



MEMORANDUM

TO: HPTE BOARD OF DIRECTORS
FROM: KELLY BROWN, TOLLING OPERATIONS MANAGER
DATE: JUNE 19, 2019
SUBJECT: FY2019/2020 ANNUAL TOLL RATE ADJUSTMENT ANALYSIS FOR I-25 NORTH (US 36 to 120th Ave.)

Purpose and Requested Action

This memorandum presents the results of the annual toll rate adjustment analysis for I-25 North (US 36 to 120th Ave.) ("Segment 2"). Staff requests that the High Performance Transportation Enterprise (HPTE) Board of Directors review the analysis and provide comments. The purpose of this memo is informational only.

Background and Details

Segment 2 originates from the southern boundary at US 36 and terminates at 120th Ave. This segment of the I-25 Express Lanes opened for tolling in July, 2016. At the annual toll rate adjustment process in 2017, HPTE staff recommended *no* toll rate adjustments. Rates were last adjusted July 1, 2018.

Methodology

A two-fold analysis (traffic demand management and inflation) was undertaken to analyze the need for toll rate increases.

First, for traffic demand management, average speeds in the Express Lanes were examined to determine if the Express Lanes meet the criterion of at least 45 miles per hour at least 90 percent of the time (or 10 percent of speeds lower than 45 miles per hour at most). In addition, the traffic Level of Service (LOS) for this segment of I-25 was analyzed to assess the performance of the Express Lanes. The data used for this analysis included:

- Average speed in the general purpose and Express Lanes;
- Traffic volumes in the general purpose and Express Lanes;
- Information on events (lane closures, maintenance etc.) that occurred along the segment of I-25 as identified in the corridor's Event Audit Report; and,
- Historic weather data.

Summary of Findings

Based on the below analysis, Staff recommends the current AVI and LPT toll rates remain unchanged for FY2019/2020.

- **Traffic Management**
Appendix-A- shows the percentage of speeds below 45 miles per hour at different times of day. The Express Lanes average speeds meet the criterion of speeds below 45 miles per hour no more than 10 percent of the time. Attachment B shows average level of service (LOS) in the Express Lanes at different times of day. The LOS in the Express Lanes was at C or better for all time periods. Based on the traffic parameters above, the Express Lanes are performing as intended in providing reliable travel times. Hence, the current toll rates are managing traffic demand in the Express Lanes as intended.
- **Inflation**
HPTE does not recommend increasing toll rates based on inflation for FY2019/2020 to maximize traffic volumes in the express lanes (See attachment C)

Staff Recommendation

Staff recommends the current AVI and LPT toll rates remain unchanged for FY2019/2020.

Next Steps

- The Board is being asked to review and approve HPTE staff recommendation
- HPTE staff will integrate any requested changes to the recommended proposed AVI and LPT toll rates for I-25 North Segment 2 and will return to the Board in June for final adoption of FY 2018-19 AVI and LPT toll rates for I-25 North Segment 2.

Attachments

Attachment A: Time Periods in which the Express Lane Speed falls below 45 miles per hour
Attachment B: Level of Service in the Express Lane
Attachment C: Toll Rates Adjustment Methodology

Attachment A: Time Periods in which the Express Lane Speed falls below 45 miles per hour

Time	I-25 at 84th Ave.		Time	I-25 at Thornton Pkwy.	
	NB	SB		NB	SB
12:00 AM	0.0%	0.0%	12:00 AM	0.0%	0.0%
1:00 AM	0.0%	0.0%	1:00 AM	0.0%	0.0%
2:00 AM	0.0%	0.0%	2:00 AM	0.0%	0.0%
3:00 AM	0.0%	0.0%	3:00 AM	0.0%	0.0%
4:00 AM	0.0%	0.0%	4:00 AM	0.0%	0.0%
5:00 AM	0.0%	0.0%	5:00 AM	0.0%	0.0%
6:00 AM	0.0%	1.3%	6:00 AM	0.0%	1.7%
7:00 AM	0.0%	0.3%	7:00 AM	0.0%	0.0%
8:00 AM	0.0%	0.0%	8:00 AM	0.0%	0.0%
9:00 AM	0.0%	0.0%	9:00 AM	0.0%	0.0%
10:00 AM	0.0%	0.0%	10:00 AM	0.0%	0.0%
11:00 AM	0.2%	0.0%	11:00 AM	0.0%	0.0%
12:00 PM	1.1%	0.0%	12:00 PM	0.0%	0.0%
1:00 PM	1.4%	0.0%	1:00 PM	0.0%	2.5%
2:00 PM	0.0%	0.5%	2:00 PM	0.0%	0.0%
3:00 PM	0.0%	0.0%	3:00 PM	0.0%	0.0%
4:00 PM	0.0%	0.0%	4:00 PM	3.1%	0.0%
5:00 PM	0.2%	0.0%	5:00 PM	1.2%	0.2%
6:00 PM	1.3%	0.0%	6:00 PM	0.0%	0.0%
7:00 PM	1.4%	0.0%	7:00 PM	0.0%	0.0%
8:00 PM	0.0%	0.0%	8:00 PM	0.0%	2.4%
9:00 PM	0.0%	0.0%	9:00 PM	0.0%	0.0%
10:00 PM	0.0%	0.2%	10:00 PM	0.0%	0.0%
11:00 PM	0.0%	0.0%	11:00 PM	0.0%	0.0%

Attachment B: Level of Service in the Express Lane

Time	I-25 at 84th Ave.		Time	I-25 at Thornton Pkwy.	
	NB	SB		NB	SB
12:00 AM	A	A	12:00 AM	A	A
1:00 AM	A	A	1:00 AM	A	A
2:00 AM	A	A	2:00 AM	A	A
3:00 AM	A	A	3:00 AM	A	A
4:00 AM	A	A	4:00 AM	A	A
5:00 AM	A	A	5:00 AM	A	A
6:00 AM	A	C	6:00 AM	A	C
7:00 AM	A	C	7:00 AM	A	C
8:00 AM	A	B	8:00 AM	A	B
9:00 AM	A	A	9:00 AM	A	A
10:00 AM	A	A	10:00 AM	A	A
11:00 AM	A	A	11:00 AM	A	A
12:00 PM	A	A	12:00 PM	A	A
1:00 PM	A	A	1:00 PM	A	A
2:00 PM	A	A	2:00 PM	A	A
3:00 PM	B	A	3:00 PM	A	A
4:00 PM	B	A	4:00 PM	B	A
5:00 PM	B	A	5:00 PM	B	A
6:00 PM	A	A	6:00 PM	A	A
7:00 PM	A	A	7:00 PM	A	A
8:00 PM	A	A	8:00 PM	A	A
9:00 PM	A	A	9:00 PM	A	A
10:00 PM	A	A	10:00 PM	A	A
11:00 PM	A	A	11:00 PM	A	A

Attachment C: Toll Rates Adjustment Methodology

