

**I-25 Express Lanes  
Monthly Progress Report  
January 2007**



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## INTRODUCTION

January use of the Express Lanes (including both HOV and toll-paying vehicles) of the I-25 Express Lanes increased over December usage and was on par with November totals, with total volumes of 268,029. December volumes were 238,445 due to closures caused by inclement weather as compared to 270,845 in November and 260,611 in October.

Monthly information in this report includes:

- Vehicle Usage
- HOV vs. Express Toll Lane Vehicle counts
- Bus Travel times
- Revenues
- Incidents (that might impact operations or revenues)

### 1.0 VEHICLE USAGE BY TIME

The following is the January summary of traffic data (segregated by HOV Lane and Tolloed Express Lane). These include weekend and non-peak traffic.

January 2007 Traffic Data Summary			
	Express	HOV	Total
<b>Total Monthly Traffic</b>	71,858	187,064	268,029
<b>Maximum Daily Traffic</b>	3,983	9,026	12,723
<b>Average Weekday Traffic</b>	3,137	7,105	10,242
<b>Avg Weekday AM Peak Hour</b>	356	621	977
<b>Avg Weekday PM Peak Hour</b>	339	775	1,114
<b>Avg Weekday AM Peak Period *</b>	1,425	2,483	3,908
<b>Avg Weekday PM Peak Period **</b>	1,358	3,100	4,458

\* 6:00 AM – 10:00 AM

\*\* 3:00 PM – 7:00 PM

Detailed data for daily and peak period traffic are represented in tables in the Additional Information Section of this Report.

## 2.0 BUS AND HOV TRAVEL TIMES

The IGA between CDOT and RTD prescribes triggers to determine if there is any degradation to travel times for buses and carpools. These are:

- Exceeding travel time for more than one bus in an hour (provided the excess was not due to a stall, crash, closure of the lane or special event).
- Exceeding the travel time for more than one day per week for three weeks in a row.
- Predictable patterns of delay.

During the latter part of December and early January RTD, CDOT and the City and County of Denver observed queuing and delays for the HOV/HOT traffic at the 19<sup>th</sup> Street exit for the Express Lanes. This resulted in 11 percent of buses using the corridor to be delayed as compared to an average of two to three percent as was the case in previous months. In order to better understand these observations, data was gathered for the morning rush period (6:00 a.m. to 10:00 a.m.) for the first 14 working days of November, December and January. This allowed the comparison between the three months without getting into the holiday periods of November and December and also eliminated the weather impacts from December 20<sup>th</sup> to the 31<sup>st</sup>. The traffic volumes recorded were obtained at the 58<sup>th</sup> Ave./I-25 tolling station. It is assumed that a percentage of vehicles continue south on I-25 but since there is not an accurate count available for that diversion this report used the raw data collected at the tolling station for comparison.

The average hourly volumes during the past three months have remained relatively stable. Data collection during November, December and January showed the average volume was 1008, 969 and 976 vehicles per hour respectively. The travel time indicators were also checked for this same period and showed no notable recorded bus delays for November or December. However, by comparison the number of buses delayed in January was in the hundreds with buses sitting through two to three signal cycles.

Since there was virtually no difference in the average per hour traffic, the 15-minute count data for the entire rush period was used to see if there had been a change in driving patterns. The average 15-minute volume was 253 for November and 244 for both December and January. The maximum 15-minute count was 498, 508 and 496 respectively. Again there is no real difference in traffic volume that can account for the type of delays that were observed.

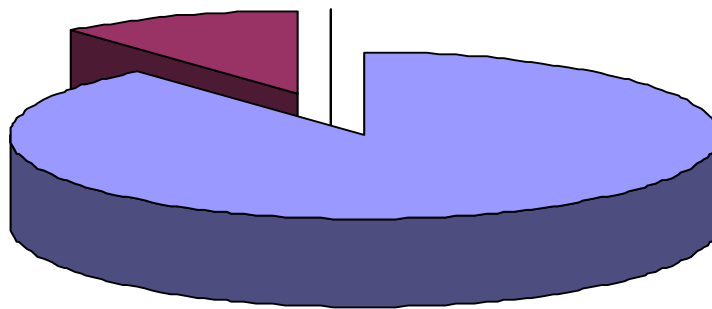
The City and County of Denver had also received numerous complaints and had a crew check the signal at 19<sup>th</sup> and Wynkoop to verify proper operation. After reevaluating the signal operations, on Tuesday January 30<sup>th</sup>, the City and County of Denver did make some major timing adjustments and phase changes. The traffic seemed to flow much better and there were no travel time delays recorded for January 31<sup>st</sup> or February 1<sup>st</sup>. While this appears to have alleviated the problem for now traffic operations will need to be monitored with visual observations to ensure there is no further queuing or delays.

One of the difficulties in analyzing operations at this location is the lack of counting stations. The only location with accurate counts available is the tolling station at 58<sup>th</sup> Ave, however, these counts do not provide the necessary information to fully understand where vehicles are entering and exiting the Express Lanes. With that in mind, Region 6 is preparing to install additional counting stations at each of the express lane entrance and exit points and bring this data back to the Region 6 Express Lane Center. This equipment should be in place and communication established by early summer to allow better monitoring.

# Weekday Bus Travel Time January 2007

Buses Late, 680

% of Buses Late,  
11.10%



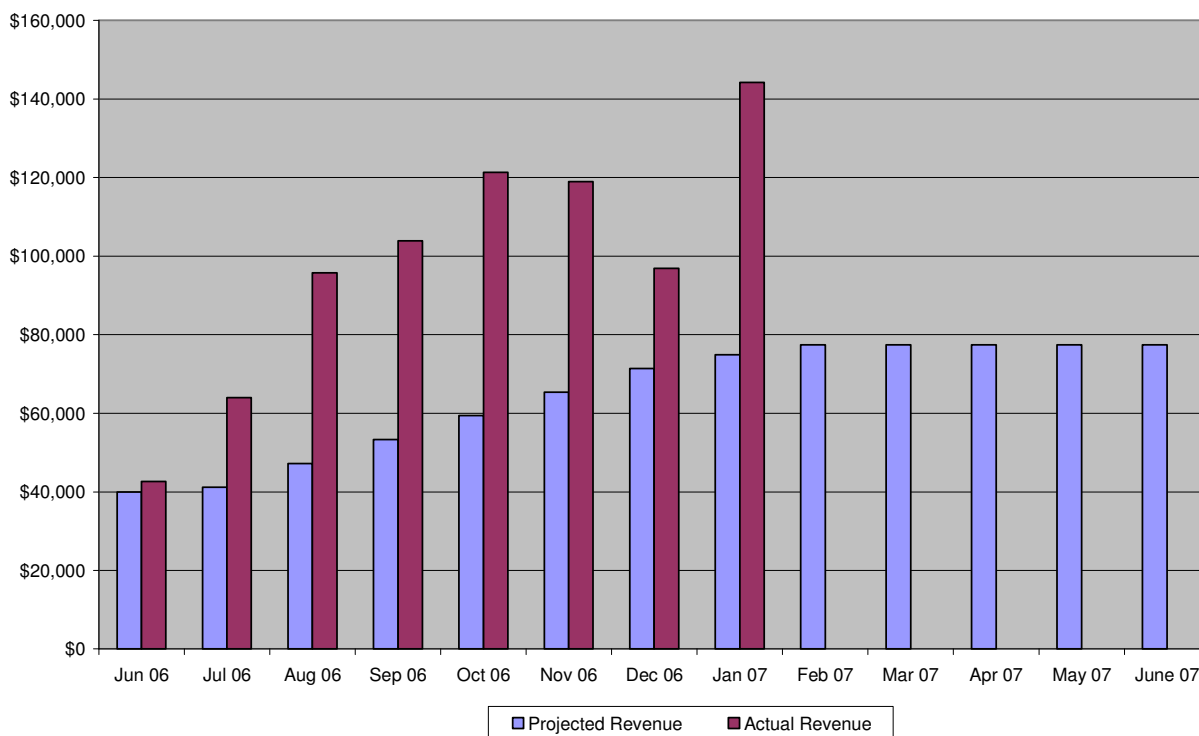
Buses on Time,  
5447

% of Buses on  
Time, 88.90%

### 3.0 REVENUES

January revenues were up again. January revenues from tolls totaled \$144,216. This is significant as the New Year's Day and Martin Luther King holidays yielded less traffic. The figure below shows the projected vs. actual toll revenue to date. Revenues do not include any monies that have been collected for citations (tolls, fees, and fines).

**First Year Monthly Estimated Toll Revenue vs. Actual**



### 4.0 INCIDENTS

Other than four routine snow storms, there was only one incident, not including the signal timing issues noted above that impacted traffic or operations in the lanes. On January 5, the opening of the lanes was delayed by 1.5 hours in order to remove an abandoned vehicle.

## 5.0 ENFORCEMENT

	Total Stopped	Toll Citations	HOV Citations	Hazardous Citations	Seatbelt Citations	All Other Citations	Arrests
June	320	43	59	22	5	7	1
July	152	20	26	24	7	19	1
August	127	19	18	45	11	37	1 (DUI)
September	88	7	7	26	4	7	
October	42	5	8	15	4	73	
November	56	0	0	14	7	3	
December							
January	36	2	4	9	1	10	2 (misd)

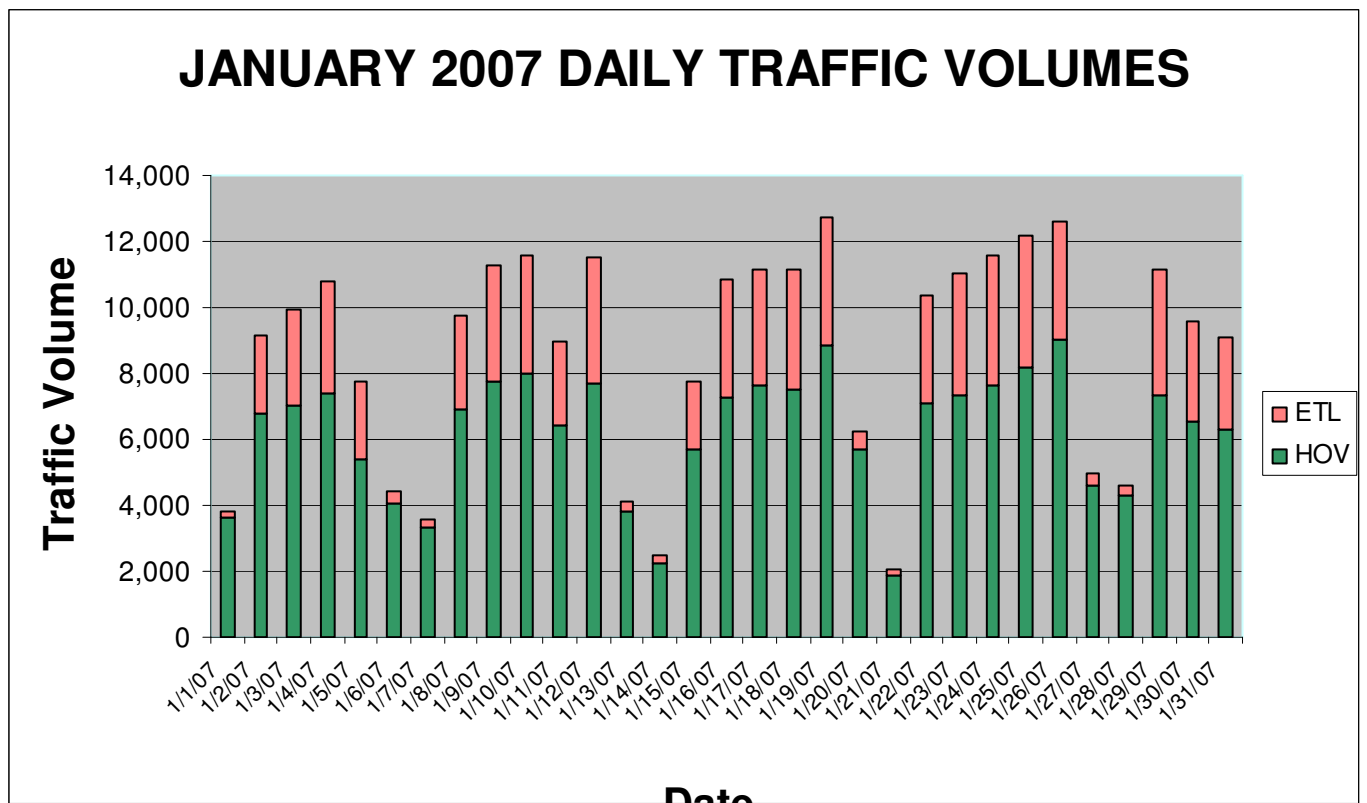
Officers resumed patrolling of the lanes in January.

## 6.0 OPERATIONAL ISSUES

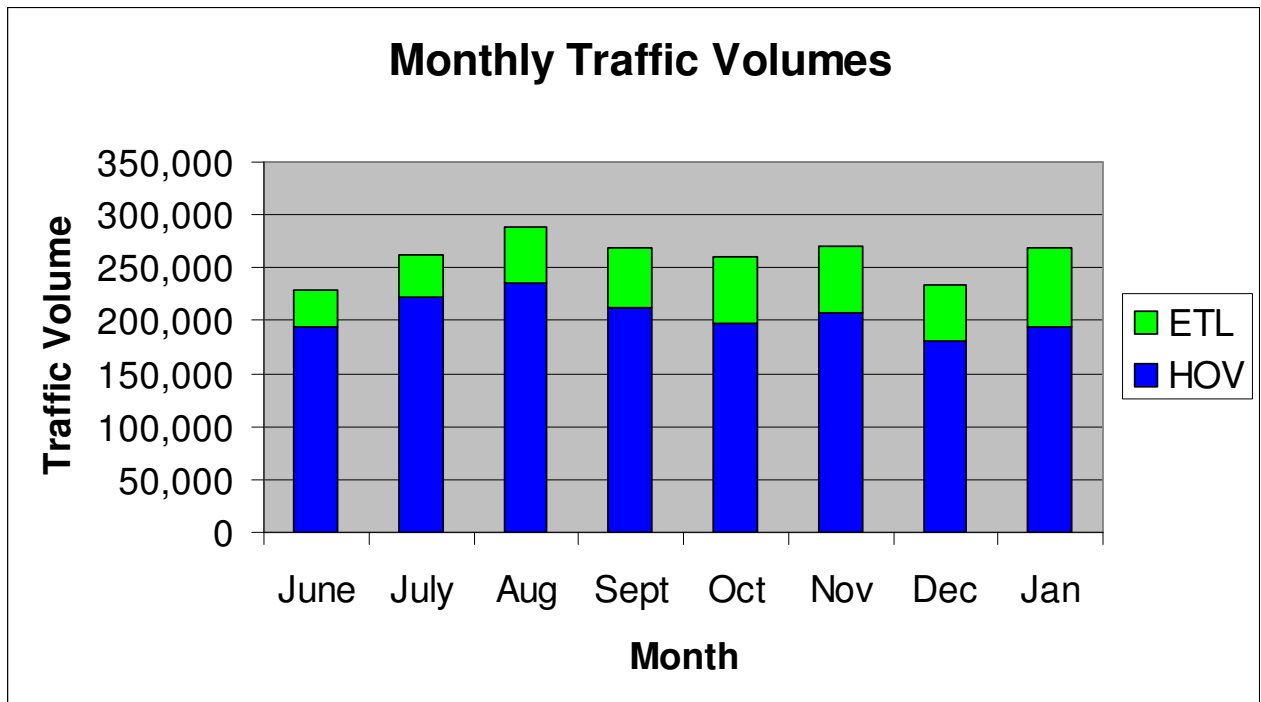
As described above, Region 6 traffic engineers will continue to monitor the operations at 19<sup>th</sup> Street.

## 7.0 ADDITIONAL INFORMATION

Total daily traffic volumes for January are shown on the following graph



The chart below summarizes monthly traffic since the lanes opened June 2, 2006



Peak period traffic volumes are summarized below:

		Morning Rush Period					
		Total Peak Hour			Avg Per Hour		
	Weekday	Express	HOV	Total	Express	HOV	Total
1st	Monday	22	96	118	6	24	30
	Tuesday	1,020	2,122	3,142	255	531	786
	Wednesday	1,253	2,411	3,664	313	603	916
	Thursday	1,390	2,480	3,870	348	620	968
	Friday	1,270	2,090	3,360	318	523	840
8th	Monday	1,298	2,501	3,799	325	625	950
	Tuesday	1,518	2,715	4,233	380	679	1,058
	Wednesday	1,527	2,784	4,311	382	696	1,078
	Thursday	1,715	2,735	4,450	429	684	1,113
	Friday	1,341	2,450	3,791	335	613	948
15th	Monday	975	1,669	2,644	244	417	661
	Tuesday	1,578	2,702	4,280	395	676	1,070
	Wednesday	1,620	2,753	4,373	405	688	1,093
	Thursday	1,654	2,834	4,488	414	709	1,122
	Friday	1,619	2,660	4,279	405	665	1,070
22nd	Monday	1,767	2,793	4,560	442	698	1,140
	Tuesday	1,685	2,785	4,470	421	696	1,118
	Wednesday	1,940	2,902	4,842	485	726	1,211
	Thursday	1,681	2,908	4,589	420	727	1,147
	Friday	1,465	2,658	4,123	366	665	1,031
29th	Monday	1,601	2,627	4,228	400	657	1,057



<b>Tuesday</b>	<b>1,460</b>	<b>2,715</b>	<b>4,175</b>	<b>365</b>	<b>679</b>	<b>1,044</b>
<b>Wednesday</b>	<b>1,377</b>	<b>2,708</b>	<b>4,085</b>	<b>344</b>	<b>677</b>	<b>1,021</b>

		<b>Afternoon Rush Period</b>					
		<b>Total Peak Hour</b>			<b>Avg Per Hour</b>		
	<b>Weekday</b>	<b>Express</b>	<b>HOV</b>	<b>Total</b>	<b>Express</b>	<b>HOV</b>	<b>Total</b>
1st	<b>Monday</b>	47	1,086	1,133	12	272	283
	<b>Tuesday</b>	1,139	3,167	4,306	285	792	1,077
	<b>Wednesday</b>	1,435	3,230	4,665	359	808	1,166
	<b>Thursday</b>	1,619	3,396	5,015	405	849	1,254
	<b>Friday</b>	756	2,239	2,995	189	560	749
8th	<b>Monday</b>	1,325	3,109	4,434	331	777	1,109
	<b>Tuesday</b>	1,585	3,310	4,895	396	828	1,224
	<b>Wednesday</b>	1,618	3,365	4,983	405	841	1,246
	<b>Thursday</b>	1,699	3,387	5,086	425	847	1,272
	<b>Friday</b>	911	2,901	3,812	228	725	953
15th	<b>Monday</b>	807	2,688	3,495	202	672	874
	<b>Tuesday</b>	1,647	3,224	4,871	412	806	1,218
	<b>Wednesday</b>	1,543	3,250	4,793	386	813	1,198
	<b>Thursday</b>	1,576	3,330	4,906	394	833	1,227
	<b>Friday</b>	1,651	3,715	5,366	413	929	1,342
22nd	<b>Monday</b>	1,172	3,031	4,203	293	758	1,051
	<b>Tuesday</b>	1,598	3,269	4,867	400	817	1,217
	<b>Wednesday</b>	1,644	3,323	4,967	411	831	1,242
	<b>Thursday</b>	1,783	3,456	5,239	446	864	1,310
	<b>Friday</b>	1,510	3,628	5,138	378	907	1,285
29th	<b>Monday</b>	1,680	3,227	4,907	420	807	1,227
	<b>Tuesday</b>	1,308	3,084	4,392	327	771	1,098
	<b>Wednesday</b>	1,179	2,878	4,057	295	720	1,014

