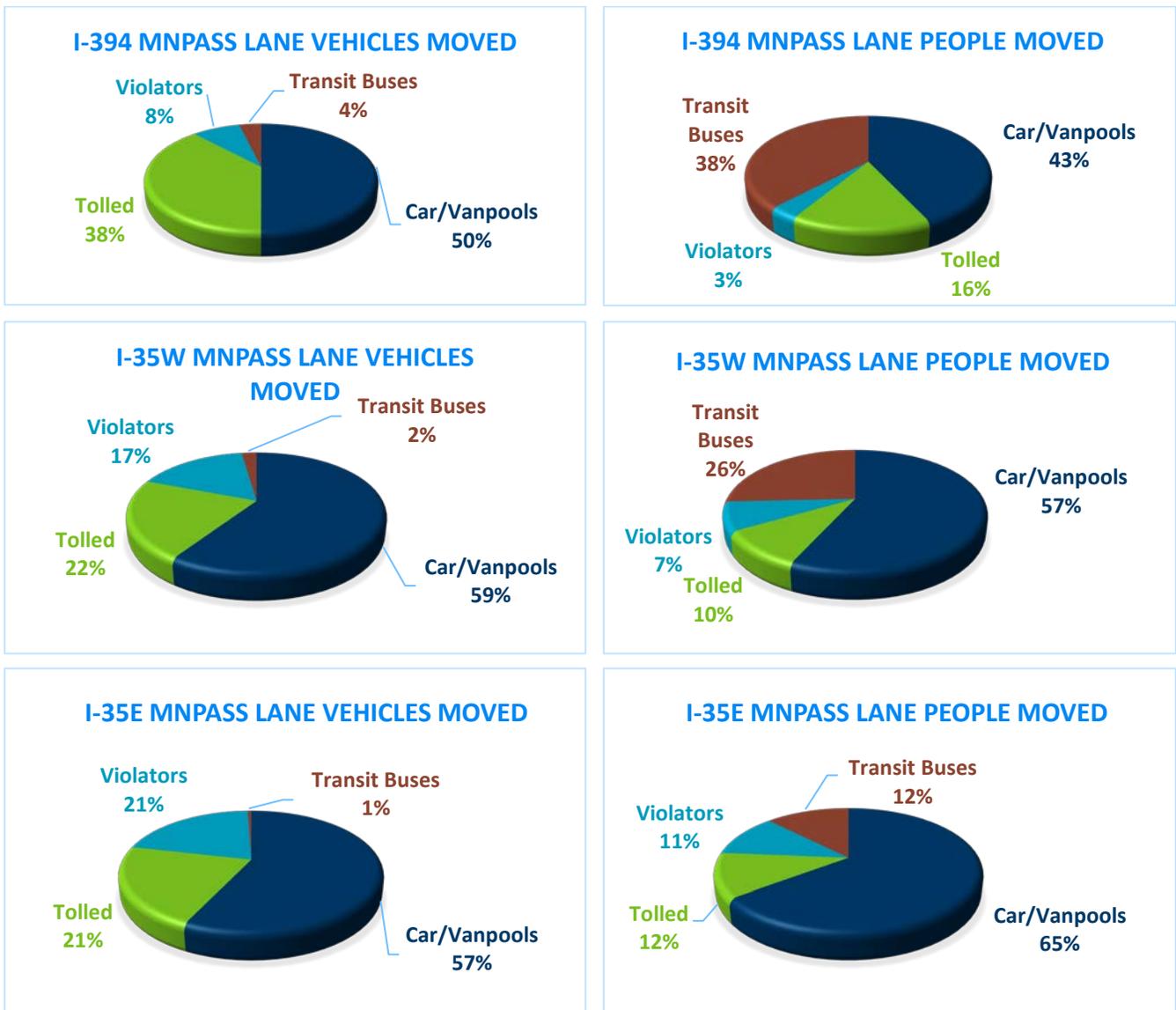


Table 2: Average Daily Vehicle and Person Throughput*

Average Daily Vehicle Throughput (6:00 - 10:00 A.M. and 3:00 - 7:00 P.M.)				
	I-394	I-35W	I-35E	MnPASS System Total
Car/Vanpools	8,530	9,001	5,608	23,139
Transit Buses	638	343	53	1,034
Tolled	6,489	3,262	2,116	11,867
Violators	1,392	2,558	2,052	6,002
Total	17,049	15,164	9,829	42,042

Average Daily Person Throughput (6:00 - 10:00 A.M. and 3:00 - 7:00 P.M.)				
	I-394	I-35W	I-35E	MnPASS System Total
Car/Vanpools	17,915	18,903	11,779	48,597
Transit Buses	15,794	8,554	2,254	26,602
Tolled	6,489	3,262	2,116	11,867
Violators	1,393	2,558	2,051	6,002
Total	41,591	33,277	18,200	93,068

* MnPASS Express Lanes Operations Report 2017, 3rd Quarter,--July -September

The transit bus numbers include express commuter buses operated by Metro Transit, Minnesota Valley Transit Association, Plymouth Metrolink and SouthWest Transit. Other buses that use the MnPASS lanes are included in the Car/Vanpool numbers. Once again, violators are solo motorists who do not have a valid MnPASS account/tag and are using the lanes illegally. The violation data is based on the most recent violation assessment conducted in 2017, which is reflected in the quarterly MnPASS Express Lanes Operations Reports.

MnPASS Financial Summary

This section provides an overview of the MnPASS Express Lane System funding sources and uses. It also provides a summary of the capital cost, current condition, projected life expectancy, revenues, expenditures and cost recovery ratio for each MnPASS corridor. Finally, there is a summary of revenues and expenditures associated with the MnPASS Administrative/Transponder account and other expenditures related to MnPASS.

Funding Sources and Uses Overview

Table 3 below is a summary of the primary funding sources and uses for each MnPASS account. Following the table, there is a more detailed description of each funding source and use.

Table 3: MnPASS Accounts

MnPASS Accounts			
	I-394 & I-35E	I-35W	Administrative/Transponder
Funding Sources	<ul style="list-style-type: none"> ▶ Toll Revenue ▶ Trunk Highway Funds 	<ul style="list-style-type: none"> ▶ Toll Revenue ▶ Trunk Highway Funds 	<ul style="list-style-type: none"> ▶ Transponder/Tag Fees ▶ Administrative Fees
Funding Uses	<ul style="list-style-type: none"> ▶ Capital Cost Repayment <ul style="list-style-type: none"> • Operating/Maintenance Expenses <ul style="list-style-type: none"> - Operations contract - Enforcement - MnDOT/MNIT staff - Utilities - Miscellaneous equipment/supplies • Toll Equipment Replacement Costs <ul style="list-style-type: none"> ◦ Met Council Transit Payment 	<ul style="list-style-type: none"> ▶ Operating/Maintenance Expenses <ul style="list-style-type: none"> - Operations contract - Enforcement - MnDOT/MNIT staff - Utilities - Miscellaneous equipment/supplies ▶ Toll Equipment Replacement Costs ▶ Met Council Transit Payment 	<ul style="list-style-type: none"> ▶ Tag Purchases ▶ Toll Readers/Antennas ▶ Postage

MnPASS Corridor Account Funding Sources

Toll Revenue

Toll revenue is collected each time a MnPASS accountholder uses a MnPASS lane as a solo driver during a peak travel time. The amount of toll revenue collected for each corridor is dependent on the level of use by MnPASS accountholders and can fluctuate from year to year based on a variety of factors, such as weather and construction. Years with greater amounts of snow, ice and rain during peak travel times can increase the demand for the MnPASS lanes which then increases toll revenue. Years with lower amounts of snow, ice and rain during peak travel times result in less MnPASS lane demand and toll revenue.

Construction work within MnPASS corridors or on nearby highways can also impact MnPASS lane demand and toll revenue. Construction within MnPASS corridors can make it necessary to close MnPASS lanes at certain times, which results in lower toll revenue. Construction on nearby highways can also impact MnPASS lanes by either increasing or decreasing demand for the lanes depending on the type of work being done, the timing of the work and the alternative routes commuters take to their destination. For example, past construction on Highway 100 between I-494 and I-394 increased traffic on certain segments of I-394 and I-35W which then increased the demand for the MnPASS lanes and increased toll revenue. On the other hand, work on nearby highways can at times restrict traffic flow to MnPASS corridors, which then decreases demand and toll revenue.

Other factors such as gas prices, the economy, population and the overall amount of vehicle travel also impact the demand for MnPASS lanes and toll revenue.

It is also important to note that toll revenue is typically lower in the first few years after a new MnPASS facility opens. As corridor users gain experience and better understand how MnPASS works, use of the lane grows and so does the toll revenue. The data on the existing MnPASS corridors demonstrate that the “ramp-up” growth continues for several years and at a certain point reaches a level of maturity. At this point, growth slows and begins to more closely match overall travel growth in a corridor.

There is a monthly reconciliation process to verify the toll revenues received. When a customer opens an account and uses a credit or debit card to put \$25 into their prepaid account, that prepaid amount is considered unearned revenue until the customer actually uses a MnPASS lane and a fee is deducted from their prepaid account. Only then is it considered earned toll revenue. Only earned toll revenue can be used to cover MnPASS expenses.

The reconciliation process involves balancing the revenue collected in the bank against the credit card statements, the financial reports from the operations contractor who processes the credit card payments and the state’s financial system. The process also involves the deduction of credit card fees from each corridor’s toll revenue. The credit card fees are deducted from each corridor account based on corridor use during the previous year.

Trunk Highway Funds

In addition to toll revenue, the primary source of supplemental funding for MnPASS corridors is the Trunk Highway Fund. TH funding covers MnPASS operating and maintenance expenses for I-394, I-35E and future corridors, in years when toll revenue is first used to repay the capital costs of implementing MnPASS in a corridor, as required in statute.

TH funding also covers the gap between operating and maintenance expenses on I-35W when there is insufficient toll revenue due to the statutory requirement to share revenue with Metro Transit prior to fully covering the corridor’s operations and maintenance expenses. TH funding also covers all costs associated with planning, developing and constructing future MnPASS lanes because revenue from the existing corridors can only be used in those corridors. Other MnPASS-related expenditures covered with TH funding outside of the MnPASS accounts are explained in more detail at the end of the report.

MnPASS Corridor Account Funding Uses

According to [Minn. Stat. 160.93, subd. 2](#), toll revenue generated in a specific MnPASS corridor must be used in that same corridor.

For the I-394, I-35E and future MnPASS corridors, the revenue use requirements are the same. Toll revenue must:

1. First be used to repay the capital costs to implement MnPASS in that corridor
2. Second to pay for operations and maintenance expenses
3. Third any remaining revenue is split equally between MnDOT and the Met Council for highway and transit improvements in that corridor

For I-35W, the revenue use requirements are different. First, there is no requirement to first use I-35W toll revenue to repay the capital costs to implement MnPASS in the corridor. Second, the following calculation applies:

Year 1

1. Revenue is allocated to MnDOT for operations and maintenance expenses within the corridor, up to \$1 million
2. Revenue in excess of \$1 million is transferred to the Met Council for improvement of bus transit services within the corridor including transit capital expenses

Year 2 and beyond

1. The revenue allocated to MnDOT is the lesser amount of \$1 million or 75 percent of the revenues for operations and maintenance expenses within the corridor.
2. The amount remaining up to \$333,000 is transferred to the Met Council for improvement of bus transit services within the corridor including transit capital expenses.
3. The amount remaining (i.e. above \$1,333,333) is allocated as follows:
 - (a) 25 percent to MnDOT for operations and maintenance expenses within the corridor and for transportation capital improvements that are consistent with the goals of the Federal Urban Partnership Agreement and located in the corridor
 - (b) 75 percent to the Met Council for improvement of bus transit services within the corridor including transit capital expenses.

For Year 2 and beyond, the revenue use requirements mean that any earned toll revenue below \$1,333,333 is covered under items 1 and 2, where MnDOT receives 75 percent of the revenues up to \$1 million and the Met Council receives 25 percent of the earned toll revenues up to \$333,333. Any toll revenues above \$1,333,333 are distributed as defined under item 3.

Below is a more detailed explanation of specific MnPASS corridor account funding uses.

Operations and Maintenance Expenses

The operations and routine maintenance expenses for each corridor include:

Operations contract – MnDOT contracts with a private contractor to operate the MnPASS system. The first two operations contracts (March 2005-10 and 2010-15) had the same prime contractor and were very similar. Under the first two contracts, the contractor supplied, installed, maintained and operated most of the tolling technology and system, which included toll readers and antennas, price signs, roadside communications equipment and software, the pricing algorithm, transponders and the customer account software/back-office system. The contractor also staffed and operated the MnPASS customer service center, which included MnPASS marketing.

In March 2015, almost all of the MnPASS tolling technology and system needed to be replaced and upgraded; so, MnDOT modified its operations approach to improve procurement flexibility and efficiency, improve contractor competition, and lower long-term operations costs by contracting separately for the purchase and initial installation of new toll readers and antennas, customer account software/back-office system and the customer service center. MnDOT took responsibility for supplying, installing, maintaining and operating the remainder of the tolling technology and system, which included the roadside communications equipment and software, and the pricing algorithm, which required the addition of two full-time MnDOT staff and one Minnesota Information Technology staff.

Under the current operations contract, the contractor has eight staff located at the MnPASS Customer Service Center in Golden Valley who are responsible for managing and maintaining the customer registration and account system, and all aspects of MnPASS customer service including:

- assisting new customers with setting up accounts
- sending out tags and other information to new and existing customers
- responding to customer questions and concerns

The eight staff consist of a project manager, an operations supervisor, an information technician, a data analyst, a customer service supervisor and three customer service representatives.

Enforcement - As explained in more detail earlier in the report, MnDOT contracts with the Minnesota State Patrol to enforce the MnPASS lanes. Enforcement costs currently include the equipment, training and salaries for six troopers. Equipment and training expenses are allocated equally between the corridors and the troopers charge their time to the corridor(s) they work during a shift.

MnDOT/MNIT staff – As shown in Figure 6, there are currently six MnDOT full-time employees and one MNIT FTE dedicated to MnPASS. Three of the MnDOT FTEs and the MNIT FTE are responsible for operating and maintaining the existing MnPASS system. The remaining three MnDOT FTEs focus on both the existing and future MnPASS system and are responsible for program management, system/corridor planning, policy analysis/development, operations/maintenance supervision, system/corridor engineering, lane performance monitoring/analysis, public engagement, marketing, customer service and communications. Because these remaining three MnDOT FTEs work on both existing

and future MnPASS lanes, they can only charge a portion of their time to the existing corridor accounts. The remainder of their time is covered by TH funding. The number of MnDOT staff dedicated to MnPASS and charging to MnPASS corridor accounts has grown over time as the system has expanded and as the department has assumed responsibility for more of the system's operations and maintenance. More detail on staffing is provided later in the report.

Utilities – Utilities include the cost of electricity to operate the MnPASS system.

Miscellaneous equipment/supplies – This includes the printing of MnPASS brochures and other communications material, and the purchasing of office equipment and supplies.

Toll Equipment Replacement

In addition to operations and routine maintenance expenses, MnPASS corridor account funding can also be used for major maintenance activities such as the replacement of MnPASS sign structures, which was done on I-394 in state fiscal years 2014-15. Because of the higher cost of these major maintenance activities and the limited amount of funding available in the MnPASS accounts, most of this work is covered by TH funding outside of the MnPASS accounts. More detail about this is provided at the end of the report.

Met Council Transit Share

The amount and uses of toll revenue transferred to the Met Council (Metro Transit) for bus transit improvements in MnPASS corridors is statutorily established as described above. For I-394, I-35E and future MnPASS corridors, all capital, operations and maintenance costs must first be covered before equally dividing any remaining revenue between the Met Council and MnDOT for corridor improvements. For I-35W, there is no requirement to first use toll revenue to repay MnPASS capital costs, and the toll revenue is shared with the Met Council before operations and maintenance costs have been fully covered. More details on revenue sharing between MnDOT and the Met Council are available in the agencies' revenue sharing memorandum of understanding in Appendix C.

MnDOT's Share of Remaining Toll Revenue

To date, MnDOT has used its share of any remaining toll revenue for MnPASS operations upgrades and toll equipment improvements. It is possible in the future that MnDOT will use its share of remaining revenue for other types of corridor improvements such as pavement or bridge preservation projects or spot mobility improvements designed to improve the performance of the MnPASS lanes in a corridor. This use of funding is most likely to occur first on I-394 because the capital costs have been fully repaid and there is no requirement to pay the Met Council a share before operations and maintenance costs have been covered like on I-35W. On I-35E and future MnPASS corridors, the current statutory requirement to first use toll revenue to repay capital costs means it will take decades before any revenue is available to cover operations and maintenance expenses or be available for other corridor improvements. On I-35W, even though there is no requirement to repay capital costs, the statutorily required calculation for sharing toll revenue with the Met Council makes it unlikely there will be

sufficient remaining revenue for anything other than MnPASS operations and toll equipment replacement in the future.

MnPASS Administrative/Transponder Account Funding Sources

The current funding sources for the MnPASS Administrative/Transponder account include MnPASS transponder/tag fees and administrative fees for items such as late payments and mailed statements.

From the opening of the first MnPASS lanes on I-394 in 2005 through November 2015, MnDOT charged a \$1.50 per month lease fee for each active MnPASS transponder/tag. In November 2015, MnDOT eliminated the monthly fee, and started offering two new transponder/tag options: the “switchable tag” option that has a one-time \$15 fee and the free “sticker tag” option.

Transponder/tag and administrative fee revenue goes through the same monthly reconciliation process as toll revenue. This process also reconciles and adjusts customer accounts for items such as fees charged in error and use of promotional credits.

MnPASS Administrative/Transponder Account Funding Uses

MnPASS Administrative/Transponder Account funding is currently used for the following: transponder/tag purchases, toll reader/antenna costs and postage expenses. From state fiscal year 2005 through 2010, all of the Administrative/Transponder Account revenue was used to cover I-394 corridor account expenditures because it was the only MnPASS corridor. In 2011, MnDOT began using Administrative/Transponder Account revenue to cover the following specific expenses:

Transponder/tag purchases – MnDOT purchases MnPASS transponders/tags necessary to meet new customer demands and replace tags that no longer work. In November 2015, MnDOT started using new MnPASS tags because the old transponders were becoming obsolete. The old transponders were replaced and completely phased-out in June 2017. MnPASS customers must now have either a new switchable or sticker tag to use the lanes. Currently, each switchable tag costs MnDOT \$24 and each sticker tag costs \$9.

Toll readers/antennas – In 2015, MnDOT started using Administrative/Transponder Account revenue to cover its new contract with a private contractor to supply, install and test toll readers and antennas along each MnPASS corridor. New readers and antennas were installed on all of the MnPASS corridors in 2015.

Postage – Postage expenses include sending out transponders/tags to MnPASS customers and customer correspondence.

I-394 Corridor

Capital Costs, Current Condition and Projected Life Expectancy

The capital costs of implementing the MnPASS Express Lanes on I-394 included the installation of toll equipment and the creation of a MnPASS customer service system and center. There was no need to add lanes on I-394 because the implementation of MnPASS only involved the conversion of the existing High Occupancy Vehicle lanes to High Occupancy Toll lanes. The implementation was accomplished through a public-private partnership between MnDOT and the initial operations contractor. The contractor contributed approximately 25 percent of the implementation costs in staff time and equipment (valued at approximately \$2.5 million). MnDOT's cost was \$8.2 million, funded with a loan from ABC ramp revenue. The loan from ABC ramp revenue was repaid.

In 2015-16, all of the I-394 MnPASS tolling equipment was replaced and is currently in good condition. In 2016-17, most of the I-394 MnPASS lanes were overlaid and restriped and are also in good condition. The projected life expectancy of the tolling equipment is approximately 10 years and will need to be replaced in 2025-26. The projected life expectancy of the striping is approximately 5 years, so the lanes will need to be restriped by 2021-22. The pavement between County Road 15 and I-494 is projected to require major concrete pavement rehabilitation in 2025 and major reconstruction in approximately 2040. The pavement between I-494 and Hwy 100 is projected to require a medium bituminous mill and overlay in 2026 and in 2045, and major reconstruction in approximately 2065. The pavement between Hwy. 100 and I-94 is projected to require a bituminous overlay in 2030, a mill and overlay in 2045 and major reconstruction in approximately 2060.

Revenue and Expenditure Summary

Table 4 below summarizes I-394 MnPASS account revenue and expenditures.

Table 4: Summary of the I-394 MnPASS Account

I-394 Account														
State Fiscal Year		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues	Toll revenue	52,700	781,908	1,099,937	1,084,675	1,148,260	1,347,351	1,517,639	1,396,752	1,705,562	2,073,458	1,643,478	1,187,089	1,422,270
	Toll revenue rollover from previous year				68,521	80,433		83,115	115,505	112,257	356,950	1,583,317	1,312,455	75,750
	Transponder/tag revenue		152,231	254,542	276,205	310,427	359,747							
	Trunk Highway funding	178,490	5,349			2,099,733	687,513	976,038	1,063,266	1,085,133	926,549	780,097	116,000	
<i>Revenue Subtotal</i>		231,190	939,488	1,354,479	1,429,401	3,638,853	2,394,611	2,576,792	2,575,523	2,902,952	3,356,957	4,006,892	2,615,544	1,498,020
Expenditures	Capital cost repayment		9,000	237,000	240,000	2,589,839	1,200,000	1,500,000	1,200,000	1,224,161				
	<i>Capital Cost Repayment Subtotal</i>	0	9,000	237,000	240,000	2,589,839	1,200,000	1,500,000	1,200,000	1,224,161	0	0	0	0
	Operations contract	218,775	845,913	929,350	979,728	931,358	1,002,248	801,589	1,098,000	1,125,000	1,176,147	1,001,486	1,985,945	516,067
	Enforcement	12,415	84,575	119,608	129,240	117,656	109,248	133,830	139,813	169,402	185,993	208,309	377,642	271,303
	Utilities							23,385	23,972	25,778	26,549	32,300	35,064	34,320
	MnDOT/MNIT staff											31,678	123,784	71,226
	Misc. equipment/supplies							2,483	1,481	1,661	8,480	20,664	17,359	14,664
	<i>Operations & Maintenance Subtotal</i>	231,190	930,488	1,048,958	1,108,968	1,049,014	1,111,496	961,287	1,263,266	1,321,841	1,397,169	1,294,437	2,539,794	907,580
	Toll equipment replacement										76,654	1,400,000		
	Met Council transit payment										299,817			257,346
<i>Expenditures Subtotal</i>		231,190	939,488	1,285,958	1,348,968	3,638,853	2,311,496	2,461,287	2,463,266	2,546,002	1,773,640	2,694,437	2,539,794	1,164,926
End of Biennium Account Balance Rollover		0	0	68,521	80,433	0	83,115	115,505	112,257	356,950	1,583,317	1,312,455	75,750	333,094

Some items to note in the I-394 table include:

- Transponder/tag revenue was used for I-394 operations contract expenditures 2006-10.
- The increase in toll revenue in 2014 was due in part to several instances of poor weather conditions during peak travel times and to construction projects on other facilities creating more traffic and congestion on I-394. Conversely, the decrease in toll revenue in 2016 was due in part to better than normal weather conditions and to MnPASS lane closures from construction in the I-394 corridor.
- The increase in operations contract and enforcement expenses in 2016 was due to the replacement and upgrade of the MnPASS operating system and additional up-front expenses under the new enforcement contract (e.g. state trooper academy training costs, vehicle and equipment purchases).
- Near the end of 2015, MnDOT assumed more of the MnPASS operations and maintenance responsibilities and added two MnDOT FTEs and one MNIT FTE to perform the work. The increase in MnDOT/MNIT staff expenses in 2016 was primarily due to the additional time required to replace and upgrade the MnPASS operating system. In 2017, three additional MnDOT staff began charging a portion of their time to the I-394 corridor account.

Cost Recovery Ratio

The cost recovery ratios in Table 5 below were calculated by dividing annual toll revenue by annual operations and maintenance expenses and toll equipment replacement expenses in the I-394 corridor account.

Table 5: Cost Recovery Ratio for I-394

I-394 Account - Cost Recovery Ratio													
State Fiscal Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Toll revenue	52,700	781,908	1,099,937	1,084,675	1,148,260	1,347,351	1,517,639	1,396,752	1,705,562	2,073,458	1,643,478	1,187,089	1,422,270
Operations & Maintenance and Toll equipment replacement expenses	231,190	930,488	1,048,958	1,108,968	1,049,014	1,111,496	961,287	1,263,266	1,321,841	1,473,823	2,694,437	2,539,794	907,580
Ratio	0.23	0.84	1.05	0.98	1.09	1.21	1.58	1.11	1.29	1.41	0.61	0.47	1.57

I-35W Corridor

Capital Costs, Current Condition and Projected Life Expectancy

The capital costs of implementing the MnPASS Express Lanes on Interstate 35W included the installation of toll equipment, engineering and construction of the new lanes, and communications associated with the opening of the new MnPASS lanes. About half of the I-35W south corridor had existing High Occupancy Vehicle lanes that were converted to High Occupancy Toll lanes. The conversion of the MnPASS lanes from HOV to HOT on I-35W was done in conjunction with other pavement, bridge, transit and traffic management improvements that were part of the Crosstown Commons project and the Urban Partnership Agreement project. The MnPASS portion of the project cost was approximately \$55.1 million. The funding sources for the capital costs included state trunk highway funds and federal funds, with the majority of the funding coming from the federal UPA grant.

The I-35W MnPASS lanes were implemented between 2009 and 2011. Major segments of the I-35W corridor will be reconstructed over the next four years as part of the I-35W Lake Street/Transit Access project and the I-35W Minnesota River Bridge replacement project. Much of the tolling equipment (toll readers, antennas and roadside communications equipment) was replaced in 2015-16 and is currently in good condition with a projected 2025-26 life expectancy. The MnPASS price signs on I-35W are reaching the end of their useful lives and will be replaced in the 2018-21 timeframe in coordination with the major projects mentioned above. Some of the striping will also be redone as part of the major I-35W projects, and the projected life expectancy of the remaining striping ranges from approximately 3-7 years. The I-35W pavement condition and projected life expectancy is summarized as follows:

- I-35E/35W Split in Lakeville to I-494
 - Bituminous mill and overlay in 2023
 - Major reconstruction in approximately 2038
- Cliff Road to 106th Street (subset of above segment)
 - Major reconstruction in 2018-2020 as part of Minnesota River Bridge replacement
 - Thin bituminous mill and overlay at year 25 (approximately 2045)
 - Medium bituminous mill and overlays at years 42 and 59 (in about 2062 and 2079)
 - Major reconstruction at year 75 (approximately 2095)
- I-494 to Hwy 62
 - Minor concrete pavement rehabilitation, or CPR, in 2020
 - Major CPR (approximately 2040 and 2060)
 - Major reconstruction in about 2075
- Hwy 62 to 43rd Street
 - Minor CPR in approximately 2035
 - Major CPR in approximately 2050 and 2065
 - Major reconstruction in approximately 2085

- 43rd Street to I-94
 - Major reconstruction in 2017-2020
 - Minor CPR at year 25 (2045)
 - Major CPR at years 42 and 59 (in about 2062 and 2079)
 - Major reconstruction at year 75 (approximately 2095)

Revenue and Expenditure Summary

- Table 6 below summarizes I-35W MnPASS account revenue and expenditures.

Table 6: Revenues and Expenditures for I-35W MnPASS

I-35W Account									
State Fiscal Year		2010	2011	2012	2013	2014	2015	2016	2017
Revenues	Toll revenue	180,301	718,541	1,088,834	1,600,715	1,800,582	1,886,794	1,897,165	1,726,759
	Toll revenue rollover from previous year		32,764	546,025	704,374	1,066,109	1,346,042	1,493,617	-138,993
	Trunk Highway funding	448,106	1,652,195	235,856	100,967	0	0	340	220,341
<i>Revenue Subtotal</i>		628,407	2,403,500	1,870,715	2,406,056	2,866,691	3,232,836	3,391,122	1,808,107
Expenditures	Operations contract	438,871	1,350,810	553,433	387,894	394,725	547,217	1,988,539	516,067
	Enforcement	156,772	255,804	248,284	279,700	259,246	269,933	489,133	337,557
	Utilities		45,038	59,402	67,031	70,405	75,396	71,837	75,227
	MnDOT/MNIT staff		25,645	32,379	70,485	91,400	97,032	210,342	103,189
	Misc. equipment/supplies		543	635	967	21,103	1,212	14,057	8,803
	<i>Operations & Maintenance Subtotal</i>	595,643	1,677,840	894,133	806,077	836,879	990,790	2,773,908	1,040,843
	Toll equipment replacement								
	Met Council transit payment		179,635	272,208	533,870	683,770	748,429	756,207	628,403
<i>Expenditures Subtotal</i>		595,643	1,857,475	1,166,341	1,339,947	1,520,649	1,739,219	3,530,115	1,669,246
End of Year Account Balance Rollover		32,764	546,025	704,374	1,066,109	1,346,042	1,493,617	-138,993	138,861

Some items to note in the I-35W table include:

- The decrease in toll revenue in 2017 was due in part to better than normal weather conditions and to fewer construction projects on or near I-35W.
- The increase in operations contract and enforcement expenses in 2016 was to replace and upgrade the MnPASS operating system and for additional up-front expenses under the new enforcement contract (e.g. state trooper academy training costs, vehicle and equipment purchases).
- MnDOT staff charged time to the I-35W corridor account beginning in 2011. The department decided to use in-house staff (one FTE) to perform routine maintenance on the new I-35W MnPASS lane toll equipment rather than add this responsibility to the operations contract. Near the end of 2015, MnDOT assumed more of the MnPASS operations and maintenance responsibilities and added two MnDOT FTEs and one MNIT FTE to perform the work. The increase in MnDOT/MNIT staff expenses in 2016 was for the additional time required to replace and upgrade the MnPASS operating system and for the additional price sign repair needs. In 2017, three additional MnDOT staff charged a portion of their time to the I-35W corridor account.
- The negative toll revenue rollover amount from 2016 into 2017 was the result of the statutory requirement to share toll revenue with Metro Transit before operations and maintenance expenditures are fully covered. This, coupled with insufficient MnPASS TH funding to cover the difference, resulted in a negative rollover balance.

Cost Recovery Ratio

The cost recovery ratios in Table 7 below were calculated by dividing annual toll revenue by annual operations and maintenance expenditures and Met Council transit payment expenses in the I-35W corridor account.

Table 7: I-35W Account Cost Recovery Ratio

I-35W Account Cost Recovery Ratio								
State Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017
Toll revenue	180,301	718,541	1,088,834	1,600,715	1,800,582	1,886,794	1,897,165	1,726,759
Expenditures	595,643	1,857,475	1,166,339	1,339,947	1,520,649	1,739,219	3,530,113	1,669,246
Ratio	0.3	0.39	0.93	1.19	1.18	1.08	0.54	1.03

I-35E Corridor

Capital Costs, Current Condition and Projected Life Expectancy

The capital costs of implementing the MnPASS Express Lanes on I-35E included the installation of toll equipment, engineering and construction of the new lanes, and communications associated with the opening of the new lanes. The MnPASS lanes on I-35E were implemented in conjunction with many other pavement and bridge improvements. The MnPASS related cost is currently estimated at approximately \$61.2 million. The funding sources for the capital costs include both state trunk highway funds and federal funds.

The I-35E MnPASS lanes were constructed in 2015-16 and the pavement, striping and toll equipment are currently in good condition. The pavement is projected to require a minor CPR in 2040, major CPR in 2055 and major reconstruction in approximately 2065. The projected life expectancy of the striping is approximately 5 years, and the MnPASS lanes will need restriping by 2020-21. The projected life expectancy of the tolling equipment is approximately 10 years and will need to be replaced in the 2025-26 timeframe.

Revenue and Expenditure Summary

Table 8 below summarizes I-35E MnPASS account revenue and expenditures.

Table 8: I-35E Account

I-35E Account			
State Fiscal Year		2016	2017
Revenues	Toll revenue	47,933	288,239
	Toll revenue rollover from previous year		
	Trunk Highway funding	932,947	486,596
<i>Revenue Subtotal</i>		980,880	774,835

Expenditures	Capital cost replacement	47,933	288,239
	<i>Capital Cost Replacement Subtotal</i>	47,933	288,239
	Operations contract	778,696	262,782
	Enforcement	89,401	176,164
	MnDOT/MNIT staff	60,731	43,393
	Misc. equipment/supplies	4,119	4,257
	<i>Operations & Maintenance Subtotal</i>	932,947	486,596
	Toll equipment replacement		
	Met Council transit payment		
<i>Expenditure Subtotal</i>		980,880	774,835
End of Year Account Balance Rollover		0	0

Cost Recovery Ratio

The cost recovery ratios in Table 9 below were calculated by dividing annual toll revenue by annual operations and maintenance expenses in the I-35E corridor account.

Table 9: I-35E Account Cost Recovery Ratio

I-35E Account - Cost Recovery Ratio		
State Fiscal Year	2016	2017
Toll revenue	47,933	288,239
Operations & Maintenance expense	932,947	486,596
Ratio	0.05	0.59

Administrative/Transponder Account

Revenue and Expenditure Summary

Table 10 below summarizes MnPASS Administrative/Transponder account revenue and expenditures.

Table 10: MnPASS Administrative/ Transponder Account Summary

MnPASS Administrative/Transponder Account														
State Fiscal Year		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues	Transponder/tag and administrative fees		152,231	254,542	276,205	310,427	359,747	328,414	360,935	399,928	457,563	392,423	183,452	145,986
	Transponder/tag revenue rollover from previous year								290,697	618,889	688,156	1,115,238	1,221,074	609,362
<i>Revenue Subtotal</i>		0	152,231	254,542	276,205	310,427	359,747	328,414	651,632	1,018,817	1,145,719	1,507,661	1,404,526	755,348
Expenditures	Operations contract (see I-394 Corridor Account)		152,231	254,542	276,205	310,427	359,747							
	Transponder/tag purchases									313,233		258,492	253,920	191,936
	Toll readers/antennas												517,787	2,009
	Postage							37,717	32,743	17,428	30,481	28,095	23,457	
<i>Expenditures Subtotal</i>		0	152,231	254,542	276,205	310,427	359,747	37,717	32,743	330,661	30,481	286,587	795,164	193,945
End of Year Account Balance Rollover		0	0	0	0	0	0	290,697	618,889	688,156	1,115,238	1,221,074	609,362	561,403

Some items to note in the Administrative/Transponder Account table include:

- Transponder tag purchases during 2005-12 were included in operations contract expenditures
- Postage during 2005-10 and beginning again in 2017 was included in operations contract expenditures

Other MnPASS Expenditures

As noted earlier in the report, there are other MnPASS related expenditures that are not captured in the above MnPASS accounts. For example, all of the planning, design, engineering, outreach and communications essential for building and opening future MnPASS facilities uses TH funding. This funding is budgeted in addition to the toll revenue generated by MnPASS accounts due to the statutory requirement keeping corridor toll revenue within the corridor where it was generated. There are also toll equipment replacement and other MnPASS infrastructure preservation needs that require TH funding in addition to the toll revenue from the MnPASS accounts.

Below is a more detailed summary of expenditures unique to MnPASS but not captured in the above MnPASS accounts.

MnDOT Staffing

In 2011, MnDOT created the MnPASS Policy & Planning program director position focused largely on planning for future MnPASS corridors. In 2014, MnDOT created a MnPASS marketing & communications coordinator position focused largely on outreach and communications associated with future MnPASS corridors. Because the MnPASS operations engineer, policy & planning program director and marketing & communications coordinator spend time on the design and engineering for future MnPASS corridors, a part of their time is charged to the MnPASS corridor accounts and the other part of their time is charged to the TH fund operating budget for MnPASS.

These three positions began charging their time to the MnPASS TH fund operating budget in 2014, and charged all of their time to this budget through 2016. In 2017, these positions began charging part of their time to the above MnPASS corridor accounts to more accurately reflect where their time was being spent. The table below is a summary of these specific MnDOT MnPASS staff expenditures not captured in the above corridor accounts.

Table 11: Other MnPASS Expenditures

Other MnPASS Expenditures*				
State Fiscal Year	2014	2015	2016	2017
MnDOT MnPASS staff time allocated to future MnPASS corridors	238,082	374,903	445,149	266,560
Expenditures Total	238,082	374,903	445,149	266,560

*Fluctuations in expenditure levels due primarily to position vacancies. Decrease in expenditures in 2017 also due to the fact that the positions began charging the time they spent on existing corridors to those corridor accounts. These expenditures include the three full time MnPASS positions described above, plus a previous operations position that charged a portion of their time to the MnPASS TH fund operating budget in 2014-16.

As stated earlier, there are other MnDOT staff that spend time periodically working on MnPASS related projects and tasks in areas such as planning, program management, public engagement and communications, project design and construction, traffic operations and analysis, contracts management, finance, audit and legal and research. This time is not charged to or tracked to MnPASS. As a result, the number of hours other staff spend on MnPASS related activities and the associated expenditures are difficult to estimate.

I-394 Toll Equipment Replacement

In 2014-15, MnDOT replaced all the MnPASS sign structures in the I-394 corridor. The project construction cost was \$3.2 million. Some of the cost was covered by I-394 MnPASS revenue (\$1,476,654) as shown in Table 4. The remaining cost was covered by TH funding.

MnPASS Planning Studies

MnDOT conducted three MnPASS system planning studies since 2005. The most recent study, the [MnPASS System Study Phase 3](#), was completed at the end of 2017. These studies evaluate the potential benefit and estimated cost of implementing MnPASS lanes on various highways in the metro area. The studies provide analysis and recommendations that are used by MnDOT and the Met Council in developing their long range transportation plans. These studies cannot be paid for with revenue from the MnPASS accounts; so, the studies are paid for using TH funding. The consultant contract cost of the most recent MnPASS System Study Phase 3 was approximately \$0.6 million.

MnDOT also conducts corridor planning studies that include MnPASS lane feasibility and implementation evaluations along with other types of mobility improvement evaluations. The results of these studies are used to help identify specific project improvements to move forward into the preliminary design and environmental process if funding is available. As stated earlier, several of these studies are complete or are nearing completion. These studies cannot be paid for with revenue from the MnPASS accounts either so the studies are paid for with TH funding. The consultant contract cost for the most recent study of this kind, the [I-494/Highway 62 Congestion Relief Study](#), was approximately \$1.2 million.

MnPASS Research Projects

MnDOT has conducted a variety of MnPASS research projects over the years and funding outside of the MnPASS accounts was used for these projects. The most recent project was the [“Refining Return on Investment Methodology/Tool for MnPASS”](#) study. This study developed a method for incorporating transit and travel time reliability benefits into traditional benefit-cost analysis for MnPASS projects. The project contract cost was approximately \$0.15 million.

Appendix A: MnPASS Statutory Language

[2017 Minnesota Statutes 160.93](#)

160.93 USER FEES; HIGH-OCCUPANCY VEHICLE AND DYNAMIC SHOULDER LANES.

Subdivision 1. Fees authorized.

To improve efficiency and provide more options to individuals traveling in a trunk highway corridor, the commissioner of transportation may charge user fees to owners or operators of single-occupant vehicles using dynamic shoulder lanes as designated by the commissioner and any designated high-occupancy vehicle lanes. The fees may be collected using electronic or other toll-collection methods and may vary in amount with the time of day and level of traffic congestion within the corridor. The commissioner shall consult with the Metropolitan Council and obtain necessary federal authorizations before implementing user fees on a high-occupancy vehicle lane or dynamic shoulder lane. Fees under this section are not subject to section [16A.1283](#).

Subd. 2. Deposit of revenues; appropriation.

- (a) Except as provided in subdivision 2a, money collected from fees authorized under subdivision 1 must be deposited in a high-occupancy vehicle lane user fee account in the special revenue fund. A separate account must be established for each trunk highway corridor. Money in the account is appropriated to the commissioner.
- (b) From this appropriation the commissioner shall first repay the trunk highway fund and any other fund source for money spent to install, equip, or modify the corridor for the purposes of subdivision 1, and then shall pay all the costs of implementing and administering the fee collection system for that corridor.
- (c) The commissioner shall spend remaining money in the account as follows:
 - (1) one-half must be spent for transportation capital improvements within the corridor; and
 - (2) one-half must be transferred to the Metropolitan Council for expansion and improvement of bus transit services within the corridor beyond the level of service provided on the date of implementation of subdivision 1.

Subd. 2a. I-35W high-occupancy vehicle and dynamic shoulder lane account.

- (a) An I-35W high-occupancy vehicle and dynamic shoulder lane account is established in the special revenue fund. Money collected from fees authorized under subdivision 1 for the marked Interstate Highway 35W (I-35W) corridor must be deposited in the account and used as described in this subdivision. Money in the account is appropriated to the commissioner.
- (b) During the first year of revenue operations, the commissioner shall use the money received in that year to pay the costs of operating and administering the fee collection system within the corridor, up to \$1,000,000. Any remaining money must be transferred to the

Metropolitan Council for improvement of bus transit services within the I-35W corridor including transit capital expenses.

(c) During the second and subsequent years of revenue operations, the commissioner shall use money in the account as follows:

- (1) each year, allocate the lesser amount of \$1,000,000 or 75 percent of the revenues for operating and administering the fee collection system within the corridor;
- (2) transfer the remaining amount up to the amount allocated under clause (1) to the Metropolitan Council for improvement of bus transit within the corridor including capital expenses; and
- (3) allocate any remaining amount as follows: (i) 25 percent to the commissioner for operating and administering the fee collection system within the corridor and for transportation capital improvements that are consistent with the goals of the urban partnership agreement and that are located within the corridor and (ii) 75 percent to the Metropolitan Council for improvement of bus transit services within the corridor including transit capital expenses.

Subd. 3. Rules exemption.

With respect to this section, the commissioner is exempt from statutory rulemaking requirements, including section 14.386, and from sections [160.84](#) to [160.92](#) and [161.162](#) to [161.167](#).

Subd. 4. Prohibition.

No person may operate a single-occupant vehicle in a designated high-occupancy vehicle lane or dynamic shoulder lane except in compliance with the requirements of the commissioner. A person who violates this subdivision is guilty of a petty misdemeanor and is subject to sections [169.89](#), [subdivisions 1, 2, and 4](#), and [169.891](#) and any other provision of chapter 169 applicable to the commission of a petty misdemeanor traffic offense.

Subd. 5. Dynamic shoulder lanes.

- (a) The commissioner may designate dynamic shoulder lanes on freeways. The commissioner may operate dynamic shoulder lanes as priced lanes, general purpose lanes, high-occupancy vehicle lanes, or as shoulders as defined in section [169.011, subdivision 74](#). The commissioner may prescribe the conditions under which the lanes may be used.
- (b) The commissioner may not operate a dynamic shoulder lane on marked Trunk Highway 35W from its intersection with marked Trunk Highway 94 to its intersection with marked Trunk Highway 62 as a general purpose lane. A dynamic shoulder lane along this portion of marked Trunk Highway 35W may only be used by:
 - (1) a vehicle with more than one occupant;
 - (2) a single-occupant vehicle if the fee under subdivision 1 is paid;
 - (3) a transit bus providing public transit, as defined in section 174.22, subdivision 7; and
 - (4) an authorized emergency vehicle, as defined in section 169.011, subdivision 3.

(c) The commissioner shall erect signs to indicate when the lanes may be used.

Title 23 U.S.C. Chapter 1, Section 129 – Toll roads, bridges, tunnels, and ferries

§129. Toll roads, bridges, tunnels, and ferries

(a) Basic Program.—

(1) Authorization for federal participation.—Subject to the provisions of this section, Federal participation shall be permitted on the same basis and in the same manner as construction of toll-free highways is permitted under this chapter in the—

(A) initial construction of a toll highway, bridge, or tunnel or approach to the highway, bridge, or tunnel;

(B) initial construction of 1 or more lanes or other improvements that increase capacity of a highway, bridge, or tunnel (other than a highway on the Interstate System) and conversion of that highway, bridge, or tunnel to a tolled facility, if the number of toll-free lanes, excluding auxiliary lanes, after the construction is not less than the number of toll-free lanes, excluding auxiliary lanes, before the construction;

(C) initial construction of 1 or more lanes or other improvements that increase the capacity of a highway, bridge, or tunnel on the Interstate System and conversion of that highway, bridge, or tunnel to a tolled facility, if the number of toll-free non-HOV lanes, excluding auxiliary lanes, after such construction is not less than the number of toll-free non-HOV lanes, excluding auxiliary lanes, before such construction;

(D) reconstruction, resurfacing, restoration, rehabilitation, or replacement of a toll highway, bridge, or tunnel or approach to the highway, bridge, or tunnel;

(E) reconstruction or replacement of a toll-free bridge or tunnel and conversion of the bridge or tunnel to a toll facility;

(F) reconstruction of a toll-free Federal-aid highway (other than a highway on the Interstate System) and conversion of the highway to a toll facility;

(G) reconstruction, restoration, or rehabilitation of a highway on the Interstate System if the number of toll-free non-HOV lanes, excluding auxiliary lanes, after reconstruction, restoration, or rehabilitation is not less than the number of toll-free non-HOV lanes, excluding auxiliary lanes, before reconstruction, restoration, or rehabilitation;

(H) conversion of a high occupancy vehicle lane on a highway, bridge, or tunnel to a toll facility; and

(I) preliminary studies to determine the feasibility of a toll facility for which Federal participation is authorized under this paragraph.

(2) Ownership.—Each highway, bridge, tunnel, or approach to the highway, bridge, or tunnel constructed under this subsection shall—

(A) be publicly owned; or

(B) be privately owned if the [public authority](#) with jurisdiction over the highway, bridge, tunnel, or approach has entered into a contract with 1 or more private persons to design, finance, construct, and operate the facility and the [public authority](#) will be responsible for complying with all applicable requirements of this title with respect to the facility.

(3) Limitations on use of revenues.—

(A) In general.—A [public authority](#) with jurisdiction over a toll facility shall ensure that all toll revenues received from operation of the toll facility are used only for—

- (i)** debt service with respect to the [projects](#) on or for which the tolls are authorized, including funding of reasonable reserves and debt service on refinancing;
- (ii)** a reasonable return on investment of any private person financing the [project](#), as determined by the State or interstate compact of States concerned;
- (iii)** any costs necessary for the improvement and proper operation and [maintenance](#) of the [toll facility](#), including reconstruction, resurfacing, restoration, and rehabilitation;
- (iv)** if the [toll facility](#) is subject to a public-private partnership agreement, payments that the party holding the right to toll revenues owes to the other party under the public-private partnership agreement; and
- (v)** if the [public authority](#) certifies annually that the tolled facility is being adequately maintained, any other purpose for which Federal funds may be obligated by a State under this title.

(B) Annual audit.—

(i) In general.— A [public authority](#) with jurisdiction over a toll facility shall conduct or have an independent auditor conduct an annual audit of toll facility records to verify adequate maintenance and compliance with subparagraph (A), and report the results of the audits to the Secretary.

(ii) Records.— On reasonable notice, the [public authority](#) shall make all records of the [public authority](#) pertaining to the toll facility available for audit by the Secretary.

(C) Noncompliance.— If the [Secretary](#) concludes that a [public authority](#) has not complied with the limitations on the use of revenues described in subparagraph (A), the Secretary may require the [public authority](#) to discontinue collecting tolls until an agreement with the Secretary is reached to achieve compliance with the limitation on the use of revenues described in subparagraph (A).

(4) Special rule for funding.—

(A) In general.— In the case of a [toll facility](#) under the jurisdiction of a [public authority](#) of a State (other than the [State transportation department](#)), on request of the [State transportation department](#) and subject to such terms and conditions as the department and public authority may agree, the Secretary, working through the State department of transportation, shall reimburse the public authority for the Federal share of the costs of construction of the project carried out on the

toll facility under this subsection in the same manner and to the same extent as the department would be reimbursed if the project was being carried out by the department.

(B) Source.— The reimbursement of funds under this paragraph shall be from sums apportioned to the [State](#) under this chapter and available for obligations on [projects](#) on the [Federal-aid highways](#) in the State on which the project is being carried out.

(5) Limitation on federal share.— The Federal share payable for a [project](#) described in paragraph (1) shall be a percentage determined by the State, but not to exceed 80 percent.

(6) Modifications.— If a [public authority](#) (including a [State transportation department](#)) with jurisdiction over a toll facility subject to an agreement under this section or section 119(e), as in effect on the day before the effective date of title I of the Intermodal Surface Transportation Efficiency Act of 1991 ([105 Stat. 1915](#)), requests modification of the agreement, the Secretary shall modify the agreement to allow the continuation of tolls in accordance with paragraph (3) without repayment of Federal funds.

(7) Loans.—

(A) In general.—

(i) Loans.— Using amounts made available under this title, a [State](#) may loan to a public or private entity constructing or proposing to construct under this section a [toll facility](#) or non-[toll facility](#) with a dedicated revenue source an amount equal to all or part of the Federal share of the cost of the project if the project has a revenue source specifically dedicated to the project.

(ii) Dedicated revenue sources.—Dedicated revenue sources for non-toll facilities include excise taxes, sales taxes, motor vehicle use fees, tax on real property, tax increment financing, and such other dedicated revenue sources as the [Secretary](#) determines appropriate.

(B) Compliance with federal laws.— As a condition of receiving a loan under this paragraph, the public or private entity that receives the loan shall ensure that the [project](#) will be carried out in accordance with this title and any other applicable Federal law, including any applicable provision of a Federal environmental law.

(C) Subordination of debt.— The amount of any loan received for a [project](#) under this paragraph may be subordinated to any other debt financing for the [project](#).

(D) Obligation of funds loaned.— Funds loaned under this paragraph may only be obligated for [projects](#) under this paragraph.

(E) Repayment.— The repayment of a loan made under this paragraph shall commence not later than 5 years after date on which the facility that is the subject of the loan is open to traffic.

(F) Term of loan.— The term of a loan made under this paragraph shall not exceed 30 years from the date on which the loan funds are obligated.

(G) Interest.— A loan made under this paragraph shall bear interest at or below market interest rates, as determined by the [State](#), to make the [project](#) that is the subject of the loan feasible.

(H) Reuse of funds.—Amounts repaid to a [State](#) from a loan made under this paragraph may be obligated—

(i) for any purpose for which the loan funds were available under this title; and

(ii) for the purchase of insurance or for use as a capital reserve for other forms of credit enhancement for [project](#) debt in order to improve credit market access or to lower interest rates for [projects](#) eligible for assistance under this title.

(I) Guidelines.— The [Secretary](#) shall establish procedures and guidelines for making loans under this paragraph.

(8) State law permitting tolling.— If a [State](#) does not have a [highway](#), bridge, or tunnel [toll facility](#) as of the date of enactment of the MAP–21, before commencing any activity authorized under this section, the State shall have in effect a law that permits tolling on a highway, bridge, or tunnel.

(9) Equal access for over-the-road buses.— An [over-the-road bus](#) that serves the public shall be provided access to a toll facility under the same rates, terms, and conditions as public transportation buses.

(10) Definitions.—In this subsection, the following definitions apply:

(A) High occupancy vehicle; hov.—

The term “[high occupancy vehicle](#)” or “HOV” means a vehicle with not fewer than 2 occupants.

(B) Initial construction.—

(i) **In general.**— The term “[initial construction](#)” means the construction of a highway, bridge, tunnel, or other facility at any time before it is open to traffic.

(ii) **Exclusions.**— The term “[initial construction](#)” does not include any improvement to a highway, bridge, tunnel, or other facility after it is open to traffic.

(C) Over-the-road bus.— The term “[over-the-road bus](#)” has the meaning given the term in section 301 of the Americans with Disabilities Act of 1990 ([42 U.S.C. 12181](#)).

(D) Public authority.— The term “[public authority](#)” means a State, interstate compact of States, or public entity designated by a State.

(E) Toll facility.— The term “[toll facility](#)” means a toll highway, bridge, or tunnel or approach to the highway, bridge, or tunnel constructed under this subsection.

Appendix B: March 2017 Audit Memo

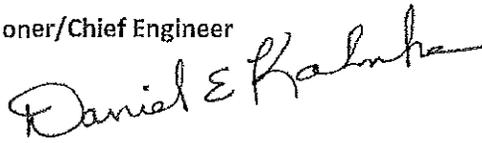
Memo

To: Charles A. Zelle
Commissioner

Tracy L. Hatch
Deputy Commissioner/CFO

Susan M. Mulvahill
Deputy Commissioner/Chief Engineer

From: Daniel E. Kahnke
Audit Director



Date: March 8, 2017

**RE: Continuous Audit of the MnPass System
Fiscal Year 2015 – Fiscal Year 2016
Audit Report No. 17-707-11**

This is the final audit report of the above stated subject.

The audit report is being released in accordance with Financial Management Policy FM009, Audit Office Authority Functions. Requests for copies of the audit report will be responded to by furnishing this final version of the audit report.

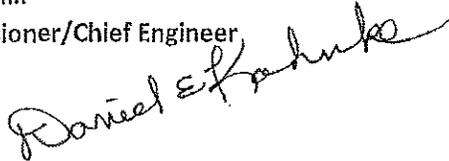
Memo

To: Charles A. Zelle
Commissioner

Tracy L. Hatch
Deputy Commissioner/CFO

Susan M. Mulvahill
Deputy Commissioner/Chief Engineer

From: Daniel E. Kahnke
Audit Director



Date: March 8, 2017

RE: Continuous Audit of the MnPass System Fiscal Year 2015 – Fiscal Year 2016 Audit Report No. 17-707-11

We conducted a performance audit of procedures and controls for the MnPass System for Fiscal Years (FY) 2015-2016. For this period, revenues totaled \$4.1 million in FY 2015 and \$3.5 in FY 2016 and operating costs totaled \$2.4 million in FY 2015 and \$6.5 million in FY 2016. Our review assessed compliance with federal and state requirements regarding the MnPass System.

April 19, 2005; July 17, 2009; and May 10, 2013 agreements between the Federal Highway Administration and Minnesota Department of Transportation (MnDOT) address the I-394; I-35W; and I-35E toll facilities, respectively. The agreements require that revenues be used for operational costs and that toll rates vary based on traffic levels. The agreements also require an annual audit of the records of the facility for compliance with the provisions of the agreement. Compliance with agreement provisions and expressing an opinion regarding compliance with agreement provisions is the responsibility of MnDOT Management and the MnDOT Office of Audit, respectively.

The audit scope and objectives were limited to the following:

- Ensuring that charges to the MnPass System client credit cards, revenues received by MnDOT and deposited into the State's U.S. Bank account, and deposits recorded in the Statewide Integrated Financial Tools (SWIFT) system reconciled and deposits were made as required
- Verifying that tolls varied according to traffic levels (dynamic pricing)
- Assessing the appropriateness of toll revenue distributions

We accomplished the scope and objectives by spot checking monthly reconciliations and deposit information; observing and documenting dynamic pricing; and verifying the correctness of toll revenue distributions. We conducted fieldwork at Metropolitan District, the Regional Traffic Management Center, the MnPass Customer Service Center, and Central Office Office of Finance. We also toured the MnPass toll facilities on Interstate Highways 35E, 35W, and 394.

We conducted our performance audit of the MnPass System in accordance with generally accepted government auditing standards; Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require us to plan and perform audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Other objectives included gaining an understanding of the MnPass System's internal controls and procedures that are established and maintained by MnDOT management. Internal controls were effective, leading to attainment of program objectives and compliance with requirements.

We noted a significant improvement from the previous audit: in-house developed software IRIS gives the department the capability to directly verify the accuracy of recorded and reported tolls. We also noted that the department had consolidated MnPass consulting contracts, a measure that could potentially reduce costs.

We conclude that the MnPass System collected and deposited all revenue generated by the system for Fiscal Years 2015 and 2016, and that deposits and monthly reconciliations were done as required. We also conclude that dynamic pricing for tolls and revenue distributions met requirements. The results of our current review were discussed with Financial Operations, Regional Management Traffic Center, and MnPass System Consultant.

As a result of our review, with respect to items tested, we conclude that during the period under audit, the requirements for the MnPass System were followed. With respect to the items not tested, nothing came to our attention that caused us to believe that MnDOT has not complied, in all material respects, with requirements related to the MnPass System.

cc: M.A. Barnes
S. L. McBride
R.M. Sylvester
P.F. Bursaw
B.J. Dodds
MaryAnn Frasczak
J.L. Cherney
M.L. Koester
B.J. Larsen
B.J. Kary
S.C. Larson
J.R. Nobles/S.A. Tjomsland, OLAA.K. Kocher, FHWA
File

Audited by:
Dave Christensen

Appendix C: Memorandum of Understanding for Revenue Sharing

MEMORANDUM OF UNDERSTANDING (MOU)

Between

The Minnesota Department of Transportation (MnDOT)

And

the Metropolitan Council (“Council”).

- I. Purpose and Scope:** The purpose of this Memorandum of Understanding (MOU) is to describe how state statutes related to MnPASS revenue distribution are being implemented in accounting of revenue and its distribution as intended by law.

This MOU replaces Agreement #00534. This MOU reflects:

- The addition of the I-35E MnPASS corridor
- Changes in how operating and administration expenses are split between corridors
- Changes in MnDOT staff charging to MnPASS revenues

II. Background

The MnPASS Express Lane System is a key regional strategy for improving mobility in the Twin Cities metropolitan area. MnPASS Express Lanes provide a congestion-free option for transit vehicles, carpools and motorcycles at no cost – and to single occupant vehicles for a fee.

The MnPASS Express Lane System has been in place and collecting revenue on I-394 since March 15, 2005, on I-35W since September 30, 2009, and on I-35E since January 4, 2016.

The revenues for the MnPASS Express Lanes are used within the corridors to pay for MnPASS capital costs, operational expenses, transit improvements, and transportation capital improvements. Distribution of revenue varies by corridor and is prescribed in Minnesota Statutes §160.93. The statutory provisions for distribution of revenue are substantially different between I-394/I-35E and I-35W. However, the system of revenue collection from customers is integrated.

- III. Term of MOU:** This MOU will be effective when all appropriate signatures have been obtained by MnDOT and the Council. This MOU will remain in effect indefinitely until terminated by either party upon 30 days written notice to the other party or until replaced by a new MOU. The parties will meet and negotiate in good faith to amend or replace this MOU when one of the following occurs.

- Legislation is passed changing state statute on how revenues are distributed.
- A new MnPASS corridor is added requiring modifications to the existing language of the MOU.

III. Responsibilities of the Council

The Council will:

1. Agree to the definitions and business practices as described in Section V of this MOU, and will accept payments in accordance with such practices as satisfying the requirements of Minnesota Statutes §160.93 .

IV. Responsibilities of MnDOT:

MnDOT will:

1. Agree to the definitions and business practices as described in Section V of this MOU.
2. Operate and administer the MnPASS System, including revenue collections and oversight of enforcement.
3. Distribute earned toll revenues as defined in Section V to the Council annually when final expenditures are determined.

V. Business Practices for Distribution of MnPASS Express Lane Revenue

a. Earned Revenue Definitions

Earned toll revenues are defined as charges to a MnPASS user's account from actual usage of the lane during an active tolling period. Earned toll revenues collected will be tracked and assigned to each respective corridor and will be used for covering operations costs and for distribution to the Council.

Earned fee revenues are defined as charges to a MnPASS user's account that are for transponder lease fees, transponder purchase fees and other administrative fees. Earned fee revenues will be used for transponder replacement costs, related transponder equipment, and payment of fees such as credit card company fees. Earned fee revenues may also be used to cover funding shortfalls in the corridor accounts. Transponder lease fees will no longer be collected after November 2015. Two new transponder options will be offered beginning December 2015 – a switchable tag that will have a one-time purchase fee of \$15 and a sticker tag option that will be free.

b. I-394 MnPASS Revenue Rules

As per Minnesota Statutes §160.93 (subd. 2), revenues for the I-394 corridor are required to first be used to repay the Trunk Highway fund and any other funding sources used to install, equip, or modify the corridor for the purpose of charging fees for SOV's to use the MnPASS Express Lanes.

MnDOT shall then pay all the costs of implementing and administering the fee collection system on I-394.

Any remaining earned toll revenues shall be spent as follows:

- 50% for transportation capital improvements within the corridor

- 50% transferred to the Council for expansion and improvement of bus service within the corridor beyond the level of service provided on May 15th, 2005.

MnDOT utilized funds from the I-394 ABC Parking Garage Revenue Account to install MnPASS on I-394. Repayment to the I-394 Parking Garage Revenue Account was completed in Fiscal Year 2014.

Replacement of the toll equipment on I-394 will limit the amount of excess revenue shared with the Council in Fiscal Year 2016.

c. I-35W MnPASS Revenue Rules

The I-35W corridor was funded through a federal grant as part of the Urban Partnership Agreement (UPA) program. The I-35W MnPASS Express Lanes started operations on September 30, 2009. Unlike I-394, I-35W MnPASS earned toll revenue is not subjected to the requirement of repaying the capital and facility startup costs of the installing the MnPASS system. The earned toll revenue from the system is immediately available for operational expenses and distribution with the Met Council. Earned toll revenue from the I-35W corridor must be distributed in accordance with Minnesota Statutes §160.93 (subd. 2a).

To cover Year 1 operating costs of the I-35W MnPASS Express Lanes, the distribution of earned toll revenue in Year 1 provided more funding towards the operating and administration of the fee collection system. The distribution of earned toll revenue is different in Year 2 and beyond. The distribution of earned toll revenue for I-35W is summarized as follows:

Year 1 Distribution

1. The revenue received must be used by MnDOT for operating and administering the fee collection system within the corridor, up to \$1,000,000.
2. Revenue in excess of \$1,000,000 is transferred to the Council for improvement of bus transit services within the I-35W corridor including transit capital expenses.

Year 2 and Beyond

1. Allocate to MnDOT the lesser amount of \$1,000,000 OR 75% of the revenues for operating and administering the fee collection system within the corridor.
2. Transfer to the Council the amount remaining up to \$333,000 for improvement of bus transit services within the I-35W corridor including transit capital expenses.
3. Allocate remaining amount (i.e. above \$1,333,333) as follows:
 - a. 25% to MnDOT's Commissioner for operating and administering the fee collection system within the corridor and for transportation capital improvements that are consistent with the goals of UPA and located in the I-35W corridor
 - b. 75% to the Council for improvement of bus transit services within the corridor including transit capital expenses.

For Year 2 and beyond, the distribution rules mean that any earned toll revenue below \$1,333,333 is covered under items 1 and 2, where MnDOT would get 75% of the revenues up to \$1,000,000 and the Council would get 25% of the earned toll revenues up to \$333,333. Any earned toll revenues above \$1,333,333 are distributed as defined under item 3. The following table shows how earned toll revenue would be distributed starting in Year 2 for various revenue levels:

Table 1.0 – I-35W MnPASS Earned Toll Revenue Distribution Example

Example Earned Toll Revenue	Distribution	
	Commissioner of Transportation	Met Council
\$ 250,000	\$ 187,500	\$ 62,500
\$ 500,000	\$ 375,000	\$ 125,000
\$ 750,000	\$ 562,500	\$ 187,500
\$ 1,000,000	\$ 750,000	\$ 250,000
\$ 1,333,333	\$ 1,000,000	\$ 333,333
\$ 1,500,000	\$ 1,041,667	\$ 458,333
\$ 1,750,000	\$ 1,104,167	\$ 645,833
\$ 2,000,000	\$ 1,166,667	\$ 833,333
\$ 2,500,000	\$ 1,291,667	\$1,208,333
\$ 3,000,000	\$ 1,416,667	\$1,583,333
\$ 3,500,000	\$ 1,541,667	\$1,958,333
\$ 4,000,000	\$ 1,666,667	\$2,333,333

d. I-35E MnPASS Revenue Rules

The revenue rules for I-35E will be the same as for I-394. Pursuant to Minnesota Statutes §160.93 (subd. 2), revenue from MnPASS is required to first be used to repay the Trunk Highway Fund and any other funding sources used to install, equip, or modify the corridor for the purpose of charging fees for use of the MnPASS lanes. The Trunk Highway Fund is the only funding source for which repayment is required on I-35E. The repayment amount to the Trunk Highway Fund will be determined as follows:

- i. Metro District engineering staff will review MnPASS project related contract cost estimates and make a recommendation to MnDOT’s Office of Financial Management and Chief Financial Officer as to which costs or cost percentages are associated with installing, equipping or modifying the corridor for MnPASS. This recommendation will be reviewed with the Council prior to final determination.
- ii. Based on the recommendation, MnDOT’s Chief Financial Officer will issue a final written determination as to which contract costs are associated with installing, equipping or modifying the corridor for MnPASS. The final determination will be shared with the Council.
- iii. Using the final written determination as a guide, MnDOT financial staff will calculate the actual TH Fund repayment amount after each contract has been closed.
- iv. MnDOT financial staff will annually report on the MnPASS TH Fund Repayment amounts due and paid. This information will be shared with the Council annually.

MnDOT shall then pay all the costs of implementing and administering the fee collection system on I-35E.

Any remaining earned toll revenues shall be spent as follows:

- 50% for transportation capital improvements within the corridor
- 50% transferred to the Council for expansion and improvement of bus service within the corridor beyond the level of service provided on the day of opening the I-35E MnPASS lanes

e. MnPASS Operating and Administering Expenses

The MnPASS Express Lanes earned toll revenue will be used to cover the following operating and administration expenses to maintain a successful program:

1. Professional Technical (P/T) services contract for operating and administering the system.
2. Contract with Minnesota State Patrol for enforcement of system operations.
3. Toll system equipment replacement in field and at customer service center not covered by P/T contract.
4. Utility costs associated with providing power and communications for field tolling equipment, digital signing, and in pavement lighting.
5. Marketing materials and expenses (including postage) for customer recruitment and retention.
6. MnDOT staff needed to operate and administer the MnPASS system on each corridor

f. Cost and Revenue Distribution Business Practices

Minnesota Statutes §160.93 requires the costs and revenues from each corridor be tracked separately. However, the MnPASS Express Lanes system is a highly integrated system and thus requires some business practices for determining cost and revenue assignment. The following practices (and underlying assumptions) will govern assignment of revenue and costs.

Operational Cost Distributions to MnPASS Corridor Accounts

1. The share of the P/T operations contract costs for the MnPASS corridors shall be allocated as follows, unless specified otherwise elsewhere:
 - i. I-394 40%
 - ii. I-35W 40%
 - iii. I-35E 20%

The above percentages are based on the projected level of MnPASS corridor use and number of accounts during the 5-yr. MnPASS operation contract term 2015-2020.

2. Enforcement costs with State Patrol staff will be assigned to the corridor that the shift was conducted in. This will be tracked on a monthly basis.
3. Replacement enforcement equipment costs will be assigned to each corridor based on the amount of State Patrol staff time in each corridor.
4. Cost for replacement field equipment will be assigned to the corridor the equipment is placed in.
5. Cost for replacement of equipment, supplies, etc. (except as provided in P/T contract) in the customer service center will be assigned 40/40/20% to each corridor
6. Cost for phone system in the customer service center will be assigned 40/40/20% to each corridor.
7. Utility costs will be assigned to the source corridor.
8. MnDOT staff assigned to the I-394, I-35W and I-35E corridors will be paid using the above 40/40/20% split to each corridor. This includes 1 field maintenance FTE, 2 integrator FTEs, and 1 programming FTE.
9. MnDOT staff who work on the existing MnPASS corridors as well as future MnPASS corridors will charge their time as follows:
 - a. 60% - Future MnPASS corridors (i.e. TH Fund MnPASS Operating Budget)
 - b. 40% - Existing MnPASS corridors split between the corridors as follows:
 - i. One third I-394
 - ii. One third I-35W
 - iii. One third I-35E

This currently includes 1 policy and planning program director FTE, 1 marketing and communications FTE, and 1.33 operations/engineering FTEs. It is possible that other staff who regularly work on MnPASS will be included in the future. The above percentages are based on the projected FTE time allocated to each corridor during the 5-yr. MnPASS operations contract term 2015-2020.

Administrative Fee Account

An Administrative Fee Account will be used to collect all earned fee revenues from transponder lease fees and administrative fees. This account will be used to pay transponder replacement costs and any equipment or administrative costs related to the transponder system. Costs that may be covered under this account include:

1. Transponder replacement costs ,
2. Replacement of field equipment related to transponder communications system including the transponder reader and antenna system,
3. Postage/meter rental related to mailing out new transponders to customers,
4. Net reversals and adjustments affecting deposits, and
5. Credit card use fees.

If there are insufficient funds in the Administrative Fee Account to pay the above costs, the costs will be paid from the corridor accounts using the 40/40/20% split to each corridor. If there is insufficient revenue in a corridor account, supplemental Trunk

Highway funds will be used to cover that account's share.

Earned fee revenue may also be used to cover funding shortfalls in the corridor accounts.

MnDOT will evaluate, in consultation with the Council, whether the Administrative Fee Account should be eliminated and the earned fee revenue and expenses combined into the corridor accounts.

g. Annual Reconciliation Practices

The annual reconciliation of revenue and costs are complicated because the revenues are on different calendars. The statute defines rules based on the start date of the systems and the two roads started in different months. To further complicate matters, the cost side of the equation has its own set of annual calendars.

To baseline the system, the calendar for revenue and costs will be to follow the State Fiscal Year. Using this assumption the annual revenues for Year 1 of I-35W would begin in FY 2010 which is from July 1st, 2009 to June 30th, 2010. Similarly, annual revenues for Year 1 of I-35E would begin in FY 2016, which is from July 1, 2015 to June 30, 2016.

VI. Contractual Obligations

This Memorandum of Understanding is not a legally binding agreement and creates no legally binding obligations for any party. Either party may, upon written notice, amend, or discontinue its role outlined in the MOU. Because of this mutual desire to proceed, each party fully intends to make a good faith effort to achieve the goals described above including working together to find mutually beneficial solutions when problems arise. Upon execution of this MOU, the prior MOU between the parties (identified as MnDOT Agreement #00534) is terminated.

The remainder of this page is intentionally left blank signature page follows.

I concur with this Memorandum of Understanding

Minnesota Department of Transportation
Recommended for Approval:

By: [Signature]
Title: Deputy Commissioner
Date: 5.11.2016

Metropolitan Council

By: [Signature]
Title: Regional Administrator
Date: 4/12/2016

Approved:

By: [Signature]
Title: Deputy Commissioner
Date: 5/20/2016

MnDOT Contract Management
(as to form & execution)

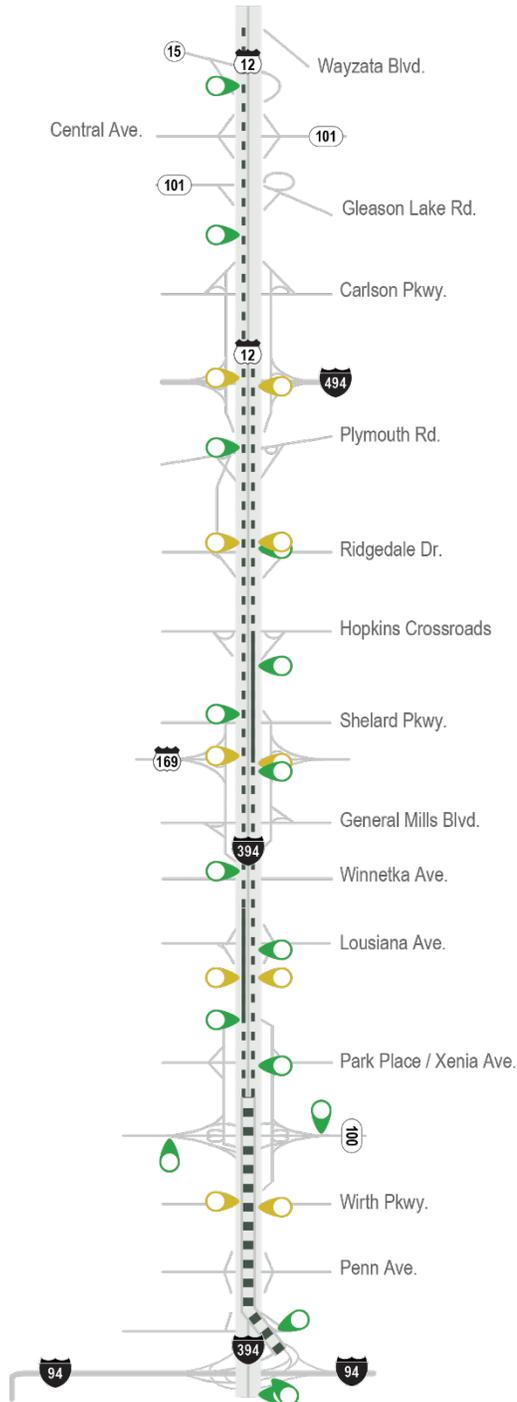
[Signature] 5/20/16

Appendix D: I-394 Corridor Map

I-394



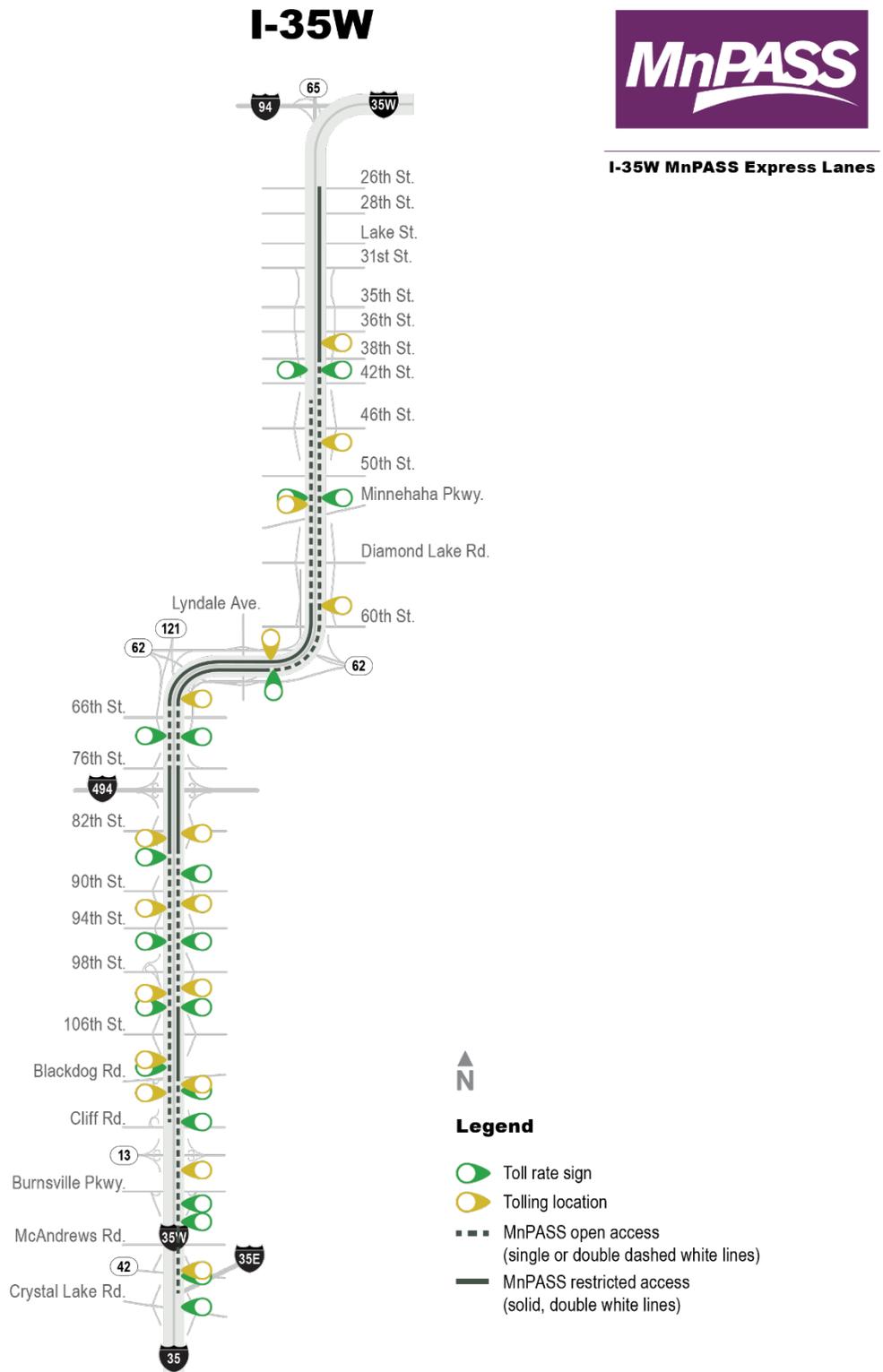
I-394 MnPASS Express Lanes



Legend

- Toll rate sign
- Tolling location
- MnPASS open access (single or double-dashed white lines)
- MnPASS restricted access (solid, double-white lines)

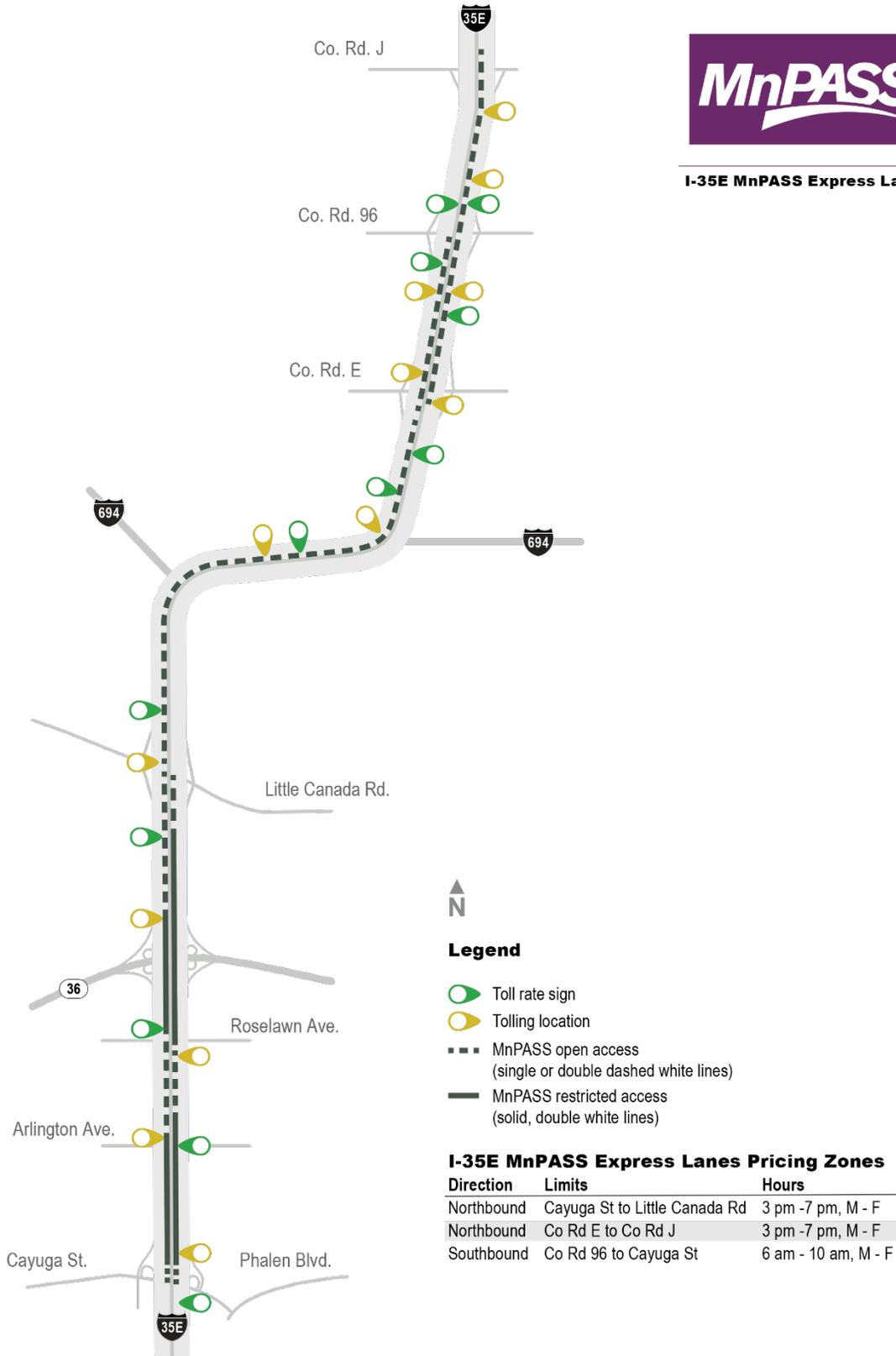
Appendix E: I-35W Corridor Map



Appendix F: I-35E Corridor Map



I-35E MnPASS Express Lanes



Appendix G: MnPASS Current and Future Facilities Map

