

OCTOBER 2018



**WIM #49  
I-90,  
MP 42.6  
WORTHINGTON,  
MN**

**MONTHLY  
REPORT**



*Your Destination...Our Priority*



## WIM Site Location

WIM #49 is located on I-90 near Worthington in Nobles county.

## System Operation

WIM #49 was operational for the entire month of October 2018. Volume was computed using all monthly data.

## System Calibration

WIM #49 was most recently calibrated on 2017-12-15. Table 1 summarizes the front axle weights of class 9s by lane <sup>1</sup>. Table 1 indicates that the class 9 front axle weights were all within +/- 9% of baseline calibration values for all lanes. Figure 1 shows the distribution of gross vehicle weights (GVW) in Class 9 vehicles at this site for the last 12 months of operation <sup>2</sup>. Figure 2 depicts the average front axle weight as a percent difference from the first full month following calibration.

## Summary of Volume Statistics

Total Monthly Volume: 343352 | Passenger Vehicles: 282691 | Heavy Commercial Vehicles: 60661

Monthly Average Daily Traffic (MADT): 11076 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 1957

See Table 2 for vehicle class breakdown

## Passenger Vehicles (PVs) and Heavy Commercial Vehicles (HCVs)

**Volume trends.** EB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Tuesdays. WB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Wednesdays (see Figure 3 and 4).

## Passenger Vehicles (PVs)

**Volume trends.** On an average 24-hour day (see Figure 5), EB PVs generally reached peak volume levels between 02 PM and 04 PM. Similarly, WB PVs peaked in volume between 03 PM and 05 PM

## Heavy Commercial Vehicles (HCVs)

**Volume trends.** On an average 24-hour day, HCVs traveling EB typically reached peak volume levels between 02 PM and 04 PM, while volume going WB peaked between 03 PM and 05 PM. See Figure 6. Out of all HCVs, the two highest traffic volumes were generated by Class 9's and Class 5's.

## Overweight HCVs

**Volume trends.** Of a total of 60661 HCVs, 13358 of them were overweight <sup>3</sup>. These overweight HCVs contributed to 4.1% of total monthly volume, and 22.9% of total monthly HCV volume. EB overweight vehicles typically reached highest numbers on Thursdays, with lowest volumes reported on Saturdays. WB overweight vehicles tended to reach highest volumes on Fridays, with lowest volumes reported on Sundays. See Figure 3 .

The top two overweight violators by class were the class 9 and class 10 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 69% of all overweight vehicles traveling WB this month (see Figure 7 & 8). Figure 9 shows the number of vehicles exceeding 88,000 pounds that crossed the WIM over the last 12 months. The highest number of 88,000+ vehicles within the last 12 months occurred in January.

WIMs are currently used as a screening tool for weight enforcement, and it is estimated that the WIM scales can measure gross vehicle weights (GVW) within 90-95% of static weight scale measurements. Due to the possibility of measurement error, vehicles exceeding 10% of their legal weight limits (or 1.1 times their legal weight limits) are considered overweight in this report <sup>4</sup>.

Using normal load limits ,521 EB vehicles exceeded 88,000 pounds (397 vehicles were Class 9's; 57 vehicles were Class 10's). Of vehicles traveling WB,

1905 EB vehicles exceeded 88,000 pounds (1612 vehicles were Class 9's; 171 vehicles were Class 10's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from October 2018.

**Loaded vs. Unloaded HCVs.** Figure 10 shows the GVW distributions of Class 9s and 10s in October 2018. Data suggests that there were greater numbers of fully\_loaded Class 9's than empty Class 9's traveling EB, while there were more fully\_loaded Class 9's than empty traveling WB. Data also suggests that there were more fully\_loaded Class 10's than empty traveling in the EB direction. In the WB direction, there were more fully\_loaded class 10 vehicles.

**Freight Totals.** A total of 705259 tons of freight was recorded to have crossed the WIM. More freight was shipped WB (58%) than EB (42%). See Table 4 and Figure 11 for more freight information.

## Infrastructure Considerations

**Bridge.** Bridge No. 53815 and 53816 (Prestressed Beam Span) are approximately .18 miles east of WIM #49. Bridge No. 53813 and 53814 (Prestressed Beam Span) are approximately .43 miles west of WIM #49. WIM #49 recorded a total of 343352 vehicles with a combined GVW of 4495940 kips (1 kip = 1,000 pounds = 0.5 tons) in October 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 71039 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 61.2% of all ESALs were recorded WB while 38.8% was observed EB. In particular, 87% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 58% of total GVW observed this month). See Table 6

and Figures 14-15 for more information on ESALs (Table 6 also provides flexible ESAL factors for each vehicle class using a terminal serviceability of 2.5 and a structural number of 5).

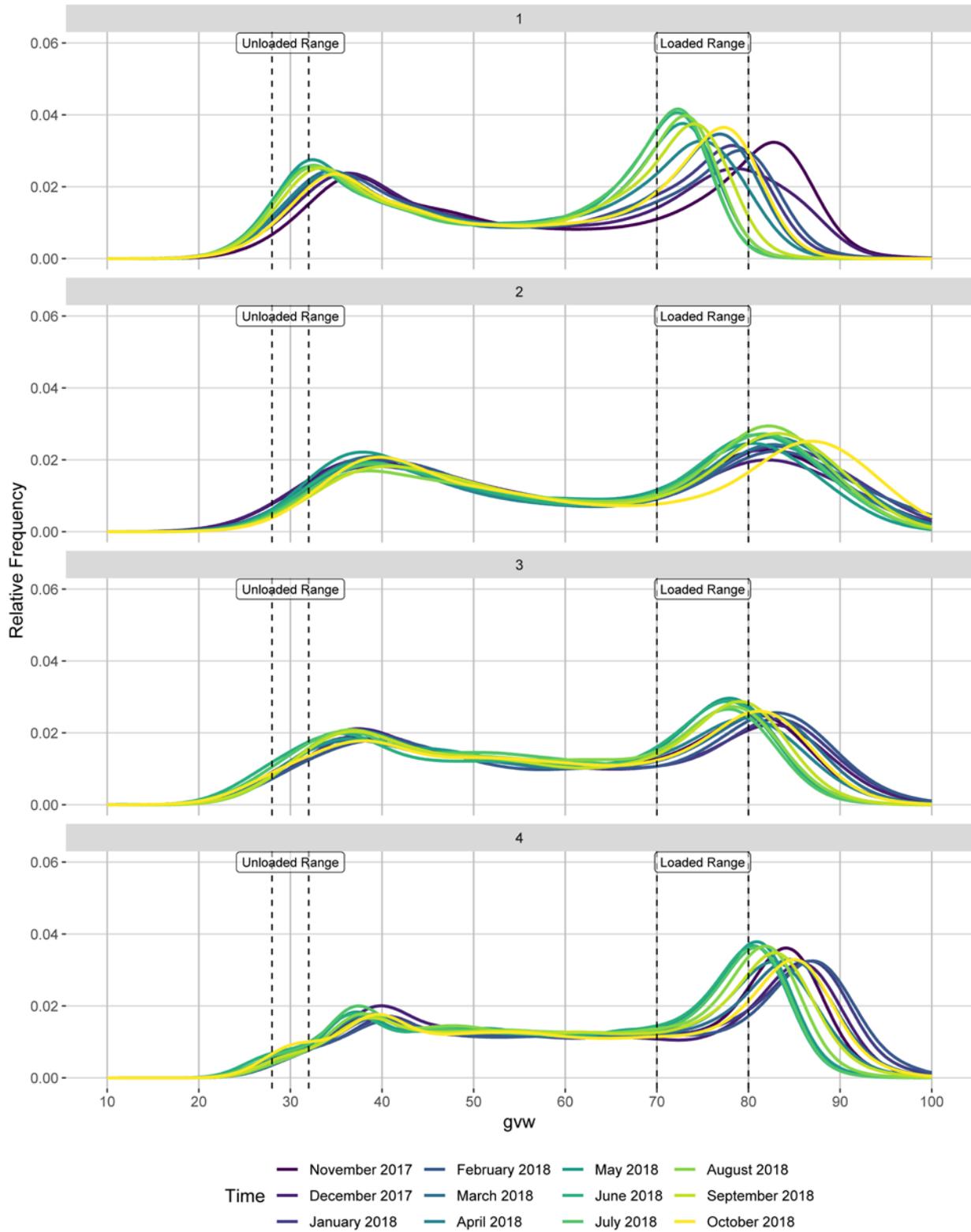
*WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>*

MnDOT's vehicle classification scheme and vehicle class groupings for traffic forecasting can be found at: <http://www.dot.state.mn.us/traffic/data/data-products.html#weight>

- <sup>1</sup> Front axle weights of Class 9s are monitored on a monthly basis to assure performance between calibrations. The current goal of the WIM scale calibration is to have each individual axle weight stay within a range of ±9% of baseline calibration values
- <sup>2</sup> Previous WIM research indicates that unloaded Class 9s typically weigh 28-32 kips, while loaded Class 9s generally fall in the 70-80 kip range. More recent data from several WIM sites suggests that the unloaded Class 9 range may have moved a little higher over time (due to increased presence of sleeper cabs, etc.), although these ranges are also thought to be site-specific.
- <sup>3</sup> An HCV is considered overweight during normal load limits in this report if they satisfy any of the following 1) exceed a gross vehicle weight (GVW) of 80,000 pounds, 2) exceed any of the legal weight maximums on any axle configurations (legal maximums are: single axle = 20,000 pounds; tandem axles spaced 8' or less = 34,000 pounds; tridem axles spaced 9' or less = 43,000 pounds; quad axles spaced 13' or less = 51,000 pounds). Monthly reports use this standard regardless of the time of year however, the Winter Load Increase (WLI) allows a 10% across the board increase in axle and gross vehicle weights without a permit on US, state routes, and county roads. An HCV is considered overweight during Winter Load Increase(WLI) if they satisfy any of the following 1) exceed a gross vehicle weight (GVW) of 88,000 pounds, 2) exceed any of the legal weight maximums on any axle configurations (legal maximums are: single axle = 22,000 pounds; tandem axles spaced 8' or less = 37,400 pounds; tridem axles spaced 9' or less = 47,300 pounds; quad axles spaced 13' or less = 56,100 pounds). An overweight HCV is only included once in the overweight volume calculations regardless of how many of the aforementioned conditions are violated. For information on MN weight limit dates and statutes: [http://www.mrr.dot.state.mn.us/research/seasonal\\_load\\_limits/sllindex.asp](http://www.mrr.dot.state.mn.us/research/seasonal_load_limits/sllindex.asp)
- <sup>4</sup> For example, Class 9s and 10s can legally have gross vehicle weights up to 80,000 lbs (with the exception of permitted loads) during normal load limits. To account for measurement error on the WIM scales, those exceeding 10% of the legal GVW maximum (or 1.1 times the legal GVW) should be screened (e.g., 80,000 lbs + 8,000 lbs = 88,000 lbs). Similarly during WLI vehicles weighing 96,800 lbs should be screened.

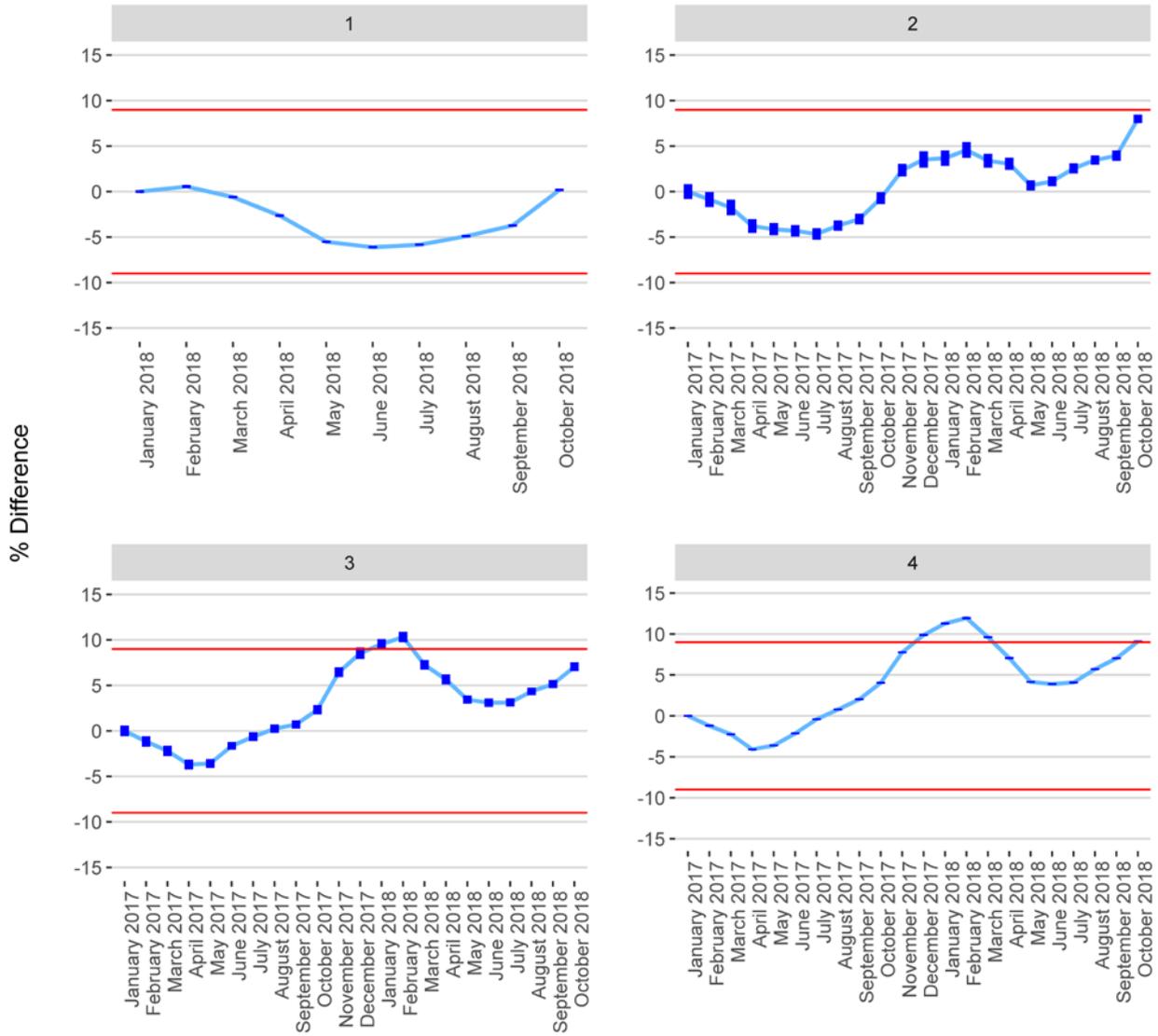
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Figure 1 - Monthly Class 9 GWW Histogram



Months that have not passed QC parameters are not displayed

Figure 2 - Percent Difference of Front Axle Weight from Last Calibration (+/- 95% CI)



Months that have not passed QC parameters are not displayed

Figure 2 - Average Vehicle Volume vs. Day of the Week

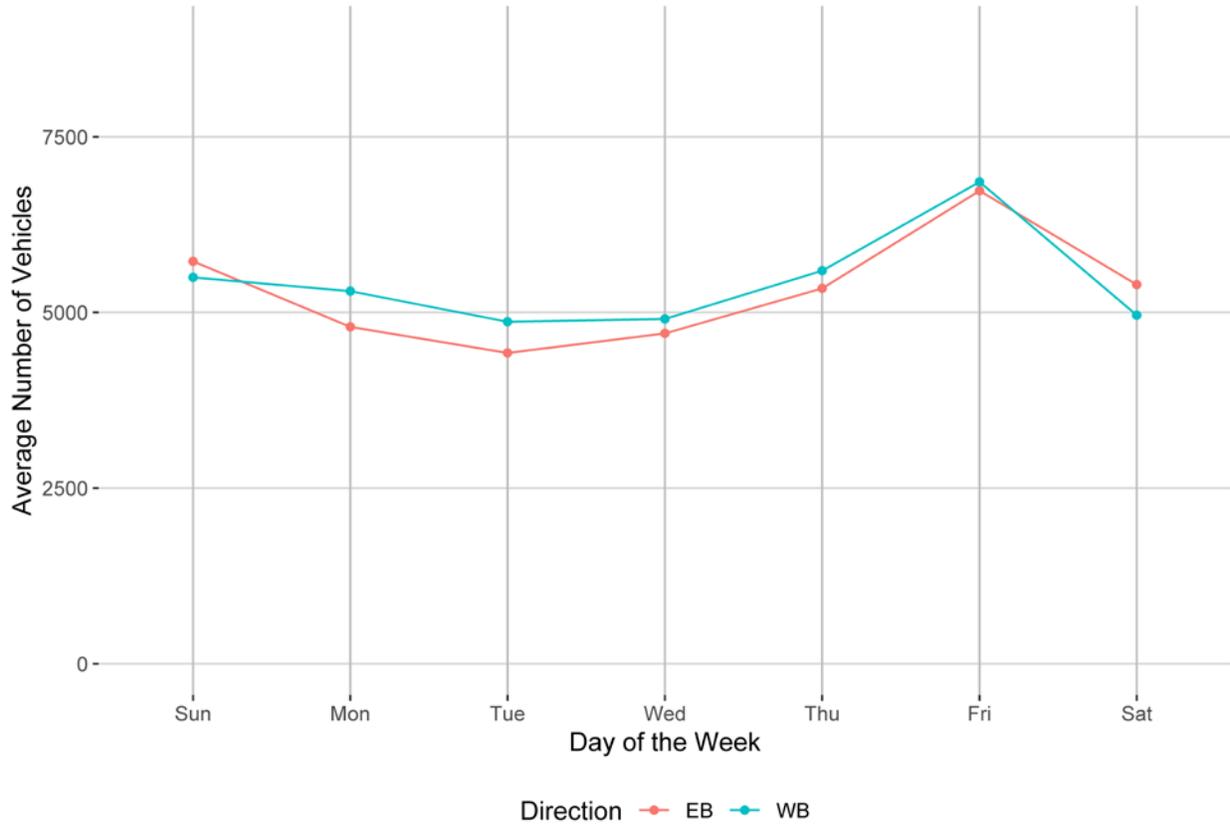


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

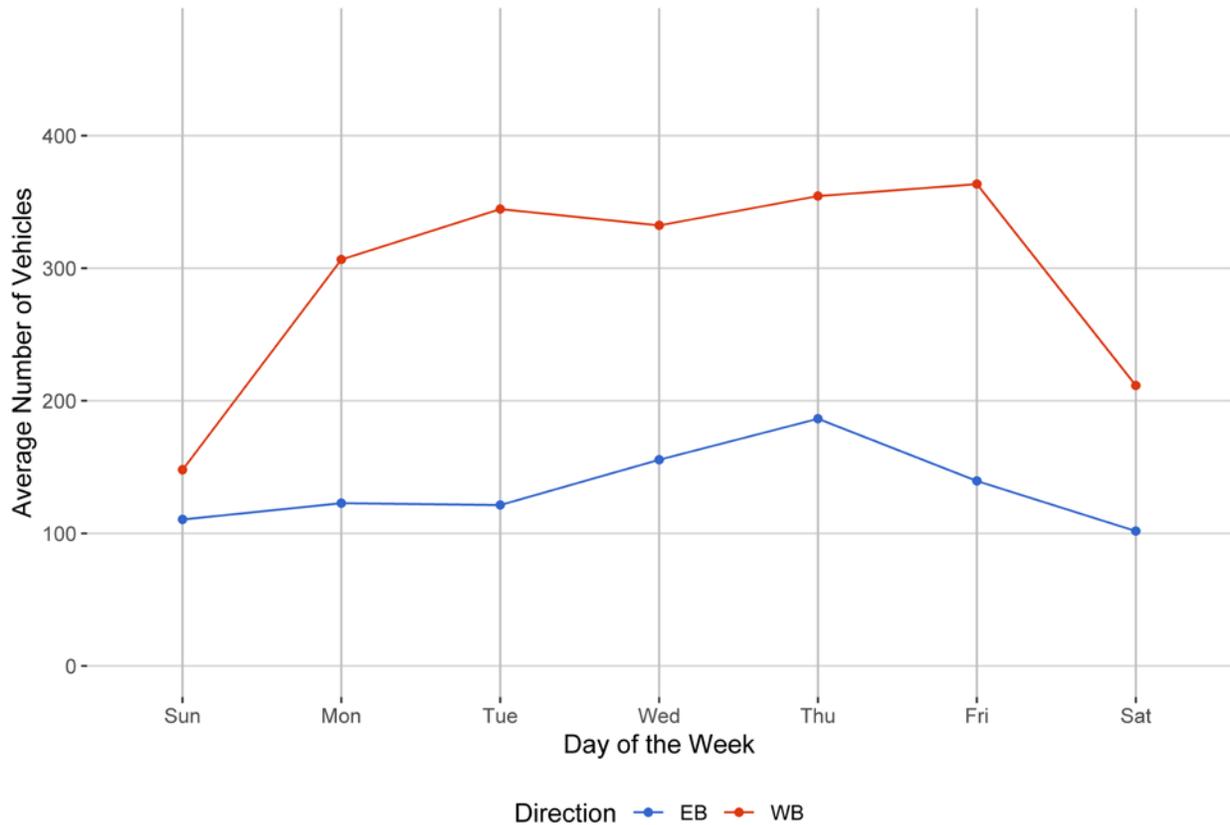


Figure 4 - Passenger Vehicles vs. Hour of the Day

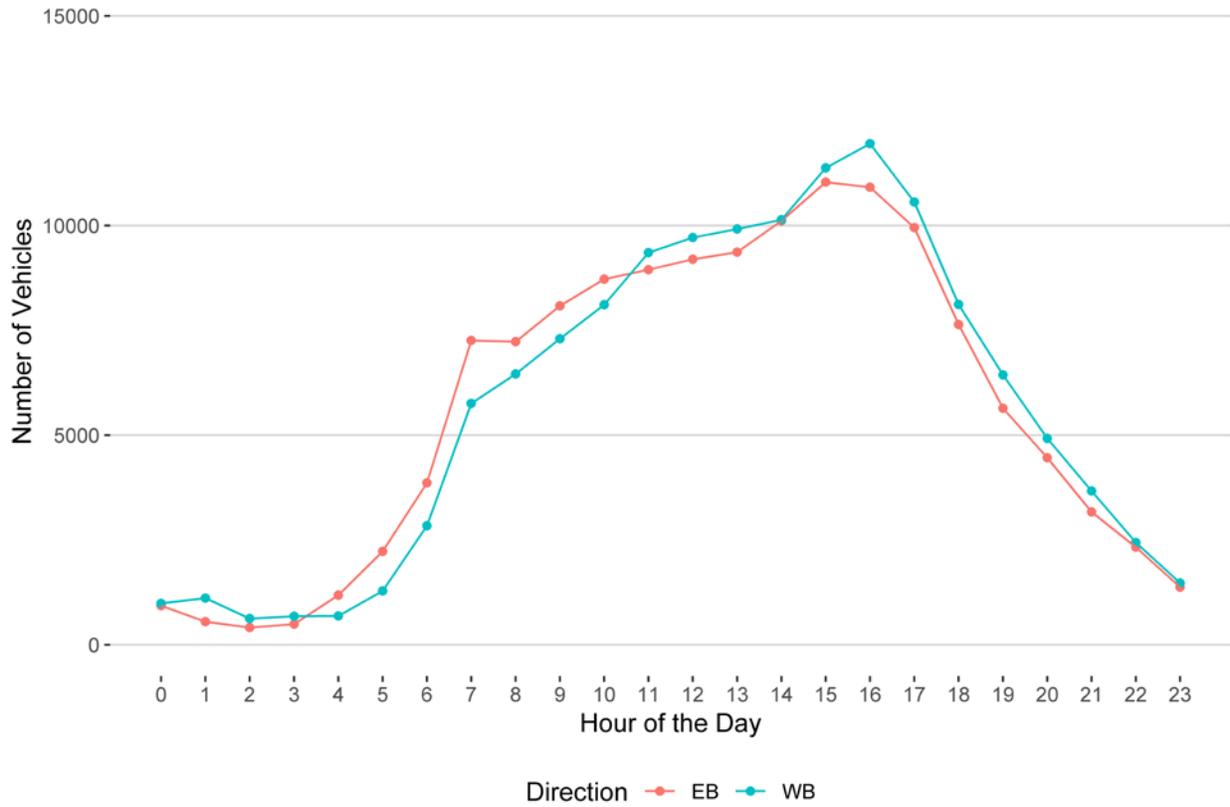


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

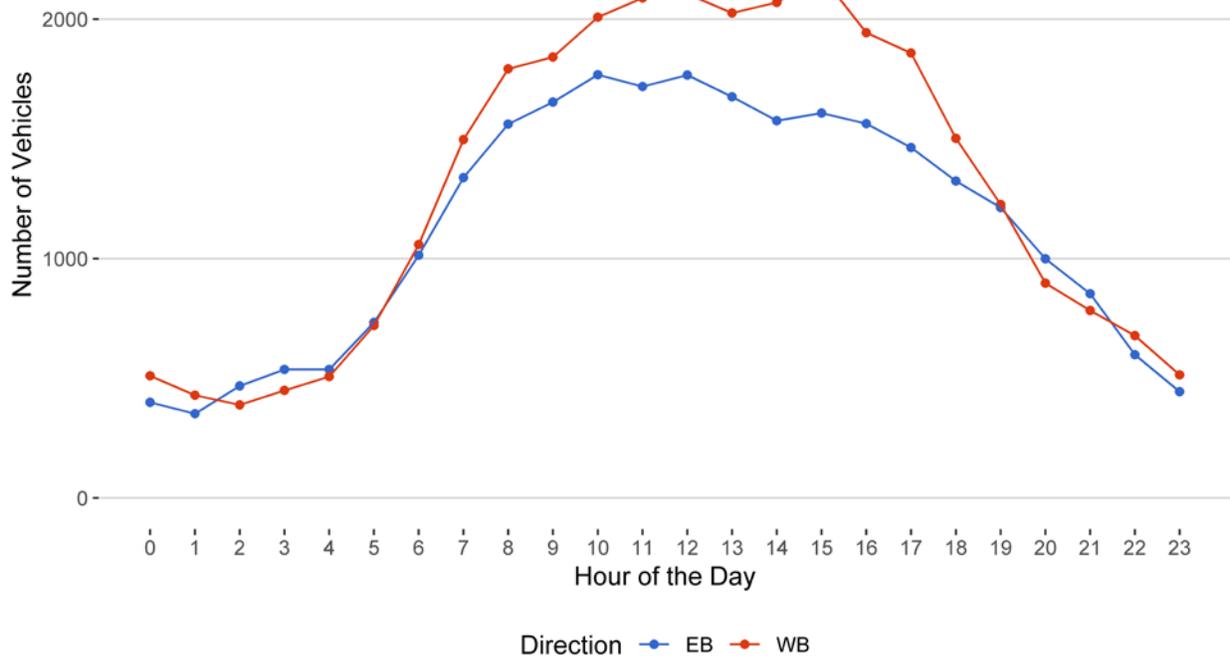


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

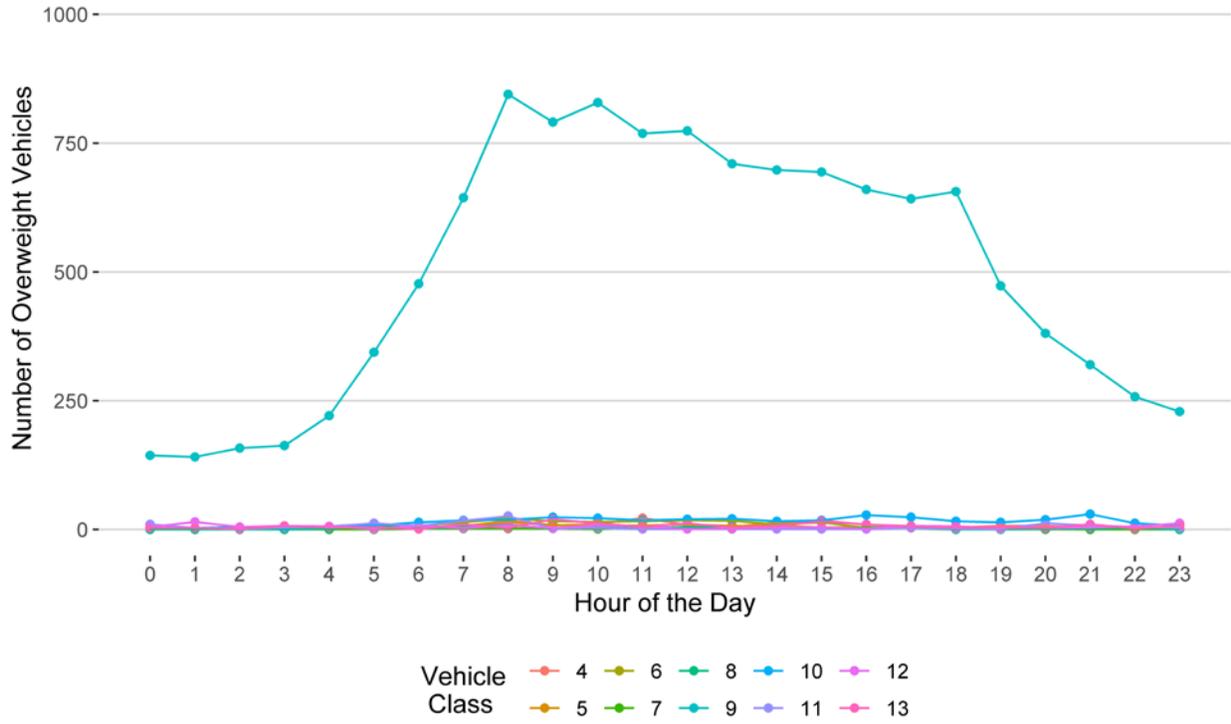


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

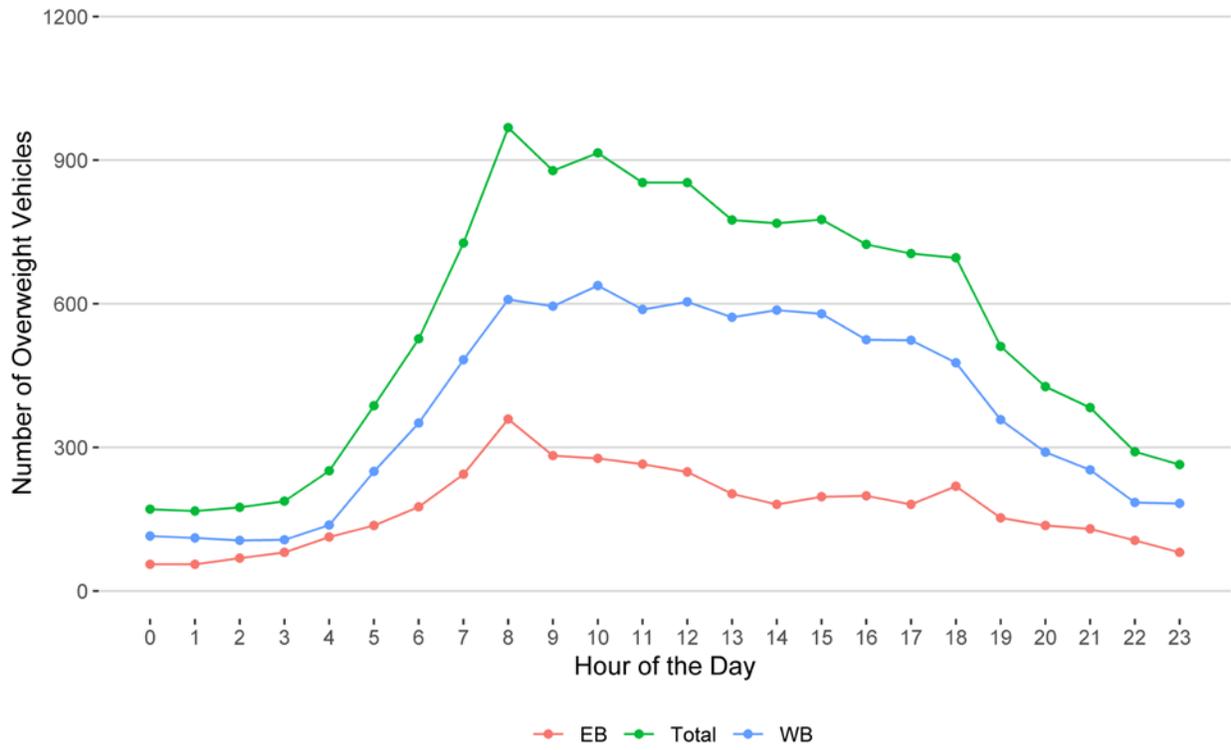
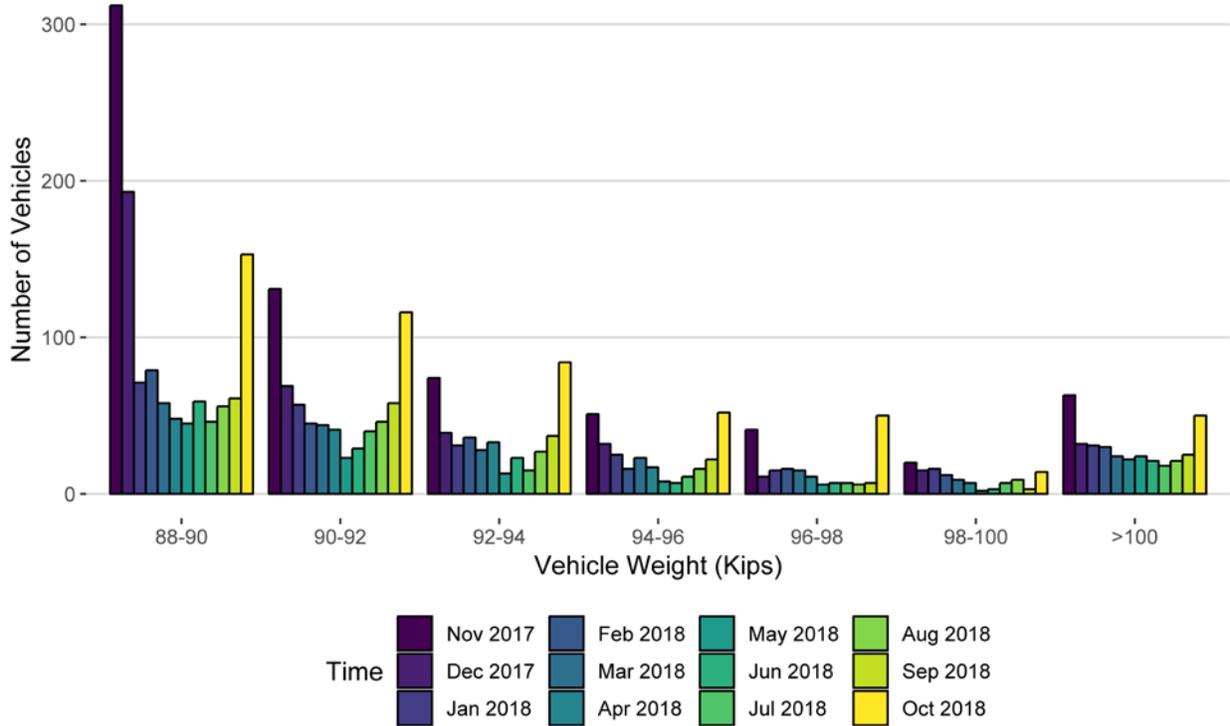
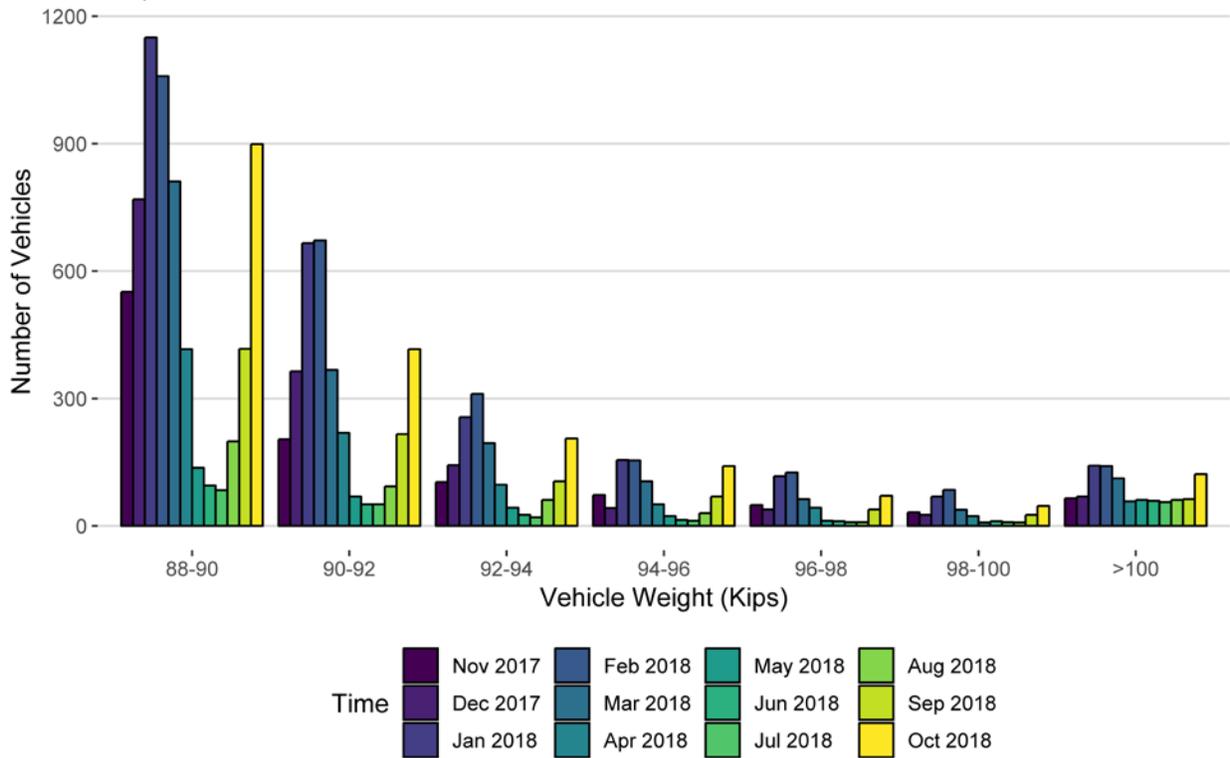


Figure 8 - Histogram of EB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
88-90	312	193	71	79	58	48	45	59	46	56	61	153
90-92	131	69	57	45	44	41	23	29	40	46	58	116
92-94	74	39	31	36	28	33	13	23	15	27	37	84
94-96	51	32	25	16	23	17	8	7	11	16	22	52
96-98	41	11	15	16	15	11	6	7	7	6	7	50
98-100	20	15	16	12	9	7	2	3	7	9	3	14
>100	63	32	31	30	24	22	24	21	18	21	25	50
Total	692	391	246	234	201	179	121	149	144	181	213	519

Figure 8 - Histogram of WB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
88-90	551	769	1150	1059	811	416	137	95	84	199	417	899
90-92	204	364	666	672	367	219	69	51	51	93	216	416
92-94	103	143	256	311	195	97	43	26	20	61	105	206
94-96	73	42	155	154	105	51	23	14	12	30	69	141
96-98	49	39	117	126	63	43	12	11	9	9	39	71
98-100	32	26	69	85	38	23	8	11	9	8	26	47
>100	65	69	142	141	112	58	61	59	56	61	63	122
Total	1077	1452	2555	2548	1691	907	353	267	241	461	935	1902

Figure 8 - Class 9's and 10's by Direction vs Gross Vehicle Weight

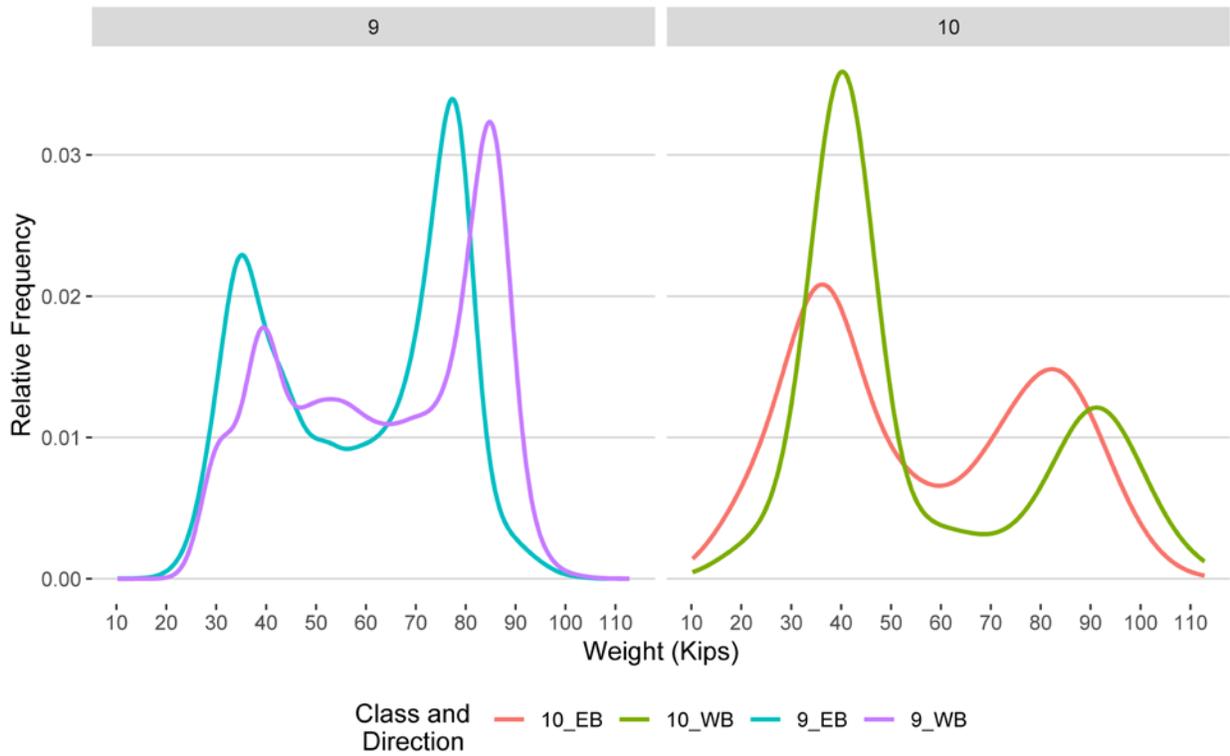


Figure 9 - Freight Percentage by Direction and Class

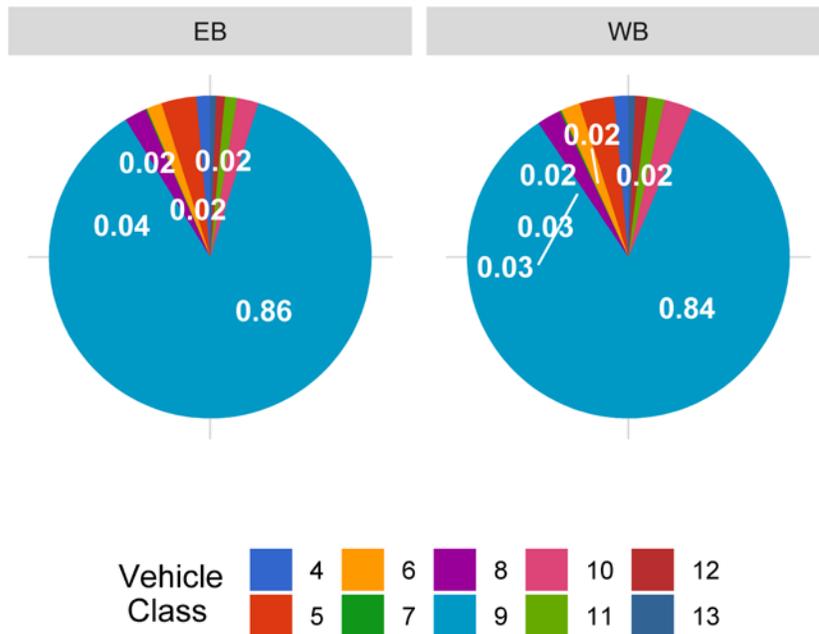


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

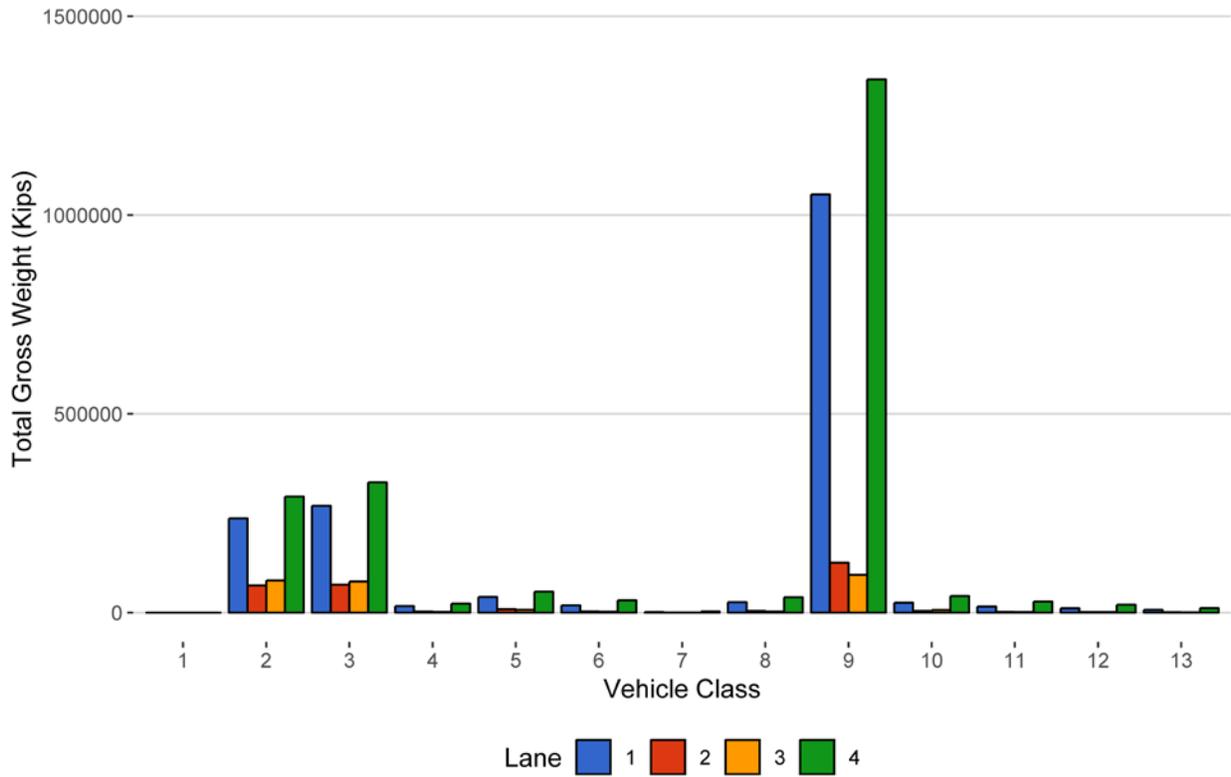


Figure 11 - Total Gross Vehicle Weight t

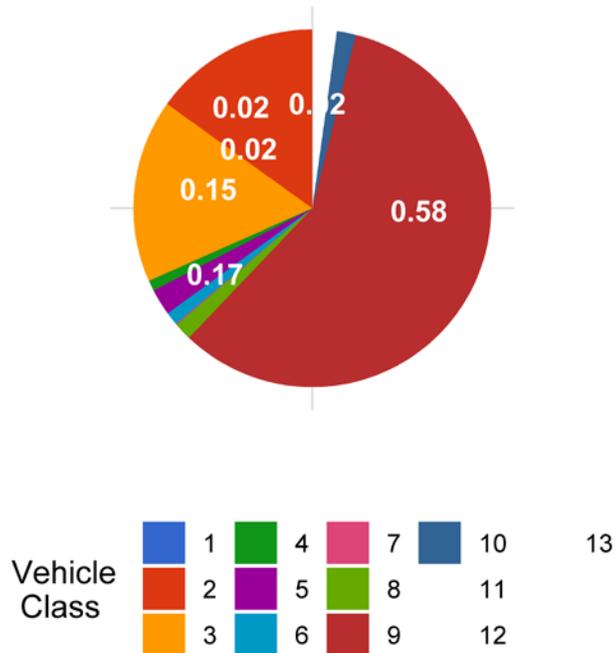


Figure 12 - Total ESALs by Class and Lane

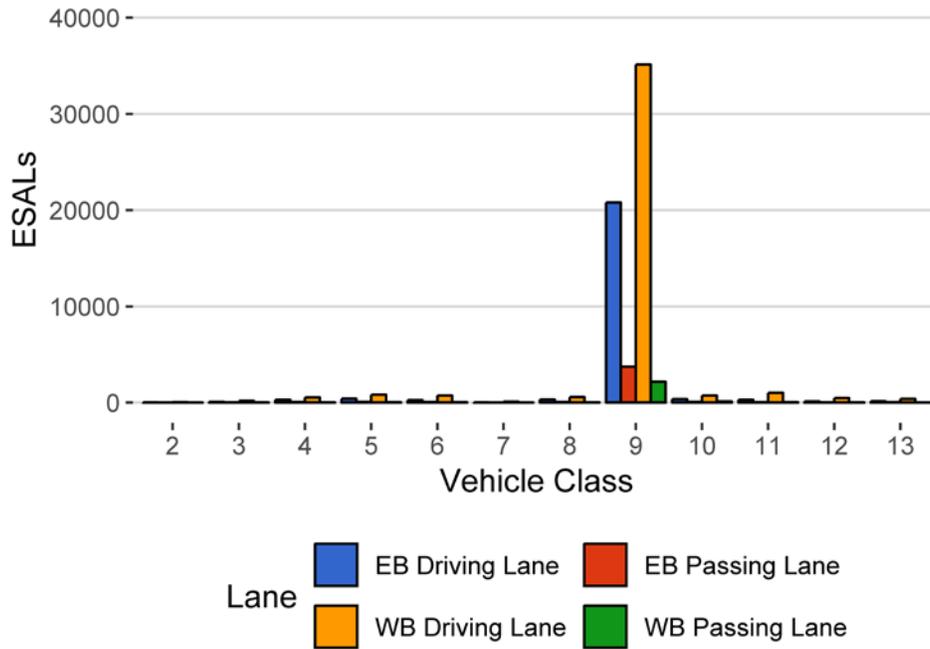
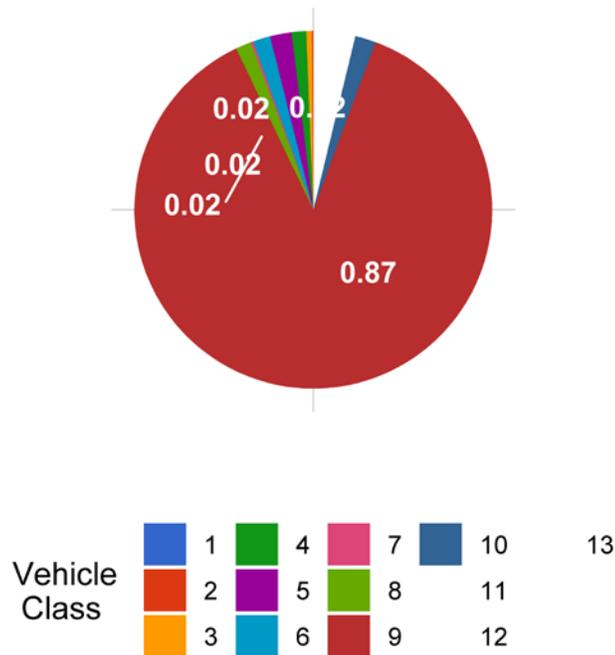


Figure 13 - ESALs by Class



**Table 1 Class 9 Front Axle Weight by Lane**

<i>Month</i>	<i>Lane 1 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 2 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 3 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 4 (kips)</i>	<i>Front Axle +/- 9%</i>
January 2017	NA	NA	11.56	0.00	11.42	0.00	11.52	0.00
February 2017	NA	NA	11.46	-0.87	11.29	-1.15	11.38	-1.19
March 2017	NA	NA	11.36	-1.75	11.17	-2.20	11.26	-2.24
April 2017	NA	NA	11.13	-3.78	11.00	-3.69	11.05	-4.08
May 2017	NA	NA	11.09	-4.13	11.02	-3.59	11.11	-3.60
June 2017	NA	NA	11.07	-4.31	11.24	-1.64	11.28	-2.13
July 2017	NA	NA	11.02	-4.66	11.35	-0.64	11.48	-0.40
August 2017	NA	NA	11.13	-3.73	11.45	0.24	11.61	0.78
September 2017	NA	NA	11.21	-3.01	11.51	0.71	11.76	2.04
October 2017	NA	NA	11.48	-0.73	11.69	2.33	11.99	4.06
November 2017	NA	NA	11.83	2.35	12.16	6.46	12.42	7.77
December 2017	NA	NA	11.97	3.54	12.40	8.54	12.66	9.89
January 2018	10.89	0.00	11.99	3.67	12.51	9.54	12.82	11.29
February 2018	10.95	0.56	12.09	4.57	12.60	10.32	12.90	11.95
March 2018	10.82	-0.60	11.96	3.40	12.25	7.26	12.63	9.61
April 2018	10.60	-2.64	11.92	3.05	12.07	5.66	12.34	7.06
May 2018	10.29	-5.51	11.64	0.68	11.82	3.44	12.00	4.15
June 2018	10.22	-6.11	11.69	1.13	11.78	3.10	11.97	3.89
July 2018	10.25	-5.83	11.86	2.55	11.78	3.13	11.99	4.08
August 2018	10.35	-4.90	11.96	3.47	11.92	4.34	12.18	5.71
September 2018	10.48	-3.73	12.02	3.94	12.01	5.16	12.33	7.04
October 2018	10.91	0.18	12.49	8.00	12.23	7.05	12.57	9.10

**Table 2 Vehicle Classification Data**

<i>Vehicle Class</i>	<i>Monthly Average Daily Volume</i>	<i>Monthly Total Volume</i>	<i>Monthly Total Volume Percentage</i>	<i>Monthly Total Overweight Vehicles</i>	<i>Monthly Total Overweight Percentage</i>
1	0	14	0	0	0
2	5438	168577	49.1	0	0
3	3681	114101	33.2	0	0
4	51	1573	0.5	171	1.3
5	254	7884	2.3	110	0.8
6	58	1788	0.5	169	1.3
7	3	103	0	39	0.3
8	72	2232	0.7	61	0.5
9	1425	44187	12.9	12021	90
10	46	1433	0.4	368	2.8
11	24	751	0.2	131	1
12	17	518	0.2	128	1
13	6	193	0.1	160	1.2
<b>TOTAL</b>	<b>11076</b>	<b>343352</b>	<b>100</b>	<b>13358</b>	<b>100</b>

**Table 3 Top 10 Gross Vehicle Weight, Class 9 and 10**

<i>Date</i>	<i>Day of Week</i>	<i>Time</i>	<i>Vehicle Class</i>	<i>Direction</i>	<i>Lane</i>	<i>GVW (lbs)</i>
2018-10-26	Friday	21:28:51	10	WB	3	121.03
2018-10-22	Monday	06:24:48	9	WB	4	114.48
2018-10-18	Thursday	00:10:08	9	WB	4	112.83
2018-10-02	Tuesday	17:51:20	10	WB	4	112.15
2018-10-22	Monday	06:48:19	9	WB	4	111.25
2018-10-31	Wednesday	20:12:52	9	EB	2	111.05
2018-10-16	Tuesday	15:53:25	10	WB	4	110.89
2018-10-27	Saturday	15:19:05	9	EB	2	110.32
2018-10-05	Friday	05:32:07	10	WB	4	109.91
2018-10-11	Thursday	12:58:27	10	WB	4	109.61

**Table 4 Freight Summary**

<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	EB	15	684	95	13.9	17597	1242	4381
5	EB	8	3621	655	18.1	43209	4665	9740
6	EB	19	733	137	18.7	18570	2358	3623
7	EB	11.5	38	1	2.6	1798	10	686
8	EB	31	957	402	42	21457	8756	2126
9	EB	33	20005	1881	9.4	1121412	55710	261660
10	EB	33.5	518	93	18	26644	2448	6203
11	EB	36.5	316	38	12	15479	1256	2666
12	EB	36.5	214	11	5.1	11712	343	2151
13	EB	31.5	81	0	0	7891	0	2670
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>27167</b>	<b>3313</b>	<b>****</b>	<b>1285768</b>	<b>****</b>	<b>295906</b>
<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	WB	15	826	56	6.8	23554	764	6002
5	WB	8	3949	154	3.9	58348	1134	13994
6	WB	19	984	27	2.7	32291	474	7054
7	WB	11.5	61	0	0	3090	0	1194
8	WB	31	1186	355	29.9	33482	7449	3861
9	WB	33	22423	1458	6.5	1392788	43474	350472
10	WB	33.5	858	60	7	46616	1589	9942
11	WB	36.5	405	1	0.2	28982	23	7118
12	WB	36.5	283	5	1.8	21263	136	5558
13	WB	31.5	104	0	0	11594	0	4159
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>31079</b>	<b>2116</b>	<b>****</b>	<b>1652008</b>	<b>****</b>	<b>409353</b>
<b>GRAND TOTAL</b>	<b>****</b>	<b>****</b>	<b>58246</b>	<b>5429</b>	<b>199</b>	<b>2937776</b>	<b>131833</b>	<b>705259</b>

**Table 5 Gross Vehicle Weight by Class and Lane**

<i>Vehicle Class</i>	<i>EB Driving Lane</i>	<i>EB Passing Lane</i>	<i>WB Passing Lane</i>	<i>WB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>
1	9	0	0	5	14	0
2	237078	68067	80663	291561	677369	15.1
3	268467	70340	77849	327494	744149	16.6
4	16269	2571	1847	22471	43157	1
5	39294	8580	6929	52552	107355	2.4
6	18097	2831	2222	30543	53693	1.2
7	1535	273	151	2940	4899	0.1
8	26038	4174	2523	38409	71143	1.6
9	1051794	125328	94737	1341526	2613385	58.2
10	24803	4289	6606	41599	77297	1.7
11	15029	1706	1289	27716	45740	1
12	10756	1299	1535	19864	33455	0.7
13	6788	1102	546	11048	19485	0.4
<b>TOTAL</b>	<b>1715957</b>	<b>290561</b>	<b>276895</b>	<b>2207727</b>	<b>4491141</b>	<b>100</b>
<b>GVW/LANE</b>	<b>38.21</b>	<b>6.47</b>	<b>6.17</b>	<b>49.16</b>	<b>100</b>	<b>0</b>

**Table 6 ESALs by Class and Lane and Flexible ESAL Factors**

<i>Vehicle Class</i>	<i>EB Driving Lane</i>	<i>EB Passing Lane</i>	<i>WB Passing Lane</i>	<i>WB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>	<i>Flexible ESAL Factor</i>
1	0	0	0	0	0	0	0.0714
2	22	10	13	47	92	0.13	0.0011
3	98	35	37	188	357	0.5	0.0065
4	298	67	34	536	935	1.32	1.24
5	409	85	52	825	1371	1.93	0.36
6	264	75	39	745	1122	1.58	1.31
7	38	10	6	100	154	0.22	2.98
8	332	64	25	585	1007	1.42	0.94
9	20797	3736	2185	35131	61849	87.23	2.92
10	364	94	135	741	1334	1.88	1.93
11	300	57	45	1017	1419	2	3.9
12	125	22	32	482	660	0.93	2.62
13	150	48	10	393	601	0.85	6.14
<b>TOTAL</b>	<b>23196</b>	<b>4302</b>	<b>2613</b>	<b>40790</b>	<b>70901</b>	<b>100</b>	<b>24</b>
<b>ESALS/LANE</b>	<b>32.7</b>	<b>6.1</b>	<b>3.7</b>	<b>57.5</b>	<b>100</b>	<b>-</b>	<b>-</b>

**Table 7 Site Summary: Volume and Vehicle Class**

<i>Month</i>	<i>Total Volume</i>	<i>Monthly ADT</i>	<i>Monthly HCAD T</i>	<i>Passenger Vehicles</i>	<i>Passenger Vehicles %</i>	<i>Heavy Commercial Vehicles</i>	<i>Heavy Commercial Vehicles %</i>	<i>Heavy Commercial Vehicles in Driving Lane %</i>	<i>Heavy Commercial Vehicles in Passing Lane %</i>
Nov 2017	308779	10293	1764	255866	82.9	52913.4	17.1	93.2	6.8
Dec 2017	274327	8849	1455	229224	83.6	45103	16.4	93.6	6.4
Jan 2018	242457	7821	1502	195903	80.8	46554.3	19.2	93.8	6.2
Feb 2018	220990	7892	1584	176648	79.9	44341.7	20.1	93.4	6.6
Mar 2018	280298	9042	1611	230353	82.2	49945.1	17.8	93.2	6.8
Apr 2018	267156	8905	1586	219578	82.2	47578.5	17.8	92.6	7.4
May 2018	358888	11577	1879	300637	83.8	58251.1	16.2	92.1	7.9
Jun 2018	403413	13447	1991	343676	85.2	59737.3	14.8	91.1	8.9
Jul 2018	433111	13971	2018	370548	85.6	62563	14.4	91.2	8.8
Aug 2018	437569	14115	2112	372092	85	65476.8	15	90.9	9.1
Sep 2018	366152	12205	1991	306435	83.7	59717.1	16.3	91.6	8.4
Oct 2018	343352	11076	1957	282691	82.3	60660.8	17.7	90.5	9.5
<b>TOTAL</b>	<b>3936492</b>	<b>-</b>	<b>-</b>	<b>3283651</b>	<b>-</b>	<b>652842</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>AVERAGE</b>	<b>328041</b>	<b>10766</b>	<b>1788</b>	<b>273638</b>	<b>83</b>	<b>54404</b>	<b>17</b>	<b>92</b>	<b>8</b>

## ESALS

<i>Month</i>	<i>ESALS EB Passing Lane</i>	<i>ESALS EB Driving Lane</i>	<i>ESALS WB Driving Lane</i>	<i>ESALS WB Passing Lane</i>	<i>Total ESALS</i>	<i>Driving Lane ESALS %</i>	<i>Passing Lane ESALS %</i>	<i>Pavement Life Decrease Months</i>
Nov 2017	30014	1995	1818	33423	67251	94	6	12.4
Dec 2017	18313	1169	1522	26742	47746	94	6	20.9
Jan 2018	20474	1415	2110	34986	58984	94	6	30.4
Feb 2018	18539	1460	2079	31208	53286	93	7	35.5
Mar 2018	20570	1668	2103	34246	58587	94	6	20.2
Apr 2018	17863	1980	1824	29657	51324	93	7	12.1
May 2018	18187	2207	2067	32166	54627	92	8	4.4
Jun 2018	18041	2590	2413	31030	54075	91	9	3.1
Jul 2018	18401	3035	2196	32322	55954	91	9	2.8
Aug 2018	20552	3197	2709	34960	61418	90	10	4.9
Sep 2018	19972	2728	2340	36203	61243	92	8	10.4
Oct 2018	23230	4308	2613	40888	71039	90	10	19.1
<b>TOTAL</b>	<b>244156</b>	<b>27752</b>	<b>25794</b>	<b>397831</b>	<b>695534</b>	-	-	-
<b>AVERAGE</b>	<b>20346</b>	<b>2313</b>	<b>2150</b>	<b>33153</b>	<b>57961</b>	<b>92</b>	<b>8</b>	<b>15</b>

## Gross Vehicle Weight

<i>Month</i>	<i>GVW EB Passing Lane</i>	<i>GVW EB Driving Lane</i>	<i>GVW WB Passing Lane</i>	<i>GVW WB Driving Lane</i>	<i>Total GVW Kips</i>
Nov 2017	1414968	113169	175879	1708692	3412708
Dec 2017	1241034	103408	149769	1460708	2954919
Jan 2018	1505144	150289	200019	1792971	3648423
Feb 2018	1378927	161549	190965	1679683	3411124
Mar 2018	1667286	222811	267585	2071628	4229309
Apr 2018	1730907	271875	339657	2137868	4480307
May 2018	1788923	325935	348429	2277404	4740692
Jun 2018	1915875	339615	366948	2302915	4925352
Jul 2018	1720129	252992	288908	2083638	4345667
Aug 2018	1717957	290836	276910	2210236	4495940
Sep 2018	1785461	186160	211393	1888009	4071023
Oct 2018	1236687	118699	157811	1457196	2970393
<b>TOTAL</b>	<b>19103298</b>	<b>2537337</b>	<b>2974274</b>	<b>23070949</b>	<b>47685858</b>
<b>AVERAGE</b>	<b>1591942</b>	<b>211445</b>	<b>247856</b>	<b>1922579</b>	<b>3973821</b>

## Overweight Vehicles

<i>Month</i>	<i>Total Number of Overweight Vehicles</i>	<i>Overweight / Total Volume</i>	<i>Overweight / Heavy Commercial Volume</i>	<i>Number Over 88,000 lbs</i>	<i>Number Over 98,000 lbs</i>
Nov 2017	14594	4.9	28.4	1774	183
Dec 2017	9587	4.2	25.7	1846	144
Jan 2018	11324	4.9	25.2	2802	259
Feb 2018	10541	5.4	26.8	2785	271
Mar 2018	10805	4.1	22.8	1892	183
Apr 2018	8708	3.4	19.2	1087	111
May 2018	7621	2.2	13.4	479	99
Jun 2018	7233	1.8	12.4	417	95
Jul 2018	7532	1.8	12.3	389	93
Aug 2018	8919	2.1	14	647	103
Sep 2018	9527	2.7	16.7	1171	119
Oct 2018	13380	4.1	22.9	2426	234
<b>TOTAL</b>	<b>119771</b>	<b>-</b>	<b>-</b>	<b>17715</b>	<b>1894</b>
<b>AVERAGE</b>	<b>9980.9</b>	<b>3.5</b>	<b>20</b>	<b>1476.2</b>	<b>157.8</b>

## Freight

<i>Month</i>	<i>EB Freight Tons</i>	<i>WB Freight Tons</i>	<i>Total Freight</i>	<i>EB Freight %</i>	<i>WB Freight %</i>
Nov 2017	311790	342391	654181	47.7	52.3
Dec 2017	198068	263968	462036	42.9	57.1
Jan 2018	236169	334184	570353	41.4	58.6
Feb 2018	210407	293452	503859	41.8	58.2
Mar 2018	243395	341854	585249	41.6	58.4
Apr 2018	223199	309322	532521	41.9	58.1
May 2018	246347	360108	606455	40.6	59.4
Jun 2018	249273	351320	600593	41.5	58.5
Jul 2018	258038	359867	617905	41.8	58.2
Aug 2018	280790	385307	666097	42.2	57.8
Sep 2018	263585	371797	635381	41.5	58.5
Oct 2018	295906	409353	705259	42	58
<b>TOTAL</b>	<b>3016966</b>	<b>4122923</b>	<b>7139889</b>	-	-
<b>AVERAGE</b>	<b>251413.8</b>	<b>343576.9</b>	<b>594990.7</b>	<b>42.2</b>	<b>57.8</b>