
Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer
FROM: Abhishek Deora, Engineering Aide
DATE: August 23rd, 2017
SUBJECT: 13th St between Wadsworth St & Oak St Classification Count

This memo is to formalize City Engineering's initial findings and observations in regard to the class of vehicles traveling on 13th St between Wadsworth St and Oak St.

City Engineering performed a 24-hour classification count of 13th St began at 12:33 pm on August 21st, 2017 and ended at 3:06 pm on August 22nd, 2017. The data was gathered using a Jamar Traffic Counter which collected traffic data, including vehicle classification, for each lane of traffic (northbound and southbound) using two parallel tubes that are placed on the road and are connected to the device. This information was then analyzed and the data for each lane compiled into one report, regardless of direction, using TraxPro. The TraxPro report organized the classification of the vehicles into groups. The report shows how many vehicles were within the specified class during one hour intervals as indicated by the report.

A total of 1021 vehicles traveled on 13th St during the 24-hour class count. The vehicle class count showed that 44 vehicles, 3.7 percent, traveling on 13th St during the count were a class 6 (FHA Scheme F) or higher.

38 vehicles, 3.2 percent, fell into class 14 which is for bicycles and unknown vehicles. This number suggests that many people use this section of 13th St as a bicycling route. This number could also be partially due to vehicles parking on the tubes for the traffic counter.

Summary:

- Number of Vehicles: 1021 vehicles
- Class 6 or Higher: 3.7%
- Class 1 to 5: 96.3%
- Class 14 (Unknown/Bicycles): 3.2%

Encl.: Detailed TraxPro Classification Report

Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer
FROM: Abhishek Deora, Seasonal Engineering Aide
DATE: Tuesday, August 22nd, 2017
SUBJECT: 24 Hour Speed and Volume of 13th St between Wadsworth St and Oak St

City Engineering performed a 24 hour speed study on 13th St between Wadsworth St and Oak St beginning on Monday, August 21st, 2017 concluded Tuesday, August 22nd, 2017. This memo is to formalize City Engineering's initial data observations and findings with to the speed statistics and volume of vehicular traffic on 13th St.

The data was gathered using a JAMAR Radar Recorder, this data recorder collects both vehicle speed and volume using radar sensors in both Northbound and Southbound lanes. The raw data compiled and analyzed using TraxPro and reported vehicle speed count for every hour during the study in the increments of 5 miles per hour. The TraxPro software also compiled a report to be sent Traverse City Police Department to evaluate the possible percentage of enforceable violations. This data is organized into a small colored meter where red means there is a high enforcement potential and green equates to a low amount of speed infractions are occurring. For this report, the enforceable minimum speed a vehicle would need to be traveling is 5 miles per hour over the posted speed limit of 25 miles per hour.

During this 24 hour study, 1021 vehicles were recorded. The average (mean) speed of the 1021 vehicles is 24 miles per hour, with 34.2% of all vehicles traveling at speeds greater than the posted limit of 25 miles per hour.

Summary (Combined):

- **Mean Speed:** 24 MPH
- **Number of Vehicles above Posted Speed Limit** 34.2%
- **85th Percentile of Speed:** 28 MPH
- **95th Percentile of Speed:** 31 MPH

Enclosed:

Detailed TraxPro Speed Reports (Combined and Directional)
TraxPro Police Enforcement Reports

13th St
Between Wadsworth & Oak St
Speed

Site Code: 000000000000
Station ID:

Latitude: 0' 0.0000 South

A to B

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9999	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	7	7	24	6	0	0	1	0	0	0	0	0	0	2	47	17-26	31
14:00	1	3	34	11	0	0	0	0	0	0	0	1	0	0	50	21-30	45
15:00	3	11	30	8	2	0	0	0	0	0	0	0	0	0	54	16-25	41
16:00	1	13	29	13	0	1	0	0	0	0	0	0	0	0	57	21-30	42
17:00	1	16	43	14	0	0	0	0	0	0	0	0	0	0	74	16-25	59
18:00	2	15	16	0	1	0	0	0	0	0	0	0	0	0	34	16-25	31
19:00	2	7	13	4	1	0	0	0	0	0	0	0	0	0	27	16-25	20
20:00	1	6	13	3	0	0	0	0	0	0	0	0	0	0	23	16-25	19
21:00	0	4	4	0	0	0	0	0	0	0	0	0	0	0	8	16-25	8
22:00	0	1	3	1	0	0	0	0	0	0	0	0	0	0	5	21-30	4
23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
Total	19	83	209	60	4	1	1	0	0	0	0	1	0	2	380		
Percent	5.0%	21.8%	55.0%	15.8%	1.1%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.5%			
AM Peak Vol.																	
PM Peak Vol.	13:00	17:00	17:00	17:00	15:00	16:00	13:00					14:00		13:00	17:00		
	7	16	43	14	2	1	1					1		2	74		

13th St
Between Wadsworth & Oak St
Speed

Site Code: 00000000000
Station ID:

Latitude: 0' 0.0000 South

A to B

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	9999			
08/22/17	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
06:00	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6	21-30	6
07:00	0	7	11	4	1	0	0	0	0	0	0	0	0	1	24	16-25	18
08:00	1	5	13	7	1	0	0	0	0	0	0	0	0	0	27	21-30	20
09:00	0	1	7	7	0	0	0	0	0	0	0	0	0	0	15	21-30	14
10:00	1	6	15	8	0	0	0	0	0	0	0	0	0	0	30	21-30	23
11:00	3	9	19	5	2	0	0	0	0	0	0	0	0	0	38	16-25	28
12 PM	1	10	23	8	0	0	0	0	0	0	0	0	0	0	42	16-25	33
13:00	2	11	17	2	1	0	0	0	0	0	0	0	0	0	33	16-25	28
14:00	5	8	21	8	0	0	0	0	0	0	0	0	0	3	45	21-30	29
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	14	59	134	52	5	0	0	0	0	0	0	0	0	4	268		
Percent	5.2%	22.0%	50.0%	19.4%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%			
AM Peak	11:00	11:00	11:00	10:00	11:00									07:00	11:00		
Vol.	3	9	19	8	2									1	38		
PM Peak	14:00	13:00	12:00	12:00	13:00									14:00	14:00		
Vol.	5	11	23	8	1									3	45		
Total	33	142	343	112	9	1	1	0	0	0	0	1	0	6	648		
Percent	5.1%	21.9%	52.9%	17.3%	1.4%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.9%			

15th Percentile : 17 MPH
50th Percentile : 22 MPH
85th Percentile : 26 MPH
95th Percentile : 29 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 487
Percent in Pace : 75.2%
Number of Vehicles > 25 MPH : 130
Percent of Vehicles > 25 MPH : 20.1%
Mean Speed(Average) : 22 MPH

13th St
Between Wadsworth & Oak St
Speed

Site Code: 000000000000
Station ID:

Latitude: 0' 0.0000 South

B to A

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	2	4	20	13	3	1	1	0	0	0	0	0	0	0	44	21-30	33
14:00	0	4	12	20	5	0	0	0	0	0	0	0	0	0	41	21-30	32
15:00	1	1	9	17	2	1	0	0	0	0	0	0	1	0	32	21-30	26
16:00	1	7	21	20	4	1	0	0	0	0	0	0	0	0	54	21-30	41
17:00	0	3	16	13	5	0	0	0	0	0	0	0	0	0	37	21-30	29
18:00	1	6	10	5	2	1	0	0	0	0	0	0	0	0	25	16-25	16
19:00	0	4	13	4	1	0	0	0	0	0	0	0	0	0	22	16-25	17
20:00	0	1	3	2	1	0	0	0	0	0	0	0	0	0	7	21-30	5
21:00	1	1	2	5	2	0	0	0	0	0	0	0	0	0	11	26-35	7
22:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
23:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
Total	6	31	108	101	25	4	1	0	0	0	0	0	1	0	277		
Percent	2.2%	11.2%	39.0%	36.5%	9.0%	1.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	13:00	16:00	16:00	14:00	14:00	13:00	13:00						15:00		16:00		
	2	7	21	20	5	1	1						1		54		

13th St
Between Wadsworth & Oak St
Speed

Site Code: 00000000000
Station ID:

Latitude: 0' 0.0000 South

B to A

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	9999			
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3	15-24	2
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
04:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	9-18	1
05:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
06:00	0	0	4	1	0	0	0	0	0	0	0	0	0	0	5	19-28	5
07:00	0	1	5	5	5	0	0	0	0	0	0	0	0	1	17	21-30	10
08:00	0	0	6	9	3	0	0	0	0	0	0	0	0	0	18	21-30	15
09:00	0	3	7	9	2	0	0	0	0	0	0	0	0	0	21	21-30	16
10:00	0	3	10	14	4	0	0	0	0	0	0	0	0	0	31	21-30	24
11:00	0	2	17	21	4	2	0	0	0	0	0	0	0	0	46	21-30	38
12 PM	0	3	13	19	6	1	1	0	0	0	0	0	0	0	43	21-30	32
13:00	1	3	18	12	1	0	0	0	0	0	0	0	0	0	35	21-30	30
14:00	2	4	11	15	6	0	0	0	0	0	0	0	0	0	38	21-30	26
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	3	20	95	106	32	4	1	0	0	0	0	0	0	1	262		
Percent	1.1%	7.6%	36.3%	40.5%	12.2%	1.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%			
AM Peak		09:00	11:00	11:00	07:00	11:00								07:00	11:00		
Vol.		3	17	21	5	2								1	46		
PM Peak	14:00	14:00	13:00	12:00	12:00	12:00	12:00								12:00		
Vol.	2	4	18	19	6	1	1								43		
Total	9	51	203	207	57	8	2	0	0	0	0	0	1	1	539		
Percent	1.7%	9.5%	37.7%	38.4%	10.6%	1.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%			

15th Percentile : 20 MPH
50th Percentile : 25 MPH
85th Percentile : 29 MPH
95th Percentile : 33 MPH

Stats
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 410
Percent in Pace : 76.1%
Number of Vehicles > 25 MPH : 276
Percent of Vehicles > 25 MPH : 51.2%
Mean Speed(Average) : 26 MPH

13th St
Between Wadsworth & Oak St
Speed

Site Code: 000000000000
Station ID:

Latitude: 0' 0.0000 South

A to B, B to A

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9999	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	9	11	44	19	3	1	2	0	0	0	0	0	0	2	91	21-30	63
14:00	1	7	46	31	5	0	0	0	0	0	0	1	0	0	91	21-30	77
15:00	4	12	39	25	4	1	0	0	0	0	0	0	1	0	86	21-30	64
16:00	2	20	50	33	4	2	0	0	0	0	0	0	0	0	111	21-30	83
17:00	1	19	59	27	5	0	0	0	0	0	0	0	0	0	111	21-30	86
18:00	3	21	26	5	3	1	0	0	0	0	0	0	0	0	59	16-25	47
19:00	2	11	26	8	2	0	0	0	0	0	0	0	0	0	49	16-25	37
20:00	1	7	16	5	1	0	0	0	0	0	0	0	0	0	30	16-25	23
21:00	1	5	6	5	2	0	0	0	0	0	0	0	0	0	19	21-30	11
22:00	0	1	4	2	0	0	0	0	0	0	0	0	0	0	7	19-28	6
23:00	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	21-30	2
Total	25	114	317	161	29	5	2	0	0	0	0	1	1	2	657		
Percent	3.8%	17.4%	48.2%	24.5%	4.4%	0.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.3%			
AM Peak Vol.																	
PM Peak Vol.	13:00	18:00	17:00	16:00	14:00	16:00	13:00					14:00	15:00	13:00	16:00		
	9	21	59	33	5	2	2					1	1	2	111		

13th St
Between Wadsworth & Oak St
Speed

Site Code: 000000000000
Station ID:

Latitude: 0' 0.0000 South

A to B, B to A

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	9999	Total	Pace Speed	Number in Pace
08/22/17	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	4	15-24	3
02:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	9-18	1
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
04:00	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	26-35	1
05:00	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
06:00	0	0	7	4	0	0	0	0	0	0	0	0	0	0	0	11	21-30	11
07:00	0	8	16	9	6	0	0	0	0	0	0	0	0	0	2	41	19-28	25
08:00	1	5	19	16	4	0	0	0	0	0	0	0	0	0	0	45	21-30	35
09:00	0	4	14	16	2	0	0	0	0	0	0	0	0	0	0	36	21-30	30
10:00	1	9	25	22	4	0	0	0	0	0	0	0	0	0	0	61	21-30	47
11:00	3	11	36	26	6	2	0	0	0	0	0	0	0	0	0	84	21-30	62
12 PM	1	13	36	27	6	1	1	0	0	0	0	0	0	0	0	85	21-30	63
13:00	3	14	35	14	2	0	0	0	0	0	0	0	0	0	0	68	21-30	49
14:00	7	12	32	23	6	0	0	0	0	0	0	0	0	0	3	83	21-30	55
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	17	79	229	158	37	4	1	0	0	0	0	0	0	0	5	530		
Percent	3.2%	14.9%	43.2%	29.8%	7.0%	0.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%			
AM Peak	11:00	11:00	11:00	11:00	07:00	11:00								07:00	11:00			
Vol.	3	11	36	26	6	2								2	84			
PM Peak	14:00	13:00	12:00	12:00	12:00	12:00	12:00							14:00	12:00			
Vol.	7	14	36	27	6	1	1							3	85			
Total	42	193	546	319	66	9	3	0	0	0	0	1	1	7	1187			
Percent	3.5%	16.3%	46.0%	26.9%	5.6%	0.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.6%				

15th Percentile : 18 MPH
50th Percentile : 23 MPH
85th Percentile : 28 MPH
95th Percentile : 31 MPH

Stats
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 867
Percent in Pace : 73.0%
Number of Vehicles > 25 MPH : 406
Percent of Vehicles > 25 MPH : 34.2%
Mean Speed(Average) : 24 MPH

13th St
Between Wadsworth & Oak St
Class

Site Code: 00000000000
Station ID:

Latitude: 0' 0.0000 South

A to B

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Total
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	29	7	2	0	0	0	1	0	0	0	0	0	8	47
14:00	2	39	7	1	1	0	0	0	0	0	0	0	0	0	50
15:00	2	32	16	0	1	0	1	0	0	0	0	0	0	2	54
16:00	1	48	7	0	1	0	0	0	0	0	0	0	0	0	57
17:00	1	57	15	0	0	0	0	0	0	0	0	0	0	1	74
18:00	0	25	4	0	1	0	0	0	0	0	0	0	0	4	34
19:00	0	21	6	0	0	0	0	0	0	0	0	0	0	0	27
20:00	1	18	3	0	0	0	0	0	0	0	0	0	0	1	23
21:00	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
22:00	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	7	282	66	3	4	0	1	1	0	0	0	0	0	16	380
Percent	1.8%	74.2%	17.4%	0.8%	1.1%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	
AM Peak Vol.															
PM Peak Vol.	14:00	17:00	15:00	13:00	14:00		15:00	13:00						13:00	17:00
	2	57	16	2	1		1	1						8	74

13th St
Between Wadsworth & Oak St
Class

Site Code: 00000000000
Station ID:

Latitude: 0' 0.0000 South

B to A

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Total
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	20	19	0	3	0	0	0	0	0	0	0	0	2	44
14:00	0	21	14	0	4	0	0	1	0	0	0	0	0	1	41
15:00	0	18	9	1	2	0	0	0	0	0	0	0	0	2	32
16:00	0	35	14	0	5	0	0	0	0	0	0	0	0	0	54
17:00	0	20	12	0	4	0	0	0	0	0	0	0	0	1	37
18:00	0	16	7	0	1	0	1	0	0	0	0	0	0	0	25
19:00	0	16	4	0	2	0	0	0	0	0	0	0	0	0	22
20:00	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
21:00	0	9	1	0	1	0	0	0	0	0	0	0	0	0	11
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	164	82	1	22	0	1	1	0	0	0	0	0	6	277
Percent	0.0%	59.2%	29.6%	0.4%	7.9%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	

AM
Peak
Vol.

PM Peak Vol.	16:00	13:00	15:00	16:00	18:00	14:00	13:00	16:00
	35	19	1	5	1	1	2	54

13th St
Between Wadsworth & Oak St
Class

Site Code: 00000000000
Station ID:

Latitude: 0' 0.0000 South

A to B, B to A

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Total
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	49	26	2	3	0	0	1	0	0	0	0	0	10	91
14:00	2	60	21	1	5	0	0	1	0	0	0	0	0	1	91
15:00	2	50	25	1	3	0	1	0	0	0	0	0	0	4	86
16:00	1	83	21	0	6	0	0	0	0	0	0	0	0	0	111
17:00	1	77	27	0	4	0	0	0	0	0	0	0	0	2	111
18:00	0	41	11	0	2	0	1	0	0	0	0	0	0	4	59
19:00	0	37	10	0	2	0	0	0	0	0	0	0	0	0	49
20:00	1	24	4	0	0	0	0	0	0	0	0	0	0	1	30
21:00	0	17	1	0	1	0	0	0	0	0	0	0	0	0	19
22:00	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	7	446	148	4	26	0	2	2	0	0	0	0	0	22	657
Percent	1.1%	67.9%	22.5%	0.6%	4.0%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	

AM
Peak
Vol.

PM Peak Vol.	14:00	16:00	17:00	13:00	16:00	15:00	13:00	13:00	16:00
	2	83	27	2	6	1	1	10	111

13th St
Between Wadsworth & Oak St
Speed

Site Code: 00000000000
Station ID:

Latitude: 0' 0.0000 South

Start Time	21-Aug-17 Mon	22-Aug-17 Tue	23-Aug-17 Wed	24-Aug-17 Thu	25-Aug-17 Fri	Weekday Average	26-Aug-17 Sat	27-Aug-17 Sun
12:00 AM	*	1	*	*	*	1	*	*
01:00	*	4	*	*	*	4	*	*
02:00	*	2	*	*	*	2	*	*
03:00	*	1	*	*	*	1	*	*
04:00	*	3	*	*	*	3	*	*
05:00	*	5	*	*	*	5	*	*
06:00	*	11	*	*	*	11	*	*
07:00	*	41	*	*	*	41	*	*
08:00	*	45	*	*	*	45	*	*
09:00	*	36	*	*	*	36	*	*
10:00	*	61	*	*	*	61	*	*
11:00	*	84	*	*	*	84	*	*
12:00 PM	*	85	*	*	*	85	*	*
01:00	91	68	*	*	*	80	*	*
02:00	91	83	*	*	*	87	*	*
03:00	86	*	*	*	*	86	*	*
04:00	111	*	*	*	*	111	*	*
05:00	111	*	*	*	*	111	*	*
06:00	59	*	*	*	*	59	*	*
07:00	49	*	*	*	*	49	*	*
08:00	30	*	*	*	*	30	*	*
09:00	19	*	*	*	*	19	*	*
10:00	7	*	*	*	*	7	*	*
11:00	3	*	*	*	*	3	*	*
Total	657	530	0	0	0		0	0
Percentage	64.3%	51.9%	0.0%	0.0%	0.0%		0.0%	0.0%
AM Peak	-	11:00	-	-	-	-	-	-
Vol.	-	84	-	-	-	-	-	-
PM Peak	16:00	12:00	-	-	-	-	-	-
Vol.	111	85	-	-	-	-	-	-
Total		530	0					