

MEMORANDUM

TO: CTIO¹ BOARD OF DIRECTORS
FROM: KELLY BROWN, CHIEF TOLL OPERATIONS OFFICER
SUBJECT: PROPOSED I-25 SOUTH (GAP) TOLL RATES
DATE: OCTOBER 18, 2023

Purpose

The purpose of this memorandum is to summarize staff's proposed toll rates for the I-25 South (Gap) Express Lanes, and to commence and facilitate a discussion with the Board and the public regarding the establishment of toll rates.

Action

This item is for information and discussion only. Approval for the stated rates will be sought from the Board at the December 2023 Board meeting.

Background

The I-25 South Gap project adds approximately 15-miles of express lanes in each direction between Monument and Castle Rock. The express lanes are divided into two zones. Zone 1 extends from north of Palmer Divide Road to Upper Lake Gulch Road and is 8.1 miles long. Zone 2 extends from Upper Lake Gulch Road to south of Plum Creek Parkway and is 7.1 miles long. There are two entry/exit points in each direction, and drivers pay a toll rate depending on whether they drive through one zone or both. Overhead signs indicate toll prices which change by time of day. The I-25 South Gap Express Lanes are expected to open for tolled traffic in the first quarter of 2024.

Overview of Recommended Toll Rates

CTIO staff recommends setting a base toll rate sufficient to cover toll collection costs and toll equipment operations and maintenance costs, but low enough to attract initial customers to use the toll lane, even when traffic in the general purpose lanes is relatively light and the corridor is free flowing.

In calculating the Transponder or Automatic Vehicle Identification (AVI) toll rates, the following assumptions were made:

- Tolls will be charged based on a Time-of-Day methodology consistent with the current regime on I-25 Central, I-25 North, and US 36, and not on a dynamic tolling basis;
- The minimum AVI toll rate is set to recover the AVI toll operation cost;
- Toll rates are set based upon models developed by the T&R consultant which estimated toll rates in 2017 dollars;
- Toll rates were adjusted for inflation based on the change in CPI to reflect 2023 dollar values and rounded to the nearest 5 cents;
- The maximum toll rate for the corridor is capped at \$3.75 for the opening year.

¹ The High Performance Transportation Enterprise (HPTE) is now doing business as the Colorado Transportation Investment Office (CTIO). CTIO is how the enterprise refers to itself now and in the future. However, the HPTE name is retained for legislative and legal documents.

License plate tolling (LPT) costs more than AVI tolling due to additional back-office costs and LPT leakage. Therefore, LPT rates are developed by imposing a surcharge on the AVI toll rates. The following considerations were made when calculating the License Plate Toll (LPT) toll rates:

- LPT surcharge covers back-office additional cost and LPT leakage;
- LPT leakage is assumed at 40 percent based on historical data;
- LPT leakage includes uncollectable and unbillable LPT transactions.

The following operations policies apply to the I-25 South Gap Express Lanes:

- Hours of operation: 24 hours a day, 7 days a week, 365 days a year;
- HOV vehicles with 3 or more passengers use the Express Lanes for free;
- Motorcycles use the Express Lanes for free;
- Trucks with 4+ axles pay a surcharge of \$25;
- The tolling regime is Time-of-Day (TOD) pricing.

Table 1 shows the northbound and southbound TOD AVI toll rates as well as the LPT rates for year 2024 when the I-25 South Gap Express Lanes are expected to open to the public.

Day	Northbound				
	Time of Day	Monument to Larkspur		Larkspur to Castle Rock	
		AVI	LPT	AVI	LPT
Weekdays & Weekends	9:00 pm - 6:00 am	\$ 0.80	\$ 2.73	\$ 0.70	\$ 2.90
	6:00 am - 9:00 pm	\$ 2.00	\$ 4.77	\$ 1.75	\$ 4.69
Day	Southbound				
	Time of Day	Castle Rock to Larkspur		Larkspur to Monument	
		AVI	LPT	AVI	LPT
Weekdays & Weekends	9:00 pm - 6:00 am	\$ 0.70	\$ 2.90	\$ 0.80	\$ 2.73
	6:00 am - 9:00 pm	\$ 1.75	\$ 4.69	\$ 2.00	\$ 4.77
Truck surcharge (4+ Axle)		\$ 25.00		\$ 25.00	
Motorcycles		Free		Free	
HOV 3+		Free		Free	

Figure 1 I-25 South Gap Time-of-Day AVI and LPT Rates for 2- and 3-Axle Vehicles for 2024

Next Steps

- The Board is being asked to review the recommended proposed initial AVI and LPT toll rates and provide feedback.
- CTIO staff will integrate any requested changes to the proposed AVI and LPT toll rates for the I-25 South Gap Express Lanes and will return to the Board in December 2023 for adoption of the initial AVI and LPT toll rates for the I-25 South Gap Express Lanes.

Attachments

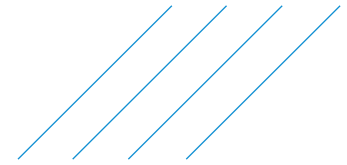
Attachment A: The I-25 South Gap Express Lanes Toll Rates Technical Memo



COLORADO
**Transportation
Investment Office**

ATTACHMENT A

The I-25 South Gap Express Lanes Toll Rates Technical Memo



Memo

To: Kelly Brown, Colorado Transportation Investment Office (CTIO)

From: Rami Harb and Rinal Chheda, AtkinsRéalis	Email: Rami.harb@atkinsglobal.com
Date: 20 September 2023	Phone: 720-475-7075
Ref: I-25 South Gap	cc:

Subject: I-25 South Gap (Castle Rock to Monument) Express Lane Toll Rates

1. Introduction

C&M Associates Inc. (C&M) conducted a Traffic and Revenue (T&R) study for I-25 South Corridor which includes the I-25 South Gap project between Castle Rock and Monument. AtkinsRéalis has been tasked by CTIO with setting toll rates for this segment of I-25 South Gap based on the models developed by C&M while also accounting for toll operations cost and revenue leakage. The initial toll rates in 2017 dollars were adjusted based on the changes in Consumer Price Index (CPI) to reflect toll rates in 2023 dollars.

2. Project Limits and Tolling

The I-25 South Gap project adds approximately 15-miles of express lanes in each direction between Monument and Castle Rock. The express lanes are divided into two zones. Zone 1 extends from north of Palmer Divide Road to Upper Lake Gulch Road and is 8.1 miles long. Zone 2 extends from Upper Lake Gulch Road to south of Plum Creek Parkway and is 7.1 miles long. There are two entry/exit points in each direction, and drivers pay a toll rate depending on whether they drive through one zone or both. Overhead signs indicate toll prices which change by time of day. The layout of the zones is shown in **Appendix 1**.

3. Operations Policy

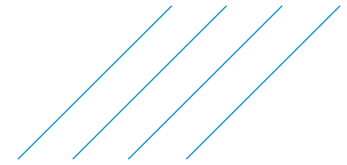
The operations policy for the I-25 South Gap Express Lanes is summarized below:

- Hours of operation: 24 hours a day, 7 days a week, 365 days a year.
- HOV vehicles with 3 or more passengers use the Express Lanes for free.
- Motorcycles use the Express Lanes for free.
- Trucks with 4+ axles pay a surcharge of \$25.
- The tolling regime is Time-of-Day (TOD) pricing.

4. Calculation of Transponder Rates

In calculating the Transponder or Automatic Vehicle Identification (AVI) toll rates, the following assumptions were made:

- Tolls will be charged based on a Time-of-Day methodology consistent with the current regime on I-25 Central, I-25 North, and US 36, and not on a dynamic tolling basis
- The minimum AVI toll rate is set to recover the AVI toll operation cost



- Toll rates are set based upon models developed by the T&R consultant which estimated toll rates in 2017 dollars
- Toll rates were adjusted for inflation based on the change in CPI to reflect 2023 dollar values and rounded to the nearest 5 cents
- The maximum toll rate for the corridor is capped at \$3.75 for the opening year

5. License Plate Tolling (LPT) Surcharge

License plate tolling (LPT) costs more than AVI tolling due to additional back office costs and LPT leakage. Hence, a surcharge is imposed on AVI toll rates to develop LPT rates.

- LPT surcharge covers (1) back office additional cost and (2) LPT leakage
- LPT leakage is assumed at 40% based on historical data
- LPT leakage includes uncollectable and unbillable LPT transactions

6. Recommended Toll Rates

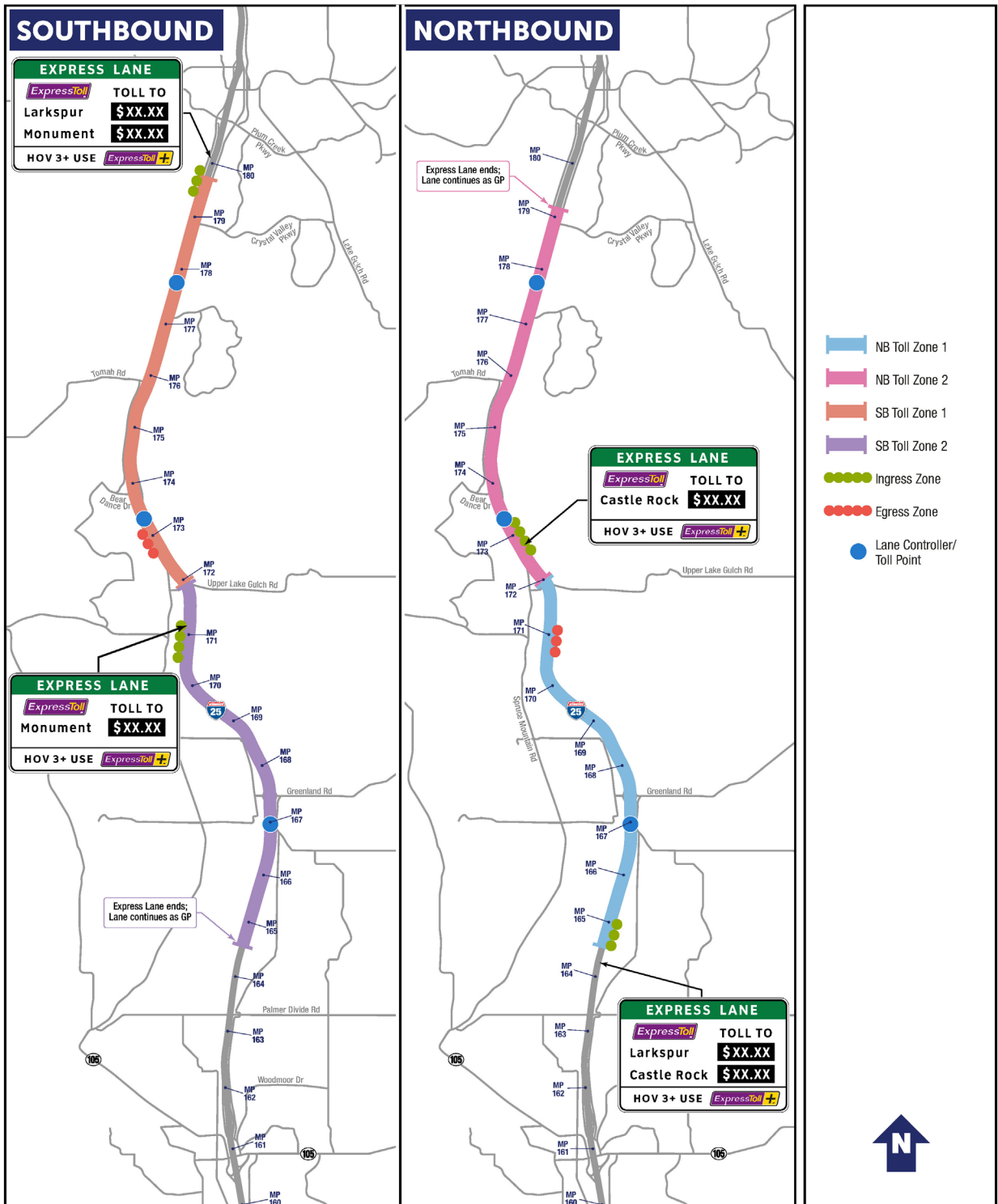
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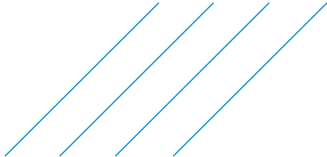
Table 1. Time-of-Day AVI and LPT Rates for 2- and 3-Axle Vehicles for 2024

Day	Northbound				
	Time of Day	Monument to Larkspur		Larkspur to Castle Rock	
		AVI	LPT	AVI	LPT
Weekdays & Weekends	9:00 pm - 6:00 am	\$ 0.80	\$ 2.73	\$ 0.70	\$ 2.90
	6:00 am - 9:00 pm	\$ 2.00	\$ 4.77	\$ 1.75	\$ 4.69
Day	Southbound				
	Time of Day	Castle Rock to Larkspur		Larkspur to Monument	
		AVI	LPT	AVI	LPT
Weekdays & Weekends	9:00 pm - 6:00 am	\$ 0.70	\$ 2.90	\$ 0.80	\$ 2.73
	6:00 am - 9:00 pm	\$ 1.75	\$ 4.69	\$ 2.00	\$ 4.77

Truck surcharge (4+ Axle)	\$ 25.00	\$ 25.00
Motorcycles	Free	Free
HOV 3+	Free	Free

APPENDIX 1: I-25 South Gap Express Lane Zones





APPENDIX 2: Maximum Toll Rates Per Mile Across US Express Lanes

