
Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer

FROM: Abhishek Deora, Engineering Aide

DATE: August 30th, 2017

SUBJECT: Birchwood Ave between East Bay Blvd & Western Ave Classification Count

This memo is to formalize City Engineering's initial findings and observations in regard to the class of vehicles traveling on Birchwood Ave between East Bay Blvd and Western Ave.

City Engineering performed a 24-hour classification count of Birchwood Ave began at 9:20 am on August 29th, 2017 and ended at 10:59 am on August 30th, 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 761 vehicles traveled on Birchwood Ave during the 24-hour class count. The vehicle class count showed that 9 vehicles, 1.2 percent, traveling on Birchwood Ave during the count were a class 6 (FHA Scheme F) or higher.

38 vehicles, 5.0 percent, fell into class 14 which is for bicycles and unknown vehicles. This number suggests that many people use this section of Birchwood Ave 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: 761 vehicles
- Class 6 or Higher: 1.2%
- Class 1 to 5: 93.8%
- Class 14 (Unknown/Bicycles): 5.0%

Encl.: Detailed TraxPro Classification Report

Birchwood Ave
Between East Bay Blvd & Wetsren Ave
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	0	18	1	0	0	0	0	0	0	0	0	0	0	1	20
13:00	0	12	2	0	1	2	0	1	0	0	0	0	0	5	23
14:00	0	15	1	0	0	2	0	0	0	0	0	0	0	3	21
15:00	1	19	1	0	0	2	0	0	0	0	0	0	0	4	27
16:00	0	26	4	0	0	5	0	0	0	0	0	0	0	3	38
17:00	0	35	3	0	0	2	0	0	0	0	0	0	0	4	44
18:00	0	21	3	0	0	0	0	0	0	0	0	0	0	3	27
19:00	0	11	1	0	0	1	0	0	0	0	0	0	0	4	17
20:00	0	9	1	0	0	5	0	0	0	0	0	0	0	2	17
21:00	0	6	0	0	0	0	0	0	0	0	0	0	0	3	9
22:00	0	5	0	0	0	0	0	0	0	0	0	0	0	1	6
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	1	180	17	0	1	19	0	1	0	0	0	0	0	33	252
Percent	0.4%	71.4%	6.7%	0.0%	0.4%	7.5%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	13.1%	
AM Peak Vol.															
PM Peak Vol.	15:00	17:00	16:00		13:00	16:00		13:00						13:00	17:00
	1	35	4		1	5		1						5	44

Birchwood Ave
Between East Bay Blvd & Wetsren Ave
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
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	3	2	0	0	1	0	0	0	0	0	0	0	0	6
08:00	0	8	4	0	0	1	0	0	0	0	0	0	0	3	16
09:00	0	8	0	0	0	3	0	0	0	0	0	0	1	2	14
10:00	0	9	1	0	0	1	0	0	0	0	0	0	0	5	16
11:00	0	6	8	0	2	3	0	0	0	0	0	0	0	5	24
12 PM	0	18	4	0	1	2	0	0	0	0	0	0	0	5	30
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	55	19	0	3	11	0	0	0	0	0	0	1	21	110
Percent	0.0%	50.0%	17.3%	0.0%	2.7%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	19.1%	
AM Peak		10:00	11:00		11:00	09:00							09:00	10:00	11:00
Vol.		9	8		2	3							1	5	24
PM Peak		12:00	12:00		12:00	12:00								12:00	12:00
Vol.		18	4		1	2								5	30
Grand Total	1	235	36	0	4	30	0	1	0	0	0	0	1	54	362
Percent	0.3%	64.9%	9.9%	0.0%	1.1%	8.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.3%	14.9%	

Birchwood Ave
Between East Bay Blvd & Wetsren Ave
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	0	0	0	0	0	0	0	0	0	0	0	0	1	31	32
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	33	33
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28
15:00	0	0	0	0	1	0	1	0	0	0	0	0	2	34	38
16:00	0	0	1	0	0	0	0	0	0	0	0	0	0	30	31
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	47	47
18:00	1	0	0	0	0	0	0	0	0	0	0	0	0	23	24
19:00	2	1	0	0	0	0	0	0	0	0	0	0	0	18	21
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	3	1	1	0	1	0	1	0	0	0	0	0	3	277	287
Percent	1.0%	0.3%	0.3%	0.0%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	96.5%	

AM
Peak
Vol.

PM Peak Vol.	19:00	19:00	16:00	15:00	15:00	15:00	17:00	17:00
	2	1	1	1	1		2	47

Birchwood Ave
Between East Bay Blvd & Wetsren Ave
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
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
06:00	0	1	0	0	0	0	0	0	0	0	0	0	0	7	8
07:00	0	1	0	0	0	0	0	0	0	0	0	0	0	24	25
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	34	34
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	29	29
10:00	0	1	0	0	0	1	0	0	0	0	0	0	0	27	29
11:00	1	0	0	0	0	0	0	0	0	0	0	0	0	34	35
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	38	39
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	3	0	0	0	1	0	0	0	0	0	0	1	199	205
Percent	0.5%	1.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	97.1%	
AM Peak	11:00	06:00				10:00								08:00	11:00
Vol.	1	1				1								34	35
PM Peak													12:00	12:00	12:00
Vol.													1	38	39
Grand Total	4	4	1	0	1	1	1	0	0	0	0	0	4	476	492
Percent	0.8%	0.8%	0.2%	0.0%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	96.7%	

Birchwood Ave
Between East Bay Blvd & Wetsren Ave
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	0	18	1	0	0	0	0	0	0	0	0	0	1	32	52
13:00	0	12	2	0	1	2	0	1	0	0	0	0	0	38	56
14:00	0	15	1	0	0	2	0	0	0	0	0	0	0	31	49
15:00	1	19	1	0	1	2	1	0	0	0	0	0	2	38	65
16:00	0	26	5	0	0	5	0	0	0	0	0	0	0	33	69
17:00	0	35	3	0	0	2	0	0	0	0	0	0	0	51	91
18:00	1	21	3	0	0	0	0	0	0	0	0	0	0	26	51
19:00	2	12	1	0	0	1	0	0	0	0	0	0	0	22	38
20:00	0	9	1	0	0	5	0	0	0	0	0	0	0	17	32
21:00	0	6	0	0	0	0	0	0	0	0	0	0	0	11	17
22:00	0	5	0	0	0	0	0	0	0	0	0	0	0	9	14
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	2	5
Total	4	181	18	0	2	19	1	1	0	0	0	0	3	310	539
Percent	0.7%	33.6%	3.3%	0.0%	0.4%	3.5%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.6%	57.5%	

AM Peak Vol.															
PM Peak Vol.	19:00	17:00	16:00		13:00	16:00	15:00	13:00					15:00	17:00	17:00
	2	35	5		1	5	1	1				2	51	91	

Birchwood Ave
Between East Bay Blvd & Wetsren Ave
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
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	3	4
06:00	0	2	0	0	0	0	0	0	0	0	0	0	0	7	9
07:00	0	4	2	0	0	1	0	0	0	0	0	0	0	24	31
08:00	0	8	4	0	0	1	0	0	0	0	0	0	0	37	50
09:00	0	8	0	0	0	3	0	0	0	0	0	0	1	31	43
10:00	0	10	1	0	0	2	0	0	0	0	0	0	0	32	45
11:00	1	6	8	0	2	3	0	0	0	0	0	0	0	39	59
12 PM	0	18	4	0	1	2	0	0	0	0	0	0	1	43	69
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	58	19	0	3	12	0	0	0	0	0	0	2	220	315
Percent	0.3%	18.4%	6.0%	0.0%	1.0%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	69.8%	
AM Peak	11:00	10:00	11:00		11:00	09:00							09:00	11:00	11:00
Vol.	1	10	8		2	3							1	39	59
PM Peak		12:00	12:00		12:00	12:00							12:00	12:00	12:00
Vol.		18	4		1	2							1	43	69
Grand Total	5	239	37	0	5	31	1	1	0	0	0	0	5	530	854
Percent	0.6%	28.0%	4.3%	0.0%	0.6%	3.6%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.6%	62.1%	

Birchwood Ave
Between East Bay Blvd & Western Ave
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	10	10	0	0	0	0	0	0	0	0	0	0	0	0	20	11-20	14
13:00	14	9	0	0	0	0	0	0	0	0	0	0	0	0	23	11-20	14
14:00	11	10	0	0	0	0	0	0	0	0	0	0	0	0	21	11-20	14
15:00	12	15	0	0	0	0	0	0	0	0	0	0	0	0	27	11-20	19
16:00	21	17	0	0	0	0	0	0	0	0	0	0	0	0	38	11-20	24
17:00	25	18	1	0	0	0	0	0	0	0	0	0	0	0	44	11-20	27
18:00	16	10	0	0	0	0	0	0	0	0	0	0	0	1	27	11-20	16
19:00	9	7	1	0	0	0	0	0	0	0	0	0	0	0	17	11-20	10
20:00	9	8	0	0	0	0	0	0	0	0	0	0	0	0	17	11-20	11
21:00	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9	11-20	5
22:00	2	4	0	0	0	0	0	0	0	0	0	0	0	0	6	11-20	5
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	14-23	3
Total	135	113	3	0	0	0	0	0	0	0	0	0	0	1	252		
Percent	53.6%	44.8%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%			
AM Peak Vol.																	
PM Peak Vol.	17:00 25	17:00 18	17:00 1											18:00 1	17:00 44		

Birchwood Ave
Between East Bay Blvd & Western Ave
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
	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	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	16-25	1
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
06:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
07:00	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6	11-20	4
08:00	10	6	0	0	0	0	0	0	0	0	0	0	0	0	16	11-20	9
09:00	7	7	0	0	0	0	0	0	0	0	0	0	0	0	14	12-21	9
10:00	6	10	0	0	0	0	0	0	0	0	0	0	0	0	16	11-20	12
11:00	15	9	0	0	0	0	0	0	0	0	0	0	0	0	24	11-20	14
12 PM	13	17	0	0	0	0	0	0	0	0	0	0	0	0	30	11-20	22
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	55	55	0	0	0	0	0	0	0	0	0	0	0	0	110		
Percent	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00															
Vol.	15	10													24		
PM Peak	12:00	12:00															
Vol.	13	17													30		
Total	190	168	3	0	0	0	0	0	0	0	0	0	0	1	362		
Percent	52.5%	46.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%			

15th Percentile : 4 MPH
50th Percentile : 14 MPH
85th Percentile : 18 MPH
95th Percentile : 19 MPH

Stats
10 MPH Pace Speed : 11-20 MPH
Number in Pace : 235
Percent in Pace : 64.9%
Number of Vehicles > 25 MPH : 1
Percent of Vehicles > 25 MPH : 0.3%
Mean Speed(Average) : 13 MPH

Birchwood Ave
Between East Bay Blvd & Western Ave
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	22	10	0	0	0	0	0	0	0	0	0	0	0	0	32	11-20	18
13:00	17	16	0	0	0	0	0	0	0	0	0	0	0	0	33	11-20	22
14:00	13	15	0	0	0	0	0	0	0	0	0	0	0	0	28	11-20	20
15:00	17	18	1	0	0	1	0	0	0	0	0	0	0	1	38	11-20	24
16:00	20	10	1	0	0	0	0	0	0	0	0	0	0	0	31	11-20	17
17:00	28	18	1	0	0	0	0	0	0	0	0	0	0	0	47	11-20	28
18:00	13	8	2	0	0	0	0	0	0	0	0	0	0	1	24	11-20	13
19:00	10	11	0	0	0	0	0	0	0	0	0	0	0	0	21	11-20	15
20:00	8	7	0	0	0	0	0	0	0	0	0	0	0	0	15	11-20	10
21:00	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	12-21	5
22:00	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	11-20	5
23:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
Total	157	120	7	0	0	1	0	0	0	0	0	0	0	2	287		
Percent	54.7%	41.8%	2.4%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%			
AM Peak Vol.																	
PM Peak Vol.	17:00	15:00	18:00			15:00								15:00	17:00		
	28	18	2			1								1	47		

Birchwood Ave
Between East Bay Blvd & Western Ave
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
	15	20	25	30	35	40	45	50	55	60	65	70	75	9999			
08/22/17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
05:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3	16-25	2
06:00	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8	*	5
07:00	16	7	2	0	0	0	0	0	0	0	0	0	0	0	25	11-20	13
08:00	17	17	0	0	0	0	0	0	0	0	0	0	0	0	34	11-20	23
09:00	21	8	0	0	0	0	0	0	0	0	0	0	0	0	29	11-20	15
10:00	14	12	3	0	0	0	0	0	0	0	0	0	0	0	29	11-20	17
11:00	11	22	2	0	0	0	0	0	0	0	0	0	0	0	35	11-20	26
12 PM	15	22	2	0	0	0	0	0	0	0	0	0	0	0	39	11-20	27
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	103	92	10	0	0	0	0	0	0	0	0	0	0	0	205		
Percent	50.2%	44.9%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	10:00														11:00
Vol.	21	22	3														35
PM Peak	12:00	12:00	12:00														12:00
Vol.	15	22	2														39
Total	260	212	17	0	0	1	0	0	0	0	0	0	0	0	2		492
Percent	52.8%	43.1%	3.5%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%		

15th Percentile : 4 MPH
50th Percentile : 14 MPH
85th Percentile : 18 MPH
95th Percentile : 19 MPH

Stats
10 MPH Pace Speed : 11-20 MPH
Number in Pace : 303
Percent in Pace : 61.6%
Number of Vehicles > 25 MPH : 3
Percent of Vehicles > 25 MPH : 0.6%
Mean Speed(Average) : 13 MPH

Birchwood Ave
Between East Bay Blvd & Western Ave
Speed

Site Code: 00000000000
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	32	20	0	0	0	0	0	0	0	0	0	0	0	0	52	11-20	31
13:00	31	25	0	0	0	0	0	0	0	0	0	0	0	0	56	11-20	36
14:00	24	25	0	0	0	0	0	0	0	0	0	0	0	0	49	11-20	34
15:00	29	33	1	0	0	1	0	0	0	0	0	0	0	1	65	11-20	43
16:00	41	27	1	0	0	0	0	0	0	0	0	0	0	0	69	11-20	41
17:00	53	36	2	0	0	0	0	0	0	0	0	0	0	0	91	11-20	55
18:00	29	18	2	0	0	0	0	0	0	0	0	0	0	2	51	11-20	28
19:00	19	18	1	0	0	0	0	0	0	0	0	0	0	0	38	11-20	25
20:00	17	15	0	0	0	0	0	0	0	0	0	0	0	0	32	11-20	21
21:00	10	7	0	0	0	0	0	0	0	0	0	0	0	0	17	11-20	11
22:00	7	7	0	0	0	0	0	0	0	0	0	0	0	0	14	12-21	9
23:00	0	2	3	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
Total	292	233	10	0	0	1	0	0	0	0	0	0	0	3	539		
Percent	54.2%	43.2%	1.9%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%			
AM Peak Vol.																	
PM Peak Vol.	17:00 53	17:00 36	23:00 3			15:00 1								18:00 2	17:00 91		

Birchwood Ave
Between East Bay Blvd & Western Ave
Speed

Site Code: 00000000000
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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	16-25	2
05:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16-25	3
06:00	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	*	5
07:00	19	10	2	0	0	0	0	0	0	0	0	0	0	0	0	31	11-20	17
08:00	27	23	0	0	0	0	0	0	0	0	0	0	0	0	0	50	11-20	33
09:00	28	15	0	0	0	0	0	0	0	0	0	0	0	0	0	43	11-20	25
10:00	20	22	3	0	0	0	0	0	0	0	0	0	0	0	0	45	11-20	29
11:00	26	31	2	0	0	0	0	0	0	0	0	0	0	0	0	59	11-20	40
12 PM	28	39	2	0	0	0	0	0	0	0	0	0	0	0	0	69	11-20	49
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	158	147	10	0	0	0	0	0	0	0	0	0	0	0	0	315		
Percent	50.2%	46.7%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	10:00															11:00
Vol.	28	31	3															59
PM Peak	12:00	12:00	12:00															12:00
Vol.	28	39	2															69
Total	450	380	20	0	0	1	0	0	0	0	0	0	0	0	0	3		854
Percent	52.7%	44.5%	2.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%		

15th Percentile : 4 MPH
50th Percentile : 14 MPH
85th Percentile : 18 MPH
95th Percentile : 19 MPH

Stats
10 MPH Pace Speed : 11-20 MPH
Number in Pace : 538
Percent in Pace : 63.0%
Number of Vehicles > 25 MPH : 4
Percent of Vehicles > 25 MPH : 0.5%
Mean Speed(Average) : 13 MPH

Birchwood Ave
Between East Bay Blvd & Western Ave
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	*	1	*	*	*	1	*	*
02:00	*	0	*	*	*	0	*	*
03:00	*	0	*	*	*	0	*	*
04:00	*	3	*	*	*	3	*	*
05:00	*	4	*	*	*	4	*	*
06:00	*	9	*	*	*	9	*	*
07:00	*	31	*	*	*	31	*	*
08:00	*	50	*	*	*	50	*	*
09:00	*	43	*	*	*	43	*	*
10:00	*	45	*	*	*	45	*	*
11:00	*	59	*	*	*	59	*	*
12:00 PM	52	69	*	*	*	60	*	*
01:00	56	*	*	*	*	56	*	*
02:00	49	*	*	*	*	49	*	*
03:00	65	*	*	*	*	65	*	*
04:00	69	*	*	*	*	69	*	*
05:00	91	*	*	*	*	91	*	*
06:00	51	*	*	*	*	51	*	*
07:00	38	*	*	*	*	38	*	*
08:00	32	*	*	*	*	32	*	*
09:00	17	*	*	*	*	17	*	*
10:00	14	*	*	*	*	14	*	*
11:00	5	*	*	*	*	5	*	*
Total	539	315	0	0	0		0	0
Percentage	68.0%	39.7%	0.0%	0.0%	0.0%		0.0%	0.0%
AM Peak	-	11:00	-	-	-	-	-	-
Vol.	-	59	-	-	-	-	-	-
PM Peak	17:00	12:00	-	-	-	-	-	-
Vol.	91	69	-	-	-	-	-	-
Total		315	0					