



Date: January 8, 2016
To: High Performance Transportation Enterprise Board
From: Brent E. Butzin, HPTE General Counsel
Joe Mahoney, OMPD
Subject: I-25 North Segment 2 Toll Rate Ranges

Purpose

The purpose of this memorandum is to summarize staff's planned approach for fixed time of day toll rates for the I-25 North Segment 2 toll lanes, and request Board approval of the attached toll rate schedule.

Action

This item is for information, discussion and approval for the stated rates to be presented for public review and comment to corridor stakeholders in February 2016.

Background

The I-25 North Segment 2 toll lanes are expected to open for tolled traffic in April 2016. Similar to US 36 the I-25 North Segment 2 operates as a commuter corridor with fixed time of day toll rates.

Details

HPTE's consultants recommend setting a base toll rate sufficient to cover toll collection costs, but low enough to attract initial customers to the toll lane, even when traffic in the general purpose lanes is relatively light and the corridor is free flowing.

As the anticipated customer for Segment 2 is likely a through trip customer from 120th to or from the Denver Union Station, the fixed time of day toll rates for Segment 2 take into account the fixed time of day toll rates for Segment 1 (I-25 Central).

Recommended Fixed Time of Day Toll Rates for I-25 North Segment 2 are presented in Table 1 on the following page.

Table 1:

Recommended Fixed Time of Day Toll Rates for I-25 North Segment 2

		Northbound		Southbound	
		Transponder	LPT	Transponder	LPT
WEEKDAY	5:00AM - 6:00AM	\$1.00	\$3.58	\$1.00	\$3.58
	6:00AM - 6:45AM	\$1.00	\$3.58	\$1.00	\$3.58
	6:45AM - 7:15AM	\$1.00	\$3.58	\$1.25	\$3.98
	7:15AM - 8:15AM	\$1.00	\$3.58	\$2.25	\$5.56
	8:15AM - 8:45AM	\$1.00	\$3.58	\$1.50	\$4.38
	8:45AM - 10:00AM	\$1.00	\$3.58	\$1.25	\$3.98
	10:00AM - 12:00PM	\$1.00	\$3.58	\$1.00	\$3.58
	12:00 PM - 3:00 PM	\$1.00	\$3.58	\$1.00	\$3.58
	3:00 PM - 3:30 PM	\$1.25	\$3.98	\$1.00	\$3.58
	3:30 PM - 4:30 PM	\$1.50	\$4.38	\$1.00	\$3.58
	4:30 PM - 6:00 PM	\$3.00	\$6.75	\$1.00	\$3.58
	6:00 PM - 7:00 PM	\$1.25	\$3.98	\$1.00	\$3.58
	8:00 PM - 5:00 AM	\$1.00	\$3.58	\$1.00	\$3.58
	WEEKEND		\$1.25	\$3.98	\$1.25

To:	Joe Mahoney, Colorado Department of Transportation		
From:	Rami Harb, Atkins	Email:	Rami.Harb@atkinsglobal.com
Phone:	720-475-7079	Date:	01/05/2016
Ref:	Tolling Advisory Services	cc:	Rami Harb
Subject:	I-25 North Segment 2 Toll Rates MEMO		

1. Document Purpose

CDM Smith conducted a Traffic and Revenue Study for the Colorado Department of Transportation (CDOT) for I-25 North during the period 2012–2015. Atkins North America, Inc., (Atkins) has been tasked by CDOT with setting toll rates on I-25 North Segment 2 based on the models developed by CDM Smith while also accounting for toll collection cost and revenue leakage.

2. Project Limits and Tolling

The I-25 North Tolled Express Lanes (TELs) are located on the inside of the I-25 general-purpose lanes going both northbound and southbound. The hours of operation are 24 hours a day, 7 days a week in both directions between U.S. Highway 36 (US 36) and 120th Avenue. During the morning weekday peak period (5:00 a.m. to 10:00 a.m.), the southbound direction will have the option to continue to downtown Denver or I-25 south of 15th Street. At all other times of day (including weekends), the southbound express lane users exit to I-25 general-purpose lanes in the vicinity of 70th Avenue.

3. Calculation of Transponder Rates

In calculating the 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 and on US 36, and not on a dynamic tolling basis
- The minimum toll AVI rate is set to recover the AVI toll collection cost
- Toll rates are chosen based upon a dual-objective optimization: traffic throughput and revenue

As a result, Table 1, below, shows the Time-of-Day (TOD) AVI toll rates for I-25 North Segment 2.

4. Calculation of License Plate Tolling (LPT) Surcharge Calculation Assumptions

The following assumptions were made in the calculation of the LPT surcharge:

- 17 percent of image transactions are unbillable
- 5 percent of image transactions are uncollectable
- 36.7 percent of LPT image transactions are uncollectable or unbillable
- LPT back office surcharge over AVI surcharge per tolling point is \$0.50
- LPT leakage recovery surcharge is aimed to recover uncollectable and unbillable LPT image Transactions

As a result, Table 1 shows the TOD AVI toll rates and LPT rates for I-25 North Segment 2.

Table 1: AVI toll rates and LPT surcharge

		Northbound		Southbound	
		Transponder	LPT	Transponder	LPT
WEEKDAY	5:00AM - 6:00AM	\$1.00	\$3.58	\$1.00	\$3.58
	6:00AM - 6:45AM	\$1.00	\$3.58	\$1.00	\$3.58
	6:45AM - 7:15AM	\$1.00	\$3.58	\$1.25	\$3.98
	7:15AM - 8:15AM	\$1.00	\$3.58	\$2.25	\$5.56
	8:15AM - 8:45AM	\$1.00	\$3.58	\$1.50	\$4.38
	8:45AM - 10:00AM	\$1.00	\$3.58	\$1.25	\$3.98
	10:00AM - 12:00PM	\$1.00	\$3.58	\$1.00	\$3.58
	12:00 PM - 3:00 PM	\$1.00	\$3.58	\$1.00	\$3.58
	3:00 PM - 3:30 PM	\$1.25	\$3.98	\$1.00	\$3.58
	3:30 PM - 4:30 PM	\$1.50	\$4.38	\$1.00	\$3.58
	4:30 PM - 6:00 PM	\$3.00	\$6.75	\$1.00	\$3.58
	6:00 PM - 7:00 PM	\$1.25	\$3.98	\$1.00	\$3.58
	8:00 PM - 5:00 AM	\$1.00	\$3.58	\$1.00	\$3.58
	WEEKEND		\$1.25	\$3.98	\$1.25