

Kelly Walsh High School

Traffic Impact Study

Natrona County Schools

Prepared for the City of Casper

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Kelly Walsh High School

Traffic Impact Study

1.0 Introduction

Natrona County Schools is proposing to construct the new Kelly Walsh High School on the site where the current building exists (see Figure 1). There are currently 1,632 students at the school and the school is being designed for 2,000 students.

2.0 Project Description

2.1 Proposed Development

The proposed site plan is contained in Figure 2. Three access points are shown in the site plan at the following locations:

- 12th Street / Linda Vista Drive
- Walsh Drive / Dorset Street
- 8th Street / Andrea Lane

The site layout focuses the majority of the traffic to Walsh Drive / Dorset Street.

A student drop-off / pick-up lane is proposed in the parking area directly north of the main building.

A school bus transfer station is planned on Walsh Drive between Dorset Street and 12th Street. It has been designed to accommodate 14 full size busses and four small special education busses.

2.2 Study Assumptions

The following assumptions were utilized for this study.

- **Completion of the Development.** The development is assumed to be completed within two to three years.
- **Long Term Horizon.** A 25 year horizon is assumed which coincides with Year 2038.
- **Saturation Flow Rate** The saturation flow rate was assumed to be 1,625 passenger vehicles / hour / lane recognizing Wyoming motorists' driving habits and data collected in Cheyenne during the Yellowstone Road corridor signal timing project.
- **Peak Hour Factor.** The peak hour factor for the existing and short term traffic was based on the data collected. For the Year 2038 scenarios, the peak hour factor was assumed to be 0.85 on 12th Street and Walsh Drive. The existing peak hour

factor will be utilized for the other movements to reflect the characteristics of school traffic.

- **Truck Percentage.** The percentage of trucks is assumed to be 2%.

3.0 Existing Traffic Conditions

3.1 Traffic Counts and Level of Service

Traffic count and speed data were collected by the City of Casper during the week of February 4, 2013 and are summarized in Figure 3. Count data are included in Appendix A.

To evaluate the performance of the intersections within the study area, the Level of Service (LOS) was calculated using Synchro software. This software package utilizes criteria described in the Highway Capacity Manual¹. LOS is a measure used to describe operational conditions at an intersection with categories ranging from A to F based on the predicted delay in seconds per vehicle for the intersection as a whole, as well as for individual turning movements. LOS A indicates very good operations, and LOS F indicates poor, congested operations. Acceptable intersection operation is LOS C or better based on Casper City Code.

The following table summarizes the existing intersection operation. The Synchro output is contained in Appendix B. All of the intersections are operating at LOS C, or better, except for 12th Street / Linda Vista Drive after school.

Intersection	Peak Hour LOS	
	Morning	After School
8th Street / Andrea Lane	A	A
Walsh Drive / 8th Street	A	A
Walsh Drive / Dorset Street	A	A
12th Street / Walsh Drive	C	C
12th Street / Linda Vista Drive	A	D

3.2 Crash History

The City of Casper provided crash data for the intersections being studied for the Years of 2008 through 2012. A summary of the history for four of the intersections is contained in the following bullets and tables.

- **12th Street / Walsh Drive.** The predominate crash type was rear end with seven occurring on the eastbound approach and

¹ Highway Capacity Manual (HCM 2010). Transportation Research Board. National Research Council. 2010.

four on the other two approaches. Most of the rear end crashes occurred after school between 1:15 p.m. and 4:00 p.m. To address the rear end crash problem, the City should review the signal timing including the clearance intervals.

- **Walsh Drive / 8th Street.** 13 crashes occurred during the five year period with 10 of the crashes classified as angle or approach turn. Considering that the 10 crashes occurred over a five year period, there isn't a crash problem at this intersection.
- **Walsh Drive / Dorset Street.** There were six crashes that occurred over the five year period. With an average of about one crash per year, there isn't a crash problem at this intersection.
- **12th Street / Linda Vista Drive.** There were three crashes that occurred over the five year period. With an average of about $\frac{1}{2}$ crash per year, there isn't a crash problem at this intersection.
- **8th Street / Andrea Lane.** There were no crashes reported.

12th Street / Walsh Drive		Walsh Drive / Dorset Street	
Type	Number	Type	Number
Approach Turn	2	Approach Turn	1
Angle	2	Rear End	3
Rear End	15	Fixed Object	1
Ped	1	Ped	1
Other	1	Total	6
Total	21		

Walsh Drive / 8th Street		12th Street / Linda Vista Drive	
Type	Number	Type	Number
Approach Turn	2	Angle	2
Angle	8	Rear End	1
Rear End	3	Total	3
Total	13		

4.0 Future Traffic Conditions without the Proposed Development

The background traffic that is expected in Year 2038 is shown in Figure 4. The future volumes assume an annual growth rate of 1.25%.

The following table summarizes the expected intersection operation in Year 2037 and the Synchro output is contained in Appendix B. The laneage required for the intersections to function at LOS C in Year

2038 with 2,000 students in the new school was assumed for this analysis so that a comparison could be made between the background and total traffic scenarios. All intersections are expected to function at LOS C, or better, if the new larger school is not constructed.

Intersection	Peak Hour LOS	
	Morning	After School
8th Street / Andrea Lane	A	A
Walsh Drive / 8th Street	A	B
Walsh Drive / Dorset Street	A	A
12th Street / Walsh Drive	C	C
12th Street / Linda Vista Drive	A	A

5.0 Trip Generation

In order to determine the traffic impacts associated with the redevelopment of Kelly Walsh High School, the amount of traffic generated by the proposed development of a 2,000 student high school was estimated using trip generation rates contained in the Institute of Transportation Engineers (ITE) Trip Generation manual². The trip generation estimate is contained in Table 1.

6.0 Trip Distribution and Assignment

The trip distribution for the school is contained in Figure 5. It is based on the location of the school and the road network in the Casper area. The site generated traffic was assigned to the roadway network based on this distribution. Figure 6 contains the trip assignment for the morning and after school peak hours as well as the average weekday.

7.0 Short Term Traffic Conditions with the Proposed Development

The short term conditions following completion of the development were estimated by combining the existing traffic volumes contained in Figure 3 with the development traffic contained in Figure 6. The projected volumes at the completion of the development are contained in Figure 7. The existing school traffic was estimated and subtracted from the existing traffic volumes so that the impacts of the new school are not over estimated.

The expected operation of the intersections is summarized in the following table and the Synchro output is contained in Appendix B. All of the intersections are projected to operate at LOS C, or better, with the exception of Walsh Drive / Dorset Street in the morning and 12th

² Trip Generation. Institute of Transportation Engineers. 8th Edition. 2008.

Street / Linda Vista Drive after school. Neither of those intersections warrant signalization and all reasonable improvements have been assumed to reach LOS C.

Intersection	Peak Hour LOS	
	Morning	After School
8th Street / Andrea Lane	A	A
Walsh Drive / 8th Street	A	A
Walsh Drive / Dorset Street	D	C
12th Street / Walsh Drive	C	C
12th Street / Linda Vista Drive	A	E

The level of service in the previous table assumes the following improvements.

Walsh Drive / 8th Street

- **Northbound, Southbound, and Westbound Approaches –** All three of the approaches would be expanded from a single lane to separate left turn and through plus right turn lanes.
- **Eastbound Approach –** The approach would be expanded from a single lane to separate left, through, and right turn lanes.
- **Traffic Control.** Two-way stop control with stop signs on 8th Street is appropriate for this intersection. The intersection does not satisfy any of the criteria for all-way stop control and does not meet the warrants for signalization.³

Walsh Drive / Dorset Street

- **Northbound, Southbound, and Westbound Approaches –** These approaches would be expanded from a single lane to separate left turn and through plus right turn lanes.
- **Eastbound Approach –** This approach would be constructed with three separate outbound lanes.

12th Street / Linda Vista Drive

- **Southbound Approach –** This approach would be converted from outbound only to a two-way approach with three separate outbound lanes.

The long term conditions following completion of the development were estimated by combining the background traffic volumes contained in Figure 4 with the development traffic contained in Figure 6. The projected volumes at the completion of the development are contained in Figure 8.

³ [Manual on Uniform Traffic Control Devices](#). Federal Highway Administration. 2009.

The expected operation of the intersections is summarized in the following table and the Synchro output is contained in Appendix B.

There are improvements in addition to those recommended in Section 7.0 that are necessary to accommodate the long term traffic at LOS C. They include the following improvements.

8th Street / Andrea Lane

- **Northbound Approach** – This approach would be expanded from a single lane to separate right turn and through plus left turn lanes.
- **Westbound Approach** – This approach would be expanded from a single lane to a separate left turn and through plus right turn lanes.

12th Street at Walsh Drive and Linda Vista Drive

- **Eastbound and Westbound Approaches** – 12th Street will need to be widened to two through lanes in each direction.
- **Southbound Approach at Linda Vista Drive** – This approach would be expanded to three separate outbound lanes.

Intersection	Peak Hour LOS	
	Morning	After School
8th Street / Andrea Lane	A	A
Walsh Drive / 8th Street	A	C
Walsh Drive / Dorset Street	D	C
12th Street / Walsh Drive	C	B
12th Street / Linda Vista Drive	B	C

8.0 Improvement Summary

The length of the turn lanes was determined by modeling the Year 2038 total traffic volume scenarios contained in Figure 8 using SimTraffic software. Recommended turn lane lengths are contained in Table 2 and the SimTraffic output is contained in Appendix B. They are based on the SimTraffic 95th percentile queue, but assume a minimum lane length of 50'. An 8:1 to 10:1 taper should be used in advance of each of the turn lanes.

A summary of the recommended improvements and when they are required is contained in Table 3.

9.0 Conclusions and Recommendations

Based on the analysis performed, STS makes the following recommendations.

- The school district should be required to construct the improvements necessary to accommodate the short term total traffic that are contained in Table 3.
- The turn bay lengths need to be reflected in the design of the improvements.
- The City should study the need to widen 12th Street to four lanes in the future.
- Parking lot access points at Walsh Drive / Dorset Street and 12th Street / Linda Vista Drive need to be located so that they are at least the minimum lane length from the adjacent intersection.
 - At Walsh Drive / Dorset Street, the parking lot access needs to be at least 70' from the point where the eastbound left and right turn lanes begin.
 - At 12th Street / Linda Vista Drive, the parking lot access needs to be at least 75' from the point where the southbound left lane begins.

Tables

Table 1 – Trip Generation Estimate

Table 2 – Turn Bay Length Recommendations

Table 3 – Improvement Summary

Table 1. Trip Generation Estimate

Land Use	ITE Code ¹	Size ²	Unit	Average Daily Trips				Morning Peak Hour Trips				Afternoon Peak ³			
				Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
High School	530	2000	Students	1.71	3,420	1,710	1,710	0.42	840	571	269	0.29	580	191	389

Notes:

1. Trip generation estimates are based on rates contained in Trip Generation, 8th Edition (Institute of Transportation Engineers, 2008).
2. Land use estimates were provided by the City of Casper.
3. The PM peak hour of generator was used to estimate the after school peak.

Table 2. Turn Bay Length Recommendations

Intersection / Turn Lane	Lane Length	
	Existing	Proposed
8th Street / Andrea Lane		
Westbound Left Turn	NA	50'
Northbound Right Turn	NA	50'
Walsh Drive / 8th Street		
Eastbound Left Turn	NA	60'
Eastbound Right Turn	NA	70'
Westbound Left Turn	NA	50'
Northbound Left Turn	NA	50'
Southbound Left Turn	NA	50'
Walsh Drive / Dorset Street		
Eastbound Left Turn	NA	70'
Eastbound Right Turn	NA	70'
Westbound Left Turn	NA	50'
Westbound Right Turn	NA	60'
Northbound Left Turn	NA	80'
Southbound Left Turn	NA	50'
Southbound Right Turn	NA	50'
12th Street / Walsh Drive		
Eastbound Left Turn ¹	70'	105'
Westbound Right Turn ¹	65'	90'
Southbound Left Turn ¹	65'	100'
12th Street / Linda Vista Drive		
Eastbound Left Turn ²	NA	60'
Westbound Left Turn ²	NA	50'
Southbound Left Turn	NA	75'
Southbound Right Turn	NA	65'

Notes:

1. Improvements to these turn bay lengths can be accomplished by modifying pavement markings.
2. The required turn bay length can be accommodated in the existing two-way-left-turn lane.

Table 3. Improvement Summary

Intersection / Improvement	Volume Scenario	
	Short Term Total Traffic (Figure 7)	Year 2038 Total Traffic (Figure 8)
8th Street / Andrea Lane		
Westbound Approach: Construct a left turn lane		X
Northbound Approach: Construct a right turn lane		X
Walsh Drive / 8th Street		
Eastbound Approach: Construct separate left, through, and right turn lanes	X	
Westbound Approach: Construct separate left turn and through plus right turn lanes	X	
Northbound Approach: Construct separate left turn and through plus right turn lanes	X	
Southbound Approach: Construct separate left turn and through plus right turn lanes	X	
Walsh Drive / Dorset Street		
Eastbound Approach: Construct separate left, through, and right turn lanes	X	
Westbound Approach: Construct separate left, through, and right turn lanes	X	
Northbound Approach: Construct separate left turn and through plus right turn lanes	X	
Southbound Approach: Construct separate left, through, and right turn lanes	X	
12th Street / Walsh Drive		
Eastbound Approach: Extend the left turn lane	X	
Westbound Approach: Extend the left turn lane	X	
Southbound Approach: Extend the left turn lane	X	
Eastbound and Westbound Approaches: Construct two through lanes on each approach		X
12th Street / Linda Vista Drive		
Southbound Approach: Construct separate left, through, and right turn lanes	X	
Eastbound and Westbound Approaches: Construct two through lanes on each approach		X

Figures

Figure 1 – Vicinity Map

Figure 2 – Site Plan

Figure 3 – Existing Traffic Volumes

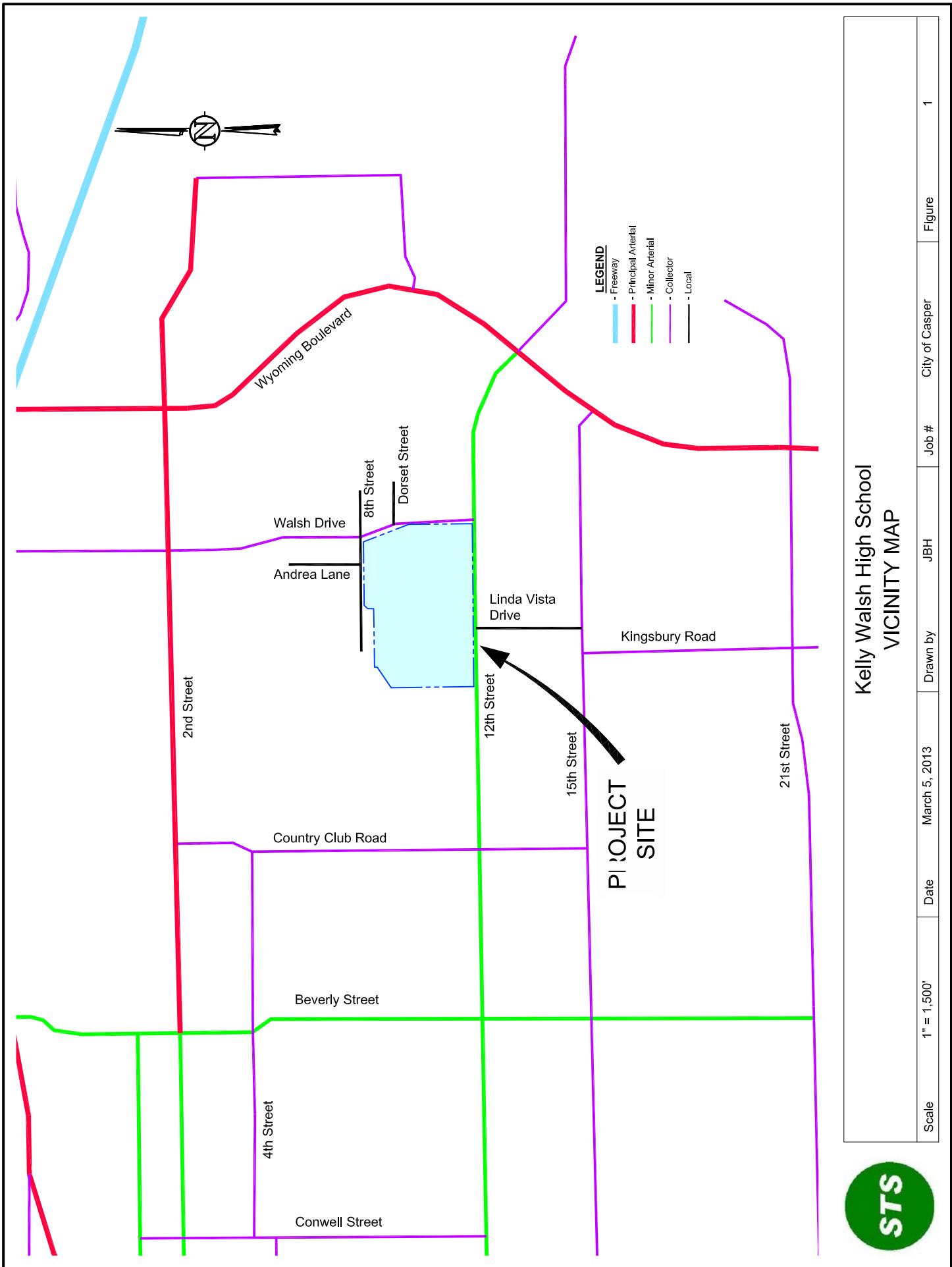
Figure 4 – Long Term Background Traffic Volumes

Figure 5 – Trip Distribution

Figure 6 – Trip Assignment

Figure 7 – Short Term Total Traffic Volumes

Figure 8 – Long Term Total Traffic Volumes



**Kelly Walsh High School
VICINITY MAP**

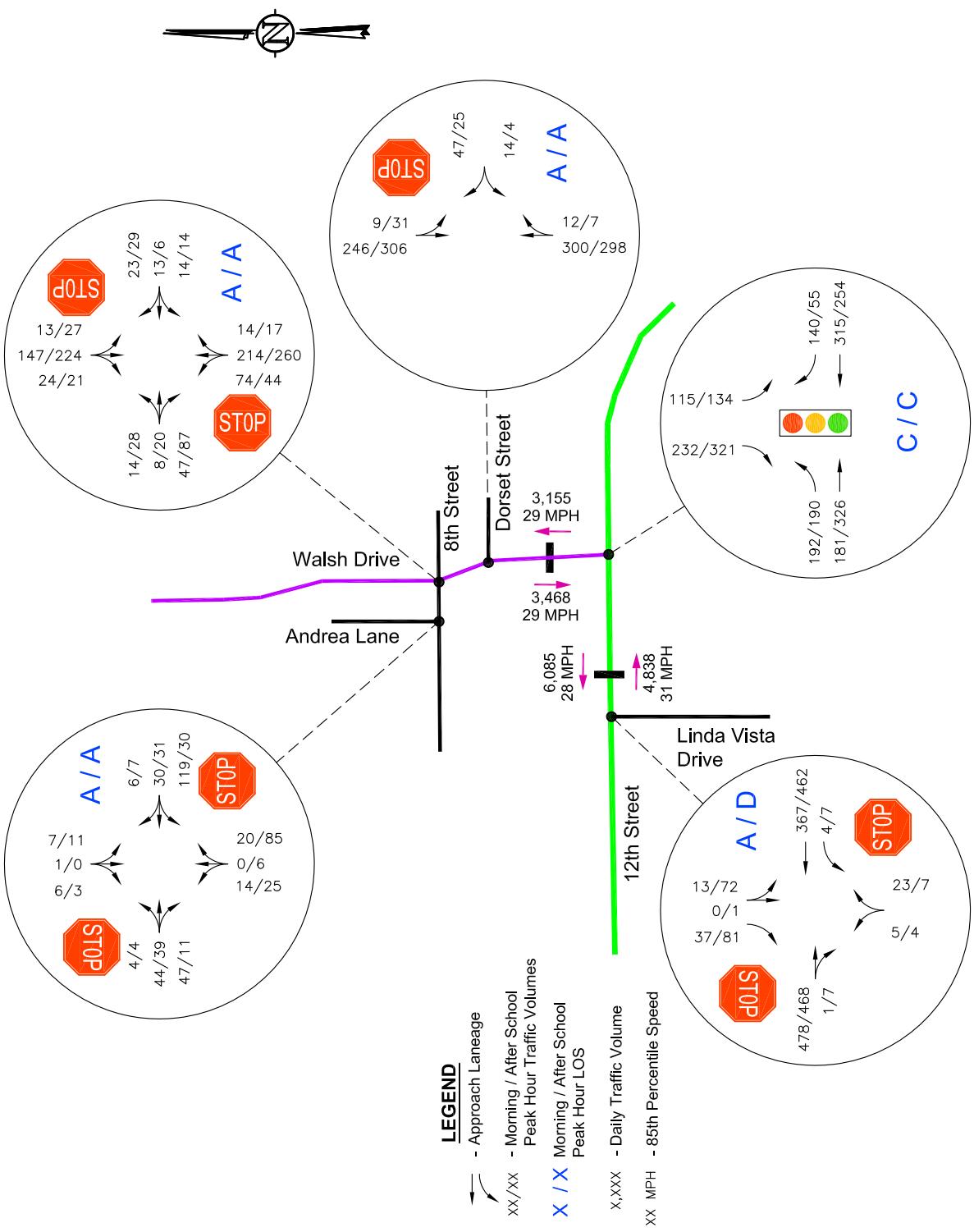


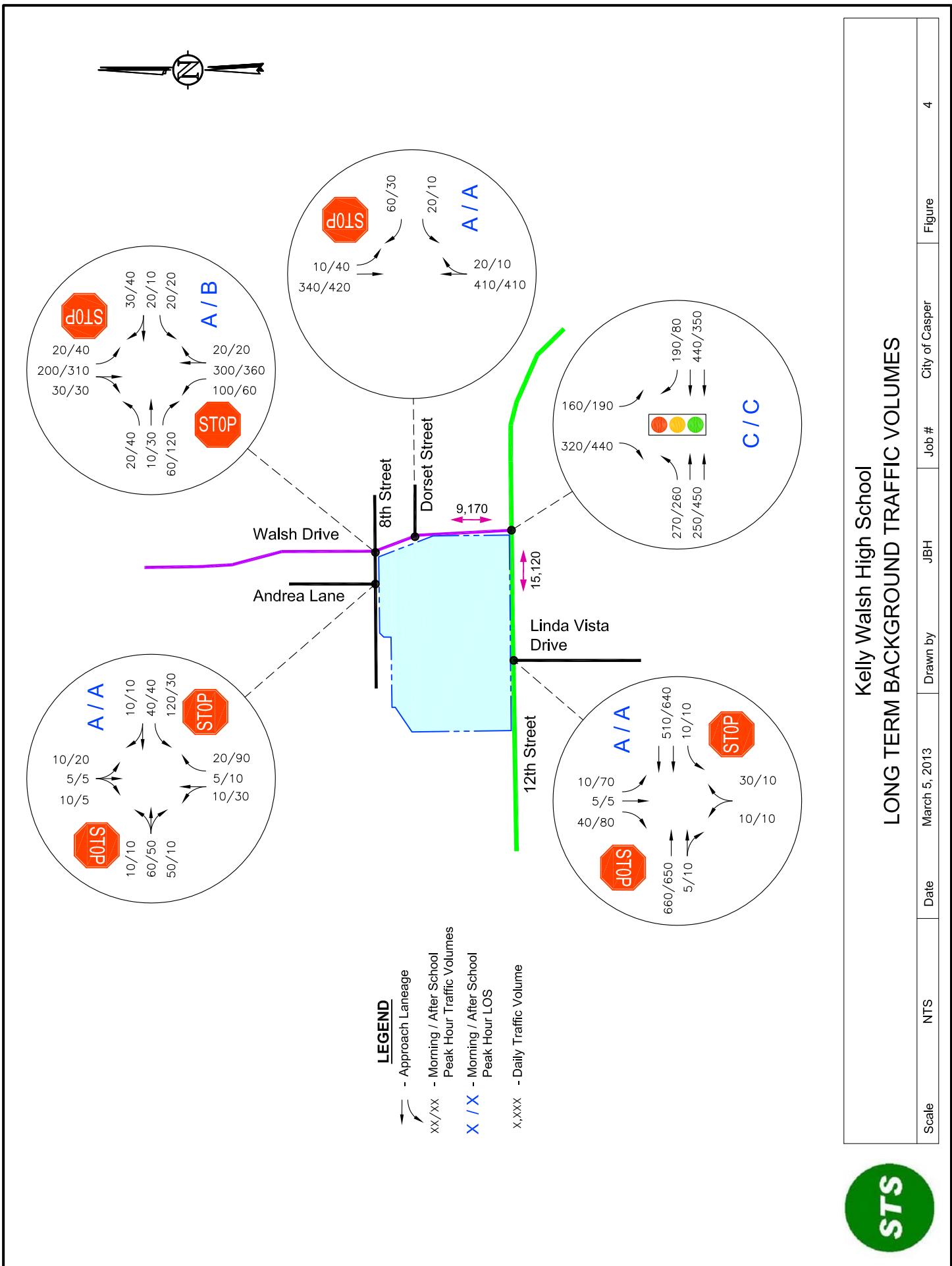
**Kelly Walsh High School
SITE PLAN**

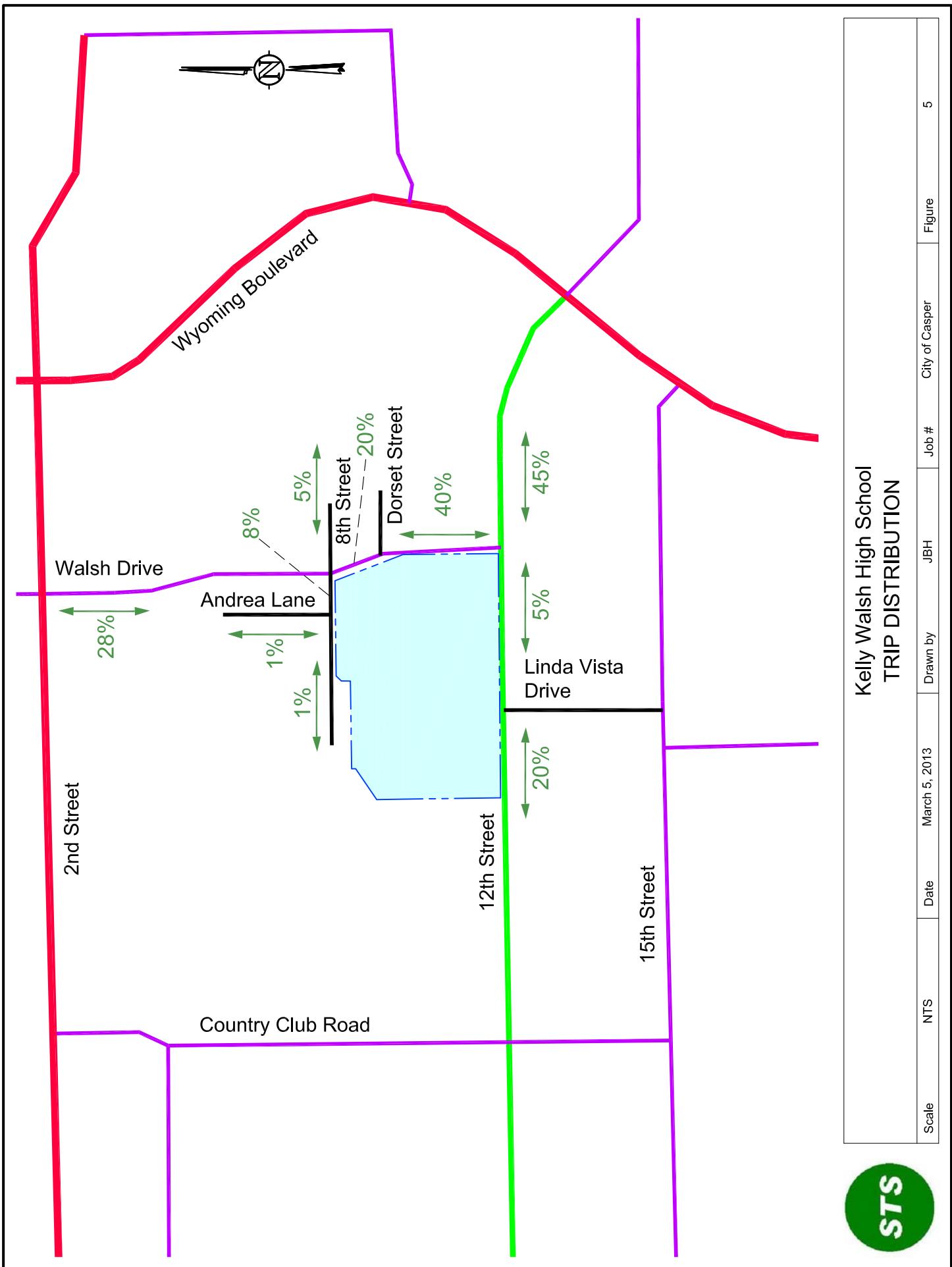


Scale	NTS	Date	March 5, 2013	Drawn by	JBH	Job #	City of Casper	Figure	3
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Kelly Walsh High School EXISTING TRAFFIC VOLUMES



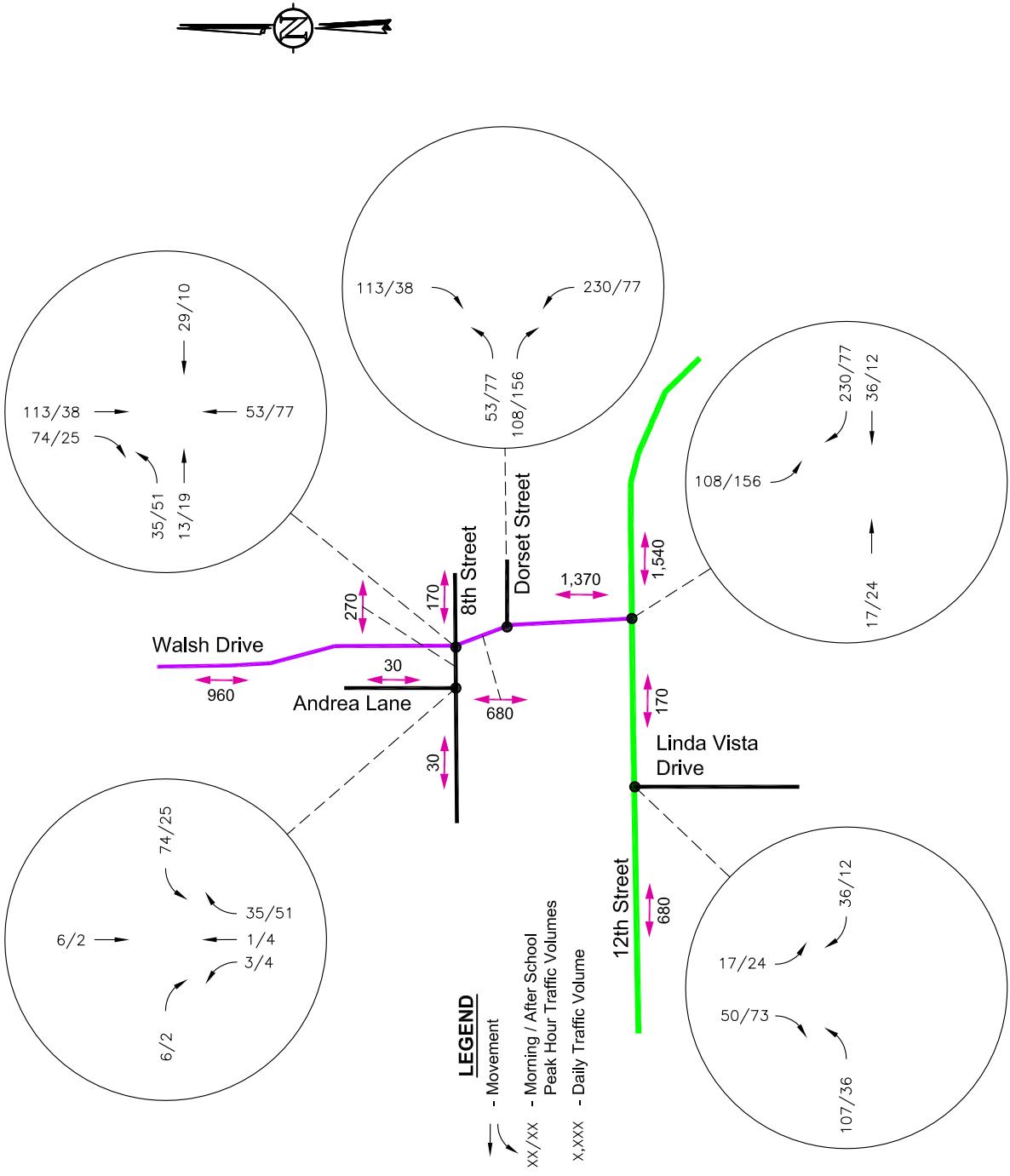




Kelly Walsh High School TRIP DISTRIBUTION

STS

Scale	NTS	Date	March 5, 2013	Drawn by	JBH	Job #	City of Casper	Figure	5
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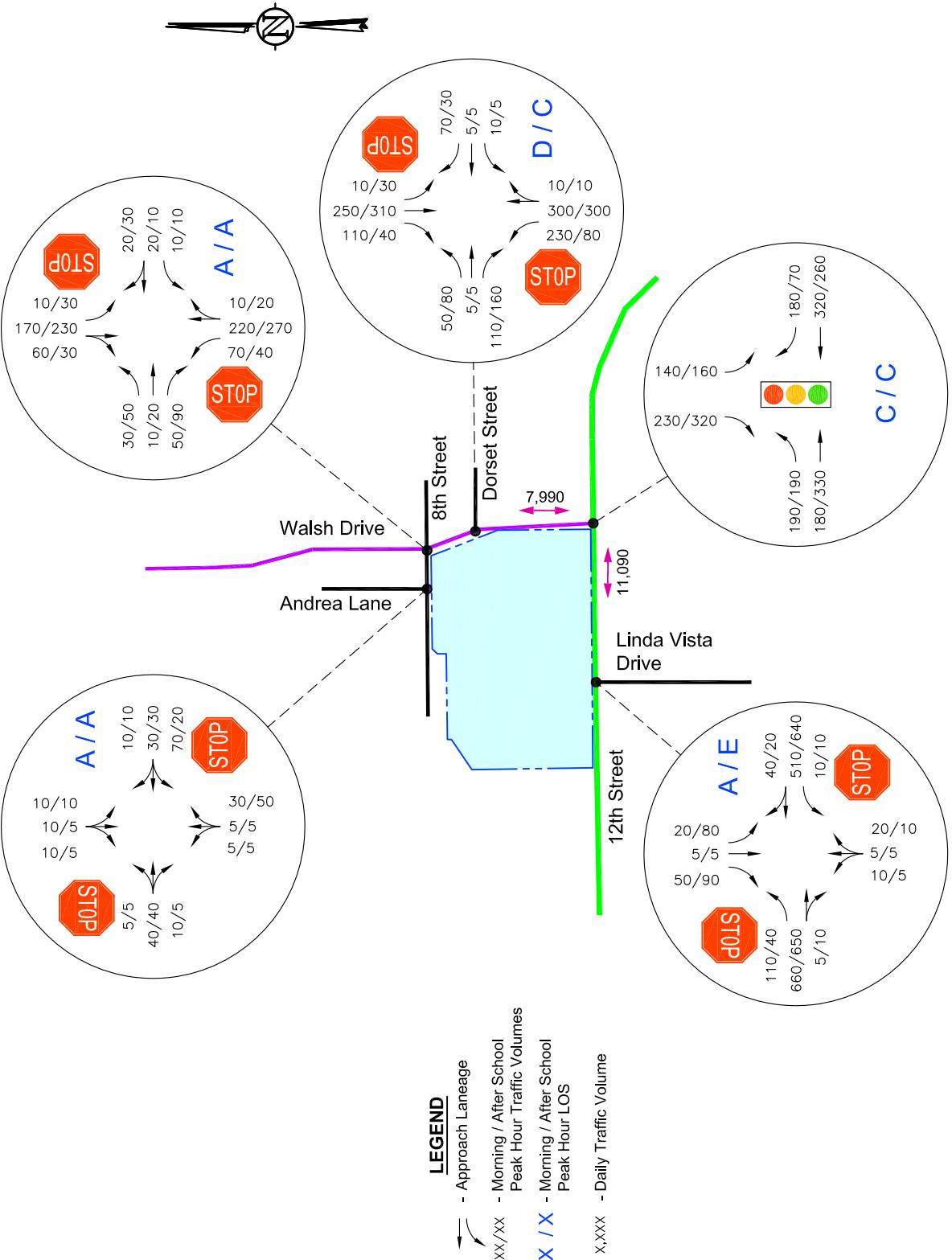
Kelly Walsh High School TRIP ASSIGNMENT

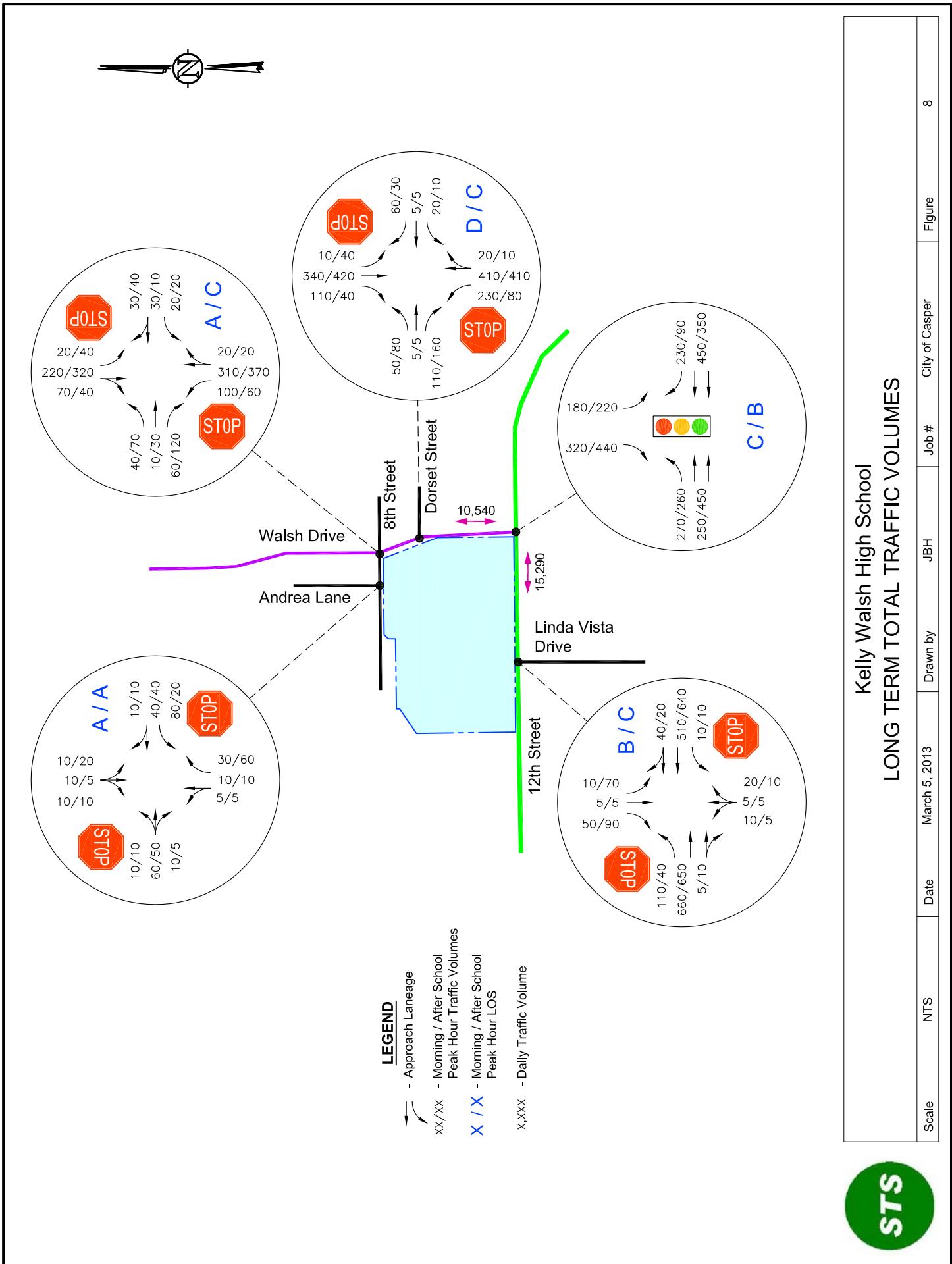
Scale	1" = 1,250	Date	March 5, 2013	Drawn by	JBH	Job #	City of Casper	Figure	6
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Kelly Walsh High School SHORT TOTAL TRAFFIC VOLUMES

Scale	1"=1,250'	Date	March 5, 2013	Drawn by	JBH	Job #	City of Casper	Figure	7
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Kelly Walsh High School LONG TERM TOTAL TRAFFIC VOLUMES

Appendix A

Traffic Count Data

12th and:
Kingsbury
EB;

Site: 12th and Kingsbury
Date: 2/4/2013
Monday

12th and Kingsbury
EB:

Site: 12th and Kingsbury
Date: 2/5/2013
Tuesday

24 Hour Speed
Channel: EB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
2:00 PM	339	13	79	91	103	50	3	0	0	0	0	0	0	0
3:00 PM	449	16	212	187	30	4	0	0	0	0	0	0	0	0
4:00 PM	391	0	16	58	208	106	2	0	0	0	0	0	0	1
5:00 PM	470	0	10	76	241	137	6	0	0	0	0	0	0	0
6:00 PM	340	0	2	25	186	123	4	0	0	0	0	0	0	0
7:00 PM	203	0	3	16	82	93	9	0	0	0	0	0	0	0
8:00 PM	170	0	4	11	66	84	5	0	0	0	0	0	0	0
9:00 PM	94	0	5	6	37	45	1	0	0	0	0	0	0	0
10:00 PM	59	0	1	3	26	27	1	1	0	0	0	0	0	0
11:00 PM	22	0	0	1	10	10	1	0	0	0	0	0	0	0
2/6/2013														
12:00 AM	8	0	0	1	5	2	0	0	0	0	0	0	0	0
1:00 AM	11	0	0	0	1	7	3	0	0	0	0	0	0	0
2:00 AM	4	0	0	1	0	2	1	0	0	0	0	0	0	0
3:00 AM	9	0	0	1	2	6	0	0	0	0	0	0	0	0
4:00 AM	14	0	0	1	6	6	1	0	0	0	0	0	0	0
5:00 AM	64	0	7	5	19	30	1	2	0	0	0	0	0	0
6:00 AM	108	1	24	21	26	32	4	0	0	0	0	0	0	0
7:00 AM	317	10	179	106	19	3	0	0	0	0	0	0	0	0
8:00 AM	384	13	186	87	76	17	3	0	0	0	0	0	0	2
9:00 AM	222	1	3	42	128	47	1	0	0	0	0	0	0	0
10:00 AM	235	0	15	41	120	56	3	0	0	0	0	0	0	0
11:00 AM	302	7	110	143	32	9	1	0	0	0	0	0	0	0
12:00 PM	305	13	141	126	24	1	0	0	0	0	0	0	0	0
1:00 PM	327	6	63	110	124	23	1	0	0	0	0	0	0	0
Total	4847	80	1060	1159	1571	920	51	3	0	0	0	0	0	3
%	1.7	21.9	23.9	32.4	19.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	3

Percentile Speeds
(mph)

10 % 15 % 50 % 85 % 90 %
18.0 18.8 25.6 30.6 31.6

10 mph Pace Speed
Number in Pace

20.3 - 30.3
2789 (57.5 %)
Average
Minimum
Maximum

24.9 mph

6.3 mph

91.3 mph

Speeds Exceeded
Count

45 mph
0.1 %
3
55 mph
0.1 %
3
65 mph
0.1 %
3
31.6

12th and
Kingsbury:
EB:

Site: 12th and Kingsbury
Date: 2/6/2013
Wednesday

24 Hour Speed
Channel: EB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
2:00 PM	322	0	97	89	99	33	4	0	0	0	0	0	0	0
3:00 PM	448	19	217	182	25	4	0	0	0	0	0	0	0	1
4:00 PM	409	3	19	56	198	126	5	1	0	0	0	0	0	1
5:00 PM	498	0	7	73	311	102	5	0	0	0	0	0	0	0
6:00 PM	349	0	6	35	178	125	5	0	0	0	0	0	0	0
7:00 PM	208	0	8	13	86	91	10	0	0	0	0	0	0	0
8:00 PM	177	0	4	10	81	78	3	1	0	0	0	0	0	0
9:00 PM	109	1	3	13	57	32	3	0	0	0	0	0	0	0
10:00 PM	54	0	2	8	17	21	5	1	0	0	0	0	0	0
11:00 PM	23	0	0	3	11	7	2	0	0	0	0	0	0	0
2/7/2013														
12:00 AM	14	0	0	2	7	5	0	0	0	0	0	0	0	0
1:00 AM	8	0	0	0	2	5	1	0	0	0	0	0	0	0
2:00 AM	9	0	0	1	4	3	3	1	0	0	0	0	0	0
3:00 AM	8	0	0	0	4	3	1	0	0	0	0	0	0	0
4:00 AM	10	0	0	0	5	5	0	0	0	0	0	0	0	0
5:00 AM	60	0	5	5	22	27	1	0	0	0	0	0	0	0
6:00 AM	120	0	19	40	35	21	5	0	0	0	0	0	0	0
7:00 AM	429	35	245	131	16	2	0	0	0	0	0	0	0	0
8:00 AM	268	7	70	75	76	37	3	0	0	0	0	0	0	0
9:00 AM	184	2	13	36	89	42	2	0	0	0	0	0	0	0
10:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	3707	67	715	772	1323	769	56	3	0	0	0	0	0	2
Percentile Speeds (mph)		10 % 18.1	15 % 19.0	50 % 20.8	85 % 26.7	90 % 31.0								

Percentile Speeds
(mph)

10 %
18.1

15 %
19.0

50 %
20.8

85 %
26.7

90 %
31.0

25.5 mph
5.2 mph
87.8 mph

10 mph Pace Speed
Number in Pace

2229 (60.1 %)
Average
Minimum
Maximum

Speeds Exceeded
Count

45 mph
0.1 %
2
55 mph
0.1 %
2
65 mph
0.1 %
2
25 mph
0.1 %
2

12th and
Walsh:
WB:

Site:
12th and Walsh WB
Date:
2/4/2013
WB:
Monday

24 Hour Speed Channel: WB														
mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
3:00 PM	574	74	146	296	45	9	2	0	0	0	0	0	0	2
4:00 PM	443	12	63	233	102	27	6	0	0	0	0	0	0	0
5:00 PM	564	10	49	284	153	64	4	0	0	0	0	0	0	0
6:00 PM	443	3	28	220	126	56	9	1	0	0	0	0	0	0
7:00 PM	341	2	24	178	83	47	6	1	0	0	0	0	0	0
8:00 PM	182	1	14	82	42	40	3	0	0	0	0	0	0	0
9:00 PM	150	0	12	56	40	35	7	0	0	0	0	0	0	0
10:00 PM	54	0	1	25	13	9	5	1	0	0	0	0	0	0
11:00 PM	28	0	5	10	7	6	0	0	0	0	0	0	0	0
2/5/2013														
12:00 AM	15	0	3	3	5	4	0	0	0	0	0	0	0	0
1:00 AM	16	0	2	8	2	4	0	0	0	0	0	0	0	0
2:00 AM	11	0	1	4	1	5	0	0	0	0	0	0	0	0
3:00 AM	5	1	1	2	1	0	0	0	0	0	0	0	0	0
4:00 AM	10	0	1	3	2	4	0	0	0	0	0	0	0	0
5:00 AM	23	0	2	4	7	8	2	0	0	0	0	0	0	0
6:00 AM	103	0	0	33	30	32	7	1	0	0	0	0	0	0
7:00 AM	298	20	116	142	18	2	0	0	0	0	0	0	0	0
8:00 AM	294	6	75	145	50	18	0	0	0	0	0	0	0	0
9:00 AM	251	1	19	117	75	33	6	0	0	0	0	0	0	0
10:00 AM	237	4	20	97	71	42	2	1	0	0	0	0	0	0
11:00 AM	339	14	83	177	49	14	1	0	0	0	0	0	0	1
12:00 PM	357	24	82	206	39	5	1	0	0	0	0	0	0	0
1:00 PM	470	16	82	245	105	20	1	0	0	0	0	0	0	1
2:00 PM	363	5	42	171	106	36	2	1	0	0	0	0	0	0
Total	5571	193	871	2741	1172	520	64	6	0	0	0	0	0	4
%	3.5	15.6	49.2	21.0	9.3	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1

Percentile Speeds
(mph)

10 %
18.1

15 %
19.3

50 %
23.0

85 %
28.6

90 %
30.2

10 mph Pace Speed
Number in Pace

Average
4093 (73.5 %)

Minimum
18.2 - 28.2

Maximum
97.0 mph

Speeds Exceeded
Count

45 mph
0.1 %
4

23.5 mph

5.3 mph

97.0 mph

65 mph
0.1 %
4

12th and
Walsh:
WB:

Site:
12th and Walsh WB
Date:
2/5/2013
Tuesday

24 Hour Speed
Channel: WB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
3:00 PM	583	52	189	280	53	5	0	0	0	0	0	0	0	4
4:00 PM	473	15	81	247	91	36	3	0	0	0	0	0	0	0
5:00 PM	545	11	62	261	147	63	0	1	0	0	0	0	0	0
6:00 PM	473	7	38	222	125	75	6	0	0	0	0	0	0	0
7:00 PM	335	4	23	165	86	51	6	0	0	0	0	0	0	0
8:00 PM	231	2	27	108	54	36	3	1	0	0	0	0	0	0
9:00 PM	162	0	13	77	37	32	3	0	0	0	0	0	0	0
10:00 PM	70	0	9	29	19	13	0	0	0	0	0	0	0	0
11:00 PM	30	0	5	18	3	3	0	1	0	0	0	0	0	0
2/6/2013														
12:00 AM	20	0	2	4	6	5	2	1	0	0	0	0	0	0
1:00 AM	11	0	2	3	1	4	1	0	0	0	0	0	0	0
2:00 AM	7	0	2	3	1	1	0	0	0	0	0	0	0	0
3:00 AM	5	0	0	2	1	2	0	0	0	0	0	0	0	0
4:00 AM	6	0	2	1	0	3	0	0	0	0	0	0	0	0
5:00 AM	33	0	5	8	11	6	2	1	0	0	0	0	0	0
6:00 AM	103	0	9	32	30	29	3	0	0	0	0	0	0	0
7:00 AM	270	16	92	131	21	8	1	1	0	0	0	0	0	0
8:00 AM	558	53	229	232	40	3	1	0	0	0	0	0	0	0
9:00 AM	268	2	31	112	82	38	3	0	0	0	0	0	0	0
10:00 AM	312	4	45	146	84	30	3	0	0	0	0	0	0	0
11:00 AM	304	12	68	142	63	19	0	0	0	0	0	0	0	0
12:00 PM	424	15	84	225	87	9	1	0	0	0	0	0	0	3
1:00 PM	500	23	106	246	96	24	4	0	0	0	0	0	0	1
2:00 PM	365	8	55	129	119	47	6	0	0	0	0	0	0	1
Total %	6088	224	1179	2823	1257	542	48	6	0	0	0	0	0	9
Percentile Speeds (mph)		10 %	15 %	50 %	85 %	90 %								
10 mph Pace Speed Number in Pace		17.6	18.7	22.8	28.4	29.9								
Speeds Exceeded		45 mph	55 mph	65 mph										
Count		0.1 %	0.1 %	9	9	9								
							Average							
							Minimum							
							Maximum							
							23.2 mph							
							5.2 mph							
							99.0 mph							

12th and
Walsh:
WB:

Site:
12th and Walsh WB
Date:
2/6/2013
WB:
Wednesday

24 Hour Speed
Channel: WB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
3:00 PM	698	57	224	298	87	24	5	0	0	0	0	0	1	2
4:00 PM	526	24	99	231	119	44	8	0	0	0	0	0	0	1
5:00 PM	597	10	57	288	159	77	6	0	0	0	0	0	0	0
6:00 PM	479	7	29	227	144	65	7	0	0	0	0	0	0	0
7:00 PM	287	1	17	137	79	50	3	0	0	0	0	0	0	0
8:00 PM	208	0	12	85	60	47	4	0	0	0	0	0	0	0
9:00 PM	172	0	15	73	53	25	6	0	0	0	0	0	0	0
10:00 PM	65	0	2	23	18	19	1	1	0	0	0	0	0	0
11:00 PM	40	0	5	19	9	4	3	0	0	0	0	0	0	0
2/7/2013														
12:00 AM	17	0	2	5	4	5	1	0	0	0	0	0	0	0
1:00 AM	7	0	1	1	3	2	0	0	0	0	0	0	0	0
2:00 AM	6	0	0	1	3	2	0	0	0	0	0	0	0	0
3:00 AM	4	0	0	2	0	2	0	0	0	0	0	0	0	0
4:00 AM	3	0	0	0	0	2	1	0	0	0	0	0	0	0
5:00 AM	24	0	0	5	9	9	1	0	0	0	0	0	0	0
6:00 AM	82	0	1	14	33	27	7	0	0	0	0	0	0	0
7:00 AM	175	8	77	73	17	0	0	0	0	0	0	0	0	0
8:00 AM	279	0	59	159	47	13	1	0	0	0	0	0	0	0
9:00 AM	241	1	23	94	87	31	5	0	0	0	0	0	0	0
10:00 AM	67	0	7	33	16	10	1	0	0	0	0	0	0	0
11:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	3977	108	630	1768	949	457	59	1	1	0	0	0	1	3
Percentile Speeds (mph)		10 % 18.3	15 % 19.4	50 % 23.4	85 % 29.6	90 % 30.8								

10 mph Pace Speed
Number in Pace

Average
Minimum
Maximum

24.0 mph
5.2 mph
94.0 mph

Speeds Exceeded
Count

45 mph
0.1 %
55 mph
0.1 %
65 mph
0.1 %
4

12th and
Walsh:
NB:

12th and Walsh
2/4/2013
Monday

24 Hour Speed
Channel: NB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
3:00 PM	320	15	117	159	25	4	0	0	0	0	0	0	0	0
4:00 PM	233	0	7	50	130	44	2	0	0	0	0	0	0	0
5:00 PM	334	1	1	52	199	78	2	1	0	0	0	0	0	0
6:00 PM	228	0	4	27	135	59	3	0	0	0	0	0	0	0
7:00 PM	143	0	0	13	85	42	3	0	0	0	0	0	0	0
8:00 PM	86	0	0	8	45	33	0	0	0	0	0	0	0	0
9:00 PM	54	0	1	10	36	7	0	0	0	0	0	0	0	0
10:00 PM	27	0	0	4	19	4	0	0	0	0	0	0	0	0
11:00 PM	19	0	1	2	10	5	1	0	0	0	0	0	0	0
2/5/2013														
12:00 AM	13	0	1	1	5	6	0	0	0	0	0	0	0	0
1:00 AM	6	0	0	1	5	0	0	0	0	0	0	0	0	0
2:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0
3:00 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0
4:00 AM	11	0	0	2	4	4	1	0	0	0	0	0	0	0
5:00 AM	49	0	2	4	25	17	1	0	0	0	0	0	0	0
6:00 AM	86	0	15	30	29	11	1	0	0	0	0	0	0	0
7:00 AM	288	9	123	135	20	1	0	0	0	0	0	0	0	0
8:00 AM	196	3	40	71	61	21	0	0	0	0	0	0	0	0
9:00 AM	158	0	8	39	92	19	0	0	0	0	0	0	0	0
10:00 AM	140	0	6	50	71	13	0	0	0	0	0	0	0	0
11:00 AM	203	0	72	107	22	2	0	0	0	0	0	0	0	0
12:00 PM	199	4	77	93	22	2	1	0	0	0	0	0	0	0
1:00 PM	208	3	40	73	76	15	1	0	0	0	0	0	0	0
2:00 PM	192	4	41	75	61	10	1	0	0	0	0	0	0	0
Total %	3198	39	556	1006	1182	397	17	1	0	0	0	0	0	0
Percentile Speeds (mph)		10 % 18.6	15 % 19.5	50 % 25.0	85 % 29.6	90 % 30.5								

Percentile Speeds
(mph)

10 mph Pace Speed
Number in Pace

19.2 - 29.2
2224 (69.5 %)

Average
Minimum
Maximum

24.6 mph
6.0 mph
41.9 mph

Speeds Exceeded
Count

45 mph
0.0 %
0

65 mph
0.0 %
0

12th and
Walsh:
NB:

12th and Walsh
2/5/2013
Tuesday
Site:
Date:

24 Hour Speed
Channel: NB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
3:00 PM	282	11	105	148	18	0	0	0	0	0	0	0	0	0
4:00 PM	244	0	6	57	143	38	0	0	0	0	0	0	0	0
5:00 PM	293	0	2	55	168	66	2	0	0	0	0	0	0	0
6:00 PM	229	0	2	26	138	59	4	0	0	0	0	0	0	0
7:00 PM	146	0	6	24	73	42	1	0	0	0	0	0	0	0
8:00 PM	107	0	1	18	67	21	0	0	0	0	0	0	0	0
9:00 PM	58	0	0	4	35	17	2	0	0	0	0	0	0	0
10:00 PM	39	0	0	3	29	7	0	0	0	0	0	0	0	0
11:00 PM	18	1	3	2	7	4	1	0	0	0	0	0	0	0
2/6/2013														
12:00 AM	8	0	0	1	6	0	1	0	0	0	0	0	0	0
1:00 AM	7	0	0	0	4	2	0	1	0	0	0	0	0	0
2:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0
3:00 AM	4	0	0	0	0	3	1	0	0	0	0	0	0	0
4:00 AM	9	0	0	0	6	3	0	0	0	0	0	0	0	0
5:00 AM	36	0	1	4	19	10	1	1	0	0	0	0	0	0
6:00 AM	65	0	12	23	26	4	0	0	0	0	0	0	0	0
7:00 AM	236	5	102	117	12	0	0	0	0	0	0	0	0	0
8:00 AM	279	3	121	100	50	5	0	0	0	0	0	0	0	0
9:00 AM	142	3	6	47	73	13	0	0	0	0	0	0	0	0
10:00 AM	152	0	8	51	83	10	0	0	0	0	0	0	0	0
11:00 AM	197	2	45	122	24	4	0	0	0	0	0	0	0	0
12:00 PM	197	2	68	105	21	1	0	0	0	0	0	0	0	0
1:00 PM	221	1	57	100	58	5	0	0	0	0	0	0	0	0
2:00 PM	172	2	34	74	52	10	0	0	0	0	0	0	0	0
Total	3142	30	579	1081	1116	322	12	2	0	0	0	0	0	0
%	1.0	18.4	34.4	35.5	10.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Percentile Speeds
(mph)

10 % 15 % 50 % 85 % 90 %
18.5 19.4 24.4 29.2 30.0

10 mph Pace Speed
Number in Pace

19.5 - 29.5
2256 (71.8 %)
Average
Minimum
Maximum

24.3 mph

7.7 mph

43.9 mph

Speeds Exceeded
Count

45 mph
0.0 %
0

55 mph
0.0 %
0

12th and
Walsh:
NB:

12th and Walsh
2/6/2013
Wednesday

24 Hour Speed
Channel: NB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
3:00 PM	308	22	96	149	41	0	0	0	0	0	0	0	0	0
4:00 PM	236	0	4	45	122	64	1	0	0	0	0	0	0	0
5:00 PM	312	0	1	59	206	43	3	0	0	0	0	0	0	0
6:00 PM	233	0	0	32	147	51	3	0	0	0	0	0	0	0
7:00 PM	146	0	0	8	85	49	4	0	0	0	0	0	0	0
8:00 PM	97	0	3	10	65	17	2	0	0	0	0	0	0	0
9:00 PM	68	0	0	11	37	17	3	0	0	0	0	0	0	0
10:00 PM	31	0	0	4	11	14	2	0	0	0	0	0	0	0
11:00 PM	18	2	1	4	5	5	1	0	0	0	0	0	0	0
2/7/2013														
12:00 AM	10	0	0	2	2	6	0	0	0	0	0	0	0	0
1:00 AM	4	0	0	1	2	0	0	1	0	0	0	0	0	0
2:00 AM	6	1	0	0	4	1	0	0	0	0	0	0	0	0
3:00 AM	2	0	0	0	1	1	0	0	0	0	0	0	0	0
4:00 AM	7	0	0	0	5	2	0	0	0	0	0	0	0	0
5:00 AM	34	0	2	3	18	11	0	0	0	0	0	0	0	0
6:00 AM	92	1	21	25	38	6	1	0	0	0	0	0	0	0
7:00 AM	292	10	132	139	9	1	0	0	0	0	0	0	0	1
8:00 AM	181	0	36	78	52	15	0	0	0	0	0	0	0	0
9:00 AM	135	0	2	30	76	26	1	0	0	0	0	0	0	0
10:00 AM	24	2	3	11	6	1	1	0	0	0	0	0	0	0
11:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	2236	38	301	611	932	330	22	1	0	0	0	0	0	1
Percentile Speeds (mph)		10 %	15 %	50 %	85 %	90 %								
10 mph Pace Speed Number in Pace		19.0	19.9	26.0	30.1	30.8	Average							
							Minimum							
							Maximum							

Percentile Speeds (mph)

10 % 15 % 50 % 85 % 90 %

30.8
30.1

10 mph Pace Speed Number in Pace

20.8 - 30.8
1567 (70.1 %)

25.4 mph
5.6 mph

Speeds Exceeded Count

45 mph 55 mph
0.0 % 1
65 mph 0.0 %
1

85.4 mph

Walsh and
Dorset:
SB:

Site: Walsh and Dorset SB
Date: 2/4/2013
Monday

24 Hour Speed
Channel: SB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
4:00 PM	327	69	163	88	7	0	0	0	0	0	0	0	0	0
5:00 PM	244	2	36	88	82	35	1	0	0	0	0	0	0	0
6:00 PM	343	0	5	51	212	74	1	0	0	0	0	0	0	0
7:00 PM	295	1	7	52	156	74	4	1	0	0	0	0	0	0
8:00 PM	234	0	1	34	121	76	2	0	0	0	0	0	0	0
9:00 PM	141	1	3	18	68	46	5	0	0	0	0	0	0	0
10:00 PM	104	0	0	10	58	33	3	0	0	0	0	0	0	0
11:00 PM	42	0	0	6	22	13	1	0	0	0	0	0	0	0
2/5/2013														
12:00 AM	21	0	0	3	8	9	1	0	0	0	0	0	0	0
1:00 AM	6	0	0	0	5	1	0	0	0	0	0	0	0	0
2:00 AM	15	0	0	7	5	3	0	0	0	0	0	0	0	0
3:00 AM	5	0	0	3	2	0	0	0	0	0	0	0	0	0
4:00 AM	2	0	0	0	1	1	0	0	0	0	0	0	0	0
5:00 AM	6	0	0	2	1	3	0	0	0	0	0	0	0	0
6:00 AM	15	0	0	1	9	5	0	0	0	0	0	0	0	0
7:00 AM	31	0	0	7	13	9	2	0	0	0	0	0	0	0
8:00 AM	213	21	113	67	10	2	0	0	0	0	0	0	0	0
9:00 AM	160	18	67	58	15	2	0	0	0	0	0	0	0	0
10:00 AM	126	0	17	52	45	12	0	0	0	0	0	0	0	0
11:00 AM	118	0	8	37	60	13	0	0	0	0	0	0	0	0
12:00 PM	172	8	68	69	24	3	0	0	0	0	0	0	0	0
1:00 PM	204	7	107	80	10	0	0	0	0	0	0	0	0	0
2:00 PM	261	4	134	104	17	2	0	0	0	0	0	0	0	0
3:00 PM	189	1	31	72	68	17	0	0	0	0	0	0	0	0
Total %	3274	132	760	909	1019	433	20	1	0	0	0	0	0	0
Percentile Speeds (mph)		10 % 17.2	15 % 18.2	50 % 24.2	85 % 29.7	90 % 30.7								

Percentile Speeds
(mph)

10 mph Pace Speed
Number in Pace

Average
Minimum
Maximum

Speeds Exceeded
Count

45 mph
0.0 %
0

23.9 mph

5.1 mph

42.7 mph

65 mph
0.0 %
0

Walsh and
Dorset:
SB:

Site: Walsh and Dorset SB
Date: 2/5/2013
Tuesday

24 Hour Speed
Channel: SB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
4:00 PM	324	63	178	76	6	1	0	0	0	0	0	0	0	0
5:00 PM	254	1	50	71	21	1	0	0	0	0	0	0	0	0
6:00 PM	342	5	15	107	169	45	0	1	0	0	0	0	0	0
7:00 PM	311	0	6	60	188	55	2	0	0	0	0	0	0	0
8:00 PM	232	0	1	31	133	67	0	0	0	0	0	0	0	0
9:00 PM	147	0	1	12	94	38	2	0	0	0	0	0	0	0
10:00 PM	122	0	3	10	68	37	4	0	0	0	0	0	0	0
11:00 PM	47	0	0	1	24	21	1	0	0	0	0	0	0	0
2/6/2013														
12:00 AM	28	0	0	0	14	13	0	1	0	0	0	0	0	0
1:00 AM	8	0	0	3	2	2	1	0	0	0	0	0	0	0
2:00 AM	8	0	0	2	2	4	0	0	0	0	0	0	0	0
3:00 AM	6	0	0	1	1	3	1	0	0	0	0	0	0	0
4:00 AM	2	0	0	1	0	1	0	0	0	0	0	0	0	0
5:00 AM	4	0	0	1	1	2	0	0	0	0	0	0	0	0
6:00 AM	19	0	1	3	9	5	0	1	0	0	0	0	0	0
7:00 AM	43	1	3	8	20	8	3	0	0	0	0	0	0	0
8:00 AM	143	6	84	43	9	1	0	0	0	0	0	0	0	0
9:00 AM	280	9	157	99	15	0	0	0	0	0	0	0	0	0
10:00 AM	131	1	7	64	50	8	1	0	0	0	0	0	0	0
11:00 AM	185	1	18	88	65	12	1	0	0	0	0	0	0	0
12:00 PM	174	4	77	48	39	6	0	0	0	0	0	0	0	0
1:00 PM	240	7	108	117	7	1	0	0	0	0	0	0	0	0
2:00 PM	259	10	132	103	12	1	1	0	0	0	0	0	0	0
3:00 PM	166	0	20	66	65	14	1	0	0	0	0	0	0	0
Total %	3475	108	861	1015	1103	366	19	3	0	0	0	0	0	0
Percentile Speeds (mph)		10 % 17.3	15 % 18.2	50 % 23.6	85 % 29.3	90 % 30.2								

10 mph Pace Speed
Number in Pace

Average
Minimum
Maximum

23.7 mph
6.1 mph
41.6 mph

Speeds Exceeded
Count

45 mph
0.0 %
0

55 mph
0.0 %
0

Walsh and
Dorset:
SB:

Site: Walsh and Dorset SB
Date: 2/6/2013
SB: Wednesday

24 Hour Speed
Channel: SB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
4:00 PM	350	56	172	113	8	0	0	0	0	0	0	0	0	1
5:00 PM	269	2	55	94	90	26	1	0	1	0	0	0	0	0
6:00 PM	338	2	10	70	202	52	2	0	0	0	0	0	0	0
7:00 PM	299	0	9	46	165	76	3	0	0	0	0	0	0	0
8:00 PM	205	0	1	17	124	60	2	1	0	0	0	0	0	0
9:00 PM	132	1	1	8	77	42	3	0	0	0	0	0	0	0
10:00 PM	135	0	0	19	70	39	6	1	0	0	0	0	0	0
11:00 PM	48	0	0	5	23	18	2	0	0	0	0	0	0	0
2/7/2013														
12:00 AM	36	0	0	3	25	8	0	0	0	0	0	0	0	0
1:00 AM	11	0	0	4	4	3	0	0	0	0	0	0	0	0
2:00 AM	9	0	1	1	5	1	1	0	0	0	0	0	0	0
3:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0
4:00 AM	3	0	0	1	1	0	1	0	0	0	0	0	0	0
5:00 AM	4	0	0	3	0	1	0	0	0	0	0	0	0	0
6:00 AM	15	0	0	2	8	4	1	0	0	0	0	0	0	0
7:00 AM	36	0	2	5	18	10	1	0	0	0	0	0	0	0
8:00 AM	190	20	101	60	9	0	0	0	0	0	0	0	0	0
9:00 AM	195	3	92	83	16	1	0	0	0	0	0	0	0	0
10:00 AM	126	3	13	37	56	17	0	0	0	0	0	0	0	0
11:00 AM	71	1	8	27	25	9	1	0	0	0	0	0	0	0
12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total %	2473	88	465	599	926	367	24	2	1	0	0	0	0	1
Percentile Speeds (mph)		10 %	15 %	50 %	85 %	90 %								
	17.6	18.7	25.6	30.1	31.0									

10 mph Pace Speed
Number in Pace

21.2 - 31.2
1563 (63.2 %)

Average
Minimum
Maximum

24.8 mph
5.0 mph
84.6 mph

Speeds Exceeded
Count

45 mph
0.1 %
2

55 mph
0.0 %
1

File Name: C:\Program Files\JAMAR\PetraPro\Data Files\walsh & dorset 2 5 2013.ppd

Start Date: 2/5/2013

Start Time: 7:00:00 AM

Site Code: 00000000

Comment 1: Default Comments

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Start Time	DORSET STREET Eastbound			DORSET STREET Westbound			WALSH DRIVE Northbound			DORSET DRIVE Southbound			15 Minute Totals	60 Minute Totals
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00 AM	0	0	4	6	3	0	5	6	1	50	1	4	1	39
07:15 AM	0	0	3	8	3	0	7	0	0	72	3	3	3	64
07:30 AM	0	0	2	3	5	0	22	2	0	101	5	12	2	110
07:45 AM	0	0	4	0	6	0	11	0	1	67	2	5	2	29
08:00 AM	0	0	0	0	0	0	7	0	0	60	2	0	2	43
Totals	0	0	9	11	14	0	47	2	1	300	12	20	9	246
PHF	0.56				0.56				0.74			0.57		
08:15 AM	0	0	1	0	4	0	0	0	0	29	0	0	1	18
08:30 AM	0	0	0	2	0	6	0	0	51	0	0	1	33	0
08:45 AM	0	0	1	0	3	0	4	0	49	3	0	1	24	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	1	0	0	0	5	0	0	43	1	0	2	39
02:15 PM	0	0	0	1	0	5	0	0	0	36	1	0	3	47
02:30 PM	0	0	0	0	0	6	2	0	44	0	0	8	46	0
02:45 PM	0	0	1	0	5	0	2	0	0	55	5	0	4	55
03:00 PM	0	0	2	20	2	0	7	0	0	102	4	11	10	101
03:15 PM	0	0	10	0	0	0	6	0	0	72	1	3	9	87
03:30 PM	0	0	2	0	1	0	6	0	0	53	1	0	8	74
03:45 PM	2	0	2	1	1	0	6	0	0	71	1	0	4	44
Totals	2	0	16	21	4	0	25	0	0	298	7	14	31	306
PHF	0.45				0.81				0.72			0.76		

File Name: C:\Program Files\JAMAR\PetraPro\OldData Files\walsh & 8th 25 2013.ppd

Start Date: 2/5/2013

Start Time: 7:00:00 AM

Site Code: 00000000

Comment 1: Default Comments

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Start Time	8TH STREET Eastbound			8TH STREET Westbound			WALSH DRIVE Northbound			WALSH DRIVE Southbound			15 Minute Total			60 Minute Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right
07:00 AM	5	0	8	0	1	0	10	1	18	34	1	0	0	0	28	4	1	109	
07:15 AM	3	0	13	0	1	4	4	3	29	50	0	0	1	58	18	2	181		
07:30 AM	6	0	30	0	5	6	5	0	44	78	3	0	3	75	16	0	271		
07:45 AM	3	0	3	0	6	1	8	0	14	60	3	0	2	25	6	0	131	692	
08:00 AM	4	3	10	0	2	3	3	0	12	52	1	0	3	34	1	0	128	711	
08:15 AM	1	5	4	0	1	3	7	0	4	24	7	0	5	13	1	0	75	605	
Totals	14	8	47	0	14	13	23	0	74	214	14	0	13	147	24	0			
PHF	0.52				0.75				0.69				0.64						
08:30 AM	4	2	6	0	3	1	7	0	5	49	3	0	4	26	4	0	114	448	
08:45 AM	5	1	2	0	8	2	2	0	9	41	2	0	3	15	2	0	92	409	
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:45 PM	0	0	0	0	0	0	0	1	3	0	0	0	0	2	0	0	6		
02:00 PM	1	1	3	0	2	0	1	0	4	38	3	0	2	35	1	1	91		
02:15 PM	1	2	6	0	3	1	4	0	4	34	2	0	5	42	1	0	105		
02:30 PM	2	4	9	0	5	0	2	1	6	45	2	3	3	41	2	1	121	323	
02:45 PM	0	1	6	0	2	1	2	0	13	40	2	0	3	60	7	0	137	454	
03:00 PM	14	11	46	8	1	0	5	0	14	91	6	3	4	56	6	0	254	617	
03:15 PM	7	4	22	4	0	1	6	1	12	63	3	5	9	73	3	3	203	715	
03:30 PM	1	2	10	1	12	3	12	0	5	49	3	1	3	59	4	0	163	757	
03:45 PM	6	3	9	5	1	2	6	3	13	57	5	5	11	36	8	0	157	777	
Totals	28	20	87	18	14	6	29	4	44	260	17	14	27	224	21	3			
PHF	0.48												0.72						

File Name: C:\Program Files\JAMAR\PetraPro\Data Files\12th & Forest 2 7 2013.pdf

Start Date: 2/7/2013

Start Time: 7:00:00 AM

Site Code: 00000000

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Start Time	12TH STREET Eastbound				12TH STREET Westbound				FOREST DRIVE Northbound				FOREST DRIVE Southbound				15 Minute Totals	60 Minute Totals
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00 AM	0	48	1	1	0	60	0	1	4	0	0	0	0	0	1	2	0	116
07:15 AM	0	96	1	0	0	98	0	0	2	0	0	2	0	2	0	2	1	203
07:30 AM	3	147	1	0	0	129	0	0	3	0	2	0	2	0	1	0	288	
07:45 AM	2	85	1	0	0	135	0	0	4	0	2	0	1	0	3	0	233	840
08:00 AM	0	63	0	0	0	77	0	0	2	0	2	0	0	0	3	0	147	871
Totals	5	391	3	0	0	439	0	0	11	0	8	0	5	0	9	1		
PHF	0.66				0.81				0.79			0.88						
08:15 AM	1	52	1	0	2	97	0	0	1	0	4	0	0	0	1	0	159	827
08:30 AM	0	57	1	0	2	118	0	0	0	1	0	0	0	0	0	0	179	718
08:45 AM	1	77	0	0	0	77	0	0	0	1	0	1	0	0	0	0	157	642
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:00 PM	0	63	1	0	0	50	0	0	0	0	0	0	0	0	1	0	115	
02:15 PM	0	67	0	0	2	67	0	0	0	1	0	0	0	0	2	0	139	
02:30 PM	2	56	1	0	1	60	0	0	1	0	1	0	0	0	1	0	123	
02:45 PM	2	105	0	1	1	104	0	0	0	0	0	0	0	0	2	0	214	591
03:00 PM	0	116	2	0	1	149	0	1	0	0	1	1	0	0	4	1	273	749
03:15 PM	1	112	0	0	2	154	1	0	2	0	2	0	0	0	0	2	274	884
03:30 PM	3	123	0	0	3	117	0	0	0	0	2	0	0	1	2	0	251	1012
03:45 PM	0	103	3	1	2	109	0	0	2	0	1	0	0	0	2	0	222	1020
Totals	4	454	5	1	8	529	1	1	4	0	6	1	0	1	8	3		
PHF	0.92				0.86				0.63			0.56						

File Name: C:\Program Files\JAMAR\PetraPro\Data Files\12th & Walsh 2 7 2013.ppd

Start Date: 2/7/2013

Start Time: 7:00:00 AM

Site Code: 00000000

Comment 1: Default Comments

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Start Time	12TH STREET Eastbound				12TH STREET Westbound				WALSH DRIVE Northbound				WALSH DRIVE Southbound				15 Minute Totals	60 Minute Totals
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00 AM	20	33	0		38	24	0						24	28	28	0	167	
07:15 AM	39	32	0		77	46	0						28	48	48	0	270	
07:30 AM	58	56	0		132	59	1						52	98	98	0	455	
07:45 AM	49	53	0		71	24	0						22	53	53	0	272	1164
08:00 AM	46	40	0		35	11	0						13	33	33	0	178	1175
Totals	192	181	0		315	140	1						115	232				
PHF	0.82				0.60				0.58								0.75	
08:15 AM	21	35	0		57	8	0						11	34	34	1	166	1071
08:30 AM	29	39	0		44	7	0						7	33	33	0	159	775
08:45 AM	36	45	0		50	4	0						0	30	30	0	165	668
09:00 AM	0	0	0		0	0	0						0	0	0	0	0	0
02:00 PM	25	47	0		30	8	0						11	33	33	0	154	
02:15 PM	24	54	0		40	7	0						13	43	43	0	181	
02:30 PM	26	30	0		58	13	0						11	34	34	0	172	
02:45 PM	48	42	0		70	16	0						10	46	46	0	232	739
03:00 PM	51	87	0		57	14	2						45	107	107	1	361	946
03:15 PM	38	74	0		70	14	0						48	100	100	1	344	1109
03:30 PM	45	86	0		58	13	0						25	64	64	0	291	1228
03:45 PM	56	79	0		69	14	0						16	50	50	0	284	1280
Totals	190	326	0		254	55	2						134	321				
PHF	0.93																0.75	

File Name: C:\Program Files\AMAR\PetraPro\Data Files\8th & andrea 2 5 2013.ppd

Start Date: 2/5/2013

Start Time: 7:00:00 AM

Site Code: 00000000

Comment 1: Default Comments

Comment 2: Change These in The Preferences Window

Comment 3: Select File/Preference in the Main Screen

Comment 4: Then Click the Comments Tab

Start Time	ANDREA LANE			ANDREA LANE			SCHOOL ACCESS			8TH STREET			15 Minute Total	60 Minute Total	
	Eastbound	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00 AM	0	5	1	0	19	3	1	1	0	5	0	1	0	0	36
07:15 AM	0	10	15	0	41	5	1	1	3	0	5	6	1	0	81
07:30 AM	3	21	27	0	60	11	0	1	4	0	10	4	4	0	143
07:45 AM	0	2	4	1	11	5	3	0	5	0	2	1	1	0	34
08:00 AM	1	11	1	0	7	9	2	0	2	0	3	0	1	1	39
Totals	4	44	47	1	119	30	6	2	14	0	20	11	7	1	297
PHF		0.47			0.55				0.61				0.46		
08:15 AM	0	7	1	0	1	5	1	0	0	0	2	0	0	1	18
08:30 AM	0	6	2	0	3	8	1	0	0	0	2	0	0	0	24
08:45 AM	0	5	1	0	4	6	1	0	0	1	0	1	0	0	115
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
															19
															0
															61
02:00 PM	0	2	1	0	0	5	1	0	0	0	1	0	0	0	10
02:15 PM	0	4	0	0	0	2	3	0	0	1	0	2	0	0	12
02:30 PM	0	4	0	0	1	1	2	0	0	0	2	0	1	0	11
02:45 PM	0	7	3	0	4	2	2	0	0	0	2	0	1	0	21
03:00 PM	2	11	4	0	7	13	1	0	21	5	61	0	1	0	126
03:15 PM	2	14	3	0	13	9	2	0	3	1	20	0	7	0	76
03:30 PM	0	7	1	0	6	7	2	0	1	0	2	0	2	0	234
Totals	4	39	11	0	30	31	7	0	25	6	85	0	11	0	252
PHF		0.45											0.50		0.48

Appendix B

Synchro Analysis Results

Queuing and Blocking Report
Kelly Walsh High School TIS

AM Peak
Long Term Total

Intersection: 3: School Access/Andrea Lane & 8th Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	11	37	28	52	42
Average Queue (ft)	1	5	8	19	19
95th Queue (ft)	7	23	25	44	43
Link Distance (ft)	214	215	148	148	142
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Walsh Drive & 8th Street

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	L	TR
Maximum Queue (ft)	56	32	64	38	58	60	28	24
Average Queue (ft)	24	7	26	14	22	18	4	1
95th Queue (ft)	48	26	48	36	45	47	18	12
Link Distance (ft)	215	215	215	338	338	139	136	136
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 11: Walsh Drive & School Access/Dorset Street

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	T	R
Maximum Queue (ft)	77	26	63	42	32	63	99	9	21	36	30
Average Queue (ft)	29	4	27	16	6	32	42	0	2	5	3
95th Queue (ft)	63	19	49	42	25	55	83	4	15	23	16
Link Distance (ft)	278	278	278	189	189	189	130	130	101	101	101
Upstream Blk Time (%)							0				
Queuing Penalty (veh)							0				
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Queuing and Blocking Report
Kelly Walsh High School TIS

AM Peak
Long Term Total

Intersection: 16: 12th Street & Walsh Drive

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	94	194	82	210	164	88	84	242
Average Queue (ft)	73	59	27	123	50	54	67	126
95th Queue (ft)	103	147	65	195	122	90	100	227
Link Distance (ft)		211	211	201	201			222
Upstream Blk Time (%)		0		1	0			2
Queuing Penalty (veh)		0		0	0			0
Storage Bay Dist (ft)	70				65	60		
Storage Blk Time (%)	12	1			2	3	13	15
Queuing Penalty (veh)	15	3			4	7	42	26

Intersection: 20: Linda Vista Drive/School Access & 12th Street

Movement	EB	EB	WB	WB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LTR	L	T	R
Maximum Queue (ft)	82	5	32	18	82	51	30	68
Average Queue (ft)	29	0	6	2	29	17	5	30
95th Queue (ft)	61	5	27	11	61	44	22	57
Link Distance (ft)	224	224		218	129	111	111	111
Upstream Blk Time (%)					0			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)			50					
Storage Blk Time (%)			0					
Queuing Penalty (veh)			0					

Network Summary

Network wide Queuing Penalty: 97

Queuing and Blocking Report
Kelly Walsh High School TIS

After School
Long Term Total

Intersection: 3: School Access/Andrea Lane & 8th Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	22	15	20	58	44
Average Queue (ft)	1	1	8	27	20
95th Queue (ft)	9	10	24	49	43
Link Distance (ft)	214	215	148	148	142
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Walsh Drive & 8th Street

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	76	66	88	39	61	48	20	42	12
Average Queue (ft)	33	20	36	13	21	15	1	9	1
95th Queue (ft)	60	48	66	35	45	42	10	31	7
Link Distance (ft)	215	215	215	338	338	139	139	136	136
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 11: Walsh Drive & School Access/Dorset Street

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	T	R
Maximum Queue (ft)	81	23	82	37	30	55	57	3	43	27	9
Average Queue (ft)	36	4	36	10	5	21	18	0	13	1	0
95th Queue (ft)	67	17	65	33	22	49	45	2	38	13	4
Link Distance (ft)	240	240	240	188	188	188	165	165	112	112	112
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Queuing and Blocking Report
Kelly Walsh High School TIS

After School
Long Term Total

Intersection: 16: 12th Street & Walsh Drive

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	88	104	59	128	48	57	84	204
Average Queue (ft)	46	38	20	54	12	22	61	80
95th Queue (ft)	79	82	51	101	39	51	91	165
Link Distance (ft)		211	211	201	201			222
Upstream Blk Time (%)				0			0	
Queuing Penalty (veh)				0			0	
Storage Bay Dist (ft)	70				65	60		
Storage Blk Time (%)	2	1			0	0	11	4
Queuing Penalty (veh)	3	1			0	0	36	6

Intersection: 20: Linda Vista Drive/School Access & 12th Street

Movement	EB	EB	WB	WB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LTR	L	T	R
Maximum Queue (ft)	46	1	31	2	49	93	32	78
Average Queue (ft)	12	0	4	0	16	38	4	36
95th Queue (ft)	35	1	21	2	43	72	20	62
Link Distance (ft)	224	224		218	117	99	99	99
Upstream Blk Time (%)					1		0	
Queuing Penalty (veh)					0		0	
Storage Bay Dist (ft)			50					
Storage Blk Time (%)			0					
Queuing Penalty (veh)			0					

Network Summary

Network wide Queuing Penalty: 46

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak

Existing

Intersection

Intersection Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	44	47	119	30	6	14	0	20	7	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.47	0.47	0.47	0.55	0.55	0.55	0.61	0.61	0.61	0.46	0.46	0.46
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	94	100	216	55	11	23	0	33	15	2	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	65	0	0	194	0	0	661	659	144	670	704	60
Stage 1	-	-	-	-	-	-	161	161	-	493	493	-
Stage 2	-	-	-	-	-	-	500	498	-	177	211	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1537	-	-	1379	-	-	376	384	903	371	361	1005
Stage 1	-	-	-	-	-	-	841	765	-	558	547	-
Stage 2	-	-	-	-	-	-	553	544	-	825	728	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1537	-	-	1379	-	-	321	319	903	311	300	1005
Mov Capacity-2 Maneuver	-	-	-	-	-	-	321	319	-	311	300	-
Stage 1	-	-	-	-	-	-	835	760	-	554	458	-
Stage 2	-	-	-	-	-	-	455	455	-	789	723	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	6.2	12.8	13.8
HCM LOS	-	-	B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	517	1537	-	-	1379	-	-	440
HCM Control Delay, s	12.8	7.355	0	-	8.096	0	-	13.8
HCM Lane V/C Ratio	0.11	0.01	-	-	0.16	-	-	0.07
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th-tile Q, veh	0.4	0.0	-	-	0.6	-	-	0.2

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Existing

Intersection

Intersection Delay, s/veh 4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	8	47	14	13	23	74	214	14	13	147	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.52	0.52	0.52	0.75	0.75	0.75	0.69	0.69	0.69	0.64	0.64	0.64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	15	90	19	17	31	107	310	20	20	230	37
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	848	834	248	877	843	320	267	0	0	330	0	0
Stage 1	289	289	-	535	535	-	-	-	-	-	-	-
Stage 2	559	545	-	342	308	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	281	304	791	269	300	721	1297	-	-	1229	-	-
Stage 1	719	673	-	529	524	-	-	-	-	-	-	-
Stage 2	513	519	-	673	660	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	233	268	791	207	265	721	1297	-	-	1229	-	-
Mov Capacity-2 Maneuver	233	268	-	207	265	-	-	-	-	-	-	-
Stage 1	646	660	-	476	471	-	-	-	-	-	-	-
Stage 2	425	467	-	571	647	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	18.3	2	0.6
HCM LOS	C	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	1297	-	-	462	336	1229	-	-
HCM Control Delay, s	8.026	0	-	15.9	18.3	7.978	0	-
HCM Lane V/C Ratio	0.08	-	-	0.29	0.20	0.02	-	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th-tile Q, veh	0.3	-	-	1.2	0.7	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	47	300	12	9	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	None	None	None	None	None	None
Storage Length	0	0		0	0	
Median Width	12		0			0
Grade, %	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.74	0.74	0.57	0.57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	84	405	16	16	432
Number of Lanes	1	0	1	0	0	1

Major/Minor	Major 1			Major 2	
	Conflicting Flow All	414	0	0	422
Stage 1	414	-	-	-	-
Stage 2	463	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218
Pot Capacity-1 Maneuver	319	638	-	-	1137
Stage 1	667	-	-	-	-
Stage 2	634	-	-	-	-
Time blocked-Platoon, %	0	0	-	-	0
Mov Capacity-1 Maneuver	313	638	-	-	1137
Mov Capacity-2 Maneuver	313	-	-	-	-
Stage 1	667	-	-	-	-
Stage 2	622	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9	0	0.3
HCM LOS	B	-	-

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Cap, veh/h	-	-	515	1137	-
HCM Control Delay, s	-	-	13.9	8.211	0
HCM Lane V/C Ratio	-	-	0.21	0.01	-
HCM Lane LOS	-	-	B	A	A
HCM 95th-tile Q, veh	-	-	0.8	0.0	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Linda Vista Drive/School Access & 12th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Existing

Intersection

Intersection Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	478	1	4	367	0	5	0	23	13	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0	0	0
Median Width		12			12			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.78	0.78	0.78	0.54	0.54	0.54	0.63	0.63	0.63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	683	1	5	471	0	9	0	43	21	0	59
Number of Lanes	0	1	0	1	1	0	0	1	1	0	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	471	0	0	684	0	0	1165	1165	684	1165	1165	471
Stage 1	-	-	-	-	-	-	684	684	-	481	481	-
Stage 2	-	-	-	-	-	-	481	481	-	684	684	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1091	-	-	909	-	-	171	194	449	171	194	593
Stage 1	-	-	-	-	-	-	439	449	-	566	554	-
Stage 2	-	-	-	-	-	-	566	554	-	439	449	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1091	-	-	909	-	-	153	193	449	154	193	593
Mov Capacity-2 Maneuver	-	-	-	-	-	-	153	193	-	154	193	-
Stage 1	-	-	-	-	-	-	439	449	-	566	551	-
Stage 2	-	-	-	-	-	-	507	551	-	397	449	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	16.7	17.3
HCM LOS	-	-	C	C

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	255	449	1091	-	-	909	-	-	241	593
HCM Control Delay, s	20.5	13.6	0	-	-	8.983	-	-	22.9	11.5
HCM Lane V/C Ratio	0.09	0.06	-	-	-	0.01	-	-	0.17	0.07
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B
HCM 95th-tile Q, veh	0.3	0.2	0.0	-	-	0.0	-	-	0.6	0.2

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘
Volume (veh/h)	192	181	315	140	115	232
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	1	1	1	1	1
Cap, veh/h	317	845	555	472	488	435
Arrive On Green	0.12	0.54	0.35	0.35	0.33	0.33
Sat Flow, veh/h	1494	1569	1569	1333	1494	1333
Grp Volume(v), veh/h	234	221	525	233	198	400
Grp Sat Flow(s), veh/h/ln	1494	1569	1569	1333	1494	1333
Q Serve(g_s), s	5.5	4.5	19.3	8.1	6.1	17.1
Cycle Q Clear(g_c), s	5.5	4.5	19.3	8.1	6.1	17.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	317	845	555	472	488	435
V/C Ratio(X)	0.74	0.26	0.95	0.49	0.41	0.92
Avail Cap(c_a), veh/h	317	845	555	472	503	449
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	7.3	18.6	15.0	15.5	19.2
Incr Delay (d2), s/veh	8.7	0.8	27.0	3.7	0.5	23.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.5	1.6	11.2	2.9	2.2	2.9
Lane Grp Delay (d), s/veh	21.7	8.1	45.7	18.7	16.1	42.9
Lane Grp LOS	C	A	D	B	B	D
Approach Vol, veh/h		455	758		598	
Approach Delay, s/veh		15.1	37.4		34.0	
Approach LOS		B	D		C	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	11.0	36.0	25.0			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	7.0	32.0	21.0			
Max Q Clear Time (g_c+l1), s	7.5	6.5	21.3			
Green Ext Time (p_c), s	0.0	6.1	0.0			
Intersection Summary						
HCM 2010 Ctrl Delay			30.7			
HCM 2010 LOS			C			
Notes						

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: After School
Existing

Intersection

Intersection Delay, s/veh 6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	39	11	30	31	7	25	6	85	11	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.47	0.47	0.47	0.50	0.50	0.50	0.48	0.48	0.48
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	87	24	64	66	15	50	12	170	23	0	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	81	0	0	111	0	0	321	326	99	409	330	73
Stage 1	-	-	-	-	-	-	117	117	-	201	201	-
Stage 2	-	-	-	-	-	-	204	209	-	208	129	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1517	-	-	1479	-	-	632	592	957	553	589	989
Stage 1	-	-	-	-	-	-	888	799	-	801	735	-
Stage 2	-	-	-	-	-	-	798	729	-	794	789	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1517	-	-	1479	-	-	604	562	957	430	559	989
Mov Capacity-2 Maneuver	-	-	-	-	-	-	604	562	-	430	559	-
Stage 1	-	-	-	-	-	-	883	794	-	796	702	-
Stage 2	-	-	-	-	-	-	757	696	-	639	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.3	11.1	12.8
HCM LOS	-	-	B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	823	1517	-	-	1479	-	-	489
HCM Control Delay, s	11.1	7.387	0	-	7.544	0	-	12.8
HCM Lane V/C Ratio	0.28	0.01	-	-	0.04	-	-	0.06
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th-tile Q, veh	1.2	0.0	-	-	0.1	-	-	0.2

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: After School
Existing

Intersection

Intersection Delay, s/veh 10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	20	87	14	6	29	44	260	17	27	224	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.45	0.45	0.45	0.72	0.72	0.72	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	42	181	31	13	64	61	361	24	34	280	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	895	868	293	967	869	373	306	0	0	385	0	0
Stage 1	361	361	-	495	495	-	-	-	-	-	-	-
Stage 2	534	507	-	472	374	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	261	290	746	234	290	673	1255	-	-	1173	-	-
Stage 1	657	626	-	556	546	-	-	-	-	-	-	-
Stage 2	530	539	-	573	618	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	211	262	746	145	262	673	1255	-	-	1173	-	-
Mov Capacity-2 Maneuver	211	262	-	145	262	-	-	-	-	-	-	-
Stage 1	616	604	-	522	512	-	-	-	-	-	-	-
Stage 2	438	506	-	390	596	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.1	23.6	1.1	0.8
HCM LOS	D	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	1255	-	-	415	301	1173	-	-
HCM Control Delay, s	8.015	0	-	30.1	23.6	8.16	0	-
HCM Lane V/C Ratio	0.05	-	-	0.68	0.36	0.03	-	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th-tile Q, veh	0.2	-	-	4.9	1.6	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	25	298	7	31	306
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	None	None	None	None	None	None
Storage Length	0	0		0	0	
Median Width	12		0		0	
Grade, %	0%		0%		0%	
Peak Hour Factor	0.81	0.81	0.72	0.72	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	31	414	10	41	403
Number of Lanes	1	0	1	0	0	1

Major/Minor	Major 1			Major 2		
	Conflicting Flow All	419	0	0	424	0
Stage 1	419	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	308	634	-	-	1135	-
Stage 1	664	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Time blocked-Platoon, %	0	0	-	-	0	-
Mov Capacity-1 Maneuver	294	634	-	-	1135	-
Mov Capacity-2 Maneuver	294	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.8
HCM LOS	B	-	-

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Cap, veh/h	-	-	547	1135	-
HCM Control Delay, s	-	-	12	8.29	0
HCM Lane V/C Ratio	-	-	0.07	0.04	-
HCM Lane LOS	-	-	B	A	A
HCM 95th-tile Q, veh	-	-	0.2	0.1	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 33.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	468	7	7	462	0	4	0	7	72	1	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0	0	0
Median Width		12			12			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.55	0.55	0.55	0.36	0.36	0.36
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	514	8	8	550	0	7	0	13	200	3	225
Number of Lanes	0	1	0	1	1	0	0	1	1	0	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	550	0	0	522	0	0	1086	1085	518	1085	1089	550
Stage 1	-	-	-	-	-	-	518	518	-	567	567	-
Stage 2	-	-	-	-	-	-	568	567	-	518	522	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1020	-	-	1044	-	-	194	217	558	# 194	215	535
Stage 1	-	-	-	-	-	-	541	533	-	508	507	-
Stage 2	-	-	-	-	-	-	508	507	-	541	531	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1020	-	-	1044	-	-	111	215	558	# 188	213	535
Mov Capacity-2 Maneuver	-	-	-	-	-	-	111	215	-	# 188	213	-
Stage 1	-	-	-	-	-	-	541	533	-	508	503	-
Stage 2	-	-	-	-	-	-	290	503	-	529	531	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	22	118.7
HCM LOS	-	-	C	F

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	157	558	1020	-	-	1044	-	-	228	535
HCM Control Delay, s	29.7	11.6	0	-	-	8.476	-	-	175.1	14.3
HCM Lane V/C Ratio	0.07	0.01	-	-	-	0.01	-	-	1.22	0.28
HCM Lane LOS	D	B	A	-	-	A	-	-	F	B
HCM 95th-tile Q, veh	0.2	0.0	0.0	-	-	0.0	-	-	13.8	1.1

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Volume (veh/h)	190	326	254	2	134	321
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	1	1	1	1	1
Cap, veh/h	529	845	576	490	506	451
Arrive On Green	0.11	0.54	0.37	0.37	0.34	0.34
Sat Flow, veh/h	1494	1569	1569	1333	1494	1333
Grp Volume(v), veh/h	204	351	276	2	179	428
Grp Sat Flow(s), veh/h/ln	1494	1569	1569	1333	1494	1333
Q Serve(g_s), s	5.1	8.6	8.8	0.1	5.9	20.3
Cycle Q Clear(g_c), s	5.1	8.6	8.8	0.1	5.9	20.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	529	845	576	490	506	451
V/C Ratio(X)	0.39	0.42	0.48	0.00	0.35	0.95
Avail Cap(c_a), veh/h	549	845	576	490	506	451
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	8.9	15.8	13.0	16.2	20.9
Incr Delay (d2), s/veh	0.5	1.5	2.8	0.0	0.4	29.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	3.2	3.7	0.0	2.0	16.4
Lane Grp Delay (d), s/veh	10.7	10.4	18.6	13.0	16.6	50.6
Lane Grp LOS	B	B	B	B	B	D
Approach Vol, veh/h		555	278		607	
Approach Delay, s/veh		10.5	18.6		40.5	
Approach LOS		B	B		D	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	11.1	39.0	27.9			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	8.0	35.0	23.0			
Max Q Clear Time (g_c+l1), s	7.1	10.6	10.8			
Green Ext Time (p_c), s	0.1	4.0	3.1			
Intersection Summary						
HCM 2010 Ctrl Delay			24.7			
HCM 2010 LOS			C			
Notes						

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Short Term Total

Intersection

Intersection Delay, s/veh 5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	40	10	70	30	10	5	5	30	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.47	0.47	0.47	0.55	0.55	0.55	0.61	0.61	0.61	0.46	0.46	0.46
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	85	21	127	55	18	8	8	49	22	22	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	73	0	0	106	0	0	457	444	96	464	446	64
Stage 1	-	-	-	-	-	-	117	117	-	318	318	-
Stage 2	-	-	-	-	-	-	340	327	-	146	128	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1527	-	-	1485	-	-	514	508	960	508	507	1000
Stage 1	-	-	-	-	-	-	888	799	-	693	654	-
Stage 2	-	-	-	-	-	-	675	648	-	857	790	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1527	-	-	1485	-	-	449	459	960	440	458	1000
Mov Capacity-2 Maneuver	-	-	-	-	-	-	449	459	-	440	458	-
Stage 1	-	-	-	-	-	-	881	793	-	687	596	-
Stage 2	-	-	-	-	-	-	580	590	-	798	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	4.9	10.3	12.4
HCM LOS	-	-	B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	751	1527	-	-	1485	-	-	550
HCM Control Delay, s	10.3	7.374	0	-	7.651	0	-	12.4
HCM Lane V/C Ratio	0.09	0.01	-	-	0.09	-	-	0.12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th-tile Q, veh	0.3	0.0	-	-	0.3	-	-	0.4

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Short Term Total

Intersection

Intersection Delay, s/veh

5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	10	50	10	20	20	70	220	10	10	170	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.52	0.52	0.52	0.75	0.75	0.75	0.69	0.69	0.69	0.64	0.64	0.64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	19	96	13	27	27	101	319	14	16	266	94
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	900	880	313	882	920	326	359	0	0	333	0	0
Stage 1	344	344	-	529	529	-	-	-	-	-	-	-
Stage 2	556	536	-	353	391	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	259	286	727	267	271	715	1200	-	-	1226	-	-
Stage 1	671	637	-	533	527	-	-	-	-	-	-	-
Stage 2	515	523	-	664	607	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	212	259	727	203	245	715	1200	-	-	1226	-	-
Mov Capacity-2 Maneuver	212	259	-	203	245	-	-	-	-	-	-	-
Stage 1	615	629	-	488	483	-	-	-	-	-	-	-
Stage 2	429	479	-	551	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.6	18.4	1.9	0.3
HCM LOS	C	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Cap, veh/h	1200	-	-	212	259	727	203	344	1226	-	-
HCM Control Delay, s	8.277	-	-	28.2	20	10.7	23.5	17.6	7.974	-	-
HCM Lane V/C Ratio	0.09	-	-	0.27	0.07	0.13	0.04	0.17	0.01	-	-
HCM Lane LOS	A	-	-	D	C	B	C	C	A	-	-
HCM 95th-tile Q, veh	0.3	-	-	1.1	0.2	0.5	0.1	0.6	0.0	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Walsh Drive & School Access/Dorset Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Short Term Total

Intersection

Intersection Delay, s/veh 25.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	5	110	10	5	50	230	300	10	10	250	110
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.55	0.55	0.55	0.56	0.56	0.56	0.74	0.74	0.74	0.57	0.57	0.57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	91	9	200	18	9	89	311	405	14	18	439	193
Number of Lanes	1	1	1	1	1	1	1	1	0	1	1	1

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1512	1515	439	1512	1508	412	439	0	0	419	0	0
Stage 1	474	474	-	1034	1034	-	-	-	-	-	-	-
Stage 2	1038	1041	-	478	474	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	98	119	618	98	121	640	1121	-	-	1140	-	-
Stage 1	571	558	-	280	309	-	-	-	-	-	-	-
Stage 2	279	307	-	568	558	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	# 61	85	618	47	86	640	1121	-	-	1140	-	-
Mov Capacity-2 Maneuver	# 61	85	-	47	86	-	-	-	-	-	-	-
Stage 1	413	549	-	202	223	-	-	-	-	-	-	-
Stage 2	167	222	-	372	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	132.4	31.7	4	0.2
HCM LOS	F	D	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT
Cap, veh/h	1121	-	-	61	85	618	47	86	640	1140	-
HCM Control Delay, s	9.439	-	-	\$ 122.5	52.4	13.6	122.5	51.7	11.5	8.207	-
HCM Lane V/C Ratio	0.28	-	-	1.49	0.11	0.32	0.38	0.10	0.14	0.01	-
HCM Lane LOS	A	-	-	F	F	B	F	F	B	A	-
HCM 95th-tile Q, veh	1.1	-	-	8.0	0.3	1.4	1.3	0.3	0.5	0.0	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Linda Vista Drive/School Access & 12th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Short Term Total

Intersection

Intersection Delay, s/veh 5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	110	480	5	5	370	40	10	5	20	20	5	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.78	0.78	0.78	0.54	0.54	0.54	0.63	0.63	0.63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	157	686	7	6	474	51	19	9	37	32	8	79
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	526	0	0	693	0	0	1521	1542	689	1521	1520	500
Stage 1	-	-	-	-	-	-	1004	1004	-	513	513	-
Stage 2	-	-	-	-	-	-	517	538	-	1008	1007	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1041	-	-	902	-	-	97	115	446	97	119	571
Stage 1	-	-	-	-	-	-	291	320	-	544	536	-
Stage 2	-	-	-	-	-	-	541	522	-	290	319	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1041	-	-	902	-	-	69	97	446	73	100	571
Mov Capacity-2 Maneuver	-	-	-	-	-	-	69	97	-	73	100	-
Stage 1	-	-	-	-	-	-	247	272	-	462	532	-
Stage 2	-	-	-	-	-	-	456	519	-	218	271	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.1	43.2	34.6
HCM LOS	-	-	E	D

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Cap, veh/h	102	446	1041	-	-	902	-	-	73	100	571
HCM Control Delay, s	61.5	13.5	9.072	-	-	9.02	-	-	87.8	44.1	12.3
HCM Lane V/C Ratio	0.39	0.06	0.15	-	-	0.01	-	-	0.43	0.08	0.14
HCM Lane LOS	F	B	A	-	-	A	-	-	F	E	B
HCM 95th-tile Q, veh	1.6	0.2	0.5	-	-	0.0	-	-	1.7	0.3	0.5

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘
Volume (veh/h)	190	180	320	180	140	230
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	1	1	1	1	1
Cap, veh/h	318	862	577	491	486	434
Arrive On Green	0.12	0.55	0.37	0.37	0.33	0.33
Sat Flow, veh/h	1494	1569	1569	1333	1494	1333
Grp Volume(v), veh/h	232	220	533	300	241	397
Grp Sat Flow(s), veh/h/ln	1494	1569	1569	1333	1494	1333
Q Serve(g_s), s	5.6	4.7	20.7	11.7	8.3	18.2
Cycle Q Clear(g_c), s	5.6	4.7	20.7	11.7	8.3	18.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	318	862	577	491	486	434
V/C Ratio(X)	0.73	0.26	0.92	0.61	0.50	0.92
Avail Cap(c_a), veh/h	329	862	577	491	516	460
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	7.5	19.3	16.4	17.3	20.7
Incr Delay (d2), s/veh	7.7	0.7	22.7	5.6	0.8	22.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.2	1.7	11.2	4.3	2.9	2.7
Lane Grp Delay (d), s/veh	21.4	8.2	41.9	22.0	18.1	42.9
Lane Grp LOS	C	A	D	C	B	D
Approach Vol, veh/h		452	833		638	
Approach Delay, s/veh		15.0	34.8		33.5	
Approach LOS		B	C		C	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	11.5	39.0	27.5			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	8.0	35.0	23.0			
Max Q Clear Time (g_c+l1), s	7.6	6.7	22.7			
Green Ext Time (p_c), s	0.0	6.7	0.2			
Intersection Summary						
HCM 2010 Ctrl Delay			29.7			
HCM 2010 LOS			C			
Notes						

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: After School
Short Term Total

Intersection

Intersection Delay, s/veh 5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	40	5	20	30	10	5	5	50	10	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.47	0.47	0.47	0.50	0.50	0.50	0.48	0.48	0.48
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	89	11	43	64	21	10	10	100	21	10	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	85	0	0	100	0	0	287	287	94	332	282	74
Stage 1	-	-	-	-	-	-	117	117	-	160	160	-
Stage 2	-	-	-	-	-	-	170	170	-	172	122	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1512	-	-	1493	-	-	665	623	963	621	627	988
Stage 1	-	-	-	-	-	-	888	799	-	842	766	-
Stage 2	-	-	-	-	-	-	832	758	-	830	795	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1512	-	-	1493	-	-	631	599	963	534	603	988
Mov Capacity-2 Maneuver	-	-	-	-	-	-	631	599	-	534	603	-
Stage 1	-	-	-	-	-	-	881	793	-	835	743	-
Stage 2	-	-	-	-	-	-	787	735	-	729	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	2.5	9.7	11.2
HCM LOS	-	-	A	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	880	1512	-	-	1493	-	-	623
HCM Control Delay, s	9.7	7.399	0	-	7.482	0	-	11.2
HCM Lane V/C Ratio	0.14	0.01	-	-	0.03	-	-	0.07
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th-tile Q, veh	0.5	0.0	-	-	0.1	-	-	0.2

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: After School
Short Term Total

Intersection

Intersection Delay, s/veh 8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	20	90	10	10	30	40	270	20	30	230	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.45	0.45	0.45	0.72	0.72	0.72	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	42	188	22	22	67	56	375	28	37	287	37
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	925	895	306	902	900	389	325	0	0	403	0	0
Stage 1	381	381	-	500	500	-	-	-	-	-	-	-
Stage 2	544	514	-	402	400	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	250	280	734	259	278	659	1235	-	-	1156	-	-
Stage 1	641	613	-	553	543	-	-	-	-	-	-	-
Stage 2	523	535	-	625	602	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	198	259	734	159	257	659	1235	-	-	1156	-	-
Mov Capacity-2 Maneuver	198	259	-	159	257	-	-	-	-	-	-	-
Stage 1	612	593	-	528	518	-	-	-	-	-	-	-
Stage 2	430	511	-	418	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.2	18.2	1	0.9
HCM LOS	C	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Cap, veh/h	1235	-	-	198	259	734	159	411	1156	-	-
HCM Control Delay, s	8.052	-	-	41.7	21.5	11.6	30	16.4	8.219	-	-
HCM Lane V/C Ratio	0.04	-	-	0.53	0.16	0.26	0.09	0.23	0.03	-	-
HCM Lane LOS	A	-	-	E	C	B	D	C	A	-	-
HCM 95th-tile Q, veh	0.1	-	-	2.7	0.6	1.0	0.3	0.9	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	80	5	160	5	5	30	80	300	10	30	310	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.55	0.55	0.55	0.81	0.81	0.81	0.72	0.72	0.72	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	145	9	291	6	6	37	111	417	14	39	408	53
Number of Lanes	1	1	1	1	1	1	1	1	0	1	1	1

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1136	1140	408	1137	1133	424	408	0	0	431	0	0
Stage 1	487	487	-	646	646	-	-	-	-	-	-	-
Stage 2	649	653	-	491	487	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	179	201	643	179	203	630	1151	-	-	1129	-	-
Stage 1	562	550	-	460	467	-	-	-	-	-	-	-
Stage 2	458	464	-	559	550	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	148	175	643	85	177	630	1151	-	-	1129	-	-
Mov Capacity-2 Maneuver	148	175	-	85	177	-	-	-	-	-	-	-
Stage 1	508	531	-	416	422	-	-	-	-	-	-	-
Stage 2	384	419	-	290	531	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52.6	17.9	1.7	0.7
HCM LOS	F	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT
Cap, veh/h	1151	-	-	148	175	643	85	177	630	1129	-
HCM Control Delay, s	8.462	-	-	129.2	26.7	15.1	50.6	26.1	11.1	8.304	-
HCM Lane V/C Ratio	0.10	-	-	0.98	0.05	0.45	0.07	0.04	0.06	0.04	-
HCM Lane LOS	A	-	-	F	D	C	F	D	B	A	-
HCM 95th-tile Q, veh	0.3	-	-	7.2	0.2	2.4	0.2	0.1	0.2	0.1	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Linda Vista Drive/School Access & 12th Street
Kelly Walsh High School TIS

Timing Plan: After School
Short Term Total

Intersection

Intersection Delay, s/veh 48.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	470	10	10	460	10	5	5	10	80	5	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0	0	0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.55	0.55	0.55	0.36	0.36	0.36
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	516	11	12	548	12	9	9	18	222	14	250
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	560	0	0	527	0	0	1194	1193	522	1201	1192	554
Stage 1	-	-	-	-	-	-	610	610	-	577	577	-
Stage 2	-	-	-	-	-	-	584	583	-	624	615	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1011	-	-	1040	-	-	163	187	555	# 162	187	532
Stage 1	-	-	-	-	-	-	482	485	-	502	502	-
Stage 2	-	-	-	-	-	-	498	499	-	473	482	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1011	-	-	1040	-	-	78	177	555	# 144	177	532
Mov Capacity-2 Maneuver	-	-	-	-	-	-	78	177	-	# 144	177	-
Stage 1	-	-	-	-	-	-	461	464	-	480	496	-
Stage 2	-	-	-	-	-	-	254	493	-	429	461	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.2	29.8	161.6
HCM LOS	-	-	D	F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Cap, veh/h	181	1011	-	-	1040	-	-	144	177	532
HCM Control Delay, s	29.8	8.723	-	-	8.502	-	-	\$ 29.8	27.1	17.6
HCM Lane V/C Ratio	0.20	0.04	-	-	0.01	-	-	1.54	0.08	0.47
HCM Lane LOS	D	A	-	-	A	-	-	F	D	C
HCM 95th-tile Q, veh	0.7	0.1	-	-	0.0	-	-	15.2	0.3	2.5

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘
Volume (veh/h)	190	330	260	70	160	320
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	1	1	1	1	1
Cap, veh/h	507	845	575	489	506	451
Arrive On Green	0.11	0.54	0.37	0.37	0.34	0.34
Sat Flow, veh/h	1494	1569	1569	1333	1494	1333
Grp Volume(v), veh/h	204	355	283	76	213	427
Grp Sat Flow(s), veh/h/ln	1494	1569	1569	1333	1494	1333
Q Serve(g_s), s	5.1	8.8	9.1	2.5	7.2	20.3
Cycle Q Clear(g_c), s	5.1	8.8	9.1	2.5	7.2	20.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	507	845	575	489	506	451
V/C Ratio(X)	0.40	0.42	0.49	0.16	0.42	0.95
Avail Cap(c_a), veh/h	549	845	575	489	506	451
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	8.9	15.9	13.8	16.6	20.9
Incr Delay (d2), s/veh	0.5	1.5	3.0	0.7	0.6	29.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	3.2	3.8	0.9	2.5	16.3
Lane Grp Delay (d), s/veh	10.8	10.5	18.9	14.5	17.1	50.1
Lane Grp LOS	B	B	B	B	B	D
Approach Vol, veh/h		559	359		640	
Approach Delay, s/veh		10.6	18.0		39.1	
Approach LOS		B	B		D	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	11.2	39.0	27.8			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	9.0	35.0	22.0			
Max Q Clear Time (g_c+l1), s	7.1	10.8	11.1			
Green Ext Time (p_c), s	0.1	4.4	3.2			
Intersection Summary						
HCM 2010 Ctrl Delay			24.0			
HCM 2010 LOS			C			
Notes						

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Background

Intersection

Intersection Delay, s/veh 5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	60	50	120	40	10	10	5	20	10	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0	0	0
Median Width		12			12			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.47	0.47	0.47	0.55	0.55	0.55	0.61	0.61	0.61	0.46	0.46	0.46
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	128	106	218	73	18	16	8	33	22	11	22
Number of Lanes	0	1	0	1	1	0	0	1	1	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	91	0	0	234	0	0	757	750	181	746	795	82
Stage 1	-	-	-	-	-	-	223	223	-	518	518	-
Stage 2	-	-	-	-	-	-	534	527	-	228	277	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1504	-	-	1333	-	-	324	340	862	330	320	978
Stage 1	-	-	-	-	-	-	780	719	-	541	533	-
Stage 2	-	-	-	-	-	-	530	528	-	775	681	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1504	-	-	1333	-	-	265	280	862	268	263	978
Mov Capacity-2 Maneuver	-	-	-	-	-	-	265	280	-	268	263	-
Stage 1	-	-	-	-	-	-	768	707	-	532	446	-
Stage 2	-	-	-	-	-	-	423	442	-	725	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	5.8	13.9	16.2
HCM LOS	-	-	B	C

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	342	862	1504	-	-	1333	-	-	376
HCM Control Delay, s	16.7	9.3	7.428	0	-	8.228	-	-	16.2
HCM Lane V/C Ratio	0.10	0.03	0.01	-	-	0.16	-	-	0.14
HCM Lane LOS	C	A	A	A	-	A	-	-	C
HCM 95th-tile Q, veh	0.3	0.1	0.0	-	-	0.6	-	-	0.5

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Background

Intersection

Intersection Delay, s/veh 5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	10	60	20	20	30	100	300	20	20	200	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.52	0.52	0.52	0.75	0.75	0.75	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	19	115	27	27	40	118	353	24	24	235	35
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	933	912	253	910	918	365	271	0	0	376	0	0
Stage 1	300	300	-	600	600	-	-	-	-	-	-	-
Stage 2	633	612	-	310	318	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	246	274	786	255	272	680	1292	-	-	1182	-	-
Stage 1	709	666	-	488	490	-	-	-	-	-	-	-
Stage 2	468	484	-	700	654	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	194	244	786	187	242	680	1292	-	-	1182	-	-
Mov Capacity-2 Maneuver	194	244	-	187	242	-	-	-	-	-	-	-
Stage 1	644	652	-	443	445	-	-	-	-	-	-	-
Stage 2	376	440	-	568	641	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	19.7	1.9	0.6
HCM LOS	C	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Cap, veh/h	1292	-	-	194	244	786	187	349	1182	-	-
HCM Control Delay, s	8.065	-	-	28.1	21	10.4	26.3	18.1	8.108	-	-
HCM Lane V/C Ratio	0.09	-	-	0.20	0.08	0.15	0.10	0.22	0.02	-	-
HCM Lane LOS	A	-	-	D	C	B	D	C	A	-	-
HCM 95th-tile Q, veh	0.3	-	-	0.7	0.3	0.5	0.3	0.8	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	20	60	410	20	10	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	None	None	None	None	None	None
Storage Length	0	0		0	0	
Median Width	12		12			12
Grade, %	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	107	482	24	12	400
Number of Lanes	1	1	1	0	1	1

Major/Minor	Major 1			Major 2	
	Conflicting Flow All	918	494	0	0
Stage 1	494	-	-	-	-
Stage 2	424	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218
Pot Capacity-1 Maneuver	302	575	-	-	1059
Stage 1	613	-	-	-	-
Stage 2	660	-	-	-	-
Time blocked-Platoon, %	0	0	-	-	0
Mov Capacity-1 Maneuver	299	575	-	-	1059
Mov Capacity-2 Maneuver	299	-	-	-	-
Stage 1	613	-	-	-	-
Stage 2	653	-	-	-	-

Approach	WB	NB		SB
HCM Control Delay, s	14.2	0		0.2
HCM LOS	B	-		-

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Cap, veh/h	-	-	299	575	1059	-
HCM Control Delay, s	-	-	18.7	12.7	8.438	-
HCM Lane V/C Ratio	-	-	0.12	0.19	0.01	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th-tile Q, veh	-	-	0.4	0.7	0.0	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Linda Vista Drive/School Access & 12th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Background

Intersection

Intersection Delay, s/veh 2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	660	5	10	510	5	10	5	30	10	5	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0	0	0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.54	0.54	0.54	0.63	0.63	0.63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	776	6	12	600	6	19	9	56	16	8	63
Number of Lanes	1	2	0	1	2	0	0	1	0	1	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	606	0	0	782	0	0	1118	1420	391	1031	1420	303
Stage 1	-	-	-	-	-	-	791	791	-	626	626	-
Stage 2	-	-	-	-	-	-	327	629	-	405	794	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	968	-	-	832	-	-	162	135	608	187	135	693
Stage 1	-	-	-	-	-	-	349	399	-	439	475	-
Stage 2	-	-	-	-	-	-	660	474	-	593	398	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	968	-	-	832	-	-	138	132	608	158	132	693
Mov Capacity-2 Maneuver	-	-	-	-	-	-	138	132	-	158	132	-
Stage 1	-	-	-	-	-	-	347	397	-	436	468	-
Stage 2	-	-	-	-	-	-	581	467	-	523	396	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	23	16.4
HCM LOS	-	-	C	C

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Cap, veh/h	282	968	-	-	832	-	-	158	132	693
HCM Control Delay, s	23	8.742	-	-	9.389	-	-	30.3	34	10.7
HCM Lane V/C Ratio	0.30	0.01	-	-	0.01	-	-	0.10	0.06	0.09
HCM Lane LOS	C	A	-	-	A	-	-	D	D	B
HCM 95th-tile Q, veh	1.2	0.0	-	-	0.0	-	-	0.3	0.2	0.3

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘
Volume (veh/h)	270	250	440	190	160	320
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	2	2	1	1	1
Cap, veh/h	364	1542	966	432	529	644
Arrive On Green	0.13	0.52	0.32	0.32	0.35	0.35
Sat Flow, veh/h	1494	3059	3059	1333	1494	1333
Grp Volume(v), veh/h	329	305	733	317	276	552
Grp Sat Flow(s), veh/h/ln	1494	1490	1490	1333	1494	1333
Q Serve(g_s), s	8.0	3.4	13.7	13.1	9.1	22.0
Cycle Q Clear(g_c), s	8.0	3.4	13.7	13.1	9.1	22.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	364	1542	966	432	529	644
V/C Ratio(X)	0.90	0.20	0.76	0.73	0.52	0.86
Avail Cap(c_a), veh/h	364	1678	1103	493	529	644
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	8.1	18.8	18.6	15.9	14.2
Incr Delay (d2), s/veh	25.2	0.1	2.7	4.8	0.9	11.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	7.8	1.1	5.1	4.7	3.3	2.0
Lane Grp Delay (d), s/veh	40.4	8.1	21.5	23.5	16.8	25.3
Lane Grp LOS	D	A	C	C	B	C
Approach Vol, veh/h		634	1050		828	
Approach Delay, s/veh		24.9	22.1		22.5	
Approach LOS		C	C		C	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	12.0	36.1	24.1			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	8.0	35.0	23.0			
Max Q Clear Time (g_c+l1), s	10.0	5.4	15.7			
Green Ext Time (p_c), s	0.0	10.0	4.4			
Intersection Summary						
HCM 2010 Ctrl Delay			22.9			
HCM 2010 LOS			C			
Notes						

Intersection

Intersection Delay, s/veh 6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	50	10	30	40	10	30	10	90	20	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.47	0.47	0.47	0.50	0.50	0.50	0.48	0.48	0.48
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	111	22	64	85	21	60	20	180	42	10	10
Number of Lanes	0	1	0	1	1	0	0	1	1	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	106	0	0	133	0	0	401	401	122	400	401	96
Stage 1	-	-	-	-	-	-	167	167	-	223	223	-
Stage 2	-	-	-	-	-	-	234	234	-	177	178	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1485	-	-	1452	-	-	560	538	929	560	538	960
Stage 1	-	-	-	-	-	-	835	760	-	780	719	-
Stage 2	-	-	-	-	-	-	769	711	-	825	752	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1485	-	-	1452	-	-	521	506	929	418	506	960
Mov Capacity-2 Maneuver	-	-	-	-	-	-	521	506	-	418	506	-
Stage 1	-	-	-	-	-	-	822	748	-	768	687	-
Stage 2	-	-	-	-	-	-	716	680	-	637	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	2.8	10.9	13.7
HCM LOS	-	-	B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	638	929	1485	-	-	1452	-	-	477
HCM Control Delay, s	12.2	9.4	7.461	0	-	7.593	-	-	13.7
HCM Lane V/C Ratio	0.22	0.13	0.01	-	-	0.04	-	-	0.13
HCM Lane LOS	B	A	A	A	-	A	-	-	B
HCM 95th-tile Q, veh	0.8	0.4	0.0	-	-	0.1	-	-	0.4

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 11.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	30	120	20	10	40	60	360	20	40	310	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.45	0.45	0.45	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	83	63	250	44	22	89	71	424	24	47	365	35
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1108	1064	382	1084	1070	435	400	0	0	447	0	0
Stage 1	476	476	-	576	576	-	-	-	-	-	-	-
Stage 2	632	588	-	508	494	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	187	223	665	194	221	621	1159	-	-	1113	-	-
Stage 1	570	557	-	503	502	-	-	-	-	-	-	-
Stage 2	468	496	-	547	546	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	135	200	665	85	199	621	1159	-	-	1113	-	-
Mov Capacity-2 Maneuver	135	200	-	85	199	-	-	-	-	-	-	-
Stage 1	535	533	-	472	471	-	-	-	-	-	-	-
Stage 2	359	466	-	289	523	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.7	34.3	1.1	0.9
HCM LOS	D	D	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Cap, veh/h	1159	-	-	135	200	665	85	293	1113	-	-
HCM Control Delay, s	8.307	-	-	67.3	31	13.6	68.5	26.2	8.377	-	-
HCM Lane V/C Ratio	0.06	-	-	0.62	0.31	0.38	0.35	0.43	0.04	-	-
HCM Lane LOS	A	-	-	F	D	B	F	D	A	-	-
HCM 95th-tile Q, veh	0.2	-	-	3.2	1.3	1.7	1.3	2.1	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	30	410	10	40	420
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	None	None	None	None	None	None
Storage Length	0	0		0	0	
Median Width	12		12			12
Grade, %	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	37	482	12	47	494
Number of Lanes	1	1	1	0	1	1

Major/Minor	Major 1			Major 2	
	Conflicting Flow All	488	0	0	494
Stage 1	488	-	-	-	-
Stage 2	588	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218
Pot Capacity-1 Maneuver	243	580	-	-	1070
Stage 1	617	-	-	-	-
Stage 2	555	-	-	-	-
Time blocked-Platoon, %	0	0	-	-	0
Mov Capacity-1 Maneuver	232	580	-	-	1070
Mov Capacity-2 Maneuver	232	-	-	-	-
Stage 1	617	-	-	-	-
Stage 2	531	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0.7
HCM LOS	B	-	-

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Cap, veh/h	-	-	232	580	1070	-
HCM Control Delay, s	-	-	21.4	11.6	8.519	-
HCM Lane V/C Ratio	-	-	0.05	0.06	0.04	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th-tile Q, veh	-	-	0.2	0.2	0.1	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 9.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	650	10	10	640	5	10	0	10	70	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0	0	0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.55	0.55	0.55	0.55	0.55	0.55
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	765	12	12	753	6	18	0	18	127	0	145
Number of Lanes	0	2	0	1	2	0	1	0	1	1	0	1

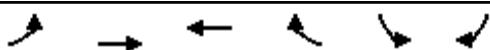
Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	759	0	0	776	0	0	1182	1564	388	1173	1567	379
Stage 1	-	-	-	-	-	-	782	782	-	779	779	-
Stage 2	-	-	-	-	-	-	400	782	-	394	788	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	848	-	-	836	-	-	145	111	611	147	110	619
Stage 1	-	-	-	-	-	-	353	403	-	355	404	-
Stage 2	-	-	-	-	-	-	597	403	-	602	400	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	848	-	-	836	-	-	109	108	611	140	107	619
Mov Capacity-2 Maneuver	-	-	-	-	-	-	109	108	-	140	107	-
Stage 1	-	-	-	-	-	-	349	398	-	351	398	-
Stage 2	-	-	-	-	-	-	450	397	-	577	395	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	27.8	60.3
HCM LOS	-	-	D	F

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	109	611	848	-	-	836	-	-	140	619
HCM Control Delay, s	44.5	11.1	9.275	0.1	-	9.368	-	-	114.8	12.6
HCM Lane V/C Ratio	0.17	0.03	0.01	-	-	0.01	-	-	0.91	0.24
HCM Lane LOS	E	B	A	A	-	A	-	-	F	B
HCM 95th-tile Q, veh	0.6	0.1	0.0	-	-	0.0	-	-	6.2	0.9

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Volume (veh/h)	260	450	350	80	190	440
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	2	2	1	1	1
Cap, veh/h	534	1605	1055	472	506	615
Arrive On Green	0.12	0.54	0.35	0.35	0.34	0.34
Sat Flow, veh/h	1494	3059	3059	1333	1494	1333
Grp Volume(v), veh/h	280	484	380	87	253	587
Grp Sat Flow(s), veh/h/ln	1494	1490	1490	1333	1494	1333
Q Serve(g_s), s	7.4	5.8	6.1	2.9	8.8	22.0
Cycle Q Clear(g_c), s	7.4	5.8	6.1	2.9	8.8	22.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	534	1605	1055	472	506	615
V/C Ratio(X)	0.52	0.30	0.36	0.18	0.50	0.95
Avail Cap(c_a), veh/h	534	1605	1055	472	506	615
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	8.3	15.6	14.5	17.1	16.8
Incr Delay (d2), s/veh	0.9	0.5	1.0	0.9	0.8	25.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.4	1.9	2.3	1.0	3.1	20.5
Lane Grp Delay (d), s/veh	11.4	8.7	16.5	15.4	17.9	42.1
Lane Grp LOS	B	A	B	B	B	D
Approach Vol, veh/h		764	467		840	
Approach Delay, s/veh		9.7	16.3		34.8	
Approach LOS		A	B		C	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	12.0	39.0	27.0			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	8.0	35.0	23.0			
Max Q Clear Time (g_c+l1), s	9.4	7.8	8.1			
Green Ext Time (p_c), s	0.0	6.8	5.4			
Intersection Summary						
HCM 2010 Ctrl Delay			21.4			
HCM 2010 LOS			C			
Notes						

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Total

Intersection

Intersection Delay, s/veh 5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	60	10	80	40	10	5	10	30	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.47	0.47	0.47	0.55	0.55	0.55	0.61	0.61	0.61	0.46	0.46	0.46
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	128	21	145	73	18	8	16	49	22	22	22
Number of Lanes	0	1	0	1	1	0	0	1	1	0	1	0

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	91	0	0	149	0	0	575	563	138	562	564	82
Stage 1	-	-	-	-	-	-	181	181	-	373	373	-
Stage 2	-	-	-	-	-	-	394	382	-	189	191	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1504	-	-	1432	-	-	429	435	910	438	435	978
Stage 1	-	-	-	-	-	-	821	750	-	648	618	-
Stage 2	-	-	-	-	-	-	631	613	-	813	742	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	1504	-	-	1432	-	-	366	385	910	366	385	978
Mov Capacity-2 Maneuver	-	-	-	-	-	-	366	385	-	366	385	-
Stage 1	-	-	-	-	-	-	809	739	-	638	555	-
Stage 2	-	-	-	-	-	-	533	551	-	741	731	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	4.8	11.2	13.8
HCM LOS	-	-	B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	494	910	1504	-	-	1432	-	-	472
HCM Control Delay, s	12.9	9.1	7.428	0	-	7.798	-	-	13.8
HCM Lane V/C Ratio	0.08	0.04	0.01	-	-	0.10	-	-	0.14
HCM Lane LOS	B	A	A	A	-	A	-	-	B
HCM 95th-tile Q, veh	0.3	0.1	0.0	-	-	0.3	-	-	0.5

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Total

Intersection

Intersection Delay, s/veh 7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	10	60	20	30	30	100	310	20	20	220	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.52	0.52	0.52	0.75	0.75	0.75	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	77	19	115	27	40	40	118	365	24	24	259	82
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	999	971	300	969	1000	376	341	0	0	388	0	0
Stage 1	347	347	-	612	612	-	-	-	-	-	-	-
Stage 2	652	624	-	357	388	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	222	253	740	233	243	670	1218	-	-	1170	-	-
Stage 1	669	635	-	480	484	-	-	-	-	-	-	-
Stage 2	457	478	-	661	609	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	164	224	740	168	215	670	1218	-	-	1170	-	-
Mov Capacity-2 Maneuver	164	224	-	168	215	-	-	-	-	-	-	-
Stage 1	604	622	-	433	437	-	-	-	-	-	-	-
Stage 2	353	432	-	530	597	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.3	23.2	1.9	0.5
HCM LOS	C	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Cap, veh/h	1218	-	-	164	224	740	168	298	1170	-	-
HCM Control Delay, s	8.271	-	-	45	22.6	10.8	28.9	22.1	8.14	-	-
HCM Lane V/C Ratio	0.10	-	-	0.47	0.09	0.16	0.11	0.30	0.02	-	-
HCM Lane LOS	A	-	-	E	C	B	D	C	A	-	-
HCM 95th-tile Q, veh	0.3	-	-	2.2	0.3	0.6	0.3	1.2	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Walsh Drive & School Access/Dorset Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Total

Intersection

Intersection Delay, s/veh 26

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	5	110	20	5	60	230	420	20	10	340	110
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.55	0.55	0.55	0.56	0.56	0.56	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	91	9	200	36	9	107	271	494	24	12	400	129
Number of Lanes	1	1	1	1	1	1	1	1	0	1	1	1

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1476	1483	400	1475	1471	506	400	0	0	518	0	0
Stage 1	424	424	-	1047	1047	-	-	-	-	-	-	-
Stage 2	1052	1059	-	428	424	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	104	125	650	104	127	566	1159	-	-	1048	-	-
Stage 1	608	587	-	276	305	-	-	-	-	-	-	-
Stage 2	274	301	-	605	587	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	# 64	95	650	54	96	566	1159	-	-	1048	-	-
Mov Capacity-2 Maneuver	# 64	95	-	54	96	-	-	-	-	-	-	-
Stage 1	466	580	-	211	234	-	-	-	-	-	-	-
Stage 2	164	231	-	408	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	121.5	48.4	3.1	0.2
HCM LOS	F	E	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT
Cap, veh/h	1159	-	-	64	95	650	54	96	566	1048	-
HCM Control Delay, s	9.05	-	-	\$ 155.6	46.9	13	155.6	46.3	12.8	8.474	-
HCM Lane V/C Ratio	0.23	-	-	1.42	0.10	0.31	0.66	0.09	0.19	0.01	-
HCM Lane LOS	A	-	-	F	E	B	F	E	B	A	-
HCM 95th-tile Q, veh	0.9	-	-	7.8	0.3	1.3	2.7	0.3	0.7	0.0	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Linda Vista Drive/School Access & 12th Street
Kelly Walsh High School TIS

Timing Plan: AM Peak
Long Term Total

Intersection

Intersection Delay, s/veh 12.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	110	660	5	10	510	40	10	5	30	10	5	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.78	0.78	0.78	0.54	0.54	0.54	0.63	0.63	0.63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	157	943	7	13	654	51	19	9	56	16	8	95
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	705	0	0	950	0	0	1970	1992	946	1998	1969	679
Stage 1	-	-	-	-	-	-	1261	1261	-	705	705	-
Stage 2	-	-	-	-	-	-	709	731	-	1293	1264	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	893	-	-	723	-	-	47	61	317	45	63	452
Stage 1	-	-	-	-	-	-	209	241	-	427	439	-
Stage 2	-	-	-	-	-	-	425	427	-	200	241	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	893	-	-	723	-	-	28	49	317	27	51	452
Mov Capacity-2 Maneuver	-	-	-	-	-	-	28	49	-	27	51	-
Stage 1	-	-	-	-	-	-	172	199	-	352	431	-
Stage 2	-	-	-	-	-	-	323	419	-	130	199	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.2	199.5	52
HCM LOS	-	-	F	F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Cap, veh/h	81	893	-	-	723	-	-	27	51	452
HCM Control Delay, s	199.5	9.89	-	-	10.069	-	-	255.1	88.2	15.1
HCM Lane V/C Ratio	1.03	0.18	-	-	0.02	-	-	0.59	0.16	0.21
HCM Lane LOS	F	A	-	-	B	-	-	F	F	C
HCM 95th-tile Q, veh	5.7	0.6	-	-	0.1	-	-	1.8	0.5	0.8

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑↑	↑↑	↑	↑	↑
Volume (veh/h)	270	250	450	230	180	320
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	2	2	1	1	1
Cap, veh/h	410	1703	1054	472	470	633
Arrive On Green	0.16	0.57	0.35	0.35	0.31	0.31
Sat Flow, veh/h	1494	3059	3059	1333	1494	1333
Grp Volume(v), veh/h	329	305	750	383	310	552
Grp Sat Flow(s), veh/h/ln	1494	1490	1490	1333	1494	1333
Q Serve(g_s), s	9.0	3.4	15.2	18.2	12.6	22.0
Cycle Q Clear(g_c), s	9.0	3.4	15.2	18.2	12.6	22.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	410	1703	1054	472	470	633
V/C Ratio(X)	0.80	0.18	0.71	0.81	0.66	0.87
Avail Cap(c_a), veh/h	448	1703	1054	472	470	633
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	7.2	19.5	20.5	20.8	16.5
Incr Delay (d2), s/veh	9.4	0.2	4.1	14.1	3.4	12.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.7	1.1	6.0	7.6	4.8	18.4
Lane Grp Delay (d), s/veh	22.9	7.4	23.6	34.6	24.2	29.1
Lane Grp LOS	C	A	C	C	C	C
Approach Vol, veh/h		634	1133		862	
Approach Delay, s/veh		15.4	27.3		27.4	
Approach LOS		B	C		C	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	15.2	44.0	28.8			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	13.0	40.0	23.0			
Max Q Clear Time (g_c+l1), s	11.0	5.4	20.2			
Green Ext Time (p_c), s	0.2	11.1	2.0			
Intersection Summary						
HCM 2010 Ctrl Delay			24.5			
HCM 2010 LOS			C			
Notes						

3: School Access/Andrea Lane & 8th Street
Kelly Walsh High School TIS

Timing Plan: After School
Long Term Total

Intersection

Intersection Delay, s/veh 5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	50	5	20	40	10	5	10	60	20	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.45	0.45	0.45	0.47	0.47	0.47	0.50	0.50	0.50	0.48	0.48	0.48
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	111	11	43	85	21	10	20	120	42	10	21
Number of Lanes	0	1	0	1	1	0	0	1	1	0	1	0

Major/Minor	Major 1	Major 2	Minor 1	Minor 2
Conflicting Flow All	106	0	357	352
Stage 1	-	-	161	161
Stage 2	-	-	196	191
Follow-up Headway	2.218	2.218	3.518	4.018
Pot Capacity-1 Maneuver	1485	1465	598	573
Stage 1	-	-	841	765
Stage 2	-	-	806	742
Time blocked-Platoon, %	0	0	0	0
Mov Capacity-1 Maneuver	1485	1465	557	547
Mov Capacity-2 Maneuver	-	-	557	547
Stage 1	-	-	828	753
Stage 2	-	-	754	720

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	2.2	9.8	12.1
HCM LOS	-	-	A	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Cap, veh/h	719	935	1485	-	-	1465	-	-	583
HCM Control Delay, s	10.5	9.2	7.461	0	-	7.531	-	-	12.1
HCM Lane V/C Ratio	0.10	0.09	0.01	-	-	0.03	-	-	0.13
HCM Lane LOS	B	A	A	A	-	A	-	-	B
HCM 95th-tile Q, veh	0.3	0.3	0.0	-	-	0.1	-	-	0.4

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

6: Walsh Drive & 8th Street
Kelly Walsh High School TIS

Timing Plan: After School
Long Term Total

Intersection

Intersection Delay, s/veh 24.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	70	30	120	20	10	40	60	370	20	40	320	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.45	0.45	0.45	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	146	63	250	44	22	89	71	435	24	47	376	47
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1138	1094	400	1113	1106	447	424	0	0	459	0	0
Stage 1	494	494	-	588	588	-	-	-	-	-	-	-
Stage 2	644	600	-	525	518	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	179	214	650	186	210	612	1135	-	-	1102	-	-
Stage 1	557	546	-	495	496	-	-	-	-	-	-	-
Stage 2	461	490	-	536	533	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	# 128	192	650	79	188	612	1135	-	-	1102	-	-
Mov Capacity-2 Maneuver	# 128	192	-	79	188	-	-	-	-	-	-	-
Stage 1	522	523	-	464	465	-	-	-	-	-	-	-
Stage 2	352	459	-	278	510	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	72.1	37.2	1.1	0.8
HCM LOS	F	E	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Cap, veh/h	1135	-	-	128	192	650	79	279	1102	-	-
HCM Control Delay, s	8.382	-	-	188.6	32.5	14	75.7	28.1	8.412	-	-
HCM Lane V/C Ratio	0.06	-	-	1.14	0.33	0.39	0.38	0.45	0.04	-	-
HCM Lane LOS	A	-	-	F	D	B	F	D	A	-	-
HCM 95th-tile Q, veh	0.2	-	-	8.6	1.3	1.8	1.5	2.2	0.1	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 24.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	80	5	160	10	5	30	80	410	10	40	420	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	None											
Storage Length	0		0	0		0	0		0	0		0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.55	0.55	0.55	0.81	0.81	0.81	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	145	9	291	12	6	37	94	482	12	47	494	47
Number of Lanes	1	1	1	1	1	1	1	1	0	1	1	1

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1268	1270	494	1269	1264	488	494	0	0	494	0	0
Stage 1	588	588	-	676	676	-	-	-	-	-	-	-
Stage 2	680	682	-	593	588	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	# 145	168	575	145	169	580	1070	-	-	1070	-	-
Stage 1	495	496	-	443	453	-	-	-	-	-	-	-
Stage 2	441	450	-	492	496	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	# 119	147	575	62	147	580	1070	-	-	1070	-	-
Mov Capacity-2 Maneuver	# 119	147	-	62	147	-	-	-	-	-	-	-
Stage 1	452	474	-	404	413	-	-	-	-	-	-	-
Stage 2	371	410	-	228	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	85.1	28.2	1.4	0.7
HCM LOS	F	D	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBln1	EBln2	EBln3	WBln1	WBln2	WBln3	SBL	SBT
Cap, veh/h	1070	-	-	119	147	575	62	147	580	1070	-
HCM Control Delay, s	8.689	-	-	223.6	31.1	17.5	77	30.6	11.6	8.519	-
HCM Lane V/C Ratio	0.09	-	-	1.22	0.06	0.51	0.20	0.04	0.06	0.04	-
HCM Lane LOS	A	-	-	F	D	C	F	D	B	A	-
HCM 95th-tile Q, veh	0.3	-	-	9.2	0.2	2.8	0.7	0.1	0.2	0.1	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 17.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	650	10	10	640	20	5	5	10	70	5	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	0		0	50		0	0		0	0	0	0
Median Width		12			12			12			12	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.55	0.55	0.55	0.55	0.55	0.55
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	765	12	12	753	24	9	9	18	127	9	164
Number of Lanes	1	2	0	1	2	0	0	1	0	1	1	1

Major/Minor	Major 1			Major 2			Minor 1			Minor 2		
Conflicting Flow All	776	0	0	776	0	0	1270	1665	388	1269	1659	388
Stage 1	-	-	-	-	-	-	865	865	-	788	788	-
Stage 2	-	-	-	-	-	-	405	800	-	481	871	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	836	-	-	836	-	-	125	96	611	# 125	97	611
Stage 1	-	-	-	-	-	-	315	369	-	350	400	-
Stage 2	-	-	-	-	-	-	593	395	-	535	367	-
Time blocked-Platoon, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Capacity-1 Maneuver	836	-	-	836	-	-	80	89	611	# 106	90	611
Mov Capacity-2 Maneuver	-	-	-	-	-	-	80	89	-	# 106	90	-
Stage 1	-	-	-	-	-	-	297	348	-	330	394	-
Stage 2	-	-	-	-	-	-	418	389	-	477	346	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	37.1	104.8
HCM LOS	-	-	E	F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Cap, veh/h	148	836	-	-	836	-	-	106	90	611
HCM Control Delay, s	37.1	9.563	-	-	9.368	-	-	226.9	49.4	13
HCM Lane V/C Ratio	0.25	0.06	-	-	0.01	-	-	1.20	0.10	0.27
HCM Lane LOS	E	A	-	-	A	-	-	F	E	B
HCM 95th-tile Q, veh	0.9	0.2	-	-	0.0	-	-	8.4	0.3	1.1

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘
Volume (veh/h)	190	330	260	70	160	320
Number	5	2	6	16	7	14
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	156.9	156.9	156.9	156.9	156.9	156.9
Lanes	1	2	2	1	1	1
Cap, veh/h	603	1660	1148	514	472	565
Arrive On Green	0.11	0.56	0.39	0.39	0.32	0.32
Sat Flow, veh/h	1494	3059	3059	1333	1494	1333
Grp Volume(v), veh/h	204	355	283	76	213	427
Grp Sat Flow(s), veh/h/ln	1494	1490	1490	1333	1494	1333
Q Serve(g_s), s	4.7	3.8	4.1	2.3	7.2	17.1
Cycle Q Clear(g_c), s	4.7	3.8	4.1	2.3	7.2	17.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	603	1660	1148	514	472	565
V/C Ratio(X)	0.34	0.21	0.25	0.15	0.45	0.76
Avail Cap(c_a), veh/h	631	1660	1148	514	523	611
HCM Platoon Ratio	0.00	0.00	0.00	0.00	0.00	0.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	7.0	13.1	12.6	17.2	15.3
Incr Delay (d2), s/veh	0.3	0.3	0.5	0.6	0.7	5.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.5	1.2	1.5	0.8	2.5	0.8
Lane Grp Delay (d), s/veh	8.9	7.3	13.6	13.2	17.8	20.3
Lane Grp LOS	A	A	B	B	B	C
Approach Vol, veh/h		559	359		640	
Approach Delay, s/veh		7.9	13.5		19.5	
Approach LOS		A	B		B	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+R _c), s	10.8	39.0	28.2			
Change Period (Y+R _c), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	8.0	35.0	23.0			
Max Q Clear Time (g_c+l1), s	6.7	5.8	6.1			
Green Ext Time (p_c), s	0.1	4.9	4.2			
Intersection Summary						
HCM 2010 Ctrl Delay			14.0			
HCM 2010 LOS			B			
Notes						