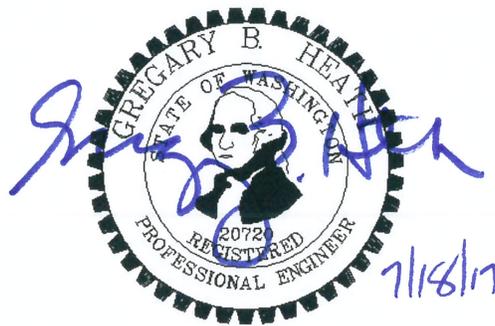




WALLACE COTTAGES
TRAFFIC IMPACT ANALYSIS

BAINBRIDGE ISLAND, WA



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July 2017

WALLACE COTTAGES
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WALLACE COTTAGES TRAFFIC IMPACT ANALYSIS

1. INTRODUCTION

This report summarizes traffic impacts related to the Wallace Cottages development. The general goals of this impact study concentrate on 1) the assessment of existing roadway conditions and intersection congestion, 2) forecasts of newly generated project traffic, 3) estimations of future delay, and 4) recommendations for mitigation. Preliminary tasks include the detailed collection of roadway information, road improvement information, and peak hour traffic counts. A level of service analysis for existing traffic conditions is then made to determine the present degree of intersection congestion. Based on this analysis, forecasts of future traffic levels on the surrounding street system are found. Following this forecast, the future service levels for the key intersections are investigated. As a final step, applicable conclusions and possible on-site or off-site mitigation measures are defined. The findings of this study are intended to ensure safe and efficient progression of vehicular/non-motorist traffic near the site.

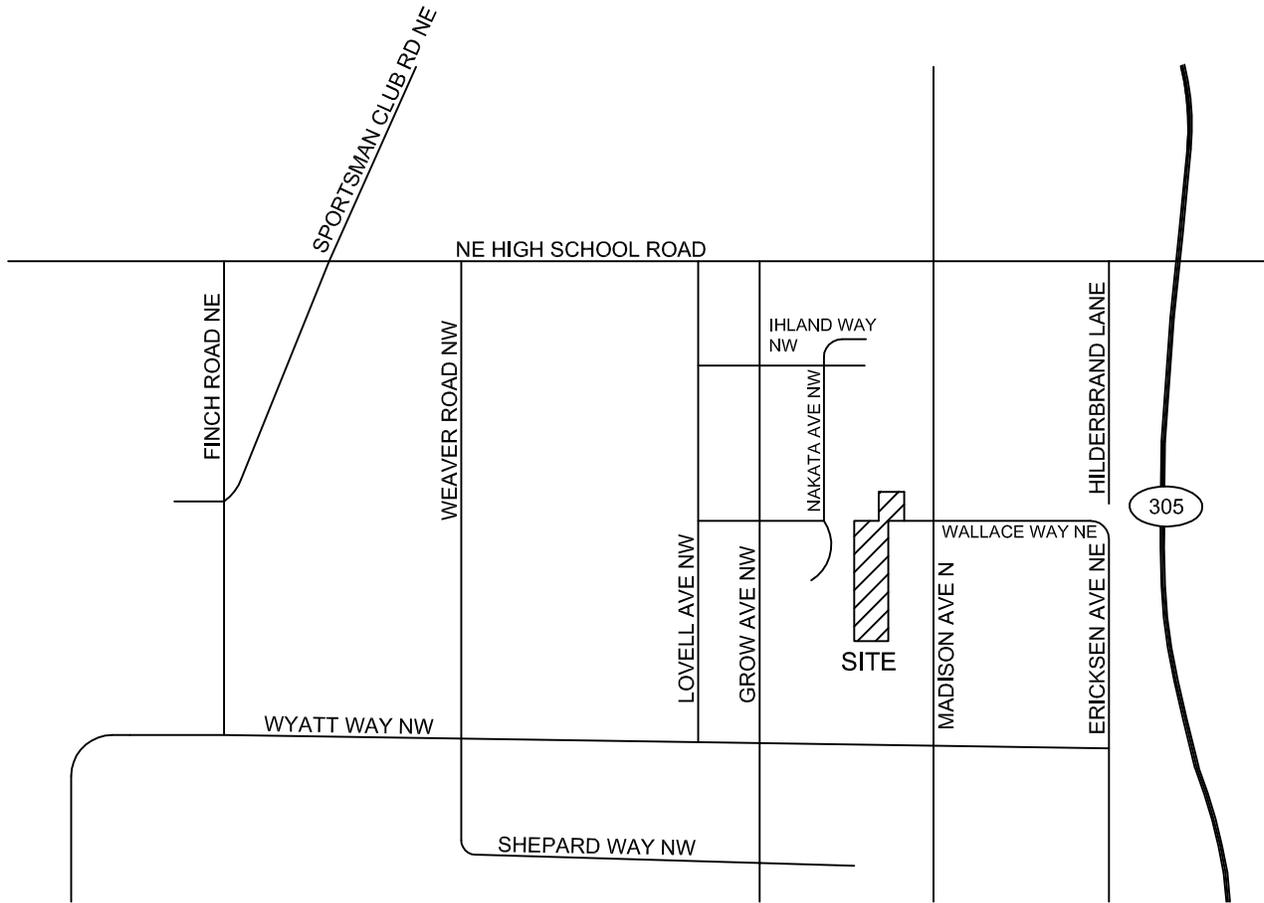
2. PROJECT DESCRIPTION

The Wallace Cottages project proposes to construct nineteen (19) new single family lots in the City of Bainbridge Island. Development will take place on four (4) undeveloped parcels (272502-1-023-2005; -155-2005; -154-2006; -153-2007) located opposite of the Wallace Way NE & Madison Avenue North intersection. The parcels are located in the R-4.3 urban zoning district within the Mixed Use Town Center. This analysis analyzes three (3) varying access scenarios:

- **Alternative 1:** One (1) Full-access to the west via Wallace Way NW easement extension only.
- **Alternative 1-2:** One (1) Full-access to the west via Wallace Way NW easement extension AND one (1) one-way egress at Madison Avenue North.
- **Alternative 2:** One (1) Full-access to the east at Madison Avenue North only.

Level of service calculations and forecast trip distributions reflect each alternative for the 2020 buildout and 2035 horizon analyses.

Surrounding land uses are primarily residential. Figure 1 on the following page shows the vicinity of the area along with the street network serving the site. The general configuration of the project is shown on the site plan on Figure 2.

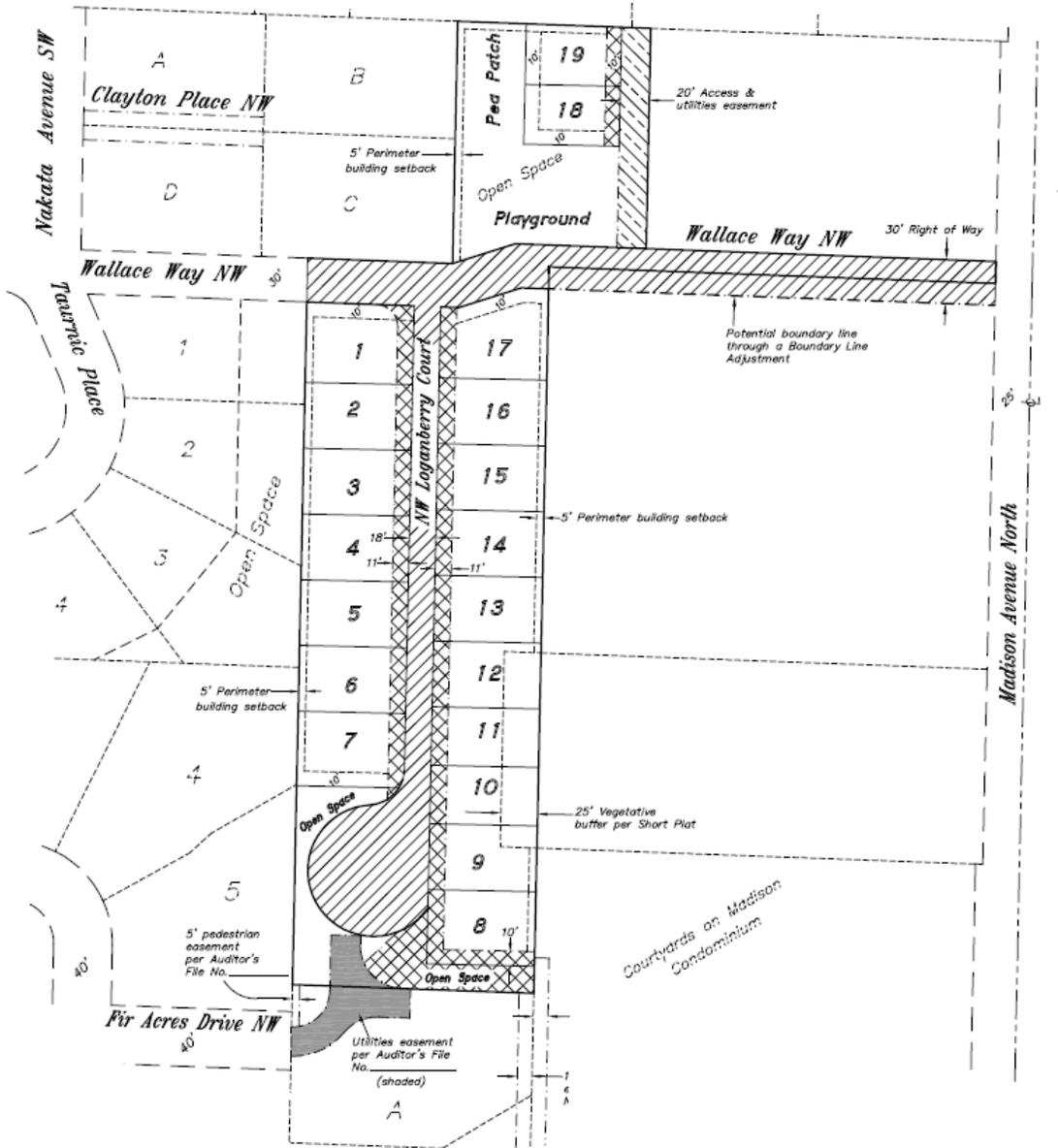


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VICINITY MAP & ROADWAY SYSTEM

FIGURE 1

Wallace Cottages
BAINBRIDGE ISLAND



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SITE PLAN
FIGURE 2

Wallace Cottages
BAINBRIDGE ISLAND

3. EXISTING CONDITIONS

3.1. Surrounding Roadway System

Roadways serving the proposed site consist of arterials and residential roadways which vary in width, terrain, and posted speeds as well as SR-305 to the east. As indicated by their specific arterial designations, these roadways also vary in their overall function as part of the general network. The key streets near the site are described below.

Madison Avenue North: is a two-lane, north-south secondary arterial that borders the east side of the project. The roadway has a posted speed limit of 25 mph with a 20 mph posted school speed limit to the north of the site from the hours of 7 AM to 5 PM Monday through Friday. Paving is asphalt concrete with lane widths of approximately 12 feet. Designated bicycle lanes are found on either side of the roadway and are roughly 5 feet wide that transitions to curb/gutter/sidewalk. Grades are mild in the area.

Grow Avenue NW: is a two-lane, north south local access roadway that is located to the west of the project site. The roadway has a posted speed limit of 25 mph and lane widths are approximately 10 feet. Shoulders are paved in areas and transitions into grass/gravel. Grades are moderate in the area.

High School Road NE: is a two-lane, east-west secondary arterial that is located north of the project. The posted speed limit is 40 mph west of Sportsman Club Rd and reduces to 25 mph east of Sportsman Club Rd. Paving is asphalt concrete and lane widths are approximately 10-11 feet. Shoulders are paved at roughly 5 feet west of Sportsman Club Rd and consist of curb/gutter/sidewalk to the east. Grades are moderate in the area.

Wyatt Way NW: is a two-lane, east-west secondary arterial that is located to the south of the site. The posted speed limit is 25 mph. Paving is asphalt concrete and lane widths are approximately 11 feet. Shoulders are paved and consist of curb/gutter/sidewalk in some areas. Grades are moderate in the area.

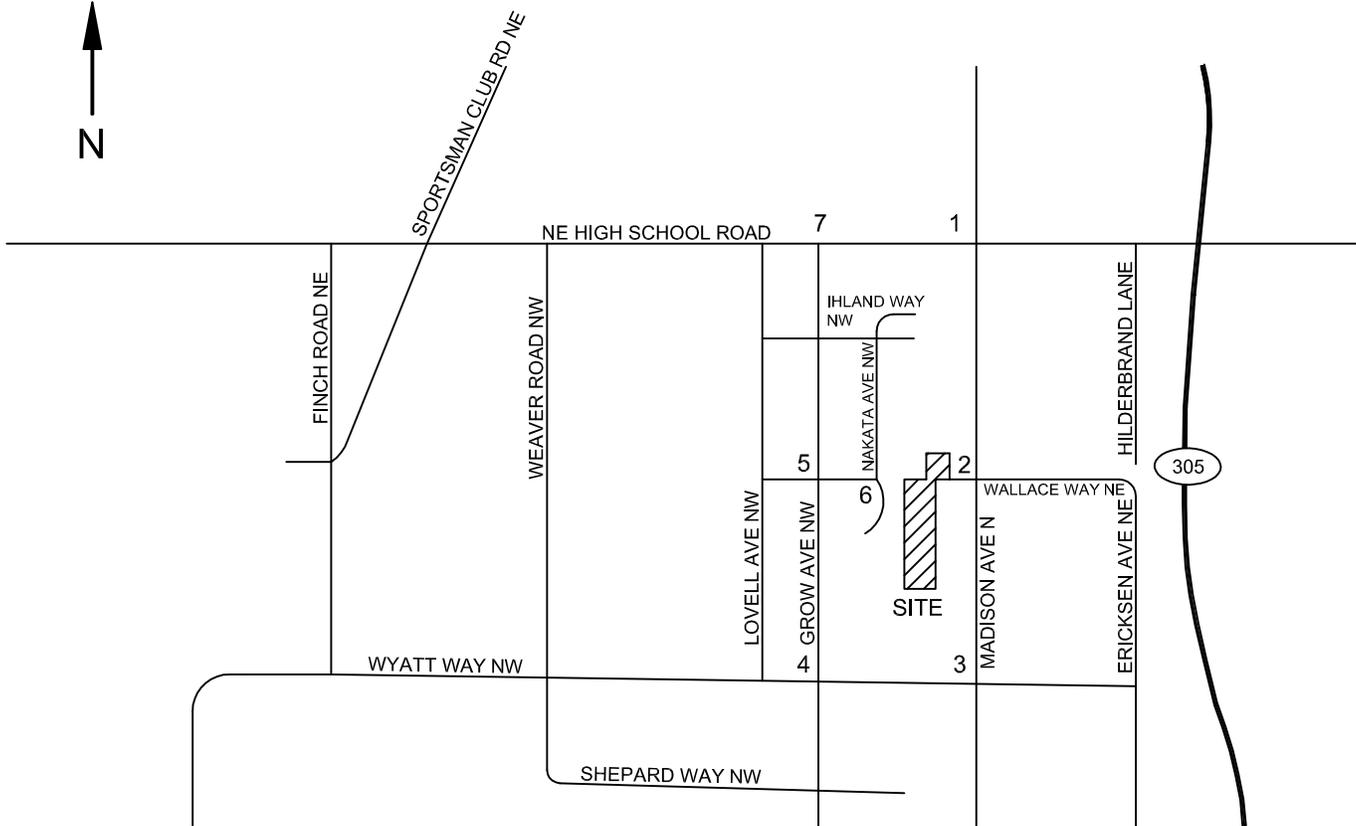
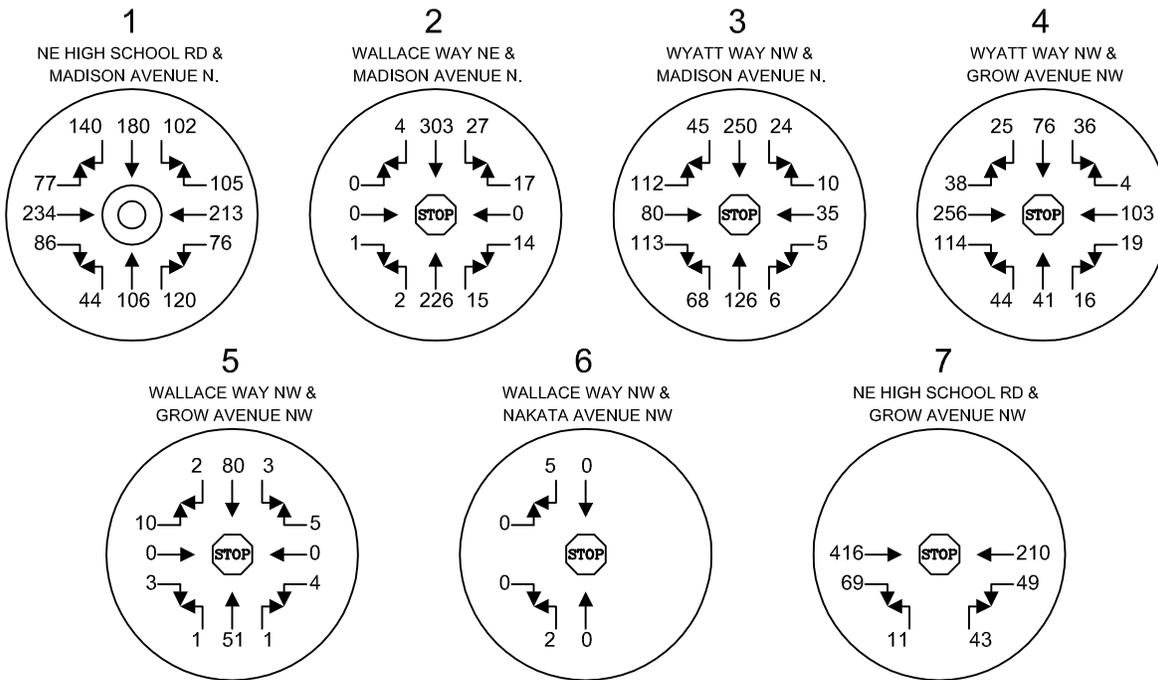
3.2. Existing Peak Hour Volumes and Patterns

Table 1 below portrays the field data that was obtained for this impact study. The traffic counts were taken during the morning peak period between 7 AM to 9 AM and the evening peak period between the hours of 4 PM to 6 PM. These specific peak periods were targeted for analysis purposes since they generally represent a worst case scenario for roadways with respect to traffic conditions. This is primarily due to the common 8 AM to 5 PM work schedule and the greater number of personal trips occurring after work hours. Most commuters leave and return to their dwellings at the same time of day which translates to a natural peak in intersection traffic loads. Figure 3 on the following page shows the existing weekday AM peak hour volumes; Figure 4 on page 10 shows the existing weekday PM peak hour volumes.

Table 1
Study Area

Control	Intersection	Data Collection
Roundabout	NE High School Road & Madison Avenue N.	February, 2017
Two-Way Stop	Wallace Way NE & Madison Avenue N.	May, 2017
	Wallace Way NW & Grow Avenue NW	May, 2017
	Wallace Way NW & Nakata Ave NW/Taurnic PI NW	May, 2017
	NE High School Road & Grow Avenue NW	May, 2017
All-Way Stop	Wyatt Way NW/NE & Madison Avenue N.	February, 2017
	Wyatt Way NW & Grow Avenue NW	November, 2014 ¹

¹ Data from the Wyatt Way NW & Grow Avenue NW intersection was increased by 1.5 percent annually to account for population growth and recent construction in the area to reflect estimated 2017 volumes.

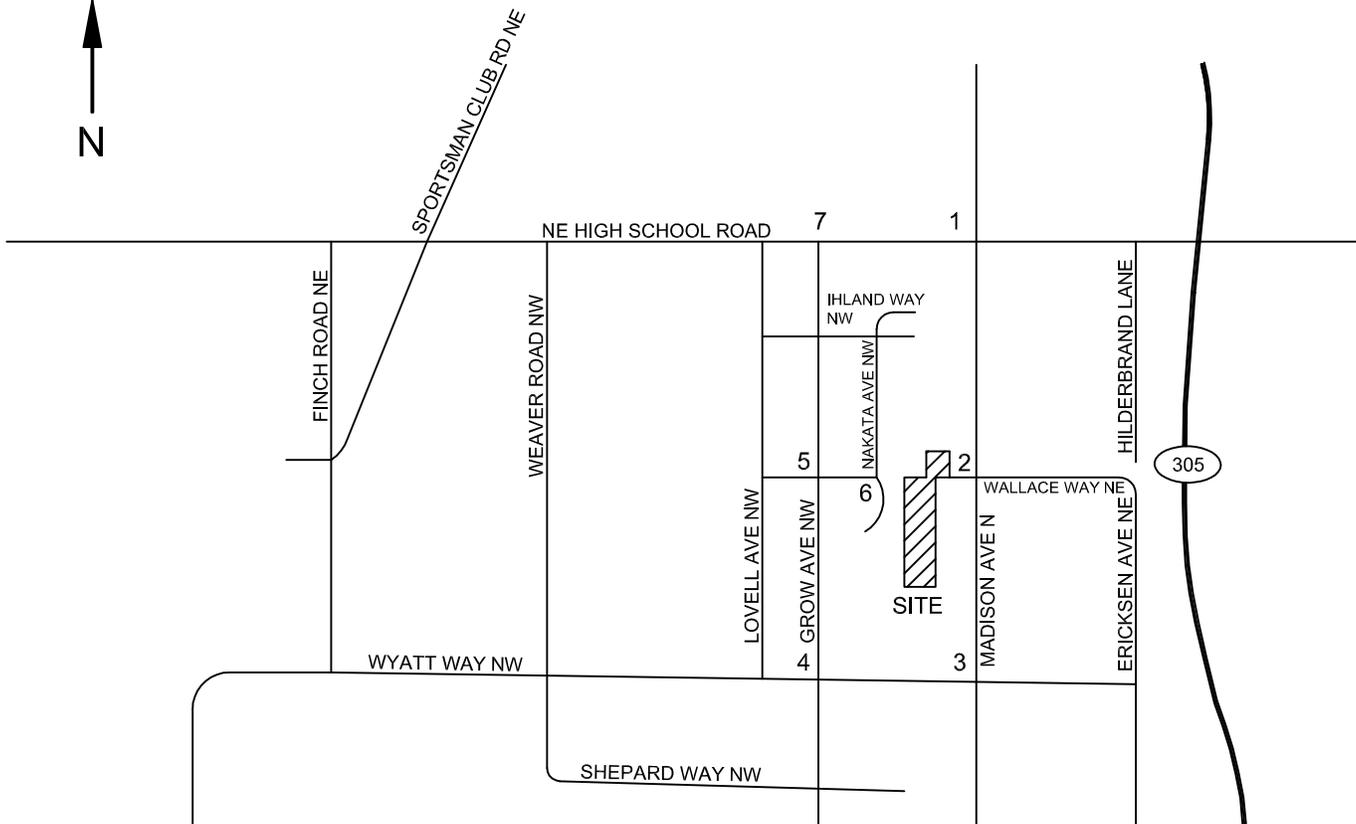
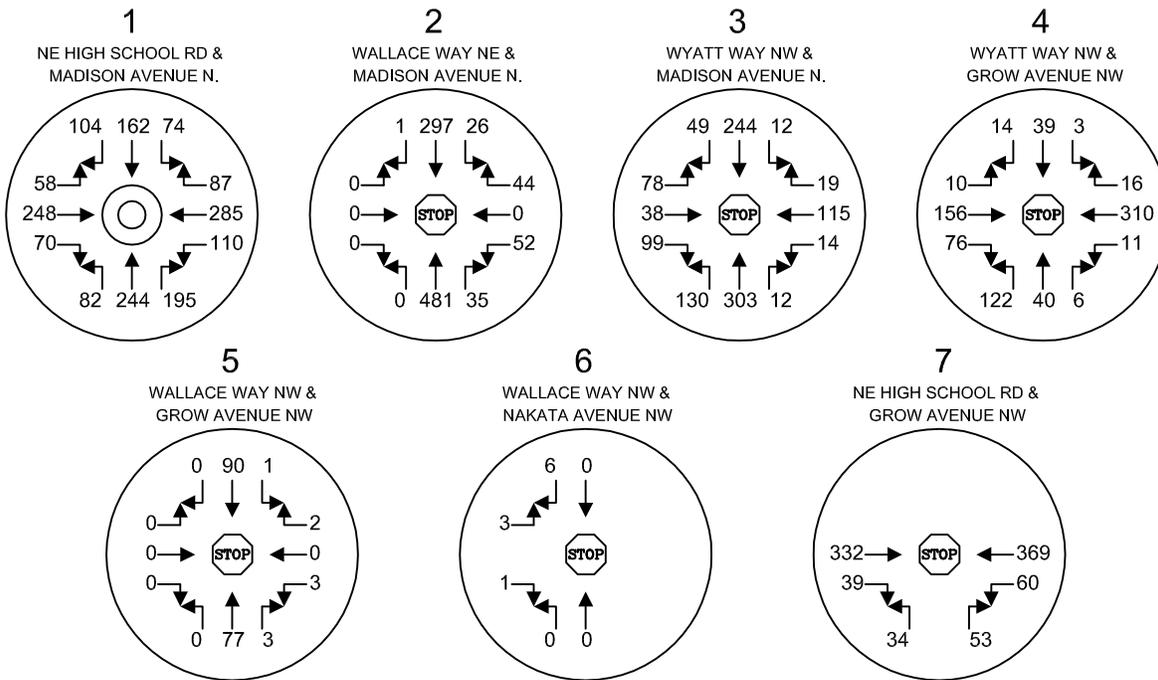


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EXISTING AM PEAK HOUR VOLUMES

FIGURE 3

Wallace Cottages
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EXISTING PM PEAK HOUR VOLUMES

FIGURE 4

Wallace Cottages
BAINBRIDGE ISLAND

3.3. Roadway Improvements

A review of a current Section Seven 2015-2020 Capital Improvement Plan of the City of Bainbridge Island indicates there are improvement projects near the site. A list of projects in the vicinity of the site is listed below.

6-Year CIP

Wyatt Way Reconstruction – Phase 1:

This project plans on adding capacity related improvements to the Wyatt Way corridor from Madison Avenue N to Lovell Avenue NW to improve level of service. Installing complete sidewalks and bicycle facilities are also planned.

20-Year CIP

Other projects are outlined in the 20 year CIP and can aid in potential future capacity improvement and consist of the following:

Roadway Reconstruction Projects:

Winslow Way Reconstruction – Phase 2

Wyatt Way Reconstruction – Phase 2

Intersection Improvement Projects:

Madison & New Brooklyn

Madison & Wyatt (Possible Roundabout or Traffic Signal)

3.4. Existing Level of Service

Existing peak hour delays were determined through the use of the 2016 *Highway Capacity Manual*. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. LOS is defined for a variety of facilities including intersections, freeways, arterials, etc. A complete definition of level of service and related criteria can be found in the HCM.

The methodology for determining the LOS at unsignalized intersections strives to determine the potential capacities for the various vehicle movements and ultimately determines the average total delay for each movement. *Potential Capacity* represents the number of additional vehicles that could effectively utilize a particular movement, which is essentially the equivalent of the difference between the movement capacity and the existing movement volume. *Total delay* is described as the elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. *Average*

total delay is simply the mean total delay over the entire stream. A number of factors influence potential capacity and total delay including the availability/usefulness of gaps.

The range for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Existing LOS for the peak hours of travel are shown below in Table 2. Delay analysis involved the use of the *Synchro 10* analysis program. Table 2 shows the morning and evening peak hour delay for the intersections of study.

Table 2
Existing Level of Service
Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & NE High School Road	Roundabout	A	9.3	B	11.2
Madison Avenue North & Entrance/Wallace Way NE	TWSC	B	12.3	C	21.9
Madison Avenue North & Wyatt Way NW/NE	AWSC	B	13.5	C	15.3
Grow Avenue NW & Wyatt Way NW	AWSC	B	13.7	B	13.0
Grow Avenue NW & Wallace Way NE	TWSC	A	9.9	A	9.3
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	TWSC	A	8.5	--	--
Grow Avenue NE & NE High School Road	TWSC	B	13.6	C	15.1

(TWSC: Two-Way Stop Control; AWSC: All-Way Stop Control; --: No Turning Movements)

Table 2 above indicates existing delays to be mild at LOS C or better, operating with average to little disrupt to vehicular flow. The project site is located in the Winslow area which has a recommended Level of Service Standard of LOS D for arterials and collectors and LOS C for local roadways². Based on the analysis above, all roadways and arterials currently operate below the City LOS standard.

² Island Wide Transportation Study, Chapter 3: Operations and Mobility. Bainbridge Island, 2016

3.5. Pedestrian and Bicycle Activity

Pedestrian and bicycle activity was observed on the nearby street segments studied for this project. Observations were made during routine peak hour movement counts. A significant amount of bicycle and pedestrian activity was noted at the intersections of study. The Madison Avenue North corridor currently offers sidewalks, marked crosswalks, and bicycle lanes. Furthermore, and as stated in the City's 6-Year Capital Improvement Plan, non-motorized facilities are planned with the Wyatt Way Reconstruction Phase 1 project. Given the small amount of project-generated traffic relative to the local roadway system, no adverse impact is anticipated to pedestrian and bicycle safety and/or level of service.

3.6. Public Transit

A review of the Kitsap Transit regional bus schedule shows that a number of routes and transit service is provided to the vicinity of the project. The nearest stop is provided via Routes 90 and 99 at the Madison Avenue North & Wallace Way NE. Route 90 provides service from the Bainbridge Island Ferry Terminal to the North Viking Transit Center in Poulsbo with weekday service from 6:15 AM to 7:40 PM; Saturday service is available. Route 99 provides service from the Eagle Harbor Drive NE & New Sweden Road NE intersection to the Bainbridge Island Ferry with weekday service only from 4:29 AM to 7:17 PM. Routes 93, 95, 97, 98, and 106 also provides stops within 1 mile of the proposed site. Refer to the Kitsap Transit schedule for detailed route information.

3.7. Sight Distance at Access Driveways

As mentioned previously, three access alternatives were analyzed in this impact analysis: Alternative 1 includes a full-access to the west via Wallace Way NW roadway extension; Alternative 1-2 includes the full-access to the west AND an egress only to the east at Madison Avenue North; Alternative 2 includes a full-access to the east at Madison Avenue North only.

Assessments of the proposed access driveway scenarios were made to determine whether or not adequate entering sight distance (ESD) can be provided for project traffic. Sight distance requirements were obtained from the *American Association of State Highway and Transportation Officials (AASHTO)* standards for right- and left-turn movements and require 240 and 280 feet, respectively, for the 25 mph speed limits found on Nakata Avenue NW to the west and Madison Avenue North to the east. Based on preliminary examinations, sight distance appears to be met at all locations with the exception of Alternative 1 and 1-2 when looking south (Taurnic Place NW) due to the horizontal curvature. Should either Alternative 1 or 1-2 be chosen for buildout, the new

access should be built to maximize available sight distance. Six dwelling units exist on the dead-end Taurnic Place NW cul-de-sac, however, and are likely to be traveling with speeds less than 25 mph given the horizontal curvature and overall length of the roadway. No safety issues are anticipated with the proposed access locations for each respective alternative.

4. FUTURE TRAFFIC DEMAND

4.1. Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. Data presented in this report was taken from the Institute of Transportation Engineer's publication *Trip Generation*, 9th Edition. The designated land use for the site is defined as Dwelling Units of Single Family Detached Housing (LUC 210). ITE average rates were used. Data for the peak hours are shown below in Table 3 for the nineteen (19) proposed dwelling units. Given are AWDT (Average Weekday Daily Traffic), AM peak hour, and PM peak hour trip generation volumes.

Table 3
Project Trip Generation
19 Net New Single Family Dwelling Units

Time Period	Volume
AWDT	181 vpd
AM Peak Inbound	4 vph
AM Peak Outbound	10 vph
AM Peak Total	14 vph
PM Peak Inbound	12 vph
PM Peak Outbound	7 vph
PM Peak Total	19 vph

(vpd: vehicles per day; vph: vehicles per hour)

4.2. Trip Assignment and Distribution

The pattern by which project trips disperse on the roadway network is highly variable and largely depends on driver behavior and psychological factors. Nonetheless, general estimations of traffic distribution are needed to determine the impact of a project on nearby arterials. Trips generated by the project are expected to follow the percent distribution and assignment as shown in Figure 5 for Alternative 1; Figure 6 for Alternative 1-2; and Figure

7 for Alternative 2. Distribution percentages are based on existing travel patterns and similar projects completed in the past.

4.3. Future Traffic Volumes With and Without the Project

2020 and 2035 were used as the horizon study years in order to assess future impacts on the surrounding roadway. Future 2020 and 2035 traffic volumes were derived by applying a 1.0 percent compound annual growth rate to the existing volumes of Figures 3 and 4. This growth rate should be considered conservative as the Kitsap Countywide Population & Housing Growth document lists an annual growth rate of 0.55 percent for the City of Bainbridge Island. Further, the latest WSDOT Annual Traffic Report indicates little to no growth along SR-305 in the vicinity.

Forecast 2020 AM background volumes and volumes with project generated traffic for Alternative 1; Alternative 1-2; Alternative 2 are portrayed on Figures 8-11, respectively.

Forecast 2020 PM background volumes and volumes with project generated traffic for Alternative 1; Alternative 1-2; Alternative 2 are portrayed on Figures 12-15, respectively.

Forecast 2035 AM background volumes and volumes with project generated traffic for Alternative 1; Alternative 1-2; Alternative 2 are portrayed on Figures 16-19, respectively.

Forecast 2035 PM background volumes and volumes with project generated traffic for Alternative 1; Alternative 1-2; Alternative 2 are portrayed on Figures 20-23, respectively.

All Figures are attached and located in the appendix for reference.

4.4. Future Level of Service

Level of service analyses were made of the future AM and PM peak hour volumes with project-generated trips for the 2020 horizon year and the 2035 horizon year. This analysis once again involved the use of the Synchro 10 HCM analysis programs. Delays for the key intersections under future conditions are shown on the following pages in Tables 4-6 for the 2020 build-out year access alternatives and in Table 7-10 for the 2035 horizon year access alternatives.

Table 4
 2020 Level of Service with Project – Alternative 1
Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & NE High School Road	Roundabout	A	9.7	B	11.9
Madison Avenue North & Entrance/Wallace Way NE	TWSC	B	12.4	C	23.2
Madison Avenue North & Wyatt Way NW/NE	AWSC	B	14.1	C	16.1
Grow Avenue NW & Wyatt Way NW	AWSC	B	14.5	B	13.7
Grow Avenue NW & Wallace Way NE	TWSC	B	10.0	A	9.6
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	Yield	A	6.8	A	6.8
Grow Avenue NE & NE High School Road	TWSC	B	14.0	C	15.6

It should be noted that the control at the Nakata Avenue NW/Taurnic Place NW & Wallace Way NW intersection was analyzed as an all-way yield or uncontrolled for Alternatives 1 & 1-2. Given the low volumes currently observed, implementing a two-way stop may increase delays and create unnecessary stop movements. Further, the proposed entrance at Madison Avenue North for Alternative 1-2 was analyzed as outbound project traffic only; Alternative 2 was analyzed as a full-access with cumulative volumes captured in the field counts from the existing entrance directly to the south.

Table 5
 2020 Level of Service with Project – Alternative 1-2
Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & Entrance/Wallace Way NE	TWSC	B	13.8	C	23.4
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	Yield	A	6.7	A	6.8

For Alternative 1-2, only an access analysis was conducted. Intersection delays will remain relatively unchanged from Alternative 1 with the exception of the entrance point(s).

Table 6
 2020 Level of Service with Project – Alternative 2
Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & NE High School Road	Roundabout	A	9.7	B	12.0
Madison Avenue North & Entrance/Wallace Way NE	TWSC	B	13.2	C	24.3
Madison Avenue North & Wyatt Way NW/NE	AWSC	B	14.1	C	16.4
Grow Avenue NW & Wyatt Way NW	AWSC	B	14.5	B	13.5
Grow Avenue NW & Wallace Way NE	TWSC	A	9.9	A	9.3
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	TWSC	A	8.5	--	--
Grow Avenue NE & NE High School Road	TWSC	B	13.9	C	15.6

Future 2020 delays are expected to remain mild at LOS C or better for the AM and PM peak hours of travel. All intersections operate within the City LOS standards for all analyzed Alternatives. Given the amount of peak hour trips anticipated to be generated with the incoming project, intersection LOS will have only minor impacts for each respective alternative.

Forecast 2035 LOS Alternatives are portrayed on the following pages.

Table 7

2035 Level of Service with Project – Alternative 1

Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & NE High School Road	Roundabout	B	12.9	C	17.6
Madison Avenue North & Entrance/Wallace Way NE	TWSC	B	13.8	D	34.2
Madison Avenue North & Wyatt Way NW/NE	AWSC	C	19.2	C	24.5
Grow Avenue NW & Wyatt Way NW	AWSC	C	21.1	C	19.0
Grow Avenue NW & Wallace Way NE	TWSC	B	10.3	A	9.8
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	Yield	A	6.8	A	6.9
Grow Avenue NE & NE High School Road	TWSC	C	16.1	C	19.3

Table 8

2035 Level of Service with Project – Alternative 1-2

Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & Entrance/Wallace Way NE	TWSC	C	15.4	D	34.7
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	Yield	A	6.7	A	6.8

Table 9
 2035 Level of Service with Project – Alternative 2
Delays given in seconds per vehicle

Intersection	Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
Madison Avenue North & NE High School Road	Roundabout	B	12.9	C	17.6
Madison Avenue North & Entrance/Wallace Way NE	TWSC	B	14.5	E	36.4
Madison Avenue North & Wyatt Way NW/NE	AWSC	C	19.4	D	25.3
Grow Avenue NW & Wyatt Way NW	AWSC	C	21.0	C	18.0
Grow Avenue NW & Wallace Way NE	TWSC	B	10.2	A	9.6
Nakata Avenue NW/Taurnic PI NW & Wallace Way NW	TWSC	A	8.5	--	--
Grow Avenue NE & NE High School Road	TWSC	C	15.9	C	19.0

Future 2035 delays are shown to operate within the City LOS standards with the exception of the Madison Avenue North & Wallace Way NE/Project Entrance (Alternative 2) which is shown to operate at LOS E (crossing the LOS D/E threshold by 1.4 seconds). It should be noted that the 36.4 seconds of delay is calculated for the westbound movements at Wallace Way NE while the eastbound movements (project trips) are anticipated to operate at LOS C 16.5 seconds of delay (see LOS sheets attached in appendix).

As mentioned in the Section Seven 2015-2020 Capital Improvement Plan of the City of Bainbridge Island, intersection improvements at Madison Avenue North & Wyatt Way NW are planned and include a potential roundabout or traffic signal. Either alternative would improve capacity, therefore, reducing vehicular delays and LOS. The analysis above reflects the current all-way stop control.

4.5. Turn Lane Warrants

Left turn lanes are a means of providing necessary storage space for left turning vehicles at intersections. For a two-lane or four-lane arterial with no left turn storage, delays are often created by vehicles waiting to complete the desired left turn movement. These turning vehicles typically block the heavier through movement, thereby causing some

disruption to traffic flow and subsequent congestion. Methods have been developed by various agencies to determine under what circumstances a left turn lane would be needed. For this impact study, procedures described by WSDOT Design Manual (Figure 1310-7a) were used to ascertain storage requirements on Madison Avenue North at the project entrance based on 2035 PM peak hour volumes with the project. The results of this assessment indicate that a left turn lane *would not be warranted*. Refer to the appendix for input values and the WSDOT left turn warrant chart.

5. CONCLUSIONS AND MITIGATION

The Wallace Cottages project proposes to construct 19 new single family dwelling units in the City of Bainbridge Island. Construction will take place on 4 undeveloped parcels located on the west side of Madison Avenue North and opposite of Wallace Way NE. On a daily basis, approximately 181 new trip movements to/from the site can be expected. Of this total daily traffic 14 trips may be associated with the AM peak hour and 19 trips associated with the PM peak hour based on ITE data.

Three access alternatives were analyzed for this study:

- **Alternative 1:** One (1) Full-access to the west via Wallace Way NW easement extension only.
- **Alternative 1-2:** One (1) Full-access to the west via Wallace Way NW easement extension AND one (1) one-way egress at Madison Avenue North.
- **Alternative 2:** One (1) Full-access to the east at Madison Avenue North only.

Existing level of service (LOS) is mild at LOS C or better for the AM and PM peak hours of travel. Forecast analysis consisted of a 2020 scenario to reflect conditions at time of project buildout and a horizon year of 2035 to reflect future conditions. Forecast LOS delays are portrayed in Tables 4-9. All proposed alternatives are anticipated to meet the City of Bainbridge Island LOS standards with the exception of one intersection under 2035 PM peak hour conditions. As shown in Table 9, the Madison Avenue North & Wallace Way NE/Project Entrance is shown to operate with delays up to LOS E (36.4 seconds). Again these delays are for westbound traffic at Wallace Way NE while the eastbound (project traffic) movements are shown to operate with delays at LOS C (16.5 seconds of delays).

Forecast analysis included an uncontrolled intersection at the Wallace Way NW & Nakata Avenue NW/Taurnic Place NW for Alternatives 1 & 1-2 given the low vehicular volumes. Alternative 2 analyzed the proposed access at Madison Avenue North as a shared access

with cumulative volumes captured from the field counts at the existing entrance directly to the south. A left turn lane warrant was conducted for Alternative 2 at the project entrance at Madison Avenue North and is not warranted based on 2035 PM Peak hour volumes.

Based on the findings of the report the recommended mitigation for the site is as follows:

1. Pay traffic impacts fees to the City of Bainbridge Island per Ordinance No. 2015-07 at \$1,632.47 per PM peak hour trip. Therefore:

$$(19 \text{ PM trips}) \times (\$1,632.47) = \$31,016.93$$

Exact fees and calculations will be determined by the City. No other mitigation is identified at this time.

LEVEL OF SERVICE

The following are excerpts from the *2016 Highway Capacity Manual - Transportation Research Board Special Report 209*.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service (LOS) is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions.

Level-of-Service definitions

The following definitions generally define the various levels of service for arterials.

Level of service A represents primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at signalized intersections is minimal.

Level of service B represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver in the traffic stream is only slightly restricted and delays are not bothersome.

Level of service C represents stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial classification.

Level of service D borders on a range in which small increases in flow may cause substantial increases in approach delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.

Level of service E is characterized by significant delays and average travel speeds of one-third the free-flow speed or less. Such operations are caused by some combination of

adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level of service F characterizes arterial flow at extremely low speeds, from less than one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with long delays and extensive queuing.

These definitions are general and conceptual in nature, and they apply primarily to uninterrupted flow. Levels of service for interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operational variables used to describe them.

For each type of facility, levels of service are defined based on one or more operational parameters that best describe operating quality for the subject facility type. While the concept of level of service attempts to address a wide range of operating conditions, limitations on data collection and availability make it impractical to treat the full range of operational parameters for every type of facility. The parameters selected to define levels of service for each facility type are called "measures of effectiveness" or "MOE's", and represent available measures that best describe the quality of operation on the subject facility type.

Each level of service represents a range of conditions, as defined by a range in the parameters given. Thus, a level of service is not a discrete condition, but rather a range of conditions for which boundaries are established.

The following tables describe levels of service for signalized and unsignalized intersections. Level of service for signalized intersections is defined in terms of average control delay. Delay is a measure of driver discomfort, frustration, fuel consumption and lost travel time, as well as time from movements at slower speeds and stops on intersection approaches as vehicles move up in queue position or slow down upstream of an intersection. Level of service for unsignalized intersections is determined by the computed or measured control delay and is determined for each minor movement.

Signalized Intersections - Level of Service

<u>Level of Service</u>	<u>Control Delay per Vehicle (sec)</u>
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Unsignalized Intersections - Level of Service

<u>Level of Service</u>	<u>Average Total Delay per Vehicle (sec)</u>
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

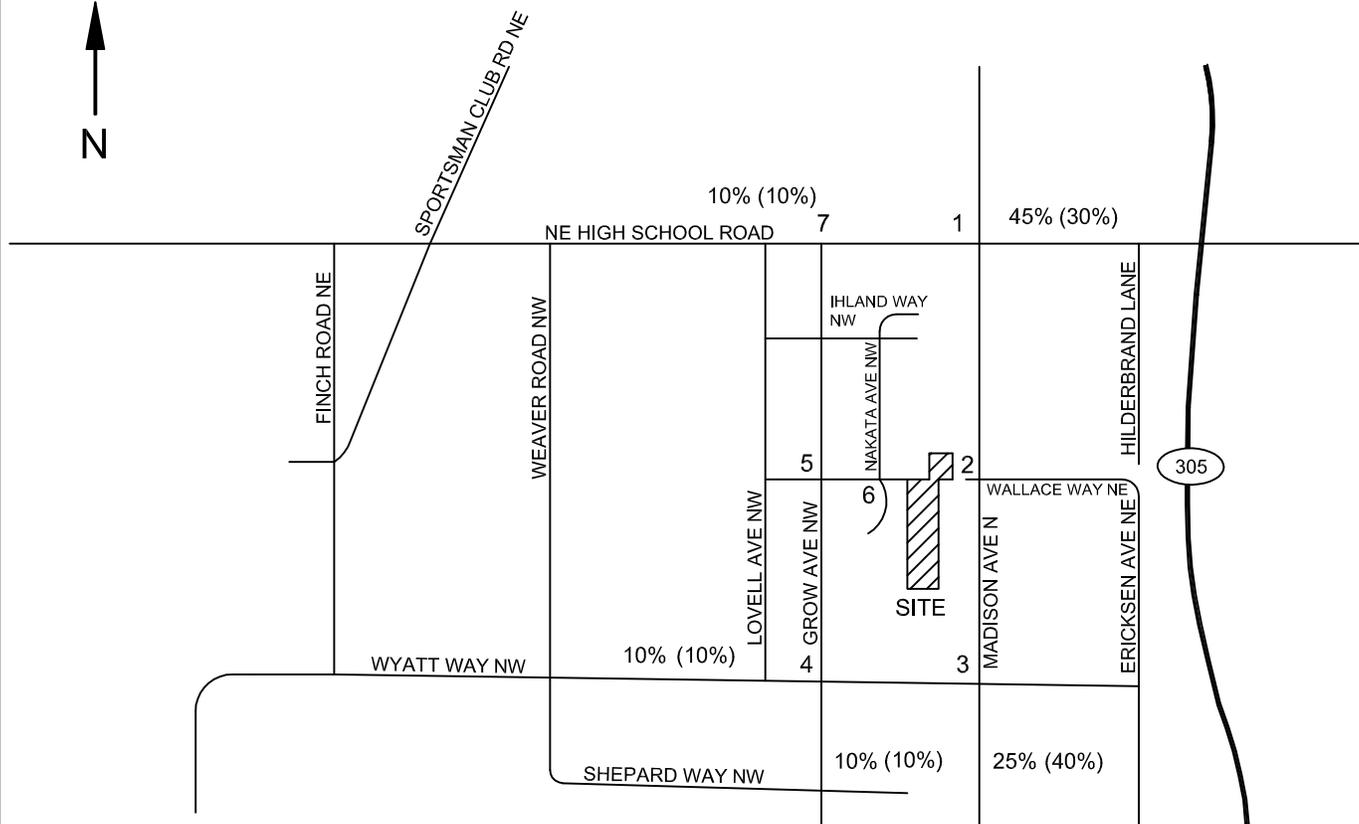
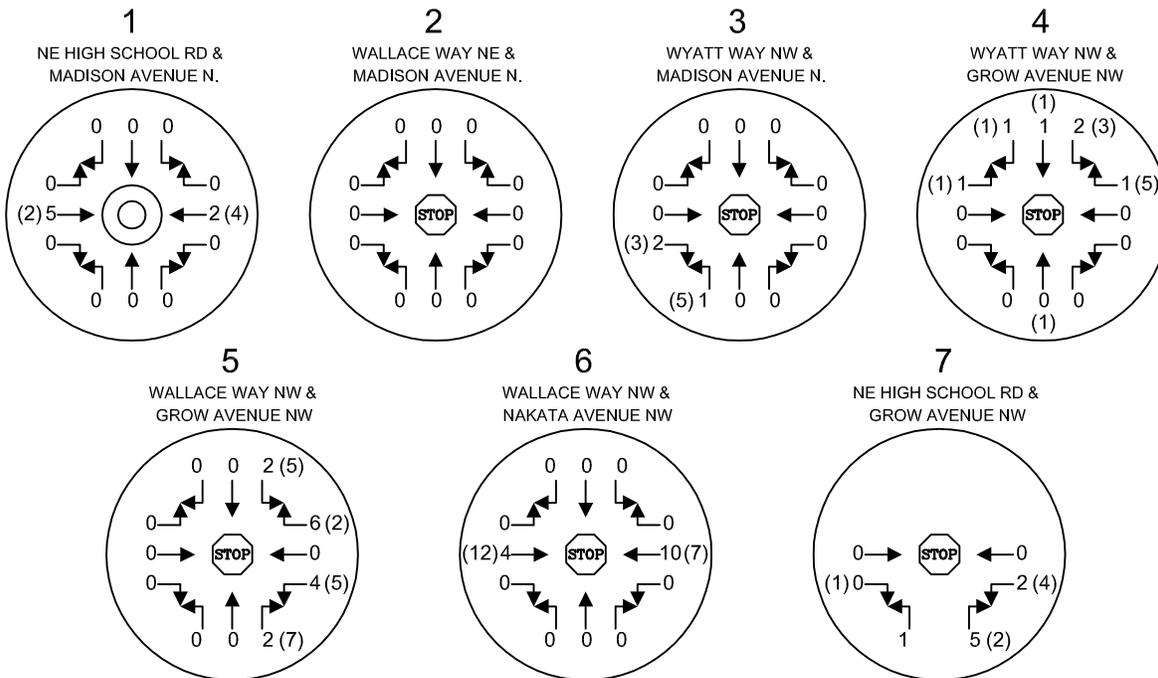
As described in the 2000 Highway Capacity Manual, level of service breakpoints for all-way stop controlled (AWSC) intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from distinct kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection. Thus a higher level of control delay is acceptable at a signalized intersection for the same level of service.

AWSC Intersections - Level of Service

<u>Level of Service</u>	<u>Average Total Delay per Vehicle (sec)</u>
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

WALLACE COTTAGES
TRAFFIC IMPACT ANALYSIS
TRIP GENERATION

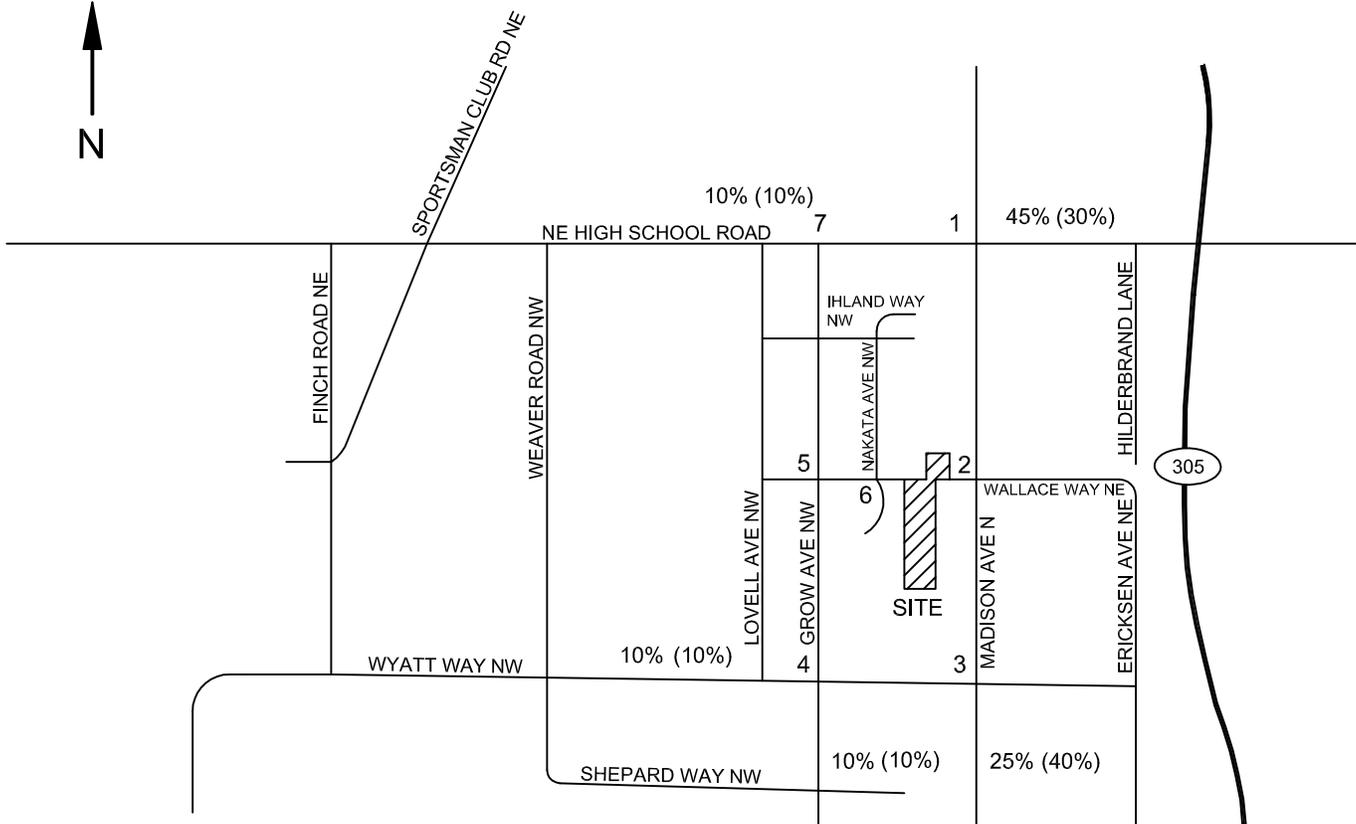
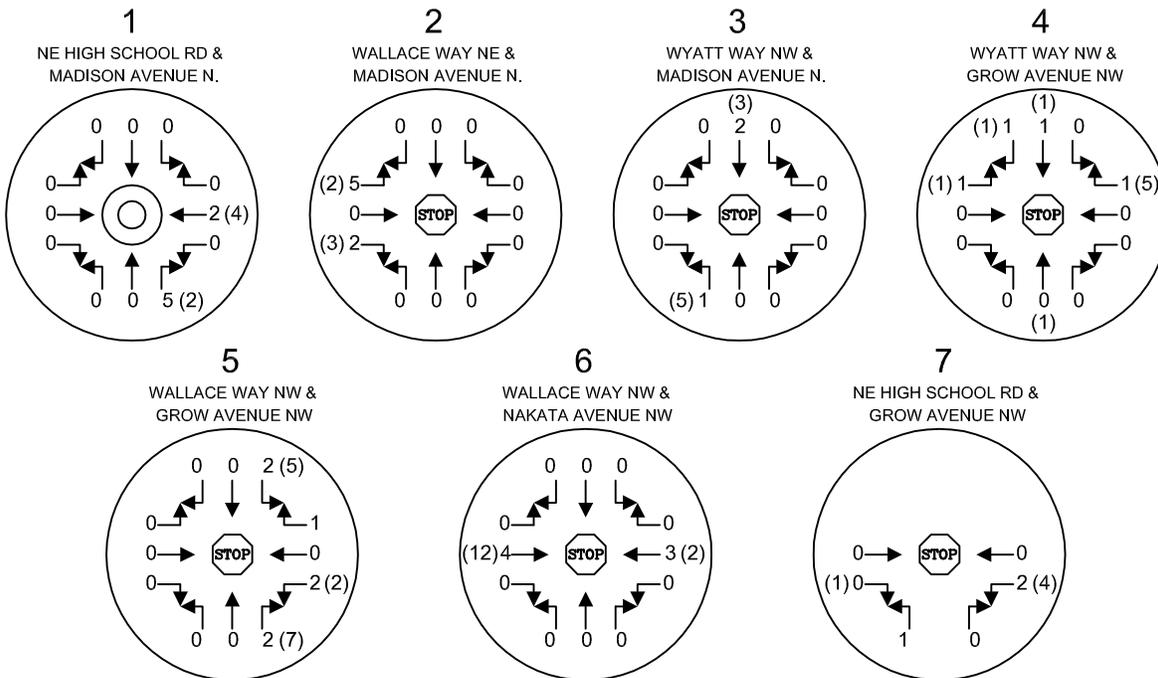
APPENDIX



NEW AM PEAK HOUR TRIPS
 INBOUND: 4 VPH
 OUTBOUND: 10 VPH

NEW PM PEAK HOUR TRIPS
 INBOUND: (12 VPH)
 OUTBOUND: (7 VPH)

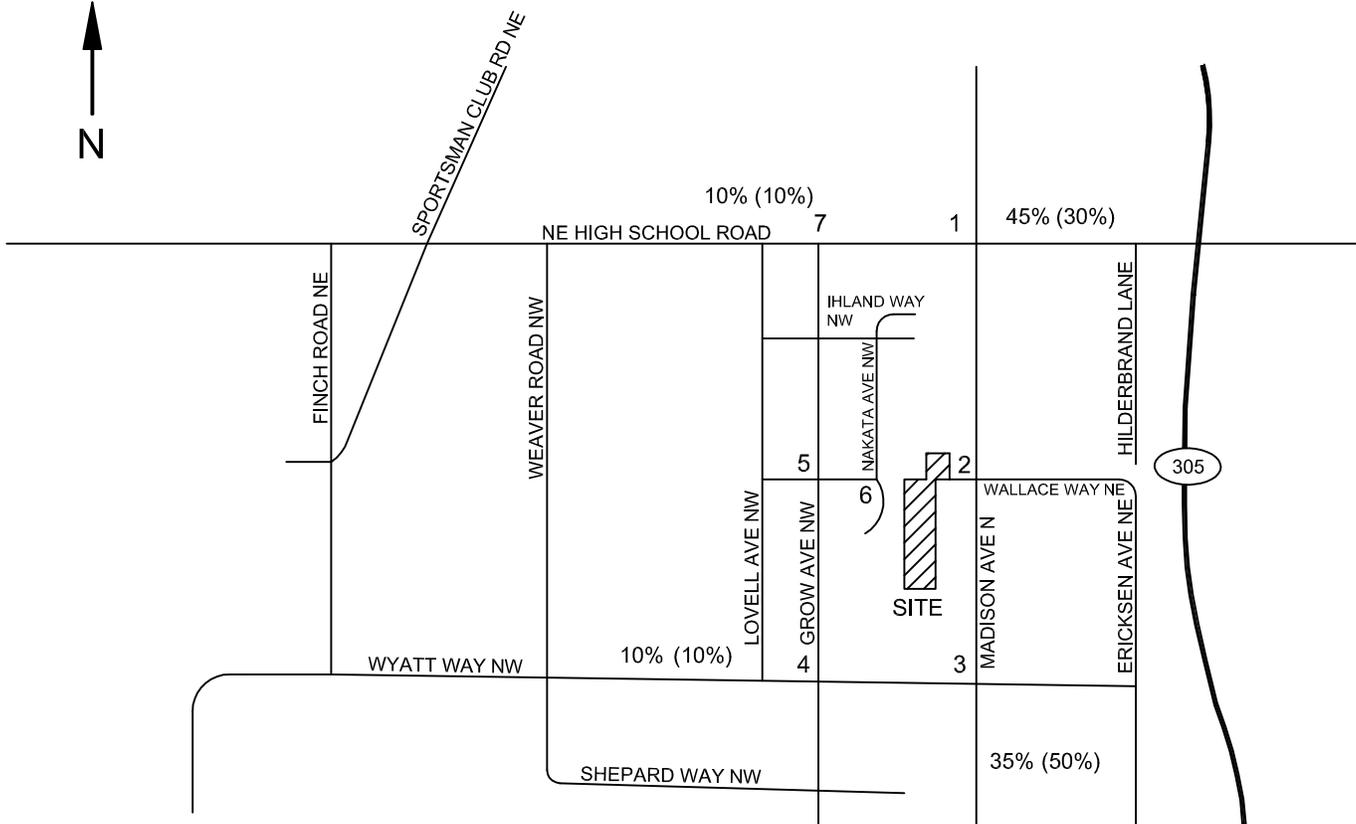
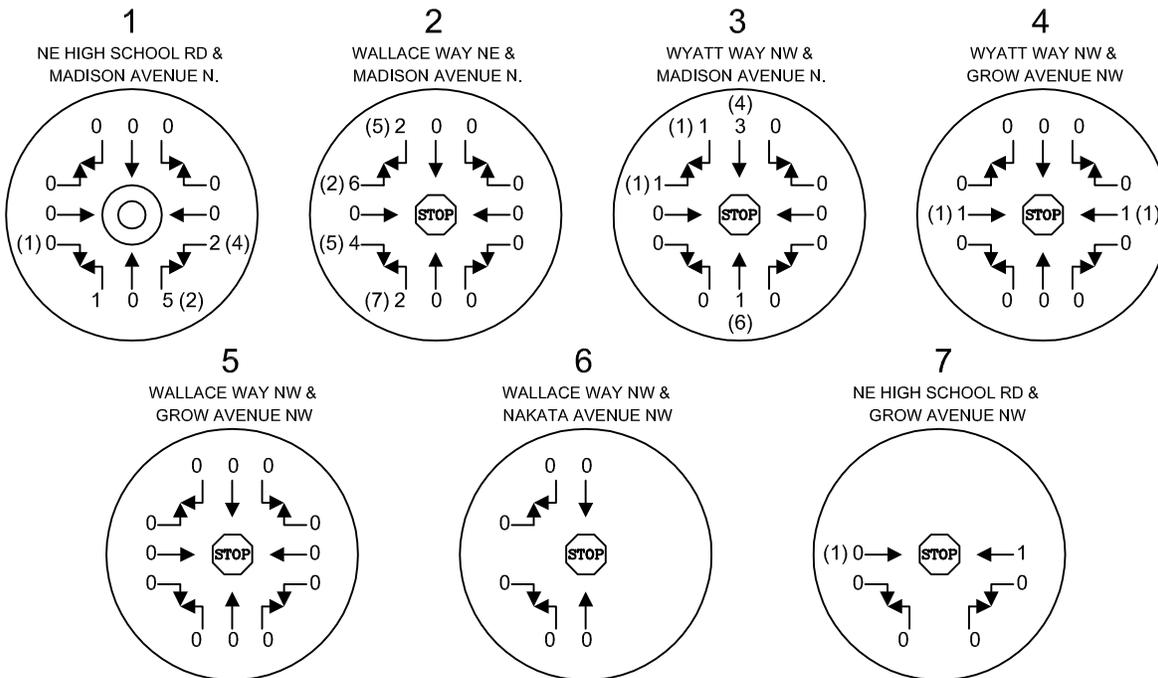
AM PEAK HOUR
 (PM PEAK HOUR)



NEW AM PEAK HOUR TRIPS
 INBOUND: 4 VPH
 OUTBOUND: 10 VPH

NEW PM PEAK HOUR TRIPS
 INBOUND: (12 VPH)
 OUTBOUND: (7 VPH)

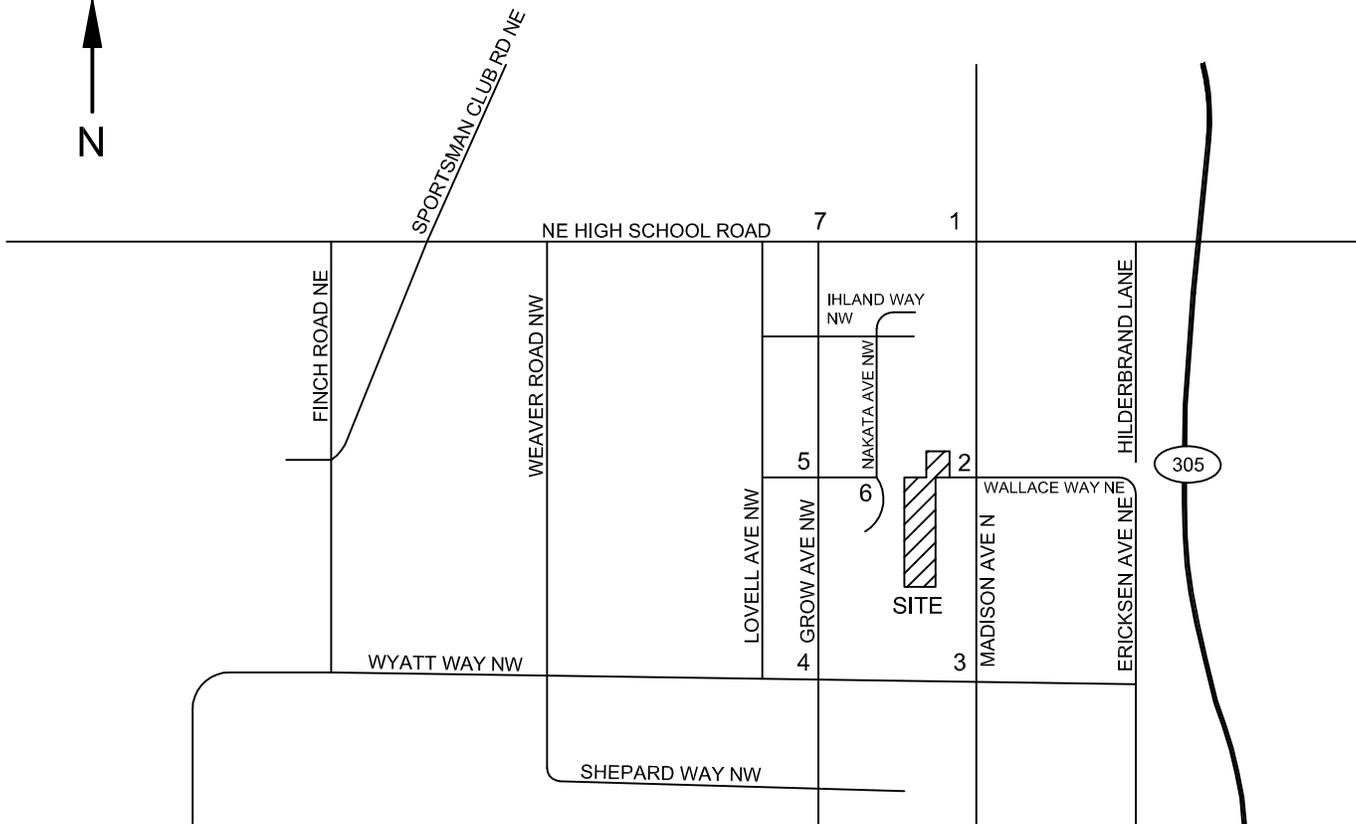
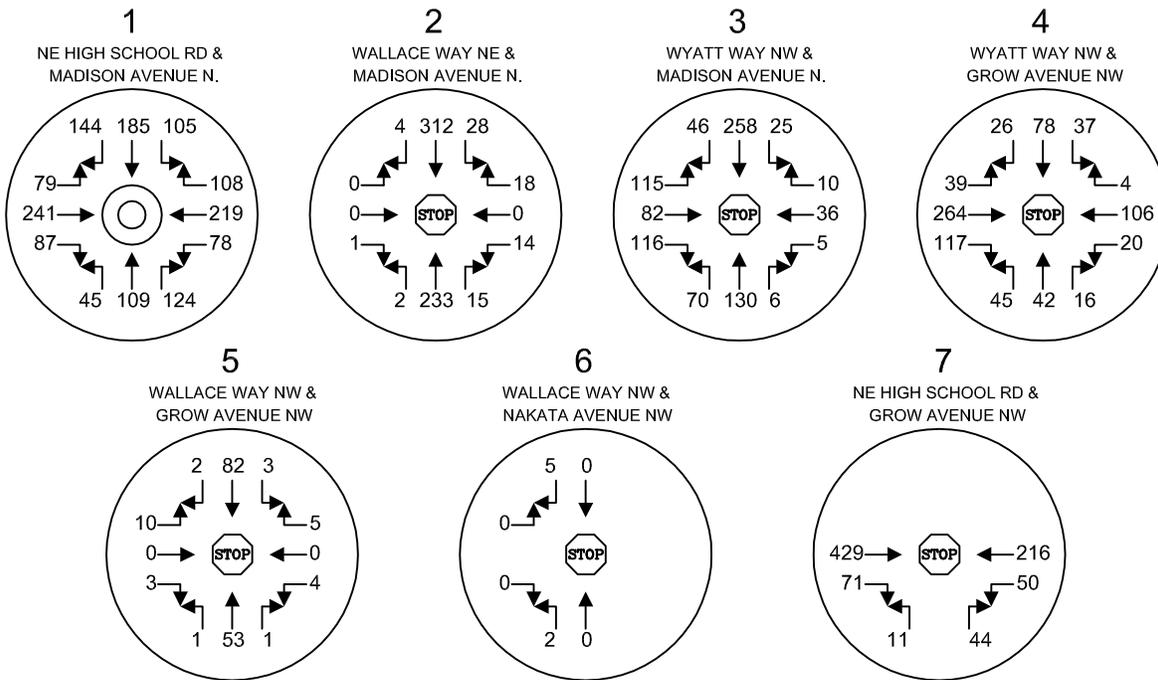
AM PEAK HOUR
 (PM PEAK HOUR)



NEW AM PEAK HOUR TRIPS
 INBOUND: 4 VPH
 OUTBOUND: 10 VPH

NEW PM PEAK HOUR TRIPS
 INBOUND: (12 VPH)
 OUTBOUND: (7 VPH)

AM PEAK HOUR
 (PM PEAK HOUR)

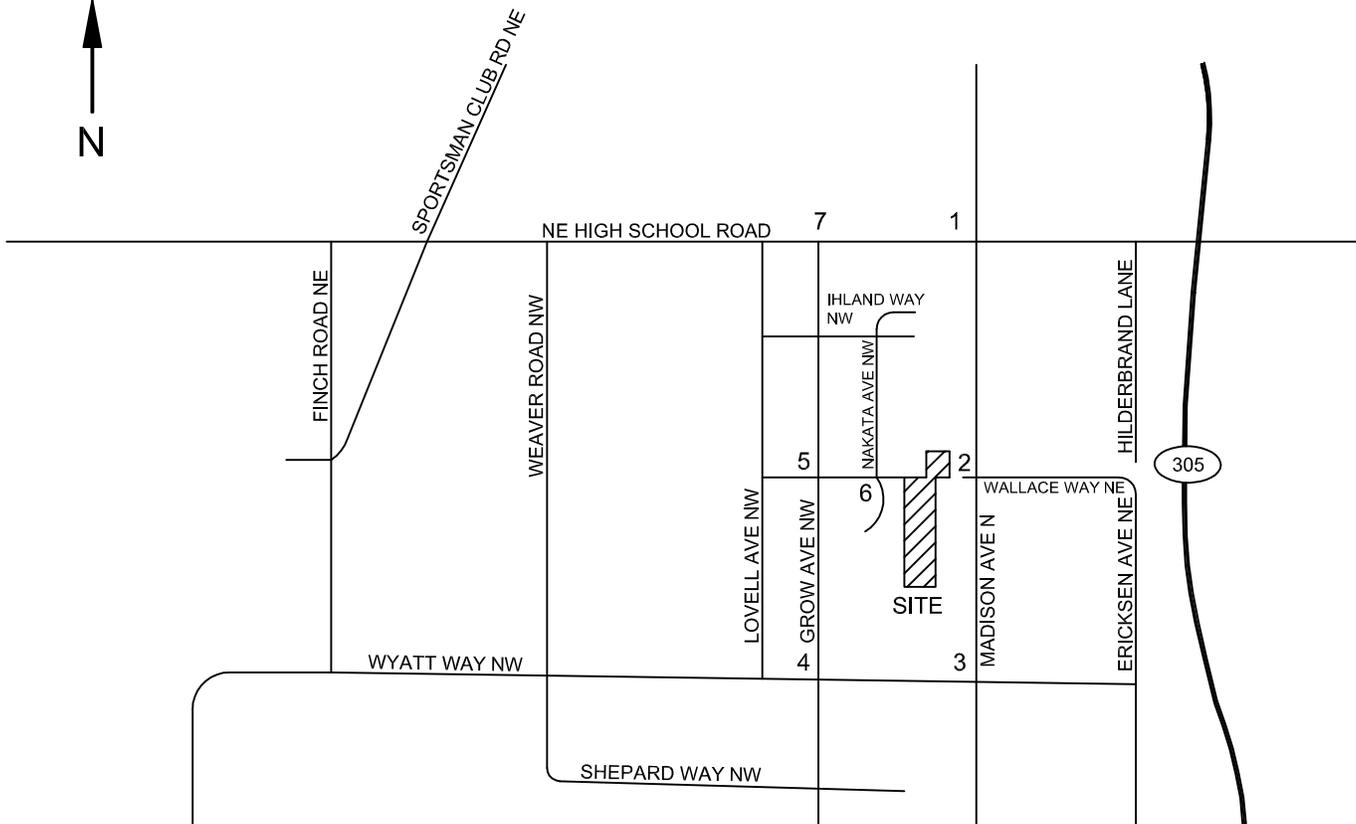
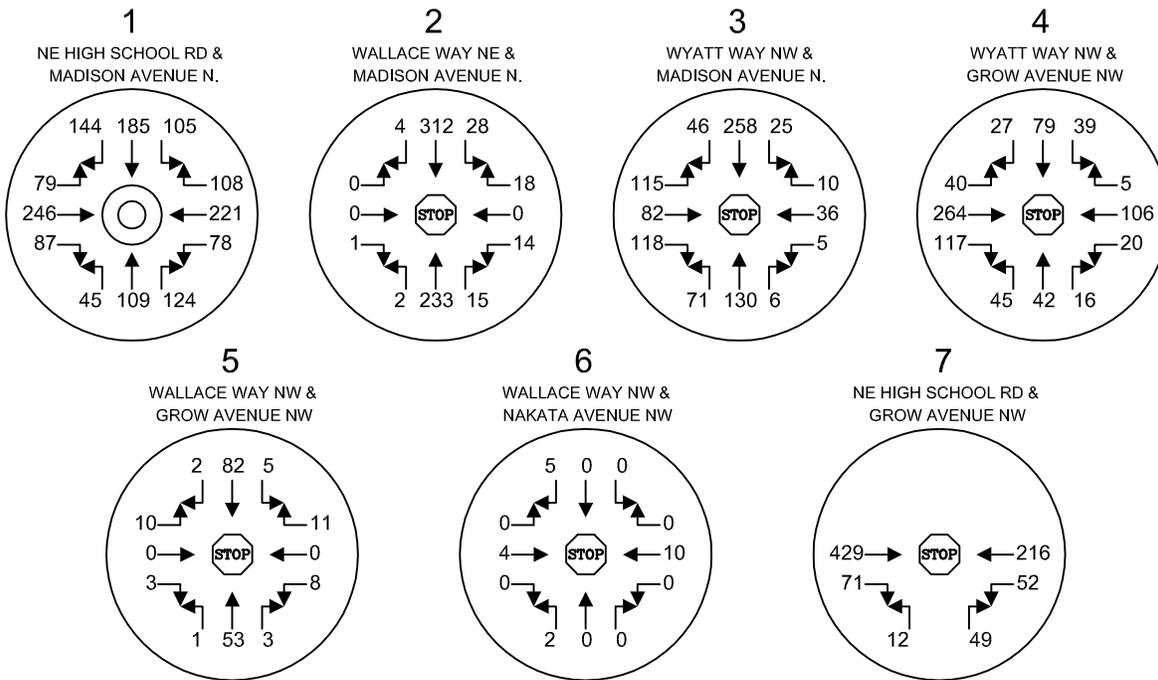


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**FORECAST 2020 BACKGROUND
AM PEAK HOUR VOLUMES**

FIGURE 8

Wallace Cottages
BAINBRIDGE ISLAND

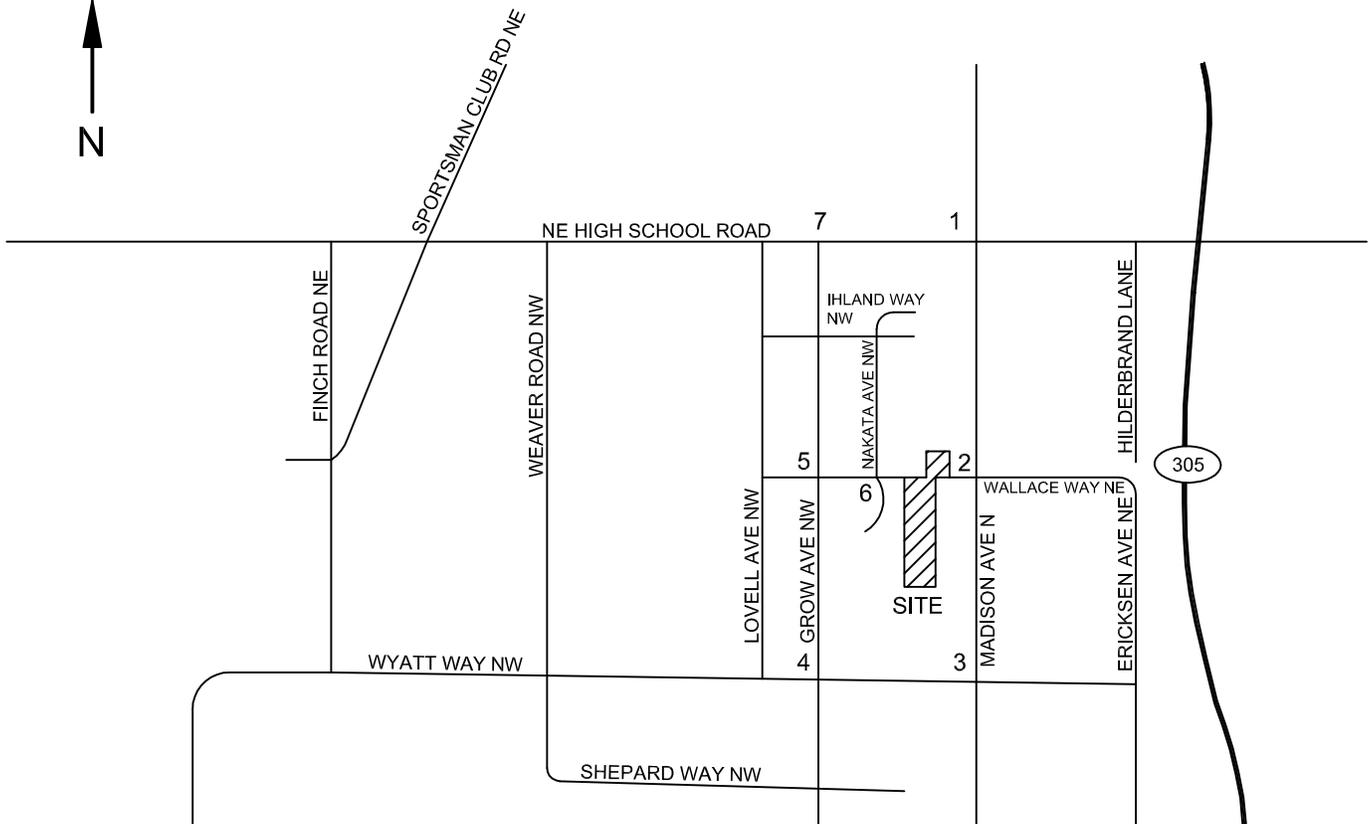
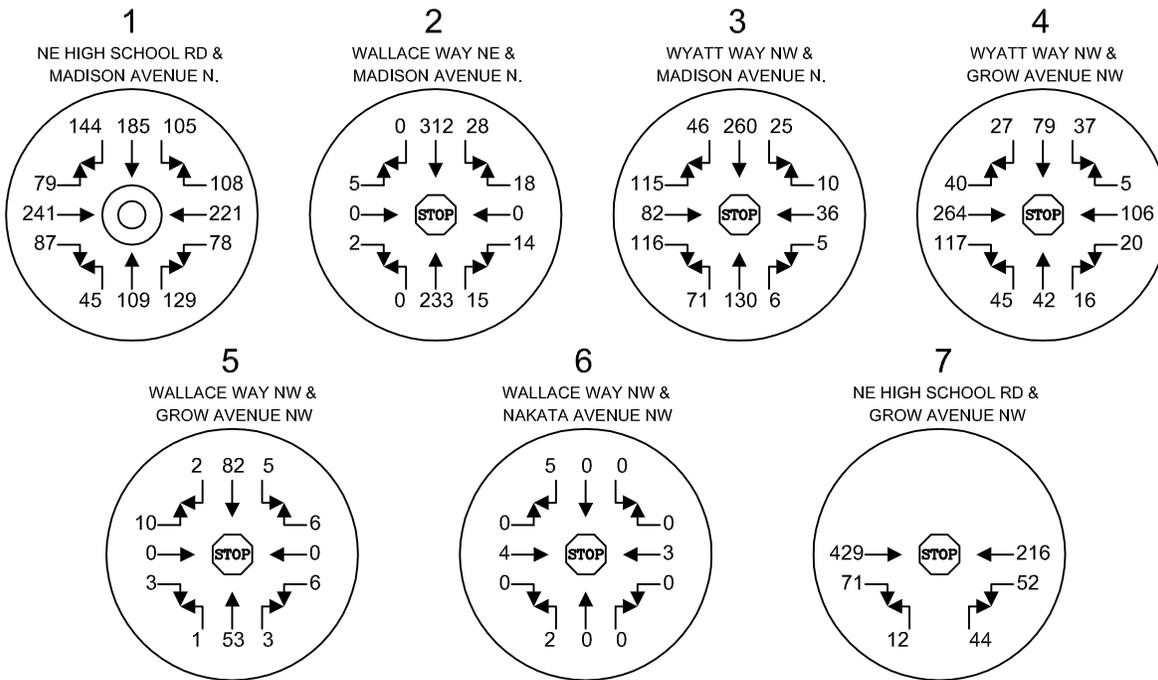


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**FORECAST 2020 WITH PROJECT
AM PEAK HOUR VOLUMES ALTERNATIVE-1**

FIGURE 9

Wallace Cottages
BAINBRIDGE ISLAND

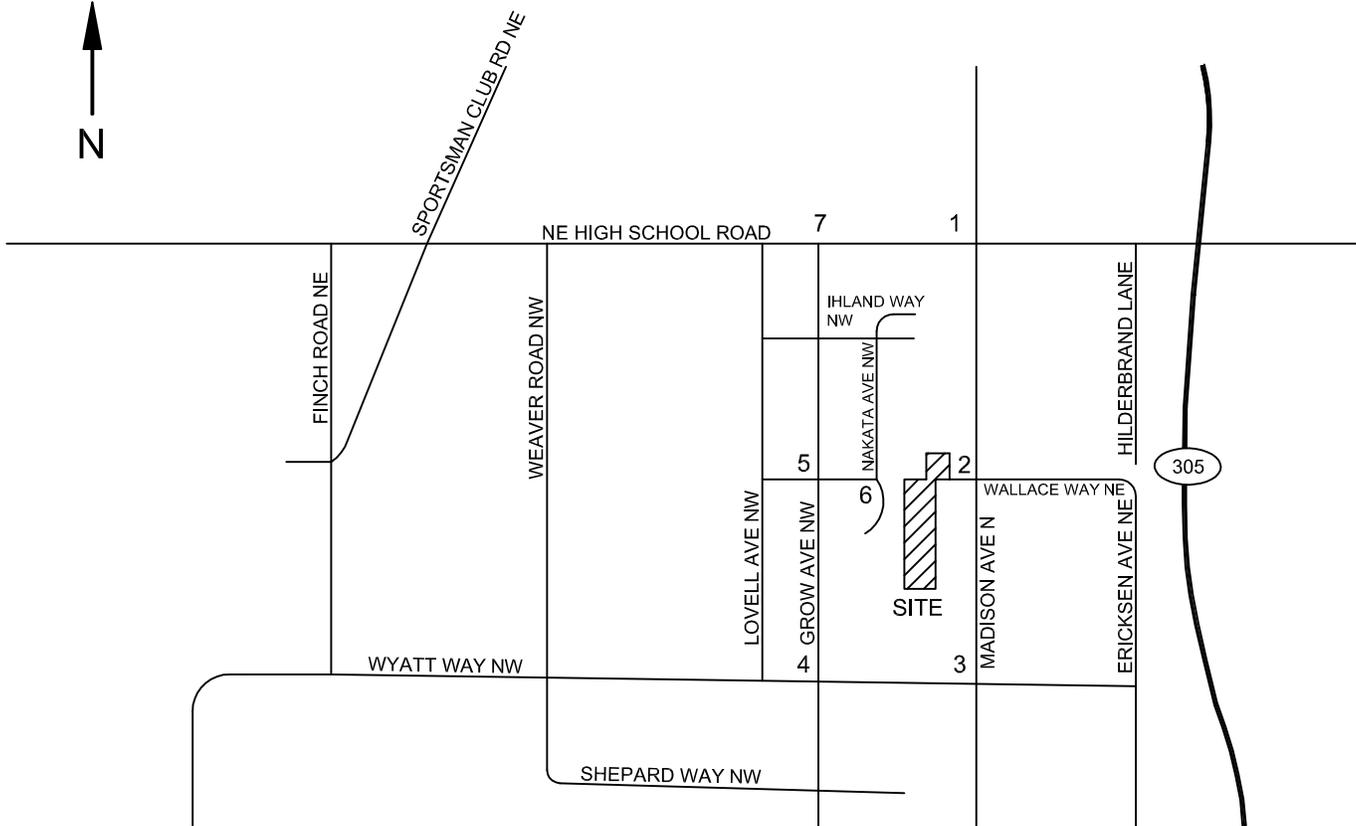
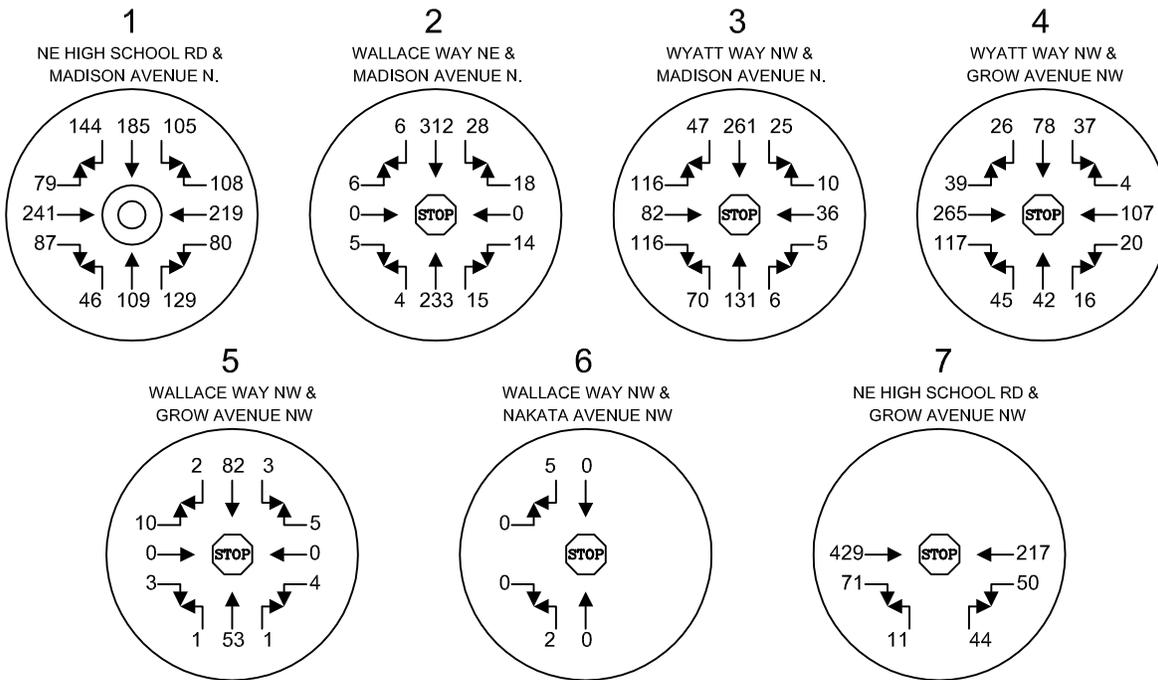


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**FORECAST 2020 WITH PROJECT
AM PEAK HOUR VOLUMES ALTERNATIVE-1-2**

FIGURE 10

Wallace Cottages
BAINBRIDGE ISLAND

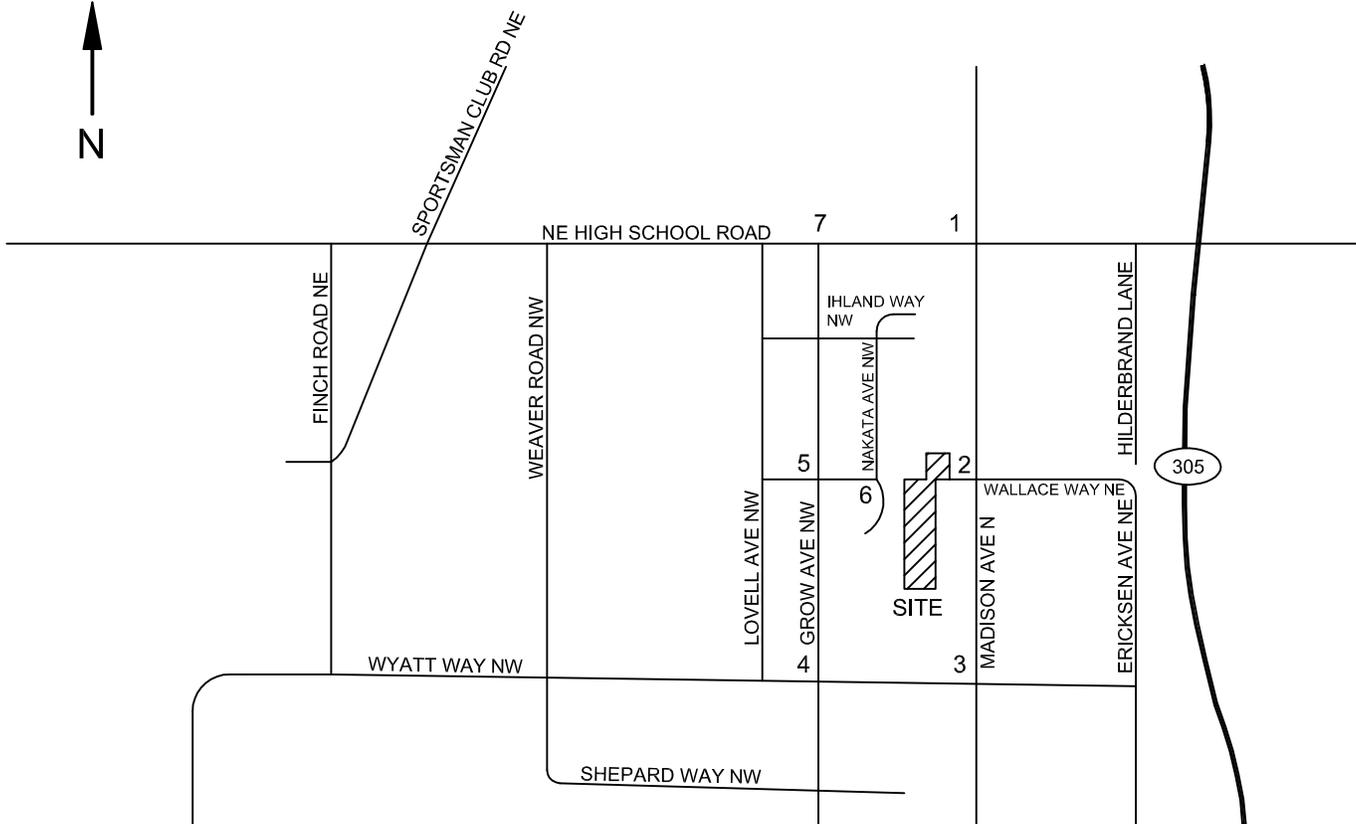
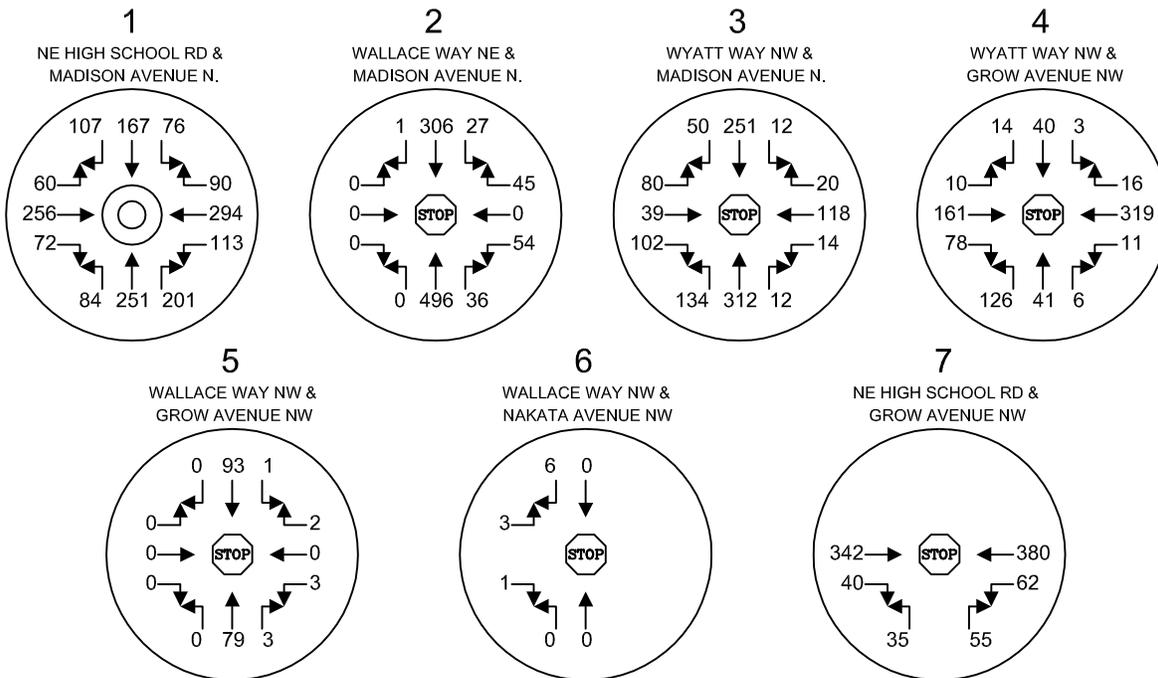


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**FORECAST 2020 WITH PROJECT
AM PEAK HOUR VOLUMES ALTERNATIVE-2**

FIGURE 11

Wallace Cottages
BAINBRIDGE ISLAND

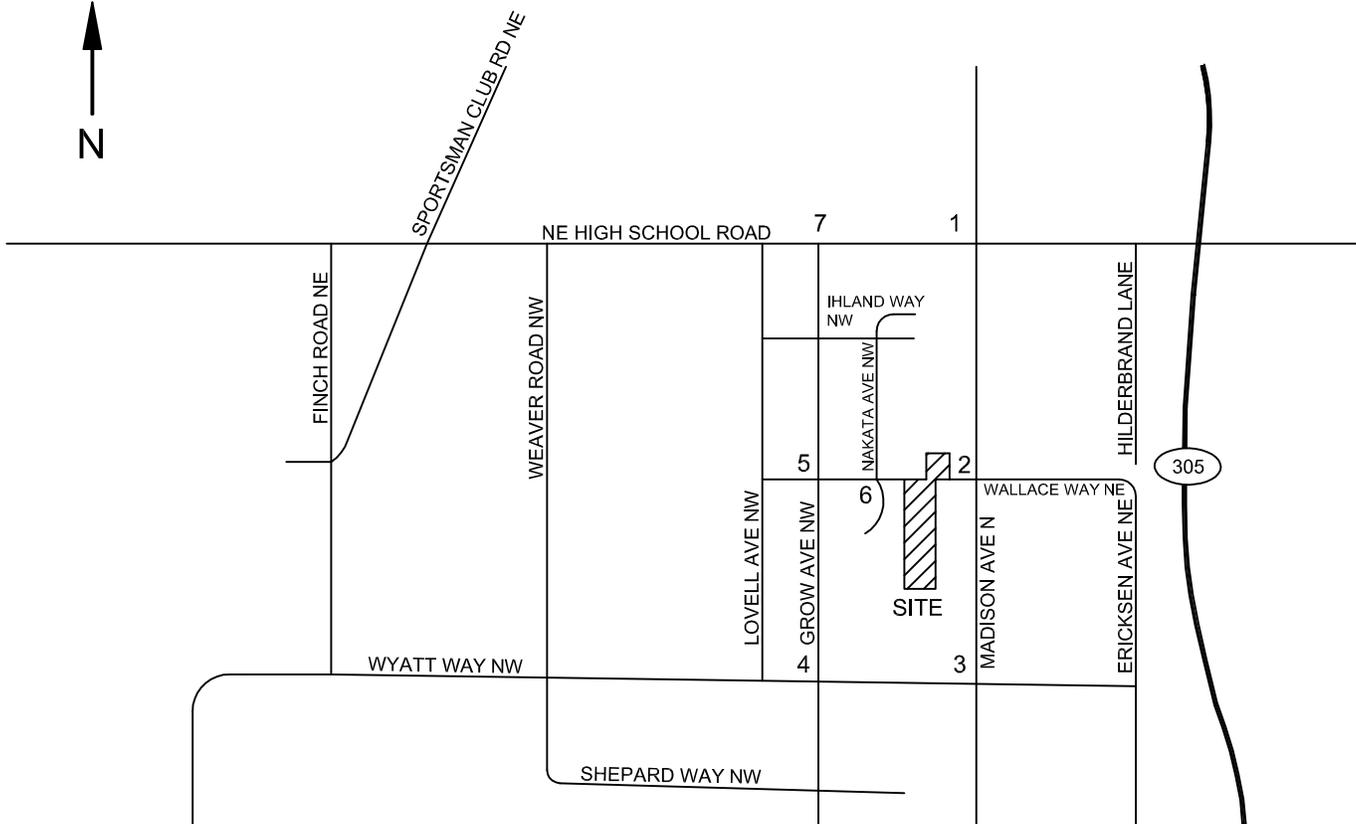
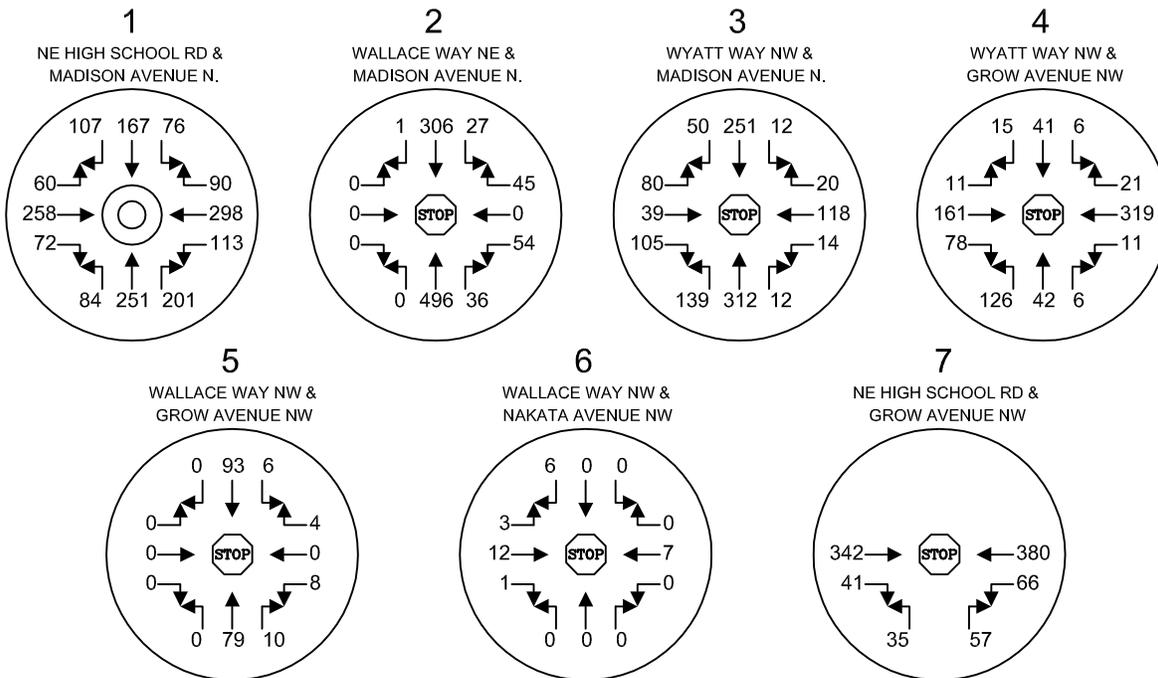


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**FORECAST 2020 BACKGROUND
PM PEAK HOUR VOLUMES**

FIGURE 12

Wallace Cottages
BAINBRIDGE ISLAND

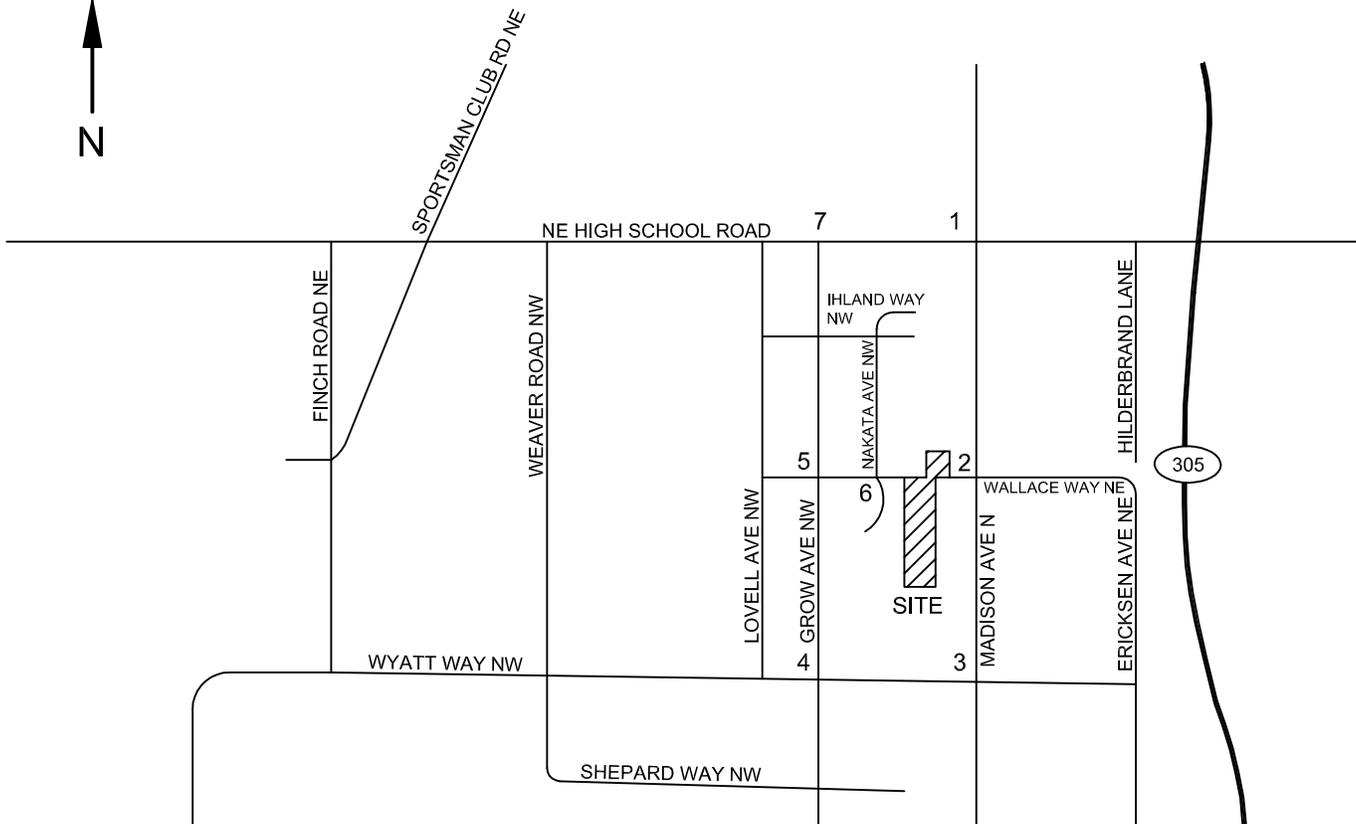
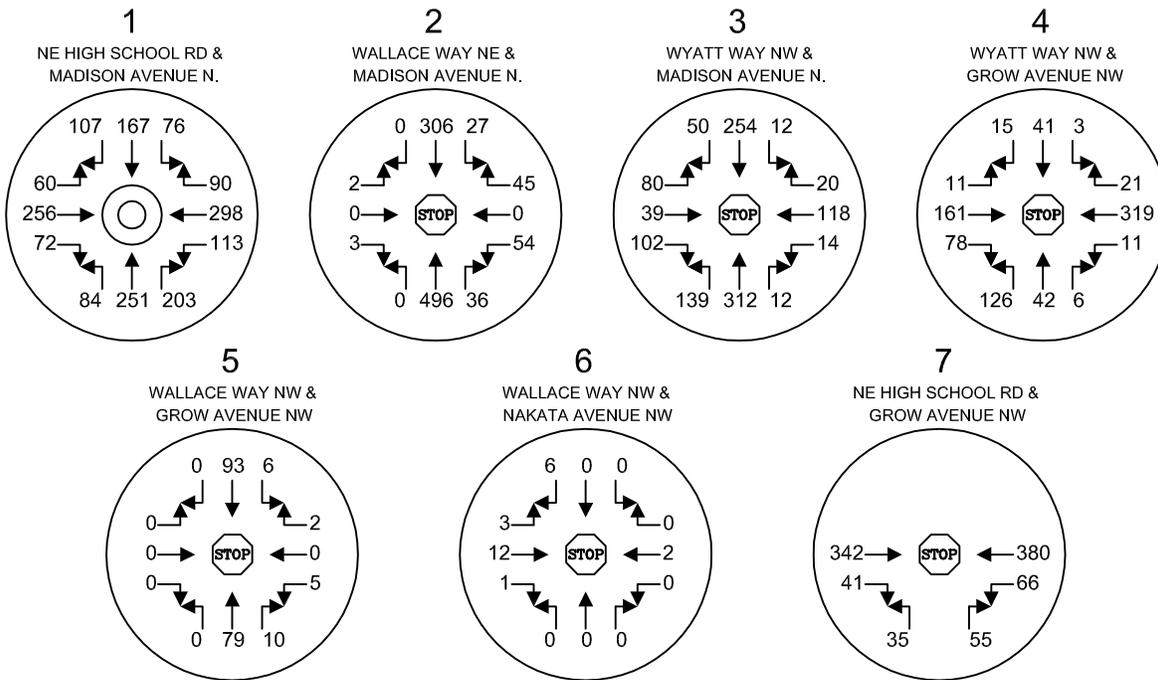


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**FORECAST 2020 WITH PROJECT
PM PEAK HOUR VOLUMES ALTERNATIVE-1**

FIGURE 13

Wallace Cottages
BAINBRIDGE ISLAND

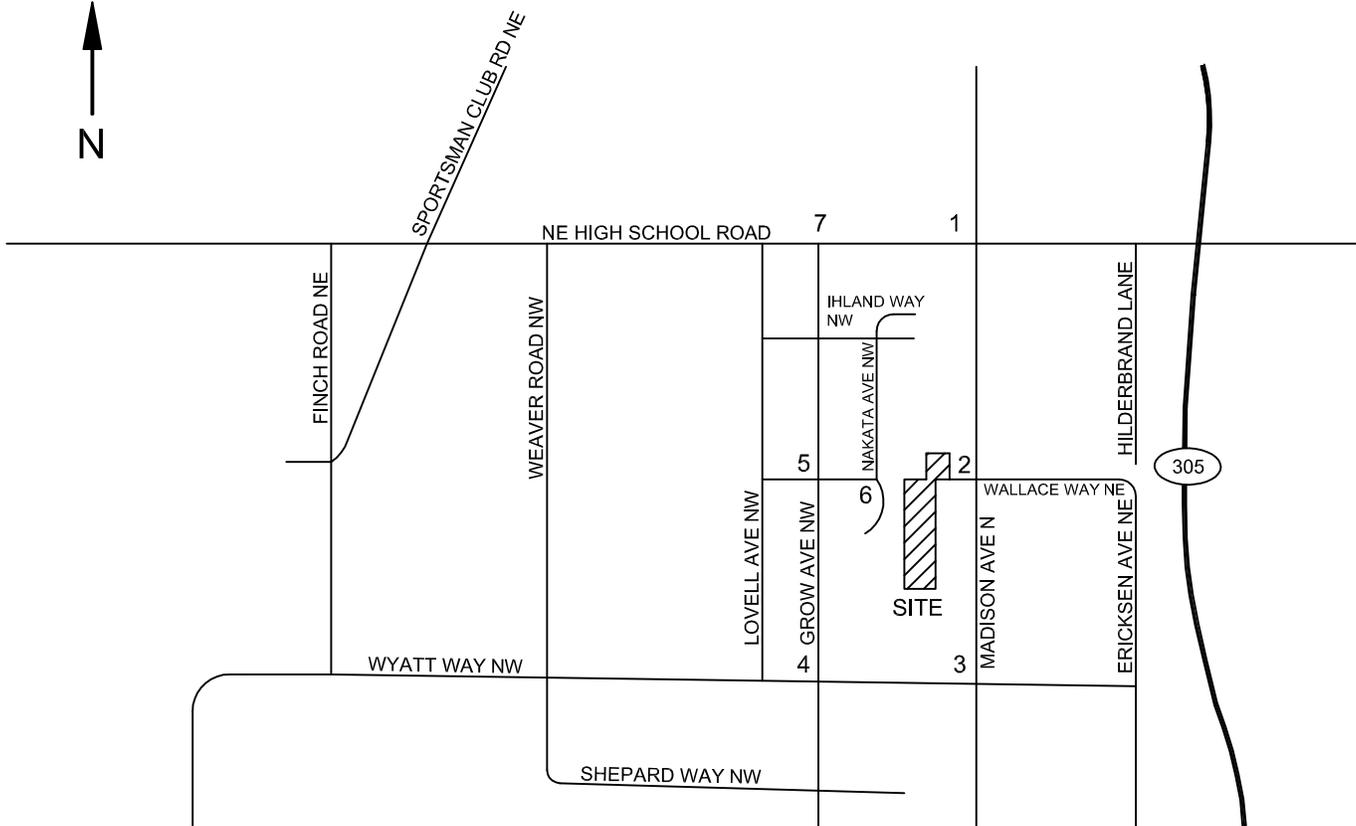
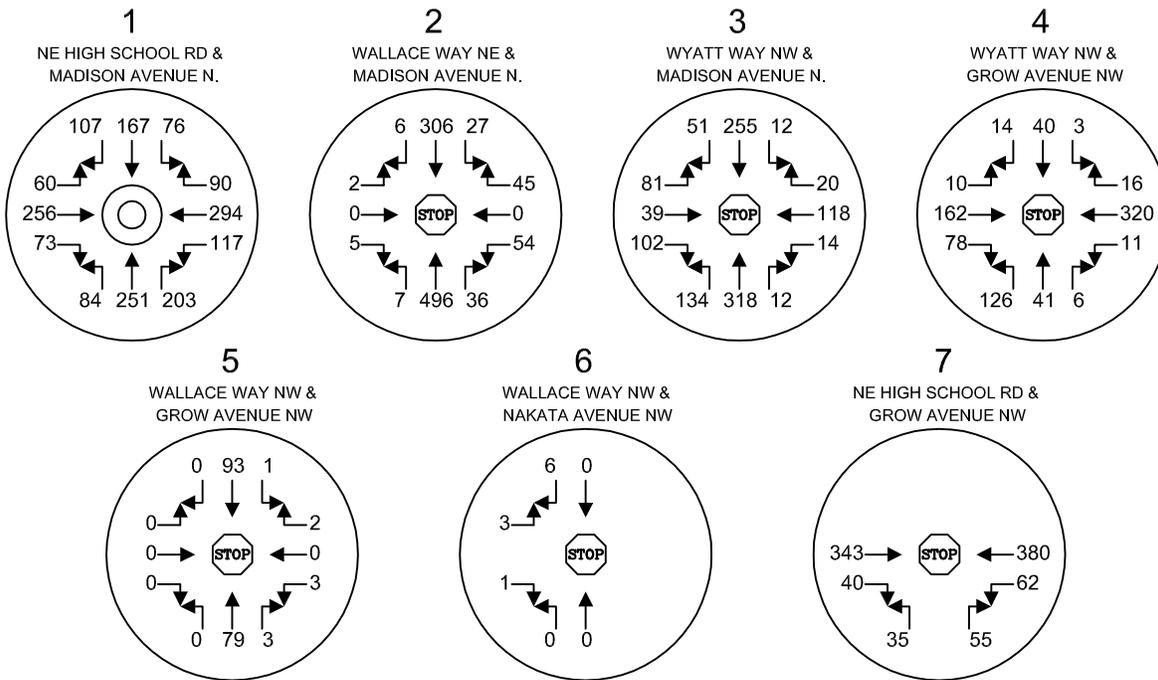


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**FORECAST 2020 WITH PROJECT
PM PEAK HOUR VOLUMES ALTERNATIVE-1-2**

FIGURE 14

Wallace Cottages
BAINBRIDGE ISLAND

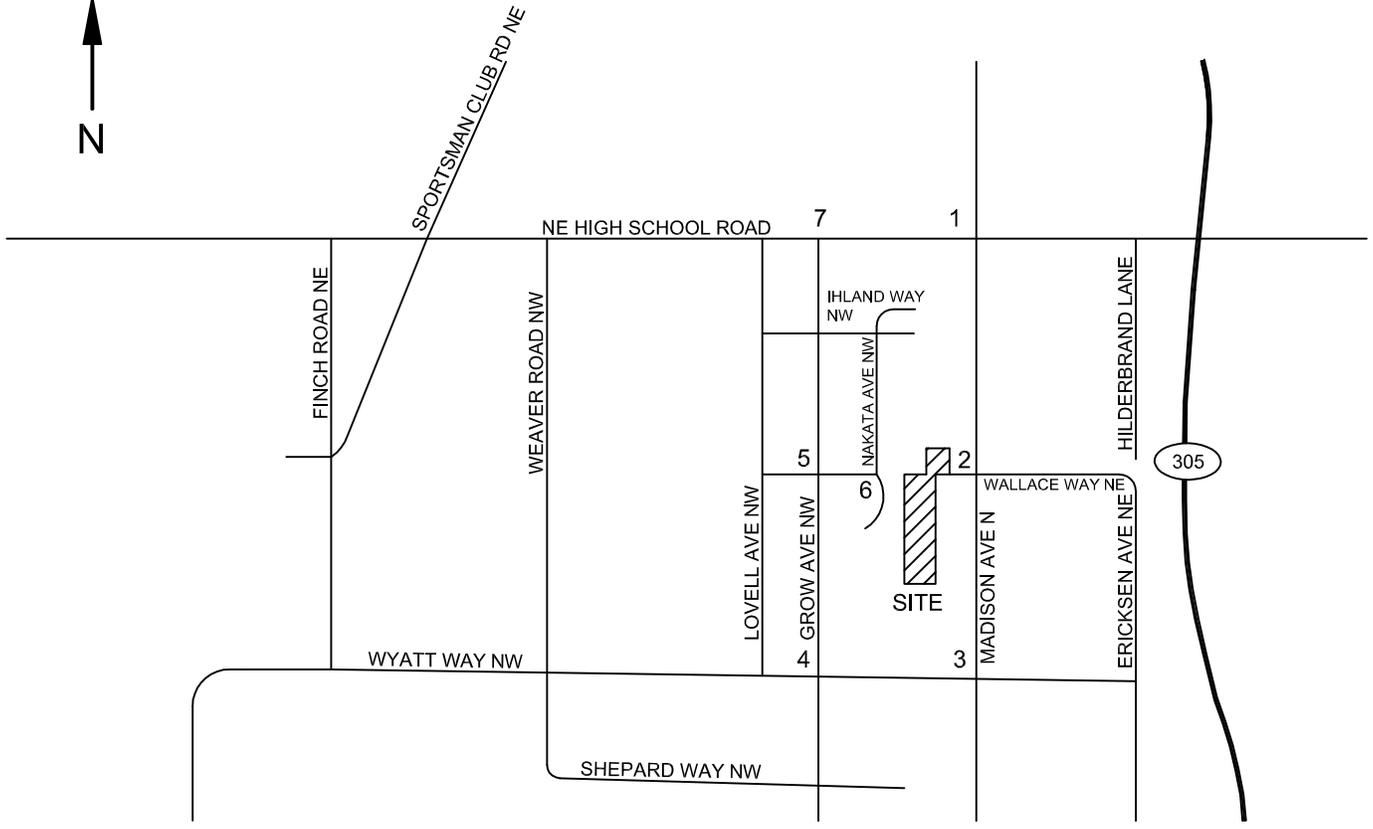
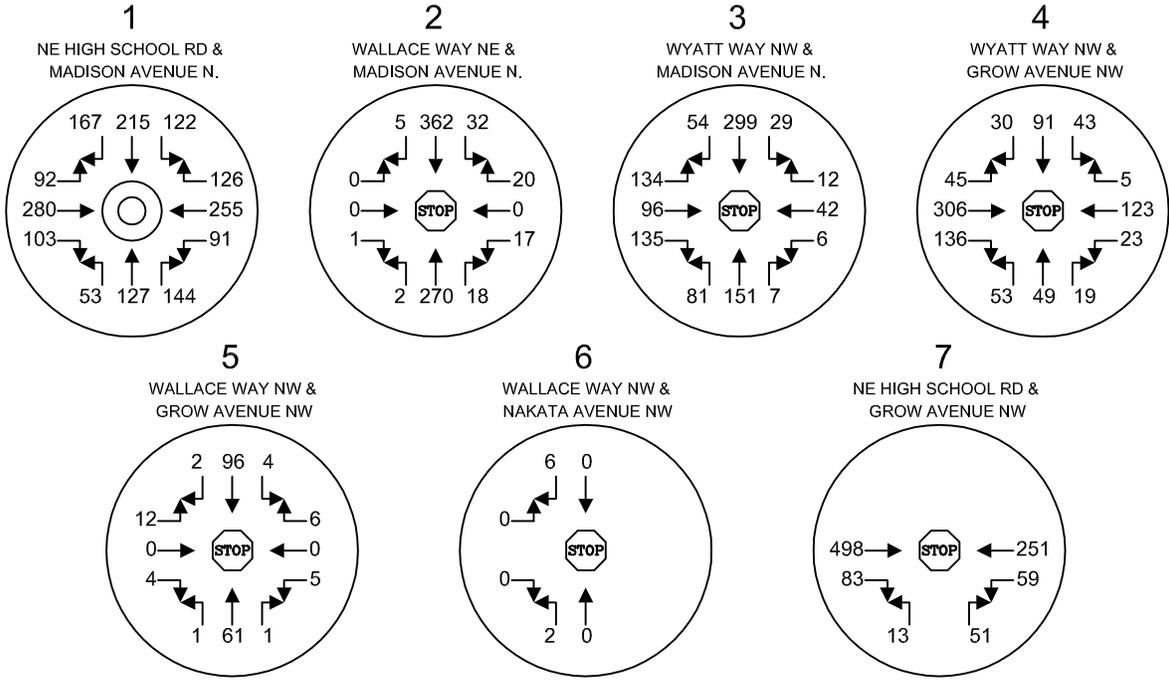


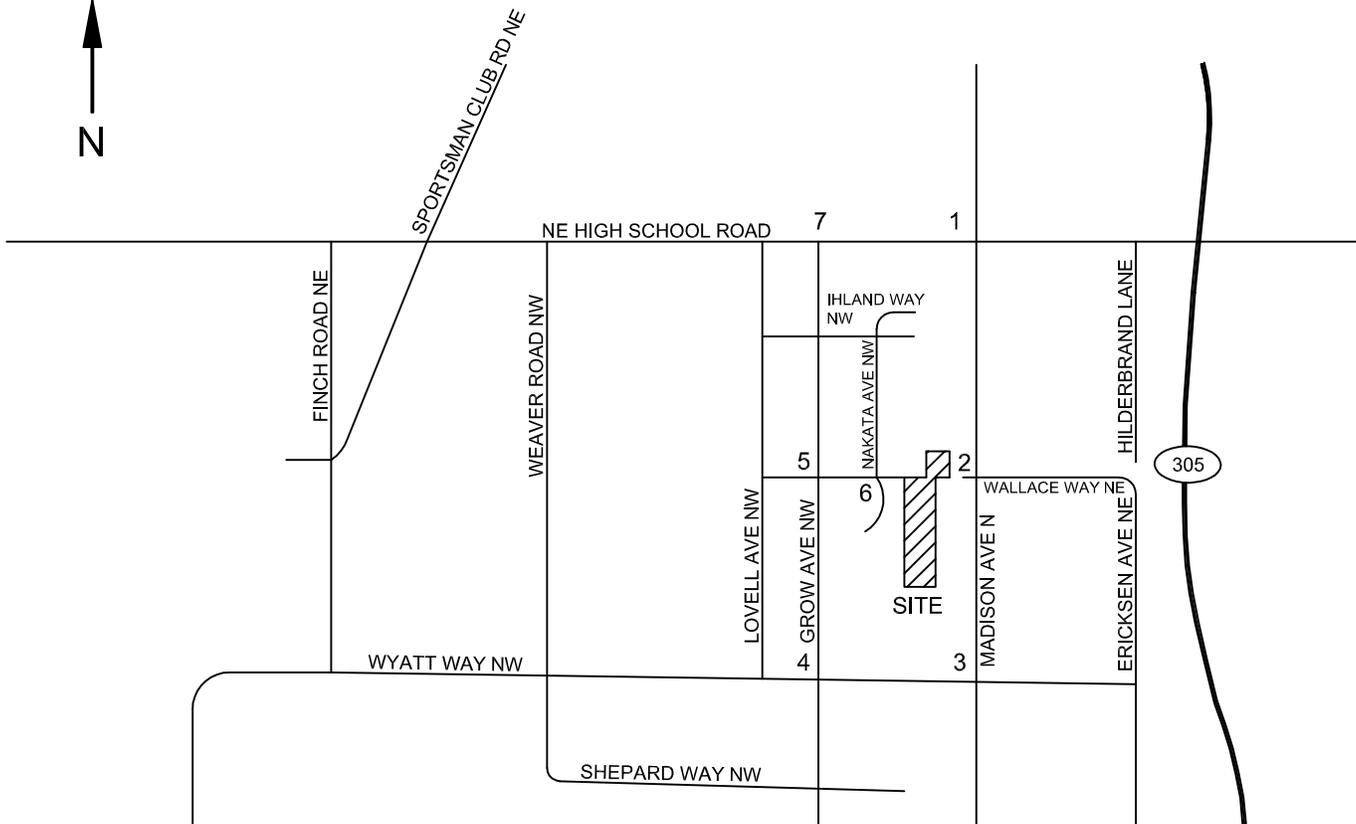
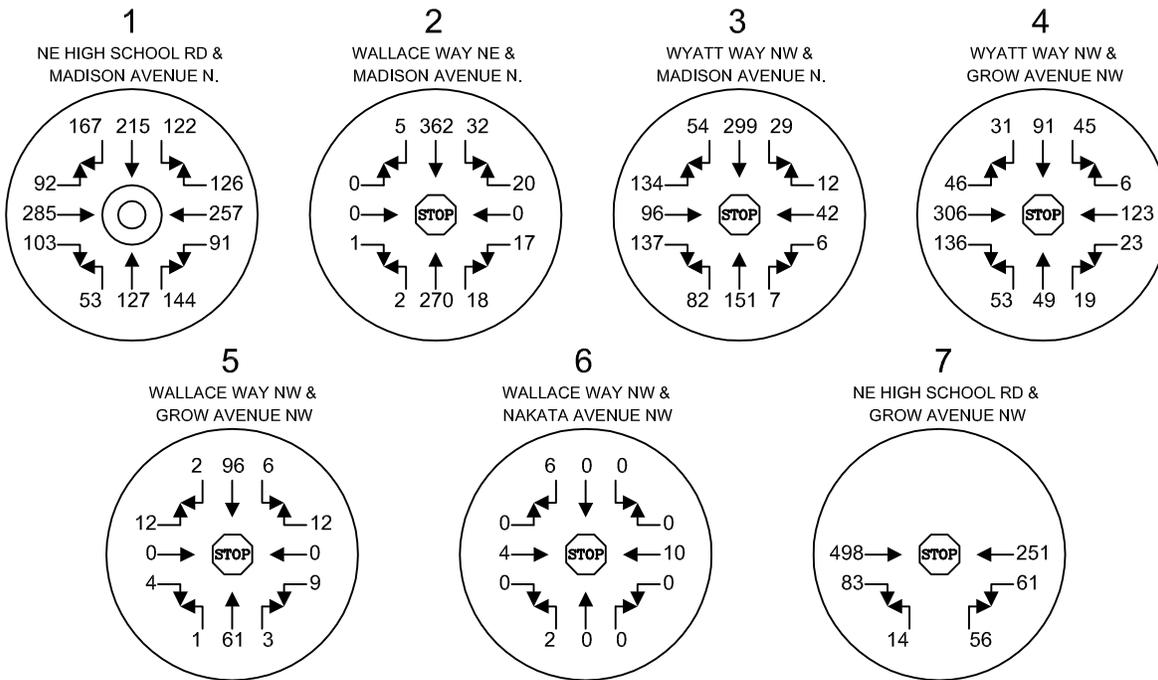
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**FORECAST 2020 WITH PROJECT
PM PEAK HOUR VOLUMES ALTERNATIVE-2**

FIGURE 15

Wallace Cottages
BAINBRIDGE ISLAND



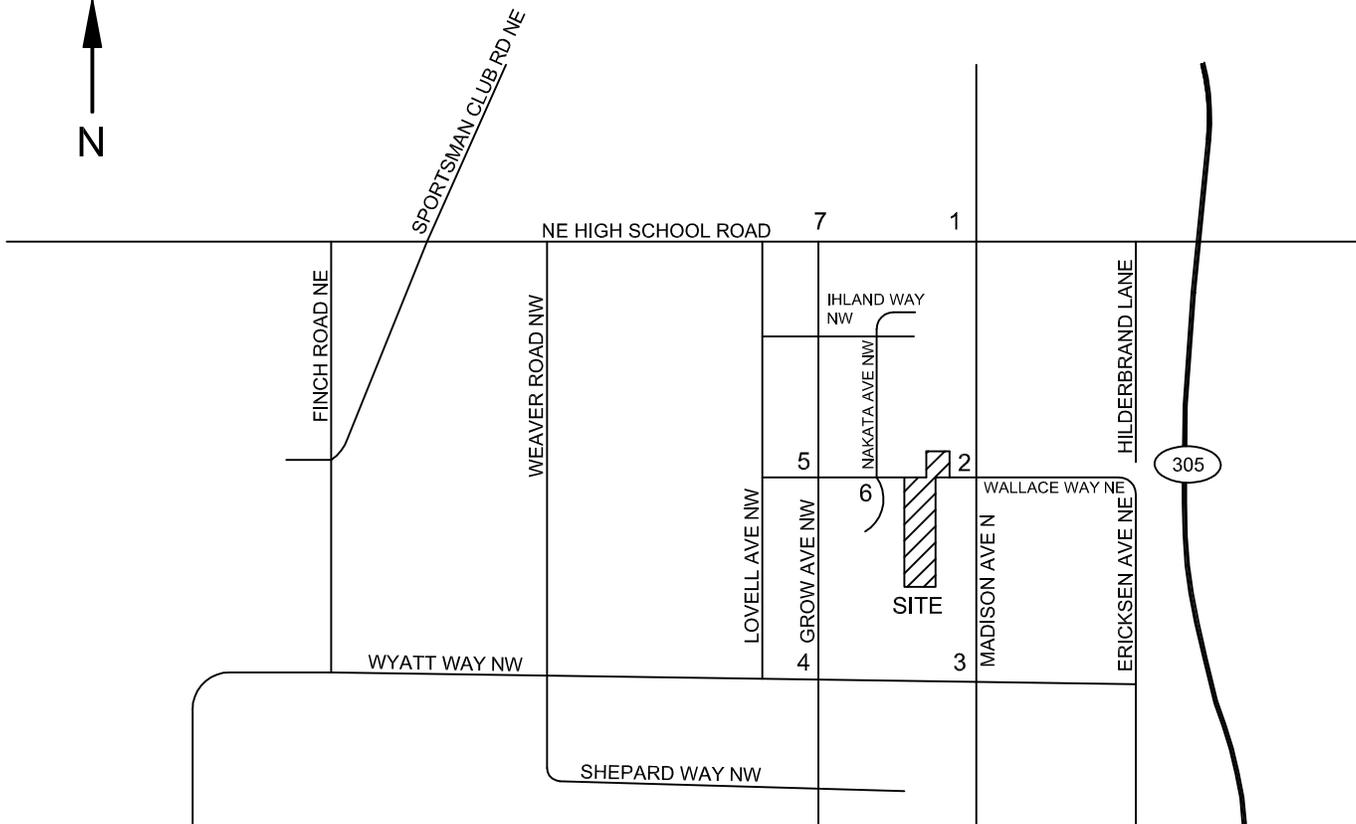
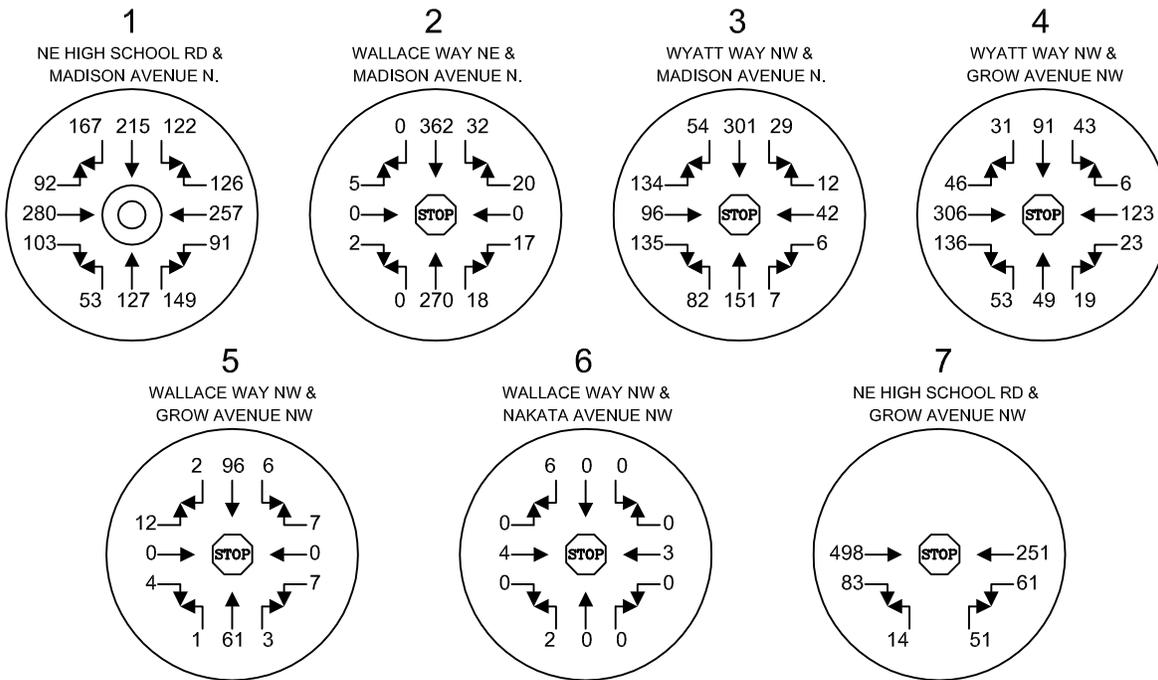


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**FORECAST 2035 WITH PROJECT
AM PEAK HOUR VOLUMES ALTERNATIVE-1**

FIGURE 17

Wallace Cottages
BAINBRIDGE ISLAND

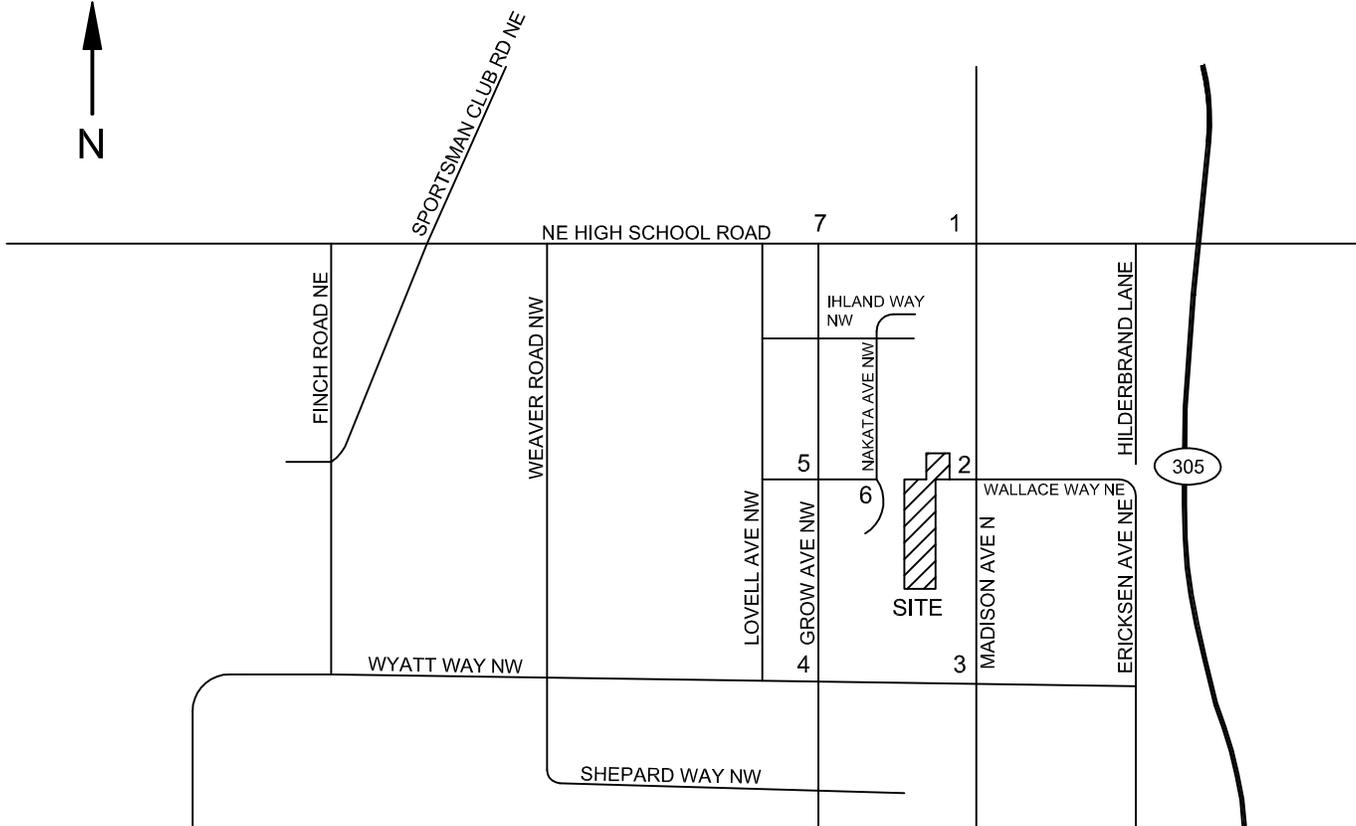
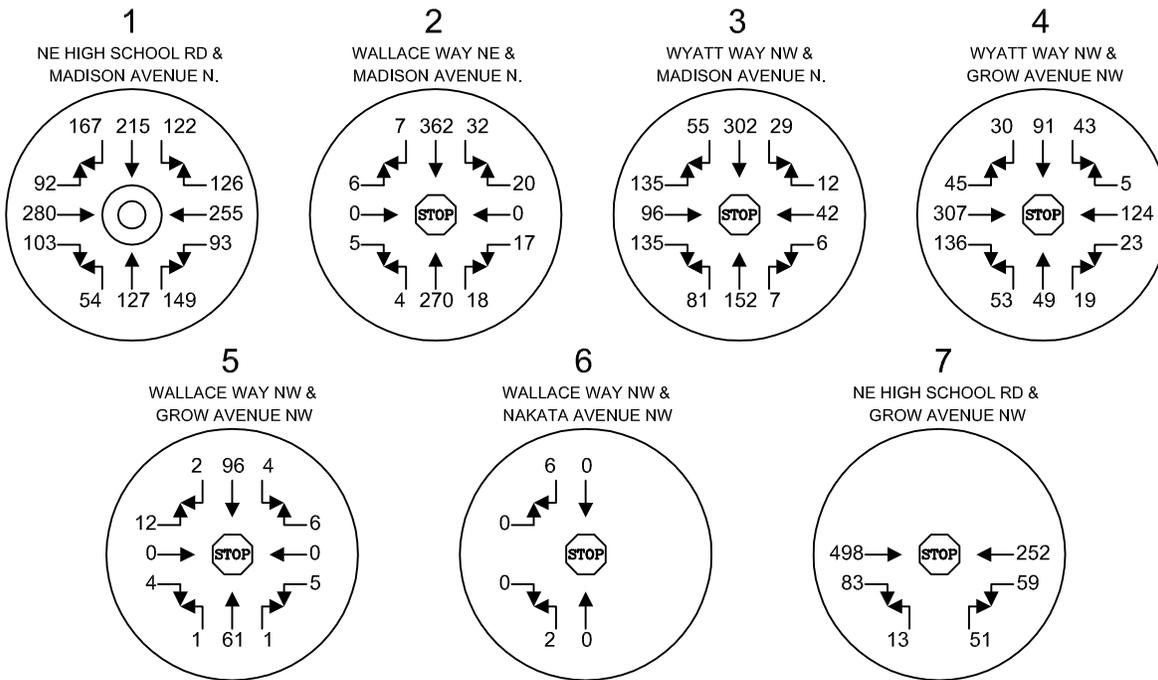


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**FORECAST 2035 WITH PROJECT
AM PEAK HOUR VOLUMES ALTERNATIVE-1-2**

FIGURE 18

Wallace Cottages
BAINBRIDGE ISLAND

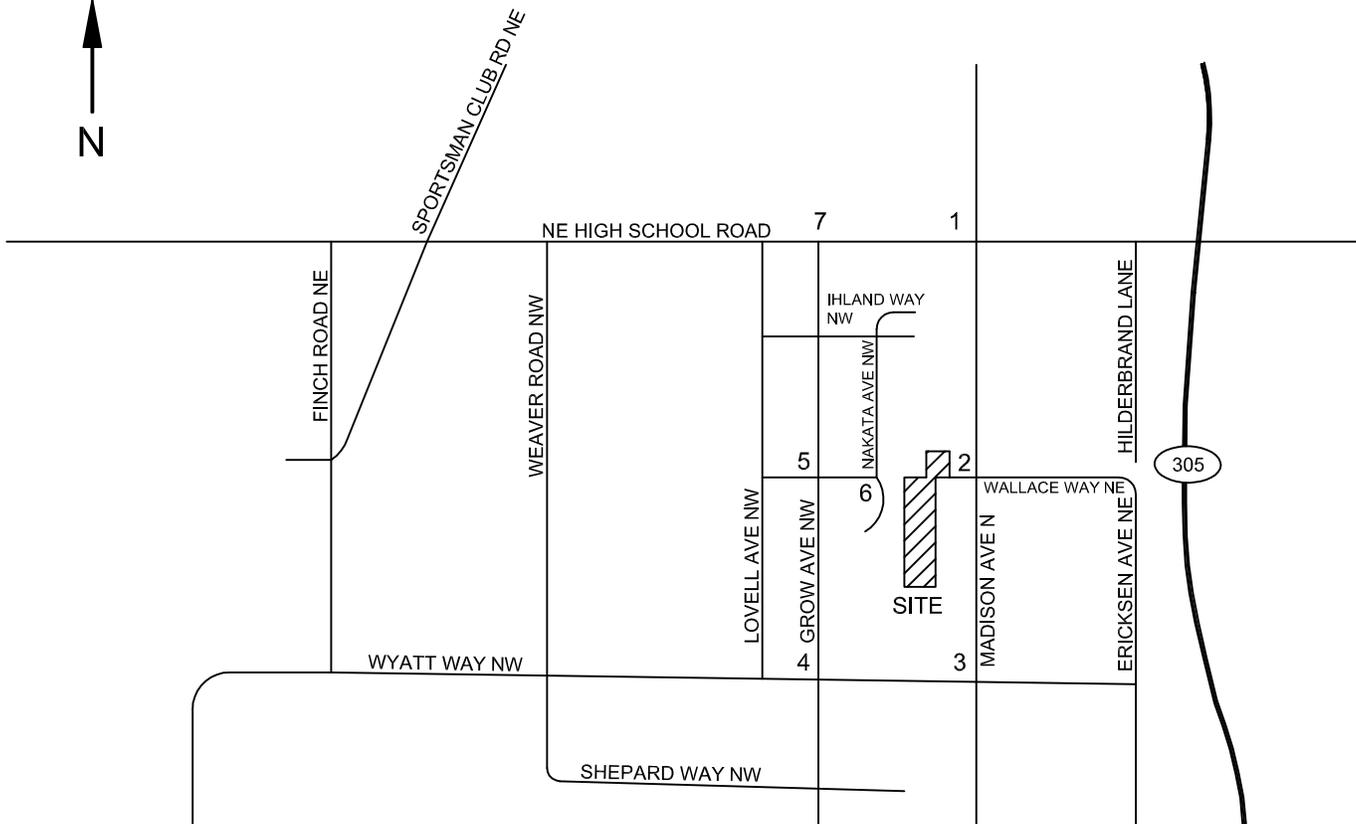
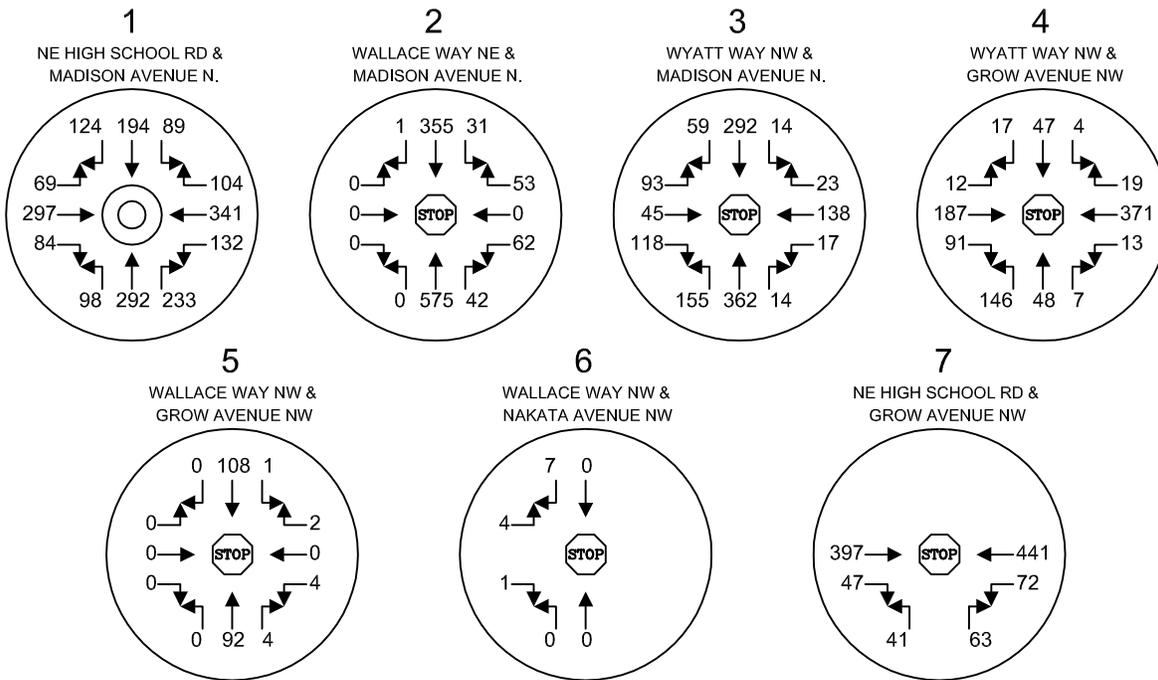


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FORECAST 2035 WITH PROJECT
AM PEAK HOUR VOLUMES ALTERNATIVE-2

FIGURE 19

Wallace Cottages
BAINBRIDGE ISLAND

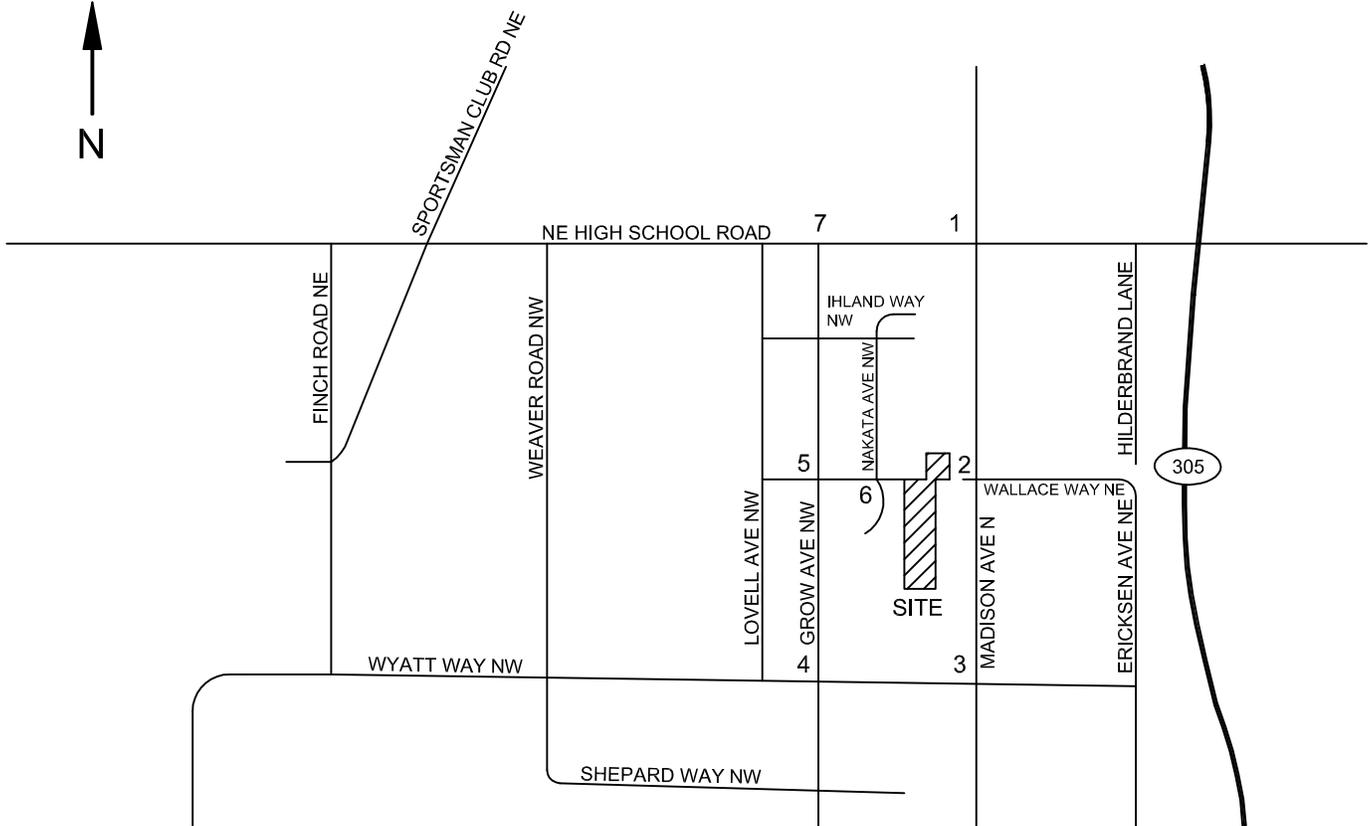
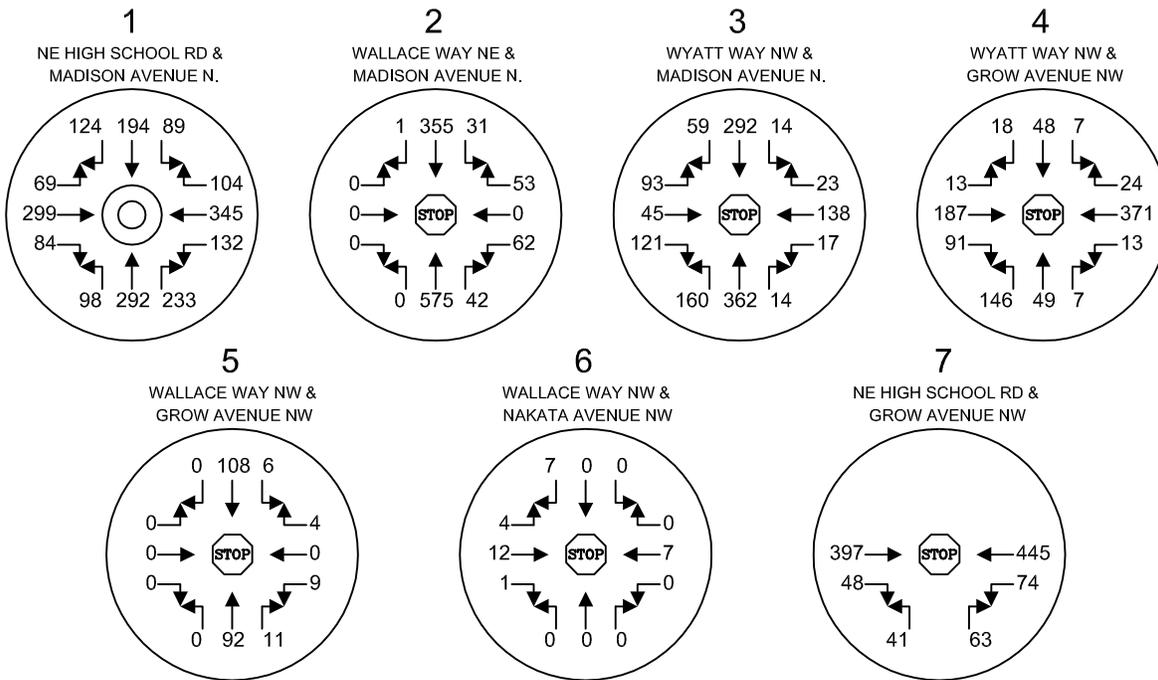


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**FORECAST 2035 BACKGROUND
PM PEAK HOUR VOLUMES**

FIGURE 20

Wallace Cottages
BAINBRIDGE ISLAND

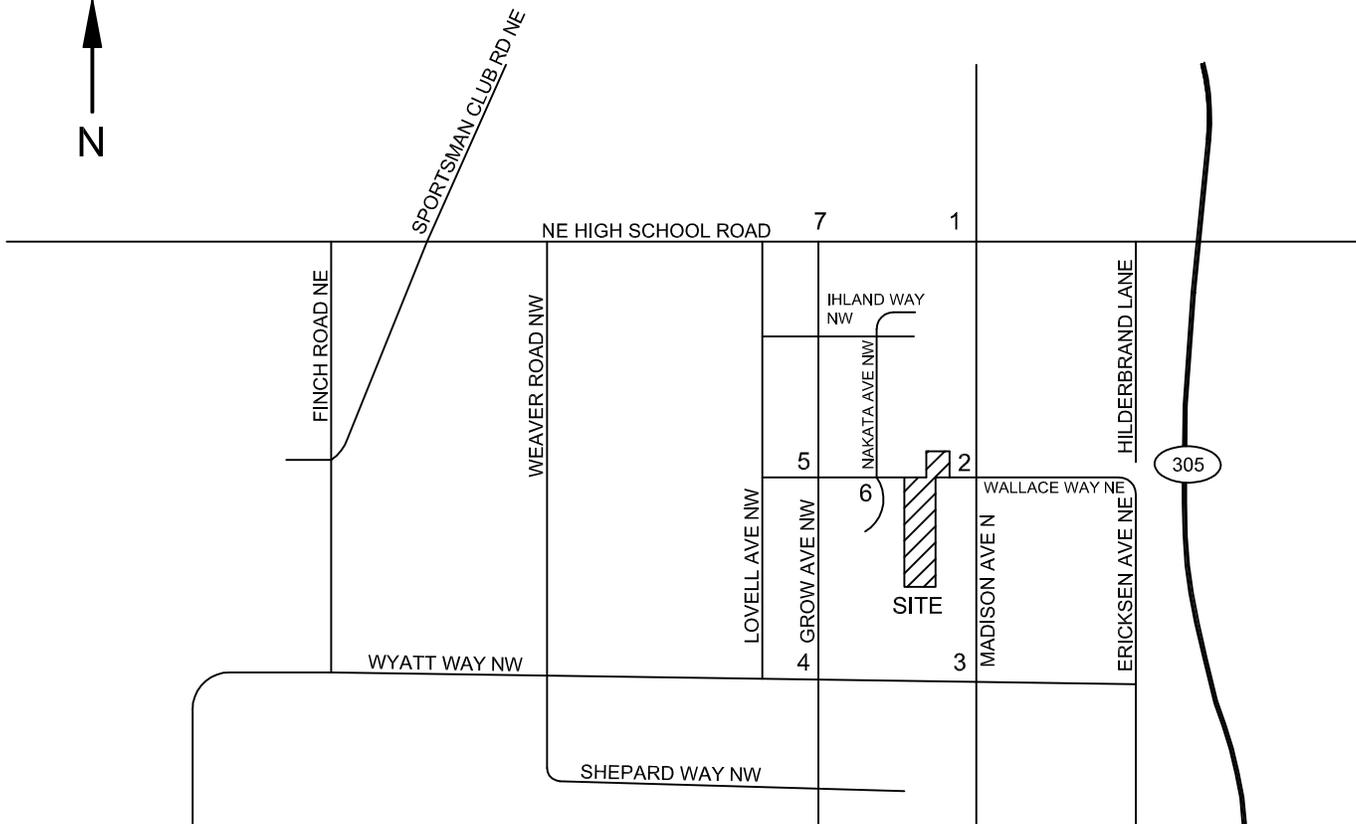
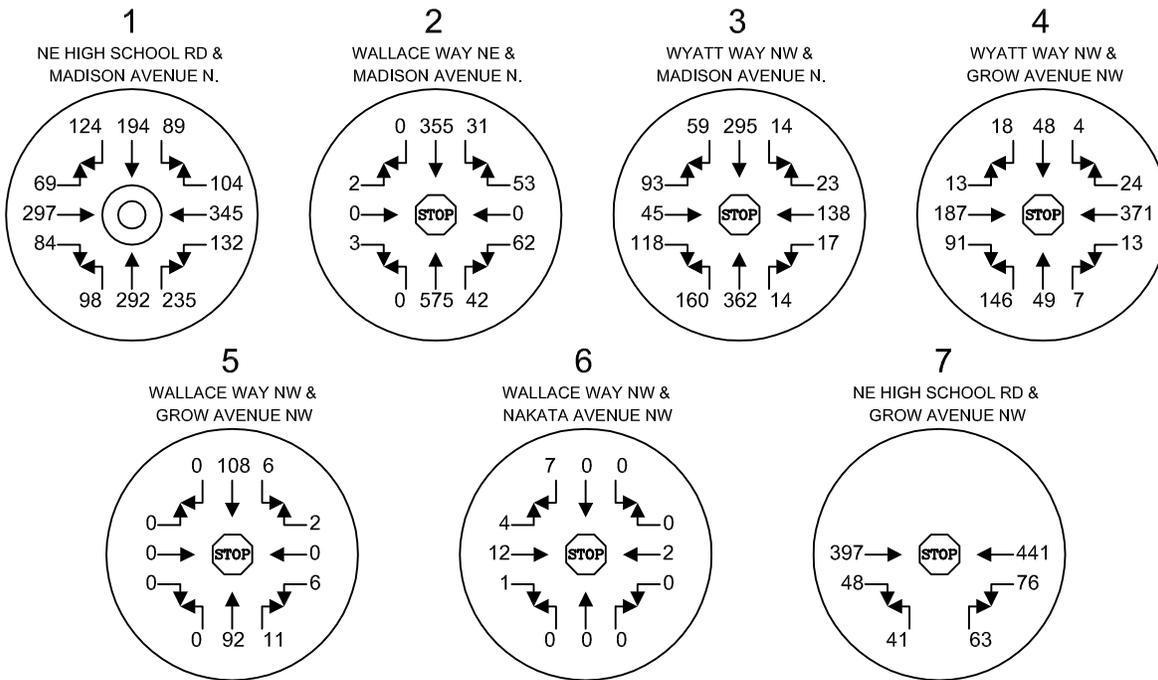


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**FORECAST 2035 WITH PROJECT
PM PEAK HOUR VOLUMES ALTERNATIVE-1**

FIGURE 21

Wallace Cottages
BAINBRIDGE ISLAND

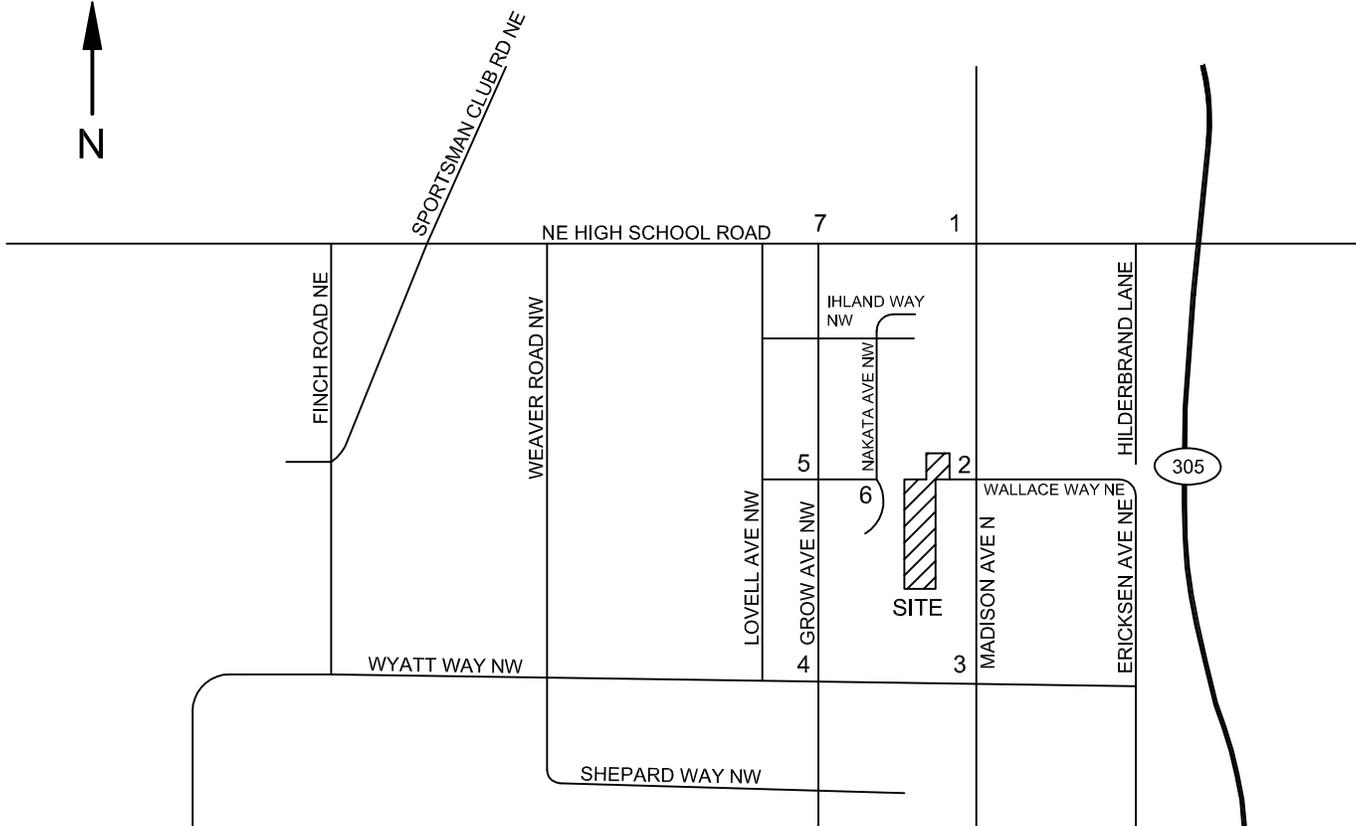
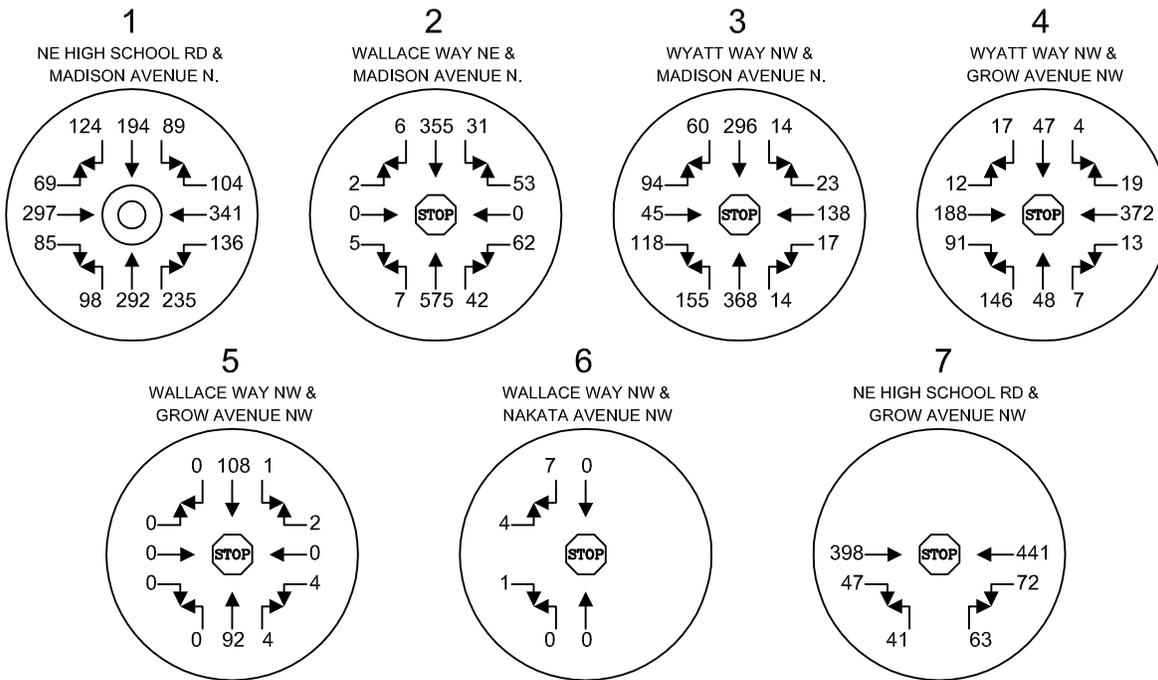


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FORECAST 2035 WITH PROJECT
PM PEAK HOUR VOLUMES ALTERNATIVE-1-2

FIGURE 22

Wallace Cottages
BAINBRIDGE ISLAND



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**FORECAST 2035 WITH PROJECT
PM PEAK HOUR VOLUMES ALTERNATIVE-2**

FIGURE 23

Wallace Cottages
BAINBRIDGE ISLAND

WALLACE COTTAGES
TRAFFIC IMPACT ANALYSIS
TRIP GENERATION

APPENDIX

Trip Generation Summary

Alternative: Alternative 1

Phase:

Open Date: 7/5/2017

Project: Wallace Cottages

Analysis Date: 7/5/2017

ITE	Land Use	Weekday Average Daily Trips			Weekday AM Peak Hour of Adjacent Street Traffic			Weekday PM Peak Hour of Adjacent Street Traffic					
		*	Enter	Exit	Total	*	Enter	Exit	Total	*	Enter	Exit	Total
210	Single Family Dwelling Un 19 Dwelling Units		91	90	181		4	10	14		12	7	19
Unadjusted Volume			91	90	181		4	10	14		12	7	19
Internal Capture Trips			0	0	0		0	0	0		0	0	0
Pass-By Trips			0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets			91	90	181		4	10	14		12	7	19

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

TRIP GENERATION 2014, TRAFFICWARE, LLC

P. 1

WALLACE COTTAGES
TRAFFIC IMPACT ANALYSIS
FIELD COUNTS

APPENDIX

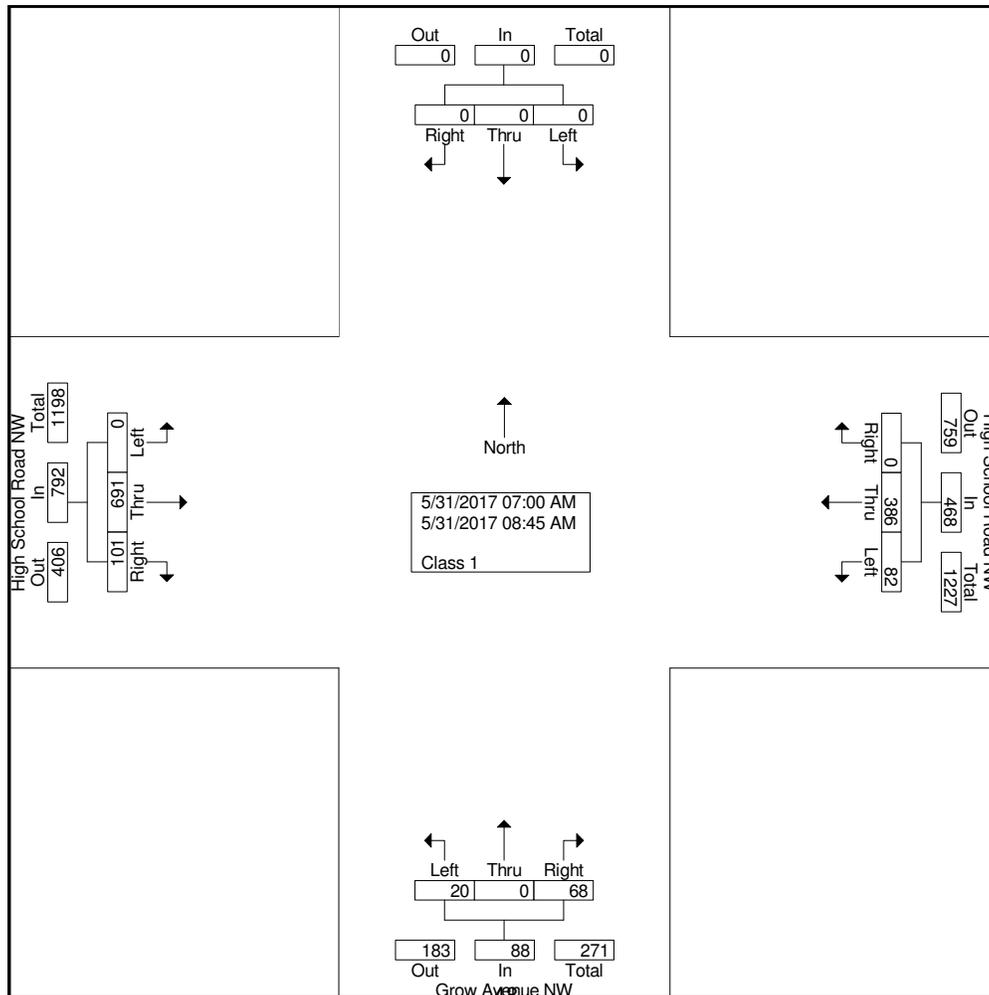
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2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968g
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Southbound				High School Road NW Westbound				Grow Avenue NW Northbound				High School Road NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	38	2	40	3	0	0	3	3	30	0	33	76
07:15 AM	0	0	0	0	0	33	11	44	8	0	1	9	5	66	0	71	124
07:30 AM	0	0	0	0	0	42	6	48	10	0	3	13	14	123	0	137	198
07:45 AM	0	0	0	0	0	62	16	78	8	0	4	12	15	82	0	97	187
Total	0	0	0	0	0	175	35	210	29	0	8	37	37	301	0	338	585
08:00 AM	0	0	0	0	0	45	11	56	13	0	2	15	19	97	0	116	187
08:15 AM	0	0	0	0	0	61	16	77	12	0	2	14	21	114	0	135	226
08:30 AM	0	0	0	0	0	46	15	61	11	0	4	15	10	102	0	112	188
08:45 AM	0	0	0	0	0	59	5	64	3	0	4	7	14	77	0	91	162
Total	0	0	0	0	0	211	47	258	39	0	12	51	64	390	0	454	763
Grand Total	0	0	0	0	0	386	82	468	68	0	20	88	101	691	0	792	1348
Apprch %	0	0	0	0	0	82.5	17.5		77.3	0	22.7		12.8	87.2	0		
Total %	0	0	0	0	0	28.6	6.1	34.7	5	0	1.5	6.5	7.5	51.3	0	58.8	

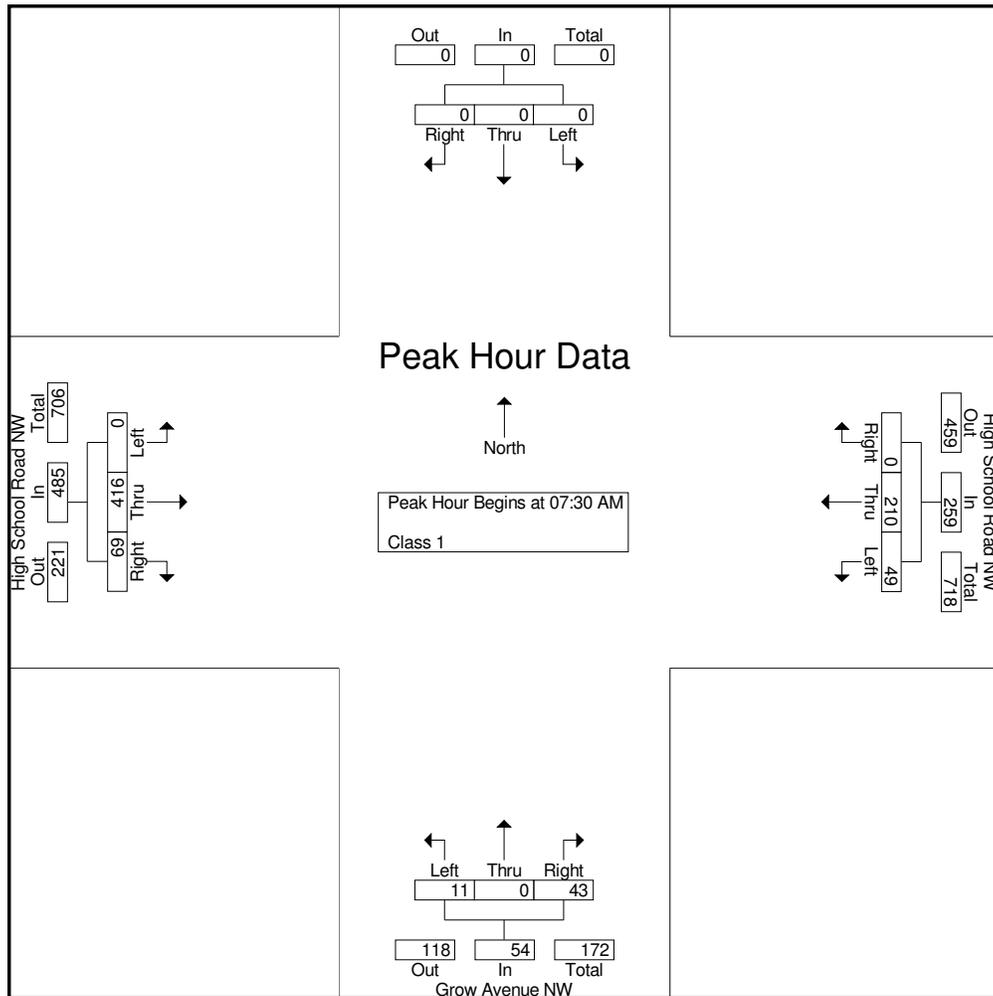


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2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968g
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Southbound				High School Road NW Westbound				Grow Avenue NW Northbound				High School Road NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	42	6	48	10	0	3	13	14	123	0	137	198
07:45 AM	0	0	0	0	0	62	16	78	8	0	4	12	15	82	0	97	187
08:00 AM	0	0	0	0	0	45	11	56	13	0	2	15	19	97	0	116	187
08:15 AM	0	0	0	0	0	61	16	77	12	0	2	14	21	114	0	135	226
Total Volume	0	0	0	0	0	210	49	259	43	0	11	54	69	416	0	485	798
% App. Total	0	0	0	0	0	81.1	18.9		79.6	0	20.4		14.2	85.8	0		
PHF	.000	.000	.000	.000	.000	.847	.766	.830	.827	.000	.688	.900	.821	.846	.000	.885	.883



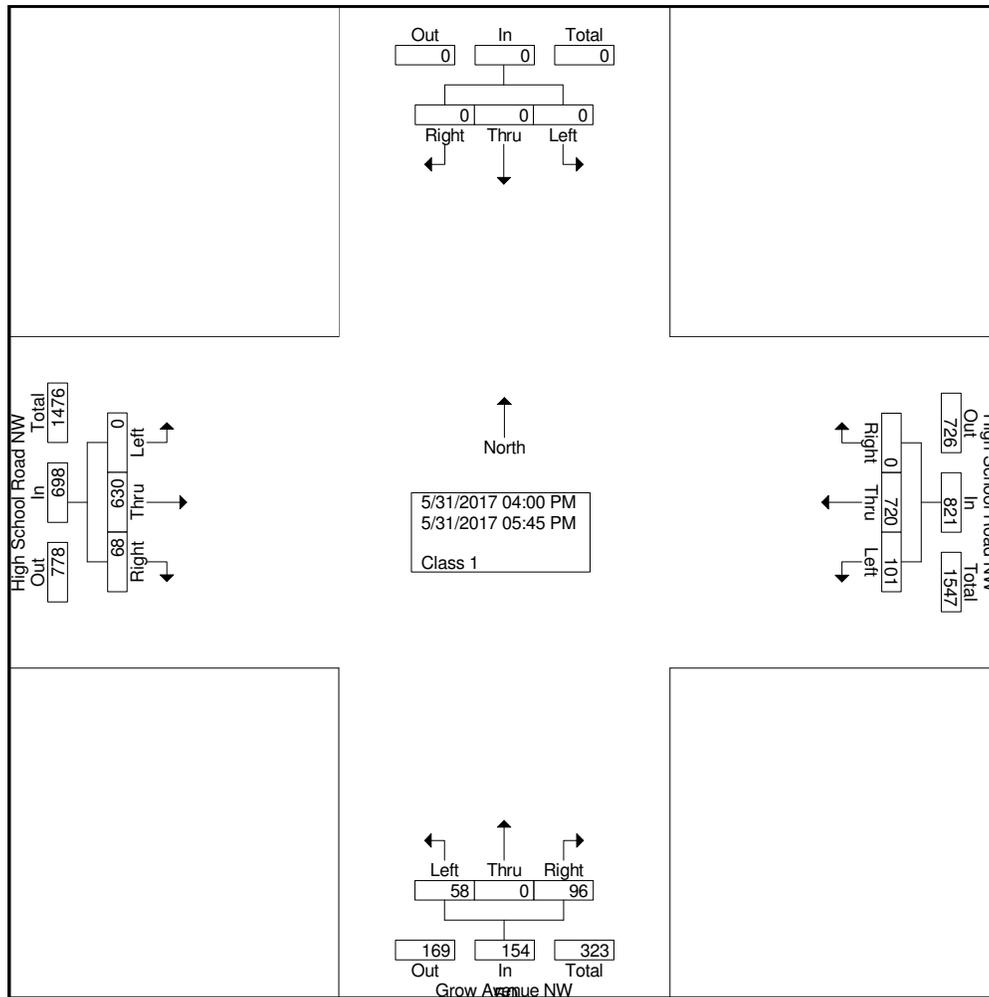
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2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968h
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Southbound				High School Road NW Westbound				Grow Avenue NW Northbound				High School Road NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	0	0	0	0	0	87	11	98	13	0	8	21	11	79	0	90	209
04:15 PM	0	0	0	0	0	71	6	77	14	0	7	21	10	80	0	90	188
04:30 PM	0	0	0	0	0	101	15	116	14	0	9	23	7	65	0	72	211
04:45 PM	0	0	0	0	0	94	13	107	9	0	8	17	11	97	0	108	232
Total	0	0	0	0	0	353	45	398	50	0	32	82	39	321	0	360	840
05:00 PM	0	0	0	0	0	82	11	93	10	0	10	20	10	88	0	98	211
05:15 PM	0	0	0	0	0	92	21	113	20	0	7	27	11	82	0	93	233
05:30 PM	0	0	0	0	0	95	16	111	13	0	7	20	3	60	0	63	194
05:45 PM	0	0	0	0	0	98	8	106	3	0	2	5	5	79	0	84	195
Total	0	0	0	0	0	367	56	423	46	0	26	72	29	309	0	338	833
Grand Total	0	0	0	0	0	720	101	821	96	0	58	154	68	630	0	698	1673
Apprch %	0	0	0	0	0	87.7	12.3		62.3	0	37.7		9.7	90.3	0		
Total %	0	0	0	0	0	43	6	49.1	5.7	0	3.5	9.2	4.1	37.7	0	41.7	

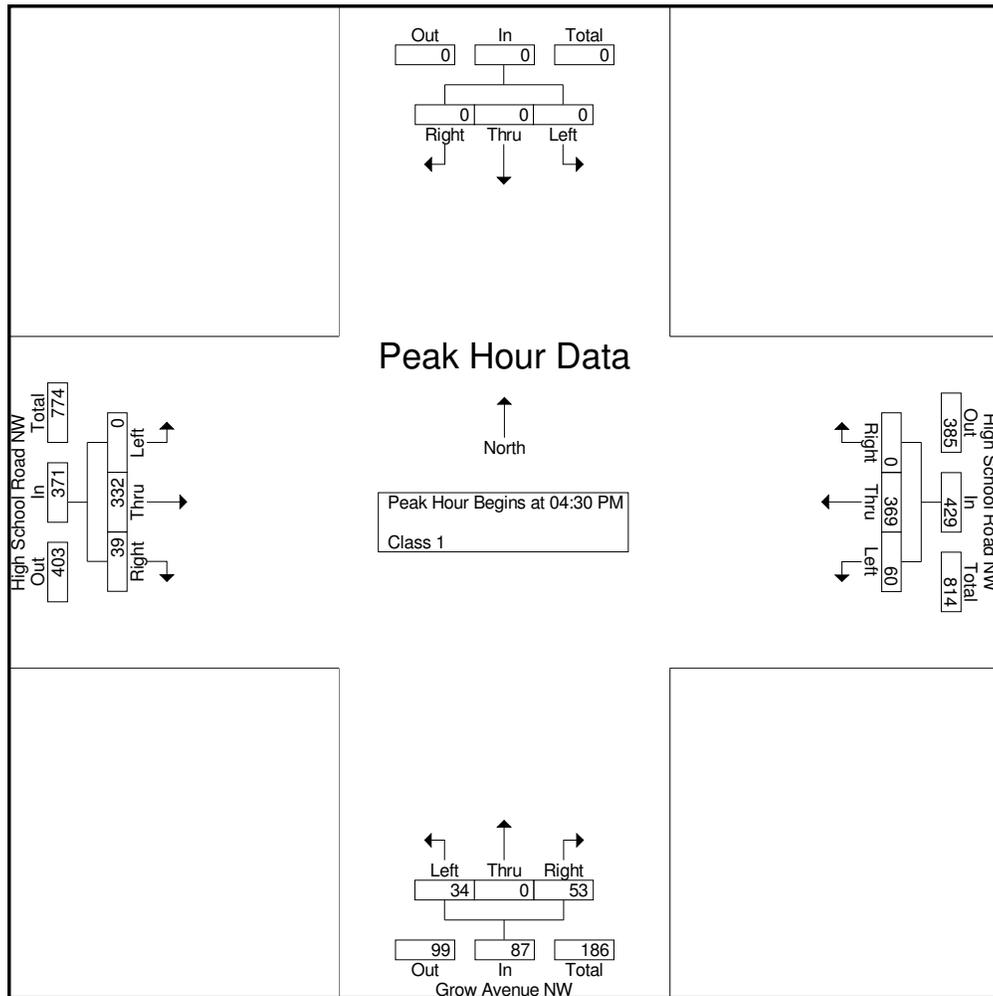


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Puyallup, WA 98371

File Name : 3968h
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Southbound				High School Road NW Westbound				Grow Avenue NW Northbound				High School Road NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	101	15	116	14	0	9	23	7	65	0	72	211
04:45 PM	0	0	0	0	0	94	13	107	9	0	8	17	11	97	0	108	232
05:00 PM	0	0	0	0	0	82	11	93	10	0	10	20	10	88	0	98	211
05:15 PM	0	0	0	0	0	92	21	113	20	0	7	27	11	82	0	93	233
Total Volume	0	0	0	0	0	369	60	429	53	0	34	87	39	332	0	371	887
% App. Total	0	0	0	0	0	86	14		60.9	0	39.1		10.5	89.5	0		
PHF	.000	.000	.000	.000	.000	.913	.714	.925	.663	.000	.850	.806	.886	.856	.000	.859	.952



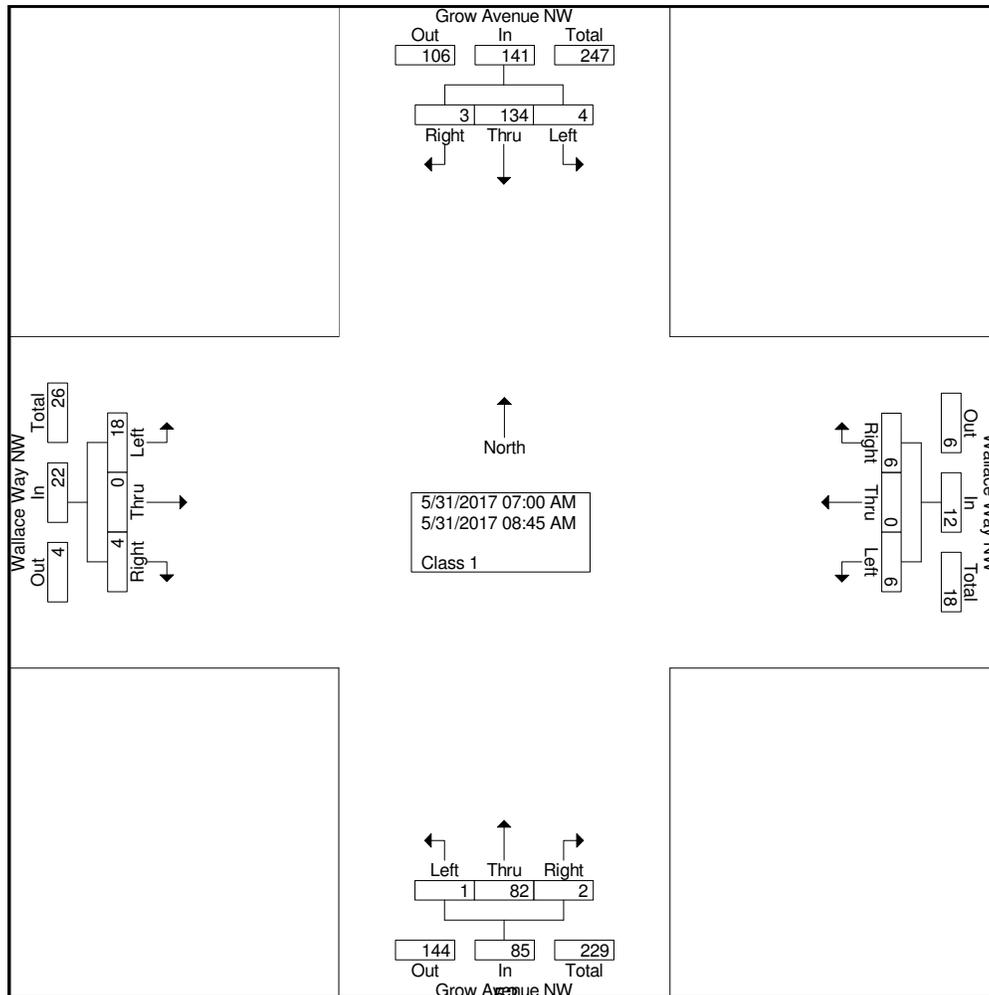
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968a
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Grow Avenue NW Southbound				Wallace Way NW Westbound				Grow Avenue NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	3	0	3	0	0	0	0	0	2	0	2	1	0	1	2	7
07:15 AM	0	7	0	7	1	0	0	1	1	13	0	14	0	0	1	1	23
07:30 AM	0	14	0	14	0	0	2	2	0	5	0	5	1	0	1	2	23
07:45 AM	1	17	0	18	1	0	1	2	0	13	1	14	0	0	0	0	34
Total	1	41	0	42	2	0	3	5	1	33	1	35	2	0	3	5	87
08:00 AM	0	21	1	22	0	0	0	0	0	15	0	15	0	0	2	2	39
08:15 AM	1	28	2	31	4	0	1	5	1	18	0	19	2	0	7	9	64
08:30 AM	1	28	1	30	0	0	2	2	0	12	0	12	0	0	6	6	50
08:45 AM	0	16	0	16	0	0	0	0	0	4	0	4	0	0	0	0	20
Total	2	93	4	99	4	0	3	7	1	49	0	50	2	0	15	17	173
Grand Total	3	134	4	141	6	0	6	12	2	82	1	85	4	0	18	22	260
Apprch %	2.1	95	2.8		50	0	50		2.4	96.5	1.2		18.2	0	81.8		
Total %	1.2	51.5	1.5	54.2	2.3	0	2.3	4.6	0.8	31.5	0.4	32.7	1.5	0	6.9	8.5	

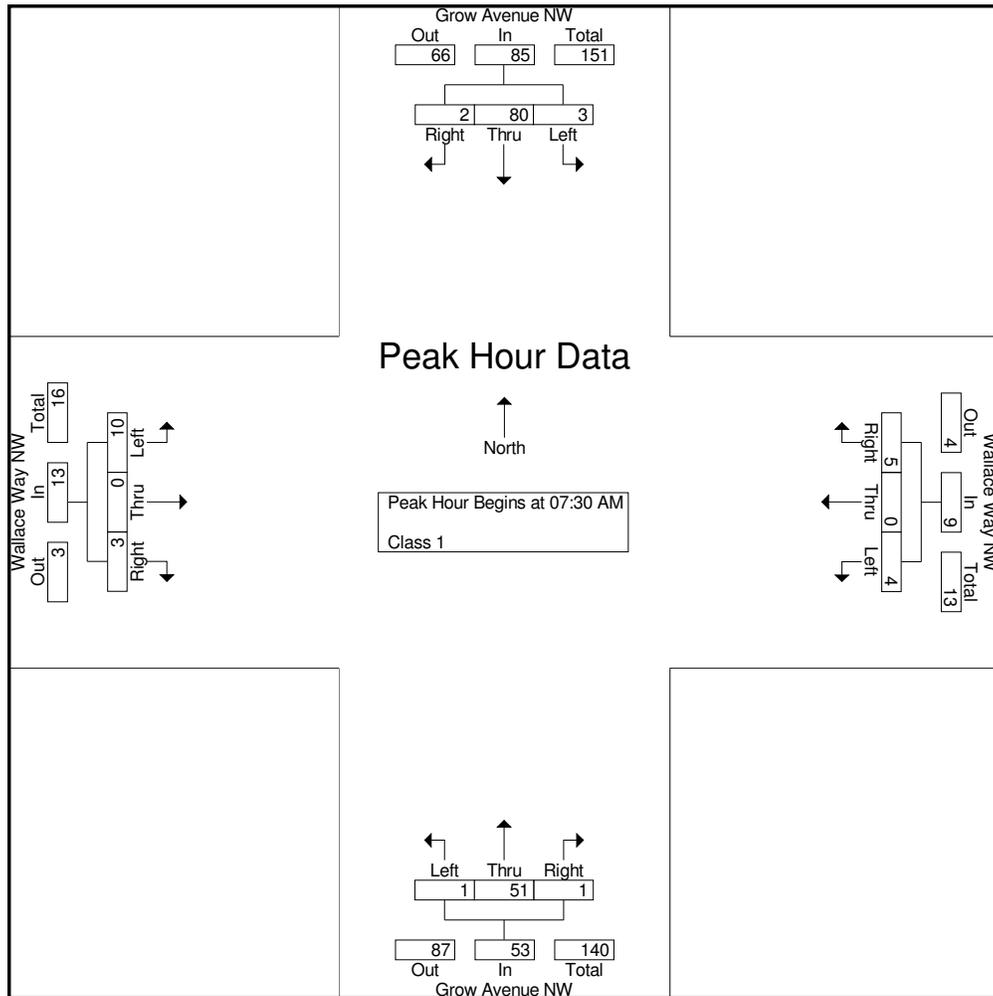


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968a
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Grow Avenue NW Southbound				Wallace Way NW Westbound				Grow Avenue NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	14	0	14	0	0	2	2	0	5	0	5	1	0	1	2	23
07:45 AM	1	17	0	18	1	0	1	2	0	13	1	14	0	0	0	0	34
08:00 AM	0	21	1	22	0	0	0	0	0	15	0	15	0	0	2	2	39
08:15 AM	1	28	2	31	4	0	1	5	1	18	0	19	2	0	7	9	64
Total Volume	2	80	3	85	5	0	4	9	1	51	1	53	3	0	10	13	160
% App. Total	2.4	94.1	3.5		55.6	0	44.4		1.9	96.2	1.9		23.1	0	76.9		
PHF	.500	.714	.375	.685	.313	.000	.500	.450	.250	.708	.250	.697	.375	.000	.357	.361	.625



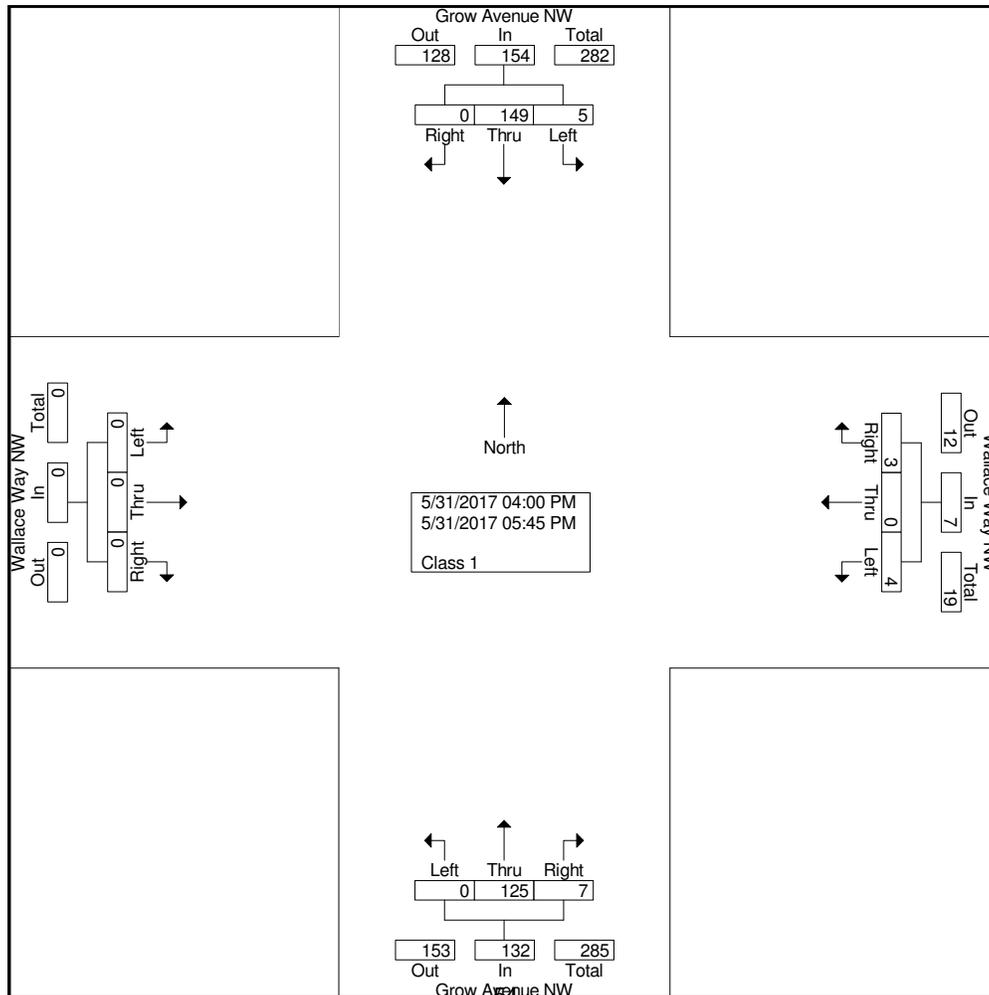
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968b
Site Code : 00003698
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Grow Avenue NW Southbound				Wallace Way NW Westbound				Grow Avenue NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	0	16	0	16	0	0	0	0	1	11	0	12	0	0	0	0	28
04:15 PM	0	16	0	16	1	0	1	2	1	16	0	17	0	0	0	0	35
04:30 PM	0	17	0	17	0	0	0	0	2	15	0	17	0	0	0	0	34
04:45 PM	0	23	0	23	0	0	2	2	0	18	0	18	0	0	0	0	43
Total	0	72	0	72	1	0	3	4	4	60	0	64	0	0	0	0	140
05:00 PM	0	23	1	24	1	0	1	2	1	22	0	23	0	0	0	0	49
05:15 PM	0	27	0	27	1	0	0	1	0	22	0	22	0	0	0	0	50
05:30 PM	0	11	3	14	0	0	0	0	2	13	0	15	0	0	0	0	29
05:45 PM	0	16	1	17	0	0	0	0	0	8	0	8	0	0	0	0	25
Total	0	77	5	82	2	0	1	3	3	65	0	68	0	0	0	0	153
Grand Total	0	149	5	154	3	0	4	7	7	125	0	132	0	0	0	0	293
Apprch %	0	96.8	3.2		42.9	0	57.1		5.3	94.7	0		0	0	0		
Total %	0	50.9	1.7	52.6	1	0	1.4	2.4	2.4	42.7	0	45.1	0	0	0	0	

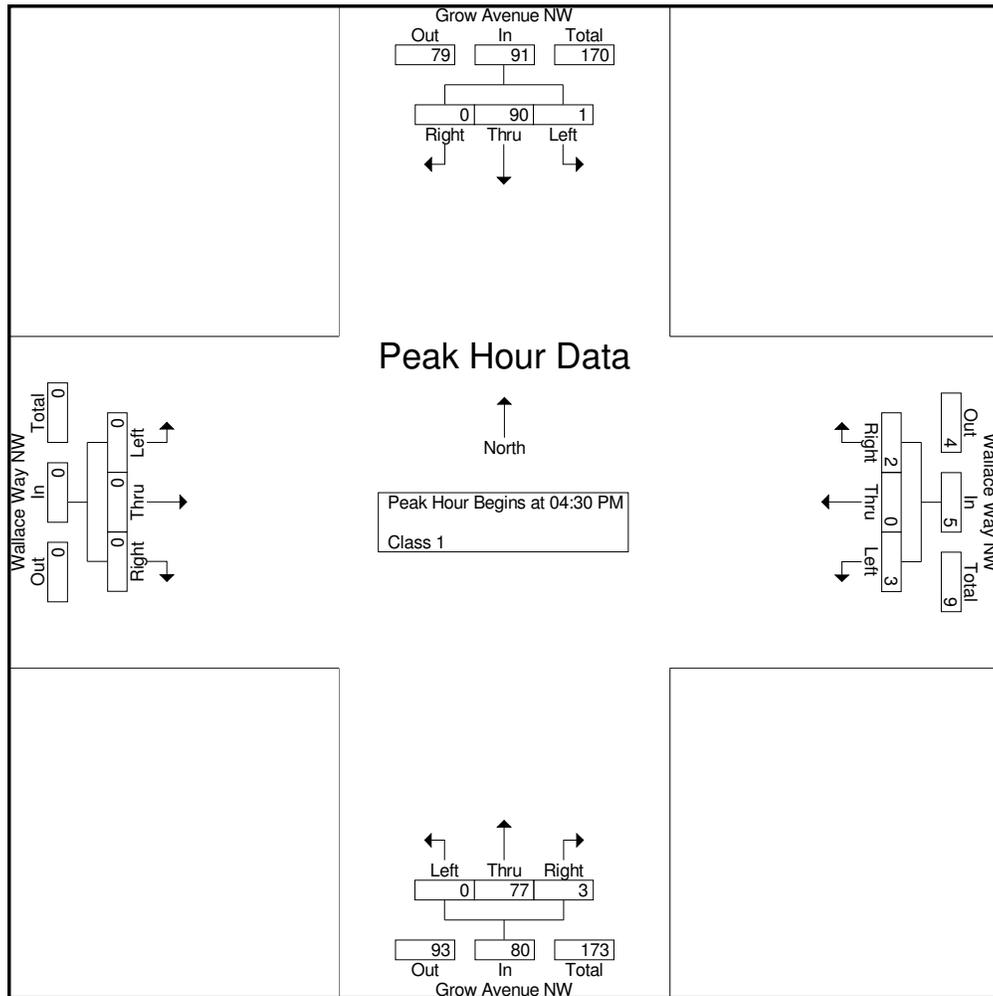


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968b
Site Code : 00003698
Start Date : 5/31/2017
Page No : 2

Start Time	Grow Avenue NW Southbound				Wallace Way NW Westbound				Grow Avenue NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	17	0	17	0	0	0	0	2	15	0	17	0	0	0	0	34
04:45 PM	0	23	0	23	0	0	2	2	0	18	0	18	0	0	0	0	43
05:00 PM	0	23	1	24	1	0	1	2	1	22	0	23	0	0	0	0	49
05:15 PM	0	27	0	27	1	0	0	1	0	22	0	22	0	0	0	0	50
Total Volume	0	90	1	91	2	0	3	5	3	77	0	80	0	0	0	0	176
% App. Total	0	98.9	1.1		40	0	60		3.8	96.2	0		0	0	0		
PHF	.000	.833	.250	.843	.500	.000	.375	.625	.375	.875	.000	.870	.000	.000	.000	.000	.880

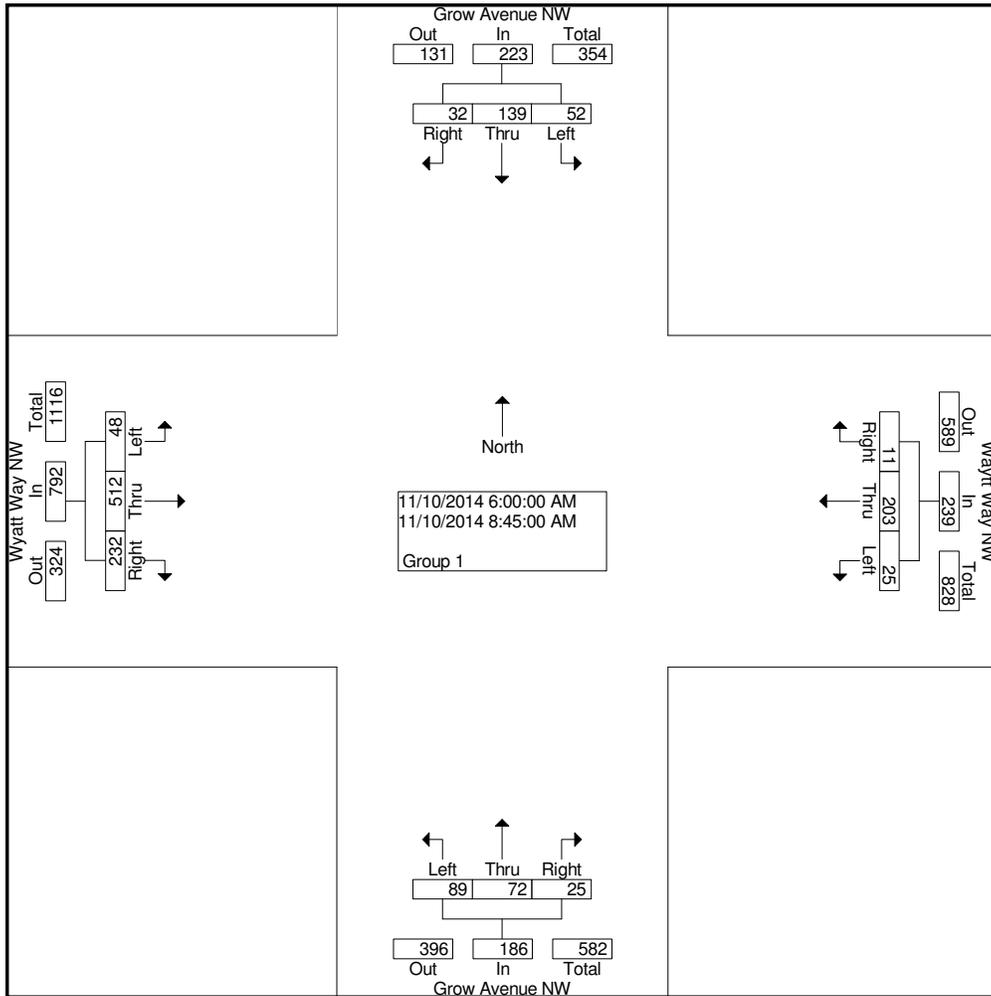


Heath & Associates, Inc.
 2214 Tacoma Road
 Puyallup, WA 98371

File Name : 3560c
 Site Code : 00003560
 Start Date : 11/10/2014
 Page No : 1

Groups Printed- Group 1

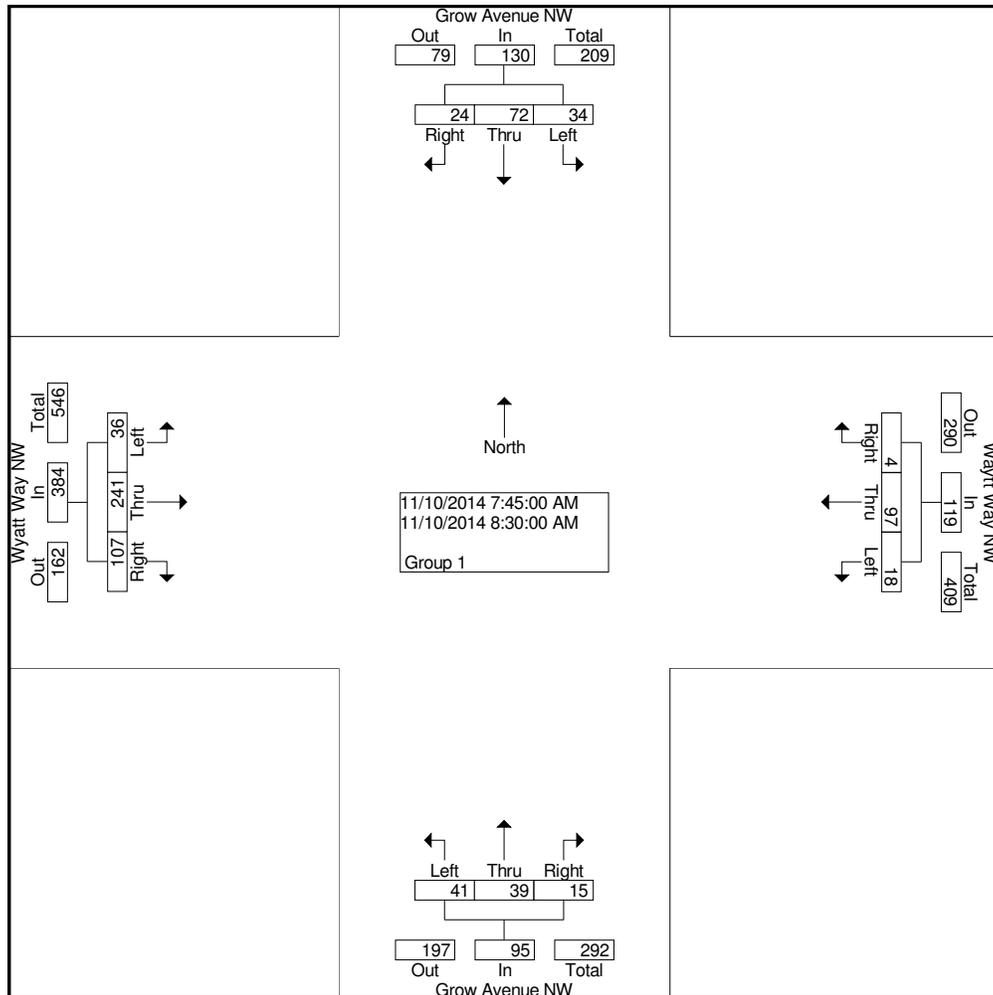
Start Time	Grow Avenue NW Southbound			Waytt Way NW Westbound			Grow Avenue NW Northbound			Wyatt Way NW Eastbound			Int. Total
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:00 AM	2	11	1	1	6	0	0	1	3	16	35	2	78
06:15 AM	0	2	1	0	11	0	2	1	4	6	13	0	40
06:30 AM	0	3	0	1	2	0	0	3	0	15	37	1	62
06:45 AM	1	5	3	0	15	0	1	2	7	4	55	1	94
Total	3	21	5	2	34	0	3	7	14	41	140	4	274
07:00 AM	1	9	0	2	26	2	2	4	10	7	15	1	79
07:15 AM	1	10	0	1	9	2	2	4	5	13	4	3	54
07:30 AM	2	13	7	1	14	2	2	6	5	38	69	3	162
07:45 AM	3	15	7	2	32	3	5	10	14	27	56	6	180
Total	7	47	14	6	81	9	11	24	34	85	144	13	475
08:00 AM	0	16	4	0	13	5	3	10	3	14	44	10	122
08:15 AM	6	16	7	1	13	3	2	10	5	26	53	10	152
08:30 AM	15	25	16	1	39	7	5	9	19	40	88	10	274
08:45 AM	1	14	6	1	23	1	1	12	14	26	43	1	143
Total	22	71	33	3	88	16	11	41	41	106	228	31	691
Grand Total	32	139	52	11	203	25	25	72	89	232	512	48	1440
Apprch %	14.3	62.3	23.3	4.6	84.9	10.5	13.4	38.7	47.8	29.3	64.6	6.1	
Total %	2.2	9.7	3.6	0.8	14.1	1.7	1.7	5.0	6.2	16.1	35.6	3.3	



Heath & Associates, Inc.
 2214 Tacoma Road
 Puyallup, WA 98371

File Name : 3560c
 Site Code : 00003560
 Start Date : 11/10/2014
 Page No : 2

Start Time	Grow Avenue NW Southbound				Waytt Way NW Westbound				Grow Avenue NW Northbound				Wyatt Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	24	72	34	130	4	97	18	119	15	39	41	95	107	241	36	384	728
Percent	18.5	55.4	26.2		3.4	81.5	15.1		15.8	41.1	43.2		27.9	62.8	9.4		
08:30																	
Volume	15	25	16	56	1	39	7	47	5	9	19	33	40	88	10	138	274
Peak Factor	0.664																
High Int.	08:30 AM																
Volume	15	25	16	56	1	39	7	47	5	9	19	33	40	88	10	138	
Peak Factor	0.580				0.633				0.720				0.696				

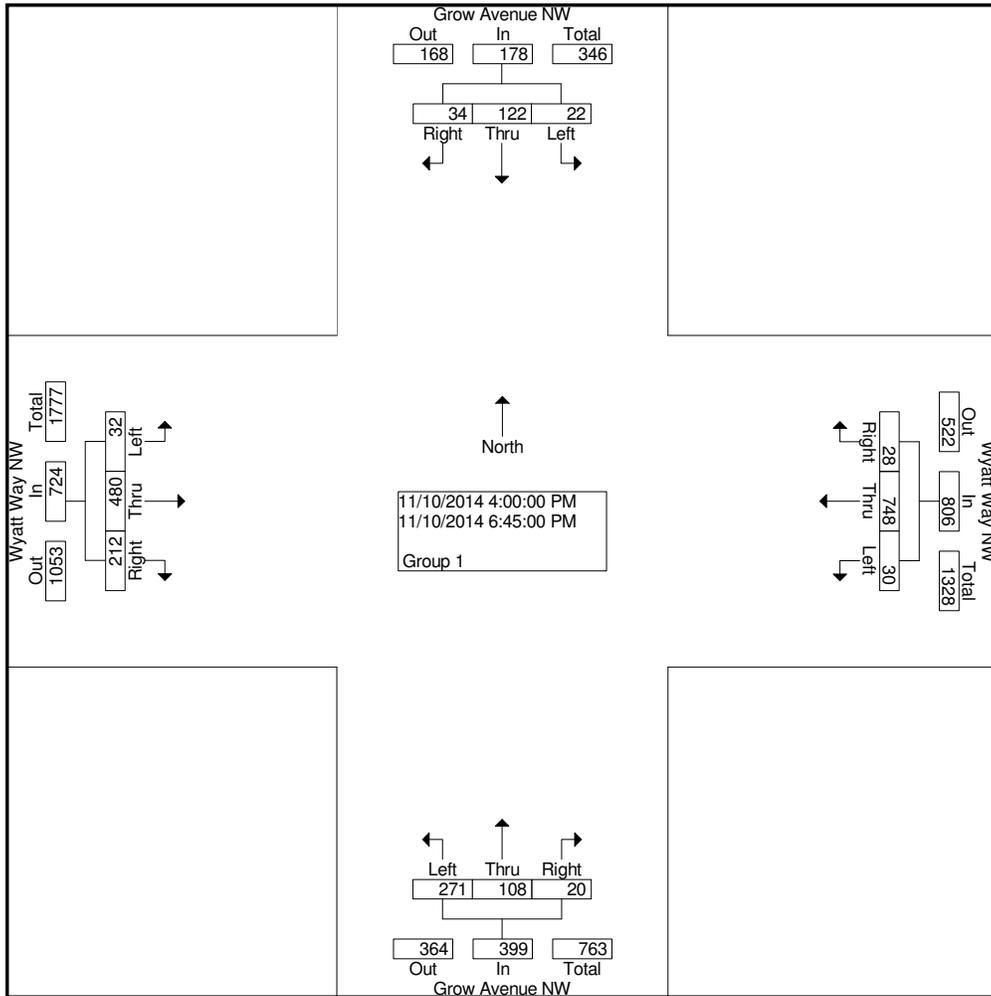


Heath & Associates, Inc.
 2214 Tacoma Road
 Puyallup, WA 98371

File Name : 3560e
 Site Code : 3560
 Start Date : 11/10/2014
 Page No : 1

Groups Printed- Group 1

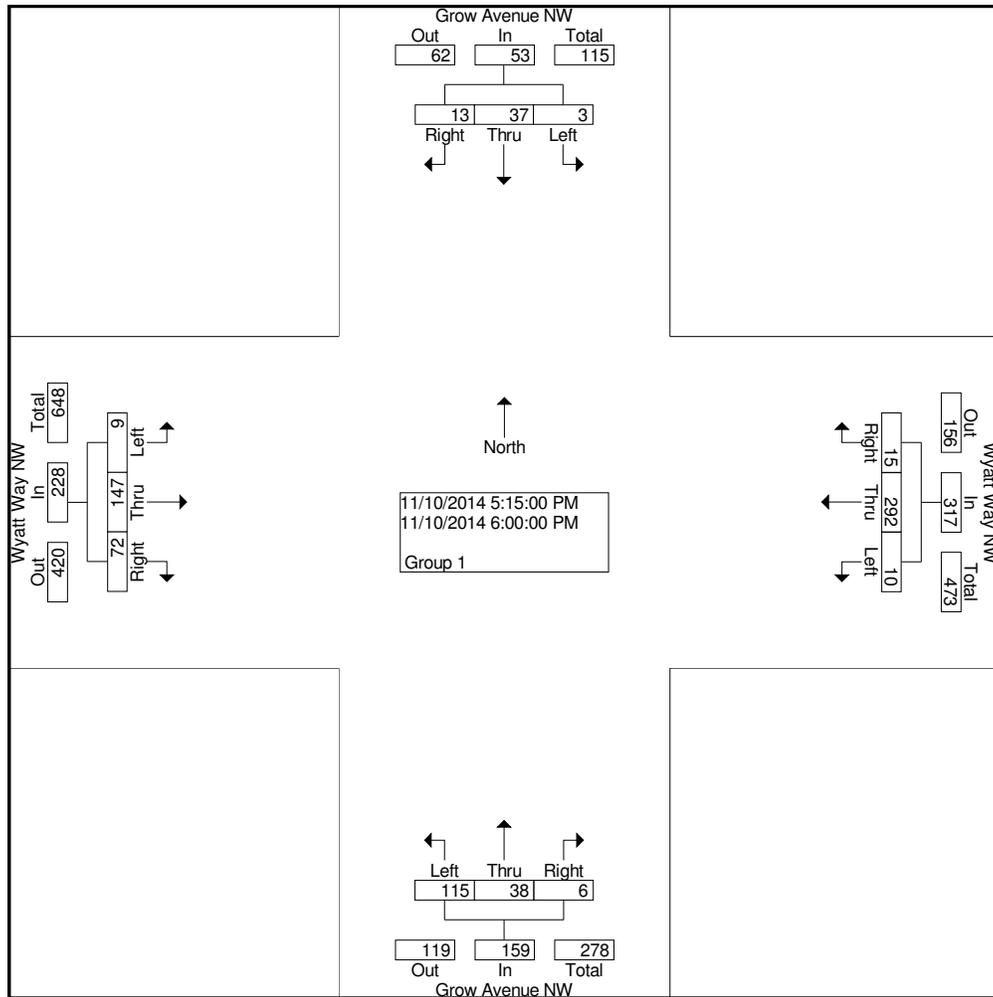
Start Time	Grow Avenue NW Southbound			Wyatt Way NW Westbound			Grow Avenue NW Northbound			Wyatt Way NW Eastbound			Int. Total
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	1	12	0	3	51	2	1	6	19	23	52	4	174
04:15 PM	5	10	5	1	62	3	2	7	24	24	43	3	189
04:30 PM	2	10	0	4	74	3	2	9	24	14	35	2	179
04:45 PM	3	11	3	1	51	5	2	17	11	22	41	2	169
Total	11	43	8	9	238	13	7	39	78	83	171	11	711
05:00 PM	2	20	5	1	63	4	3	10	24	26	57	2	217
05:15 PM	4	7	1	6	83	3	1	5	27	19	33	2	191
05:30 PM	3	7	1	3	64	3	0	13	35	16	27	3	175
05:45 PM	4	10	0	4	53	0	3	10	21	17	42	1	165
Total	13	44	7	14	263	10	7	38	107	78	159	8	748
06:00 PM	2	13	1	2	92	4	2	10	32	20	45	3	226
06:15 PM	2	6	1	1	64	1	2	10	28	8	23	3	149
06:30 PM	4	9	2	2	48	1	2	5	11	8	38	3	133
06:45 PM	2	7	3	0	43	1	0	6	15	15	44	4	140
Total	10	35	7	5	247	7	6	31	86	51	150	13	648
Grand Total	34	122	22	28	748	30	20	108	271	212	480	32	2107
Apprch %	19.1	68.5	12.4	3.5	92.8	3.7	5.0	27.1	67.9	29.3	66.3	4.4	
Total %	1.6	5.8	1.0	1.3	35.5	1.4	0.9	5.1	12.9	10.1	22.8	1.5	



Heath & Associates, Inc.
 2214 Tacoma Road
 Puyallup, WA 98371

File Name : 3560e
 Site Code : 3560____
 Start Date : 11/10/2014
 Page No : 2

Start Time	Grow Avenue NW Southbound				Wyatt Way NW Westbound				Grow Avenue NW Northbound				Wyatt Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour From 04:00 PM to 06:45 PM - Peak 1 of 1																	
Intersection	05:15 PM																
Volume	13	37	3	53	15	292	10	317	6	38	115	159	72	147	9	228	757
Percent	24.5	69.8	5.7		4.7	92.1	3.2		3.8	23.9	72.3		31.6	64.5	3.9		
06:00 Volume	2	13	1	16	2	92	4	98	2	10	32	44	20	45	3	68	226
Peak Factor	0.837																
High Int.	06:00 PM																
Volume	2	13	1	16	2	92	4	98	0	13	35	48	20	45	3	68	
Peak Factor	0.828				0.809				0.828				0.838				



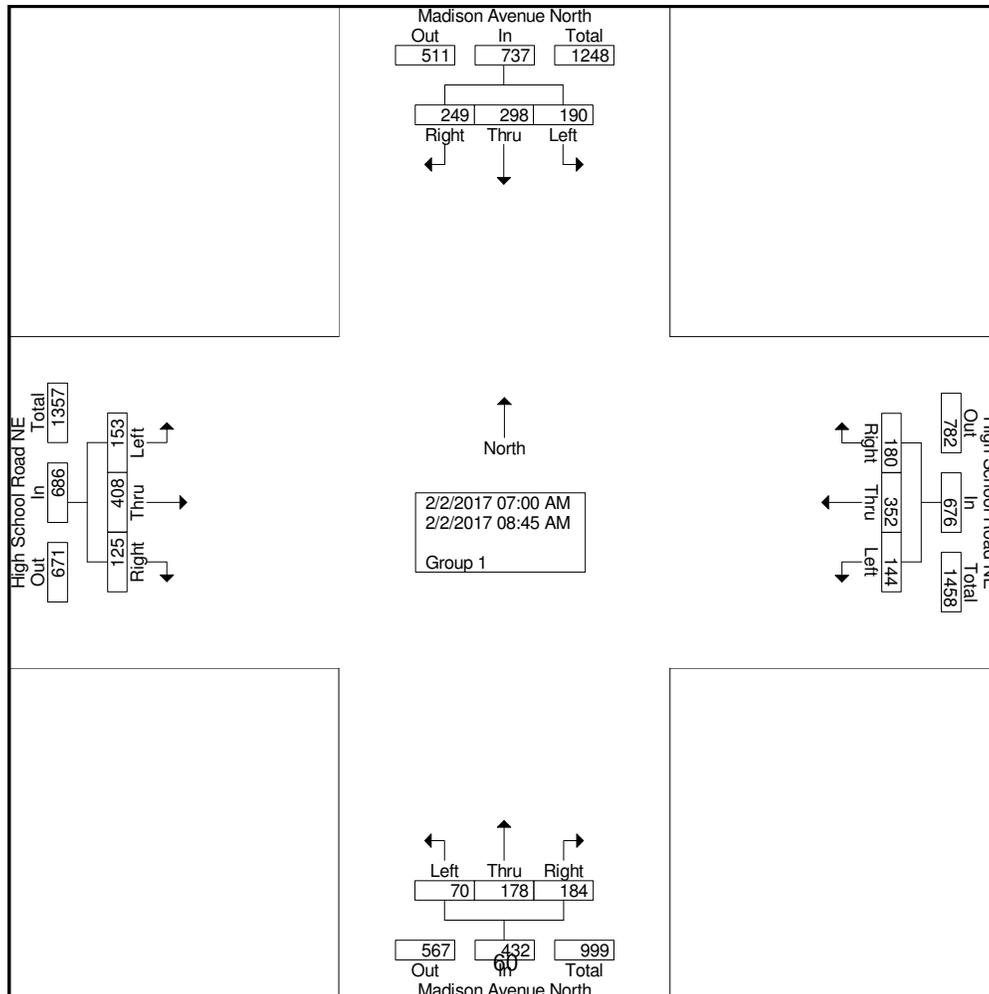
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911a
Site Code : 00003911
Start Date : 2/2/2017
Page No : 1

Groups Printed- Group 1

Start Time	Madison Avenue North Southbound			High School Road NE Westbound			Madison Avenue North Northbound			High School Road NE Eastbound			Int. Total
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	18	33	6	7	29	6	9	14	1	6	13	6	148
07:15 AM	28	16	18	10	32	26	10	16	4	5	36	17	218
07:30 AM	31	14	37	25	29	20	21	25	9	10	78	27	326
07:45 AM	32	55	27	33	49	16	24	17	12	18	47	26	356
Total	109	118	88	75	139	68	64	72	26	39	174	76	1048
08:00 AM	28	47	24	20	38	18	27	18	8	20	54	20	322
08:15 AM	55	34	11	28	77	19	27	36	16	15	61	27	406
08:30 AM	25	52	35	25	52	21	35	27	9	19	73	19	392
08:45 AM	32	47	32	32	46	18	31	25	11	32	46	11	363
Total	140	180	102	105	213	76	120	106	44	86	234	77	1483
Grand Total	249	298	190	180	352	144	184	178	70	125	408	153	2531
Apprch %	33.8	40.4	25.8	26.6	52.1	21.3	42.6	41.2	16.2	18.2	59.5	22.3	
Total %	9.8	11.8	7.5	7.1	13.9	5.7	7.3	7	2.8	4.9	16.1	6	

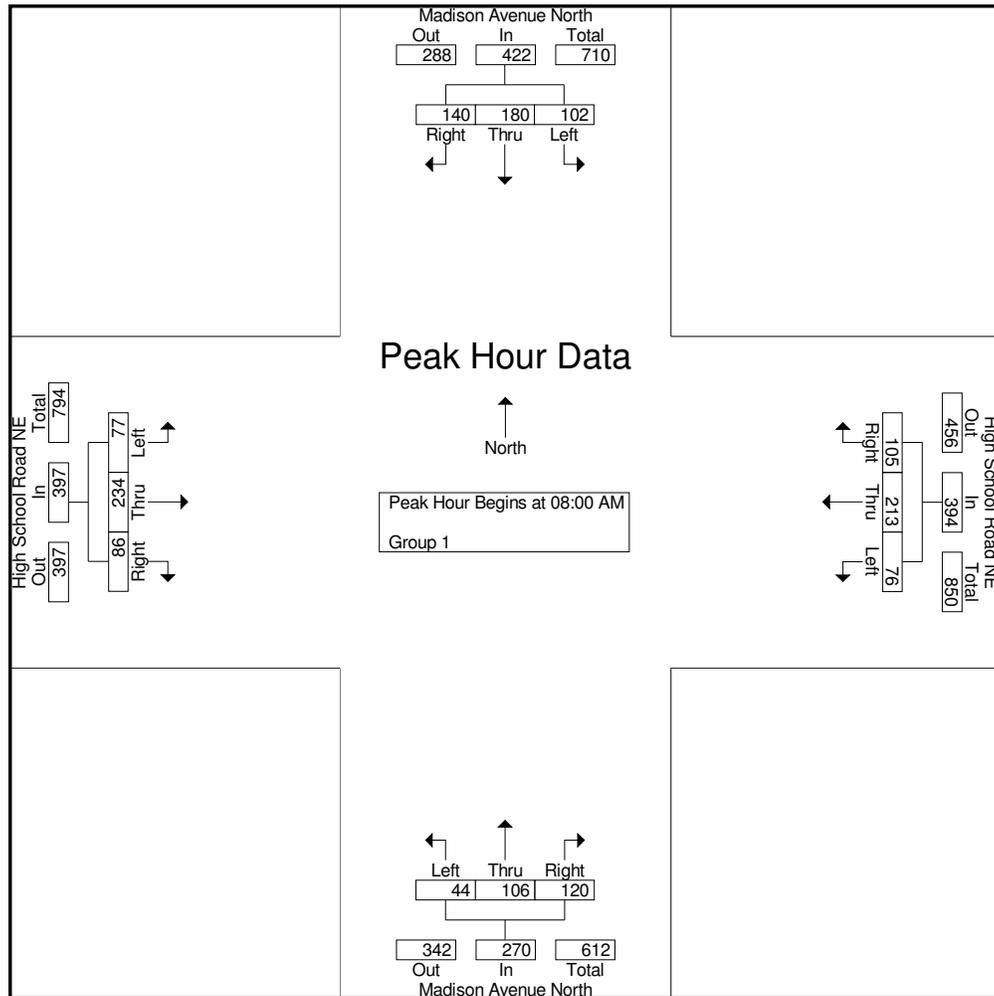


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911a
Site Code : 00003911
Start Date : 2/2/2017
Page No : 2

Start Time	Madison Avenue North Southbound				High School Road NE Westbound				Madison Avenue North Northbound				High School Road NE Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	28	47	24	99	20	38	18	76	27	18	8	53	20	54	20	94	322
08:15 AM	55	34	11	100	28	77	19	124	27	36	16	79	15	61	27	103	406
08:30 AM	25	52	35	112	25	52	21	98	35	27	9	71	19	73	19	111	392
08:45 AM	32	47	32	111	32	46	18	96	31	25	11	67	32	46	11	89	363
Total Volume	140	180	102	422	105	213	76	394	120	106	44	270	86	234	77	397	1483
% App. Total	33.2	42.7	24.2		26.6	54.1	19.3		44.4	39.3	16.3		21.7	58.9	19.4		
PHF	.636	.865	.729	.942	.820	.692	.905	.794	.857	.736	.688	.854	.672	.801	.713	.894	.913



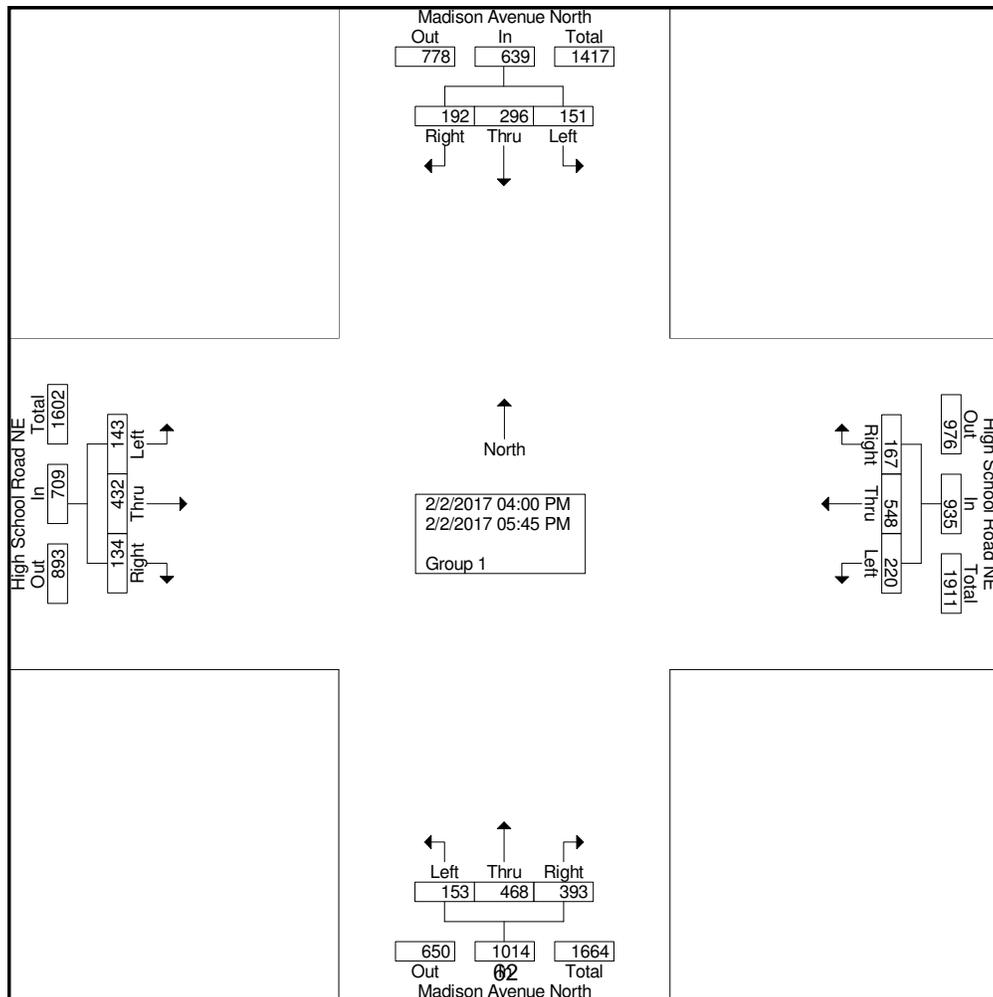
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911b
Site Code : 00003911
Start Date : 2/2/2017
Page No : 1

Groups Printed- Group 1

Start Time	Madison Avenue North Southbound				High School Road NE Westbound				Madison Avenue North Northbound				High School Road NE Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	23	24	12	59	12	55	16	83	51	55	22	128	16	56	25	97	367
04:15 PM	20	35	21	76	27	64	14	105	51	43	13	107	23	50	17	90	378
04:30 PM	28	35	23	86	27	64	35	126	50	50	19	119	22	63	15	100	431
04:45 PM	23	44	17	84	18	71	20	109	47	49	24	120	21	61	9	91	404
Total	94	138	73	305	84	254	85	423	199	197	78	474	82	230	66	378	1580
05:00 PM	24	44	16	84	17	63	23	103	53	71	22	146	13	66	23	102	435
05:15 PM	29	39	18	86	25	87	32	144	45	74	17	136	14	58	11	83	449
05:30 PM	22	31	19	72	16	82	43	141	57	61	25	143	14	39	17	70	426
05:45 PM	23	44	25	92	25	62	37	124	39	65	11	115	11	39	26	76	407
Total	98	158	78	334	83	294	135	512	194	271	75	540	52	202	77	331	1717
Grand Total	192	296	151	639	167	548	220	935	393	468	153	1014	134	432	143	709	3297
Apprch %	30	46.3	23.6		17.9	58.6	23.5		38.8	46.2	15.1		18.9	60.9	20.2		
Total %	5.8	9	4.6	19.4	5.1	16.6	6.7	28.4	11.9	14.2	4.6	30.8	4.1	13.1	4.3	21.5	

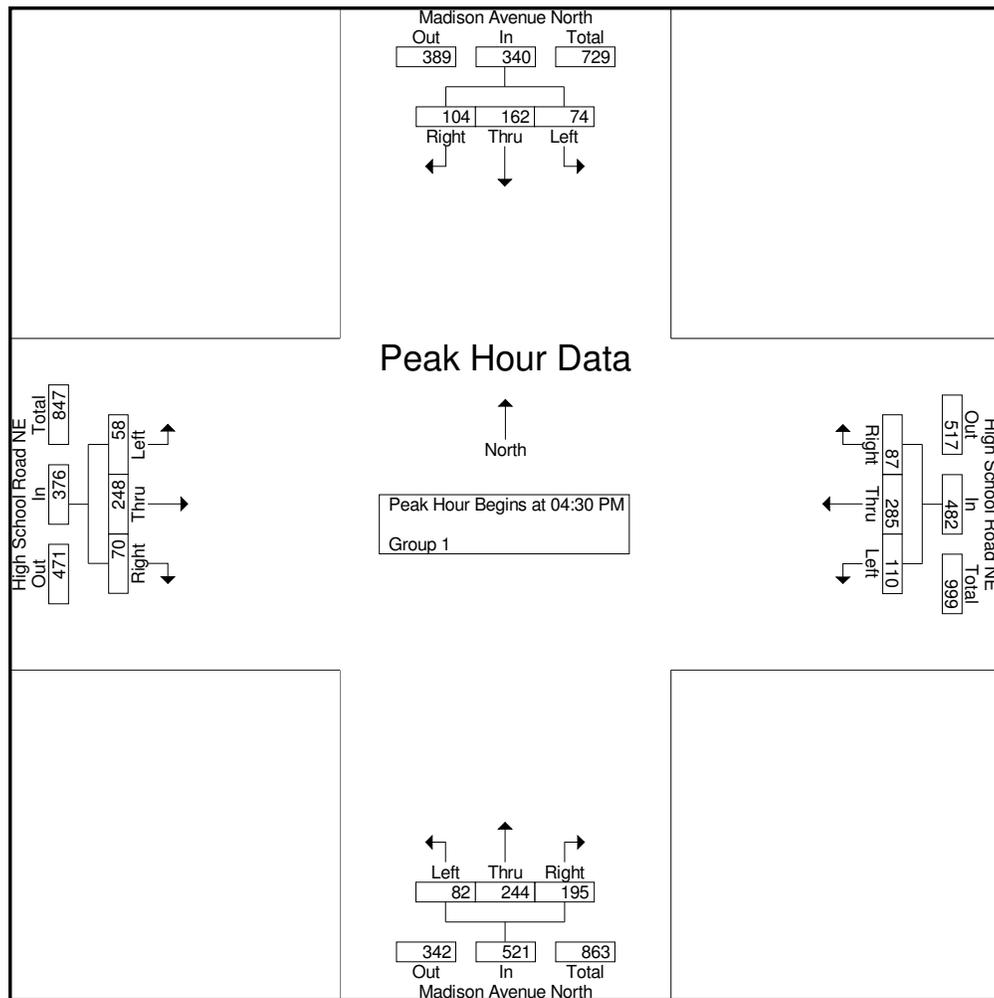


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911b
Site Code : 00003911
Start Date : 2/2/2017
Page No : 2

Start Time	Madison Avenue North Southbound				High School Road NE Westbound				Madison Avenue North Northbound				High School Road NE Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	28	35	23	86	27	64	35	126	50	50	19	119	22	63	15	100	431
04:45 PM	23	44	17	84	18	71	20	109	47	49	24	120	21	61	9	91	404
05:00 PM	24	44	16	84	17	63	23	103	53	71	22	146	13	66	23	102	435
05:15 PM	29	39	18	86	25	87	32	144	45	74	17	136	14	58	11	83	449
Total Volume	104	162	74	340	87	285	110	482	195	244	82	521	70	248	58	376	1719
% App. Total	30.6	47.6	21.8		18	59.1	22.8		37.4	46.8	15.7		18.6	66	15.4		
PHF	.897	.920	.804	.988	.806	.819	.786	.837	.920	.824	.854	.892	.795	.939	.630	.922	.957



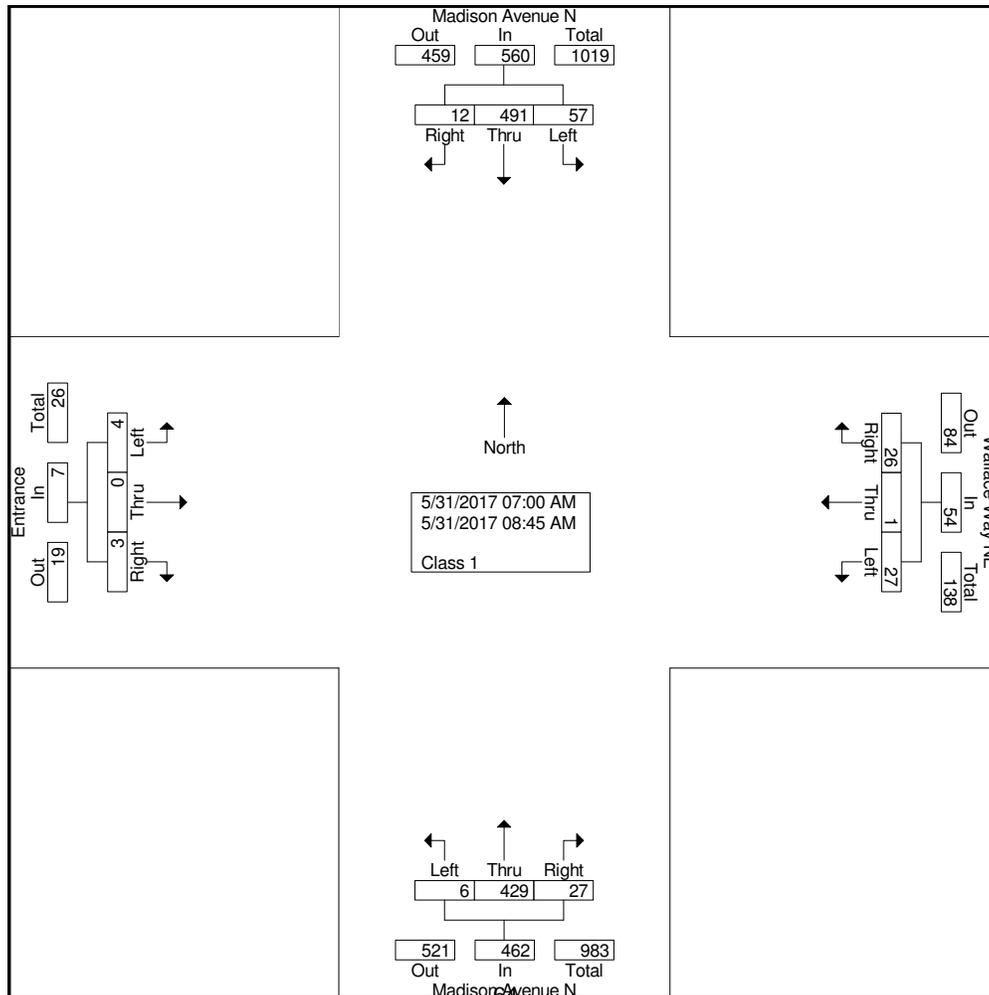
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968e
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Madison Avenue N Southbound				Wallace Way NE Westbound				Madison Avenue N Northbound				Entrance Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	2	37	4	43	2	1	1	4	1	32	0	33	0	0	2	2	82
07:15 AM	2	37	1	40	0	0	0	0	1	45	4	50	2	0	2	4	94
07:30 AM	0	68	7	75	4	0	1	5	3	46	2	51	0	0	0	0	131
07:45 AM	0	87	8	95	4	0	5	9	2	47	0	49	0	0	0	0	153
Total	4	229	20	253	10	1	7	18	7	170	6	183	2	0	4	6	460
08:00 AM	3	78	5	86	6	0	4	10	6	58	0	64	0	0	0	0	160
08:15 AM	1	70	7	78	3	0	4	7	4	75	0	79	1	0	0	1	165
08:30 AM	1	19	14	34	2	0	4	6	2	81	0	83	0	0	0	0	123
08:45 AM	3	95	11	109	5	0	8	13	8	45	0	53	0	0	0	0	175
Total	8	262	37	307	16	0	20	36	20	259	0	279	1	0	0	1	623
Grand Total	12	491	57	560	26	1	27	54	27	429	6	462	3	0	4	7	1083
Apprch %	2.1	87.7	10.2		48.1	1.9	50		5.8	92.9	1.3		42.9	0	57.1		
Total %	1.1	45.3	5.3	51.7	2.4	0.1	2.5	5	2.5	39.6	0.6	42.7	0.3	0	0.4	0.6	

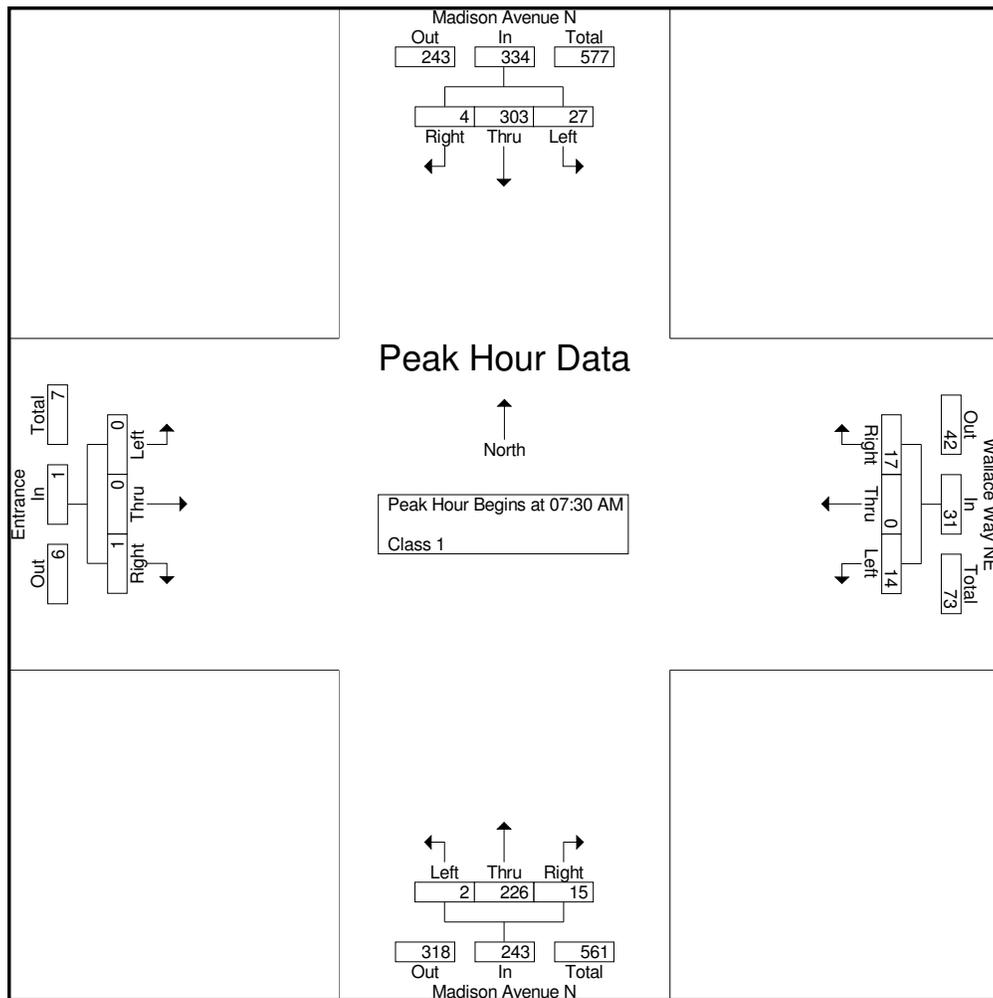


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968e
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Madison Avenue N Southbound				Wallace Way NE Westbound				Madison Avenue N Northbound				Entrance Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	68	7	75	4	0	1	5	3	46	2	51	0	0	0	0	131
07:45 AM	0	87	8	95	4	0	5	9	2	47	0	49	0	0	0	0	153
08:00 AM	3	78	5	86	6	0	4	10	6	58	0	64	0	0	0	0	160
08:15 AM	1	70	7	78	3	0	4	7	4	75	0	79	1	0	0	1	165
Total Volume	4	303	27	334	17	0	14	31	15	226	2	243	1	0	0	1	609
% App. Total	1.2	90.7	8.1		54.8	0	45.2		6.2	93	0.8		100	0	0		
PHF	.333	.871	.844	.879	.708	.000	.700	.775	.625	.753	.250	.769	.250	.000	.000	.250	.923



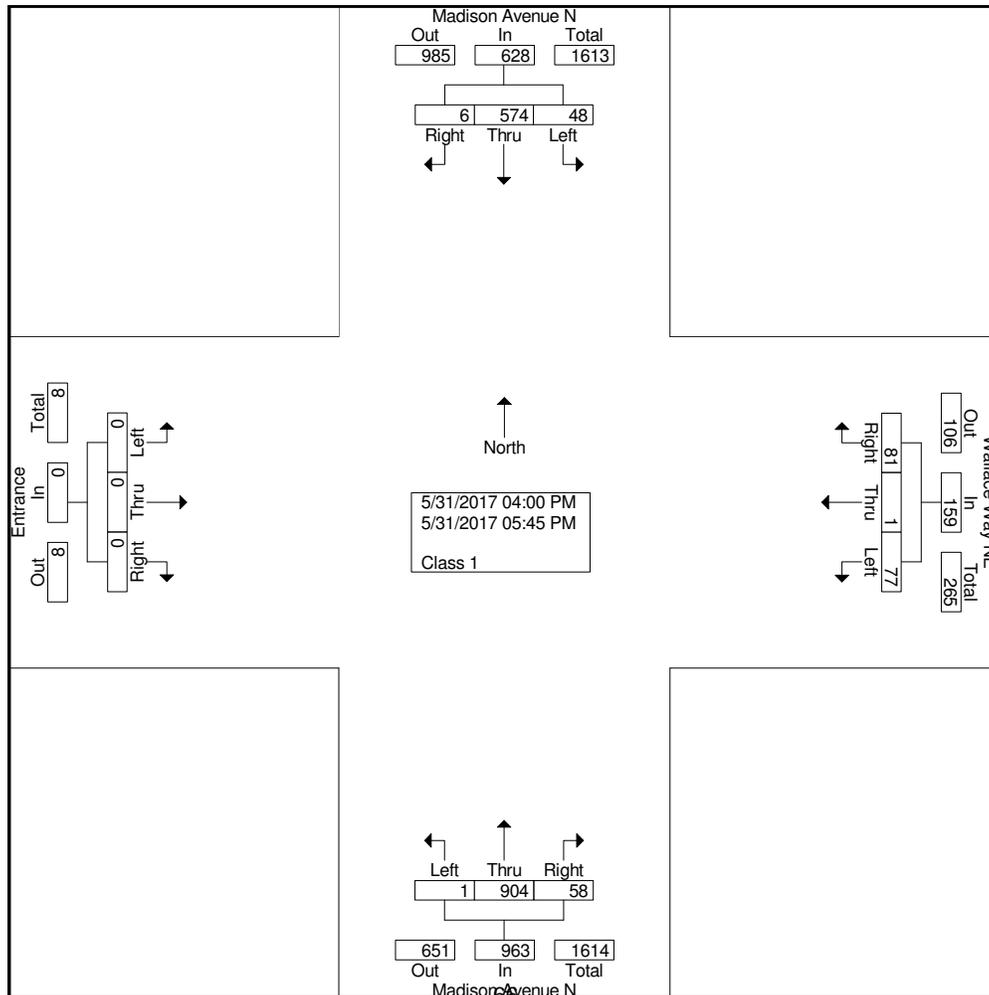
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968f
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Madison Avenue N Southbound				Wallace Way NE Westbound				Madison Avenue N Northbound				Entrance Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	1	71	6	78	10	1	7	18	7	118	0	125	0	0	0	0	221
04:15 PM	1	80	3	84	7	0	13	20	9	96	0	105	0	0	0	0	209
04:30 PM	0	77	8	85	9	0	16	25	10	140	0	150	0	0	0	0	260
04:45 PM	0	65	9	74	14	0	14	28	10	120	0	130	0	0	0	0	232
Total	2	293	26	321	40	1	50	91	36	474	0	510	0	0	0	0	922
05:00 PM	0	75	6	81	14	0	9	23	6	125	0	131	0	0	0	0	235
05:15 PM	1	65	7	73	10	0	8	18	4	99	0	103	0	0	0	0	194
05:30 PM	2	56	3	61	10	0	6	16	6	121	0	127	0	0	0	0	204
05:45 PM	1	85	6	92	7	0	4	11	6	85	1	92	0	0	0	0	195
Total	4	281	22	307	41	0	27	68	22	430	1	453	0	0	0	0	828
Grand Total	6	574	48	628	81	1	77	159	58	904	1	963	0	0	0	0	1750
Apprch %	1	91.4	7.6		50.9	0.6	48.4		6	93.9	0.1		0	0	0		
Total %	0.3	32.8	2.7	35.9	4.6	0.1	4.4	9.1	3.3	51.7	0.1	55	0	0	0	0	

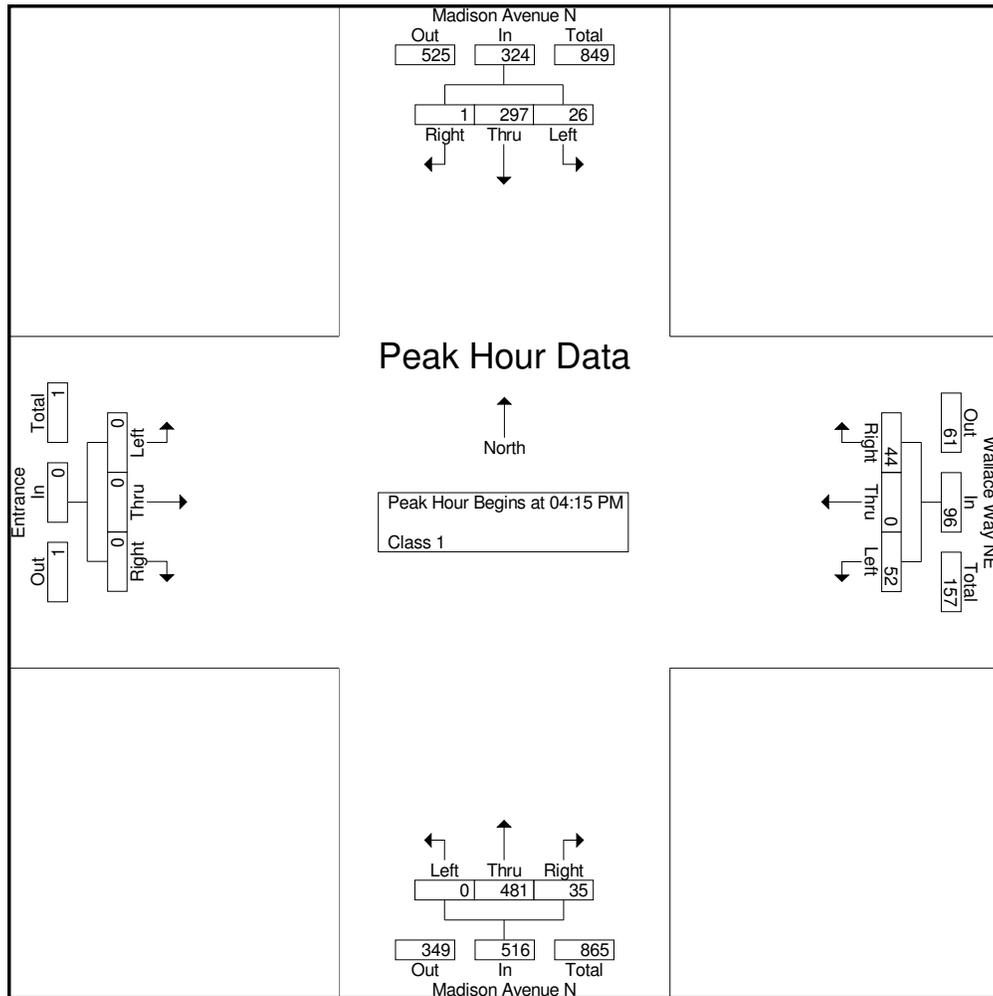


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968f
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Madison Avenue N Southbound				Wallace Way NE Westbound				Madison Avenue N Northbound				Entrance Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	80	3	84	7	0	13	20	9	96	0	105	0	0	0	0	209
04:30 PM	0	77	8	85	9	0	16	25	10	140	0	150	0	0	0	0	260
04:45 PM	0	65	9	74	14	0	14	28	10	120	0	130	0	0	0	0	232
05:00 PM	0	75	6	81	14	0	9	23	6	125	0	131	0	0	0	0	235
Total Volume	1	297	26	324	44	0	52	96	35	481	0	516	0	0	0	0	936
% App. Total	0.3	91.7	8		45.8	0	54.2		6.8	93.2	0		0	0	0		
PHF	.250	.928	.722	.953	.786	.000	.813	.857	.875	.859	.000	.860	.000	.000	.000	.000	.900



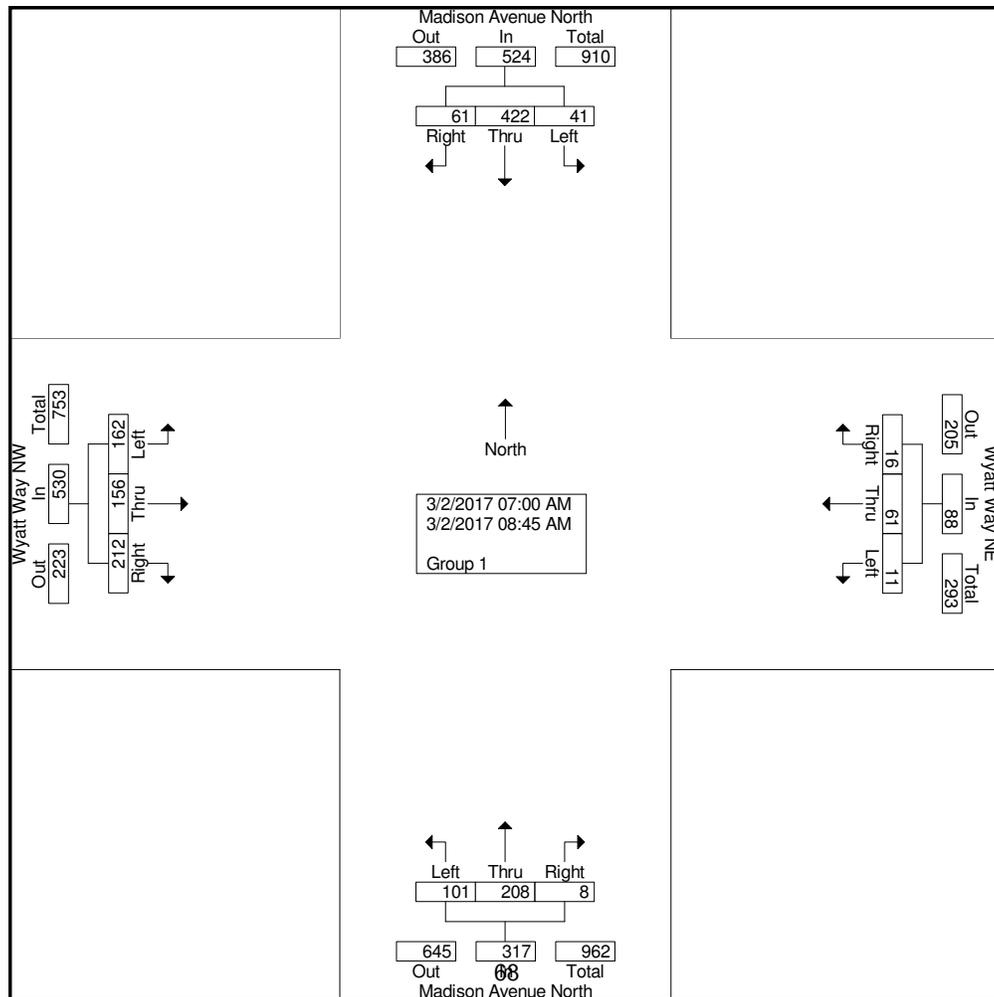
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911c
Site Code : 00003911
Start Date : 3/2/2017
Page No : 1

Groups Printed- Group 1

Start Time	Madison Avenue North Southbound				Wyatt Way NE Westbound				Madison Avenue North Northbound				Wyatt Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	5	35	0	40	0	6	1	7	0	15	10	25	9	4	2	15	87
07:15 AM	3	31	0	34	2	4	1	7	1	13	2	16	13	14	16	43	100
07:30 AM	2	37	6	45	4	5	3	12	1	18	7	26	51	33	12	96	179
07:45 AM	6	69	11	86	0	11	1	12	0	36	14	50	26	25	20	71	219
Total	16	172	17	205	6	26	6	38	2	82	33	117	99	76	50	225	585
08:00 AM	7	53	6	66	2	9	1	12	0	26	16	42	18	9	27	54	174
08:15 AM	13	51	3	67	2	5	0	7	4	36	15	55	36	30	40	106	235
08:30 AM	11	61	4	76	3	13	1	17	1	28	24	53	32	17	28	77	223
08:45 AM	14	85	11	110	3	8	3	14	1	36	13	50	27	24	17	68	242
Total	45	250	24	319	10	35	5	50	6	126	68	200	113	80	112	305	874
Grand Total	61	422	41	524	16	61	11	88	8	208	101	317	212	156	162	530	1459
Apprch %	11.6	80.5	7.8		18.2	69.3	12.5		2.5	65.6	31.9		40	29.4	30.6		
Total %	4.2	28.9	2.8	35.9	1.1	4.2	0.8	6	0.5	14.3	6.9	21.7	14.5	10.7	11.1	36.3	

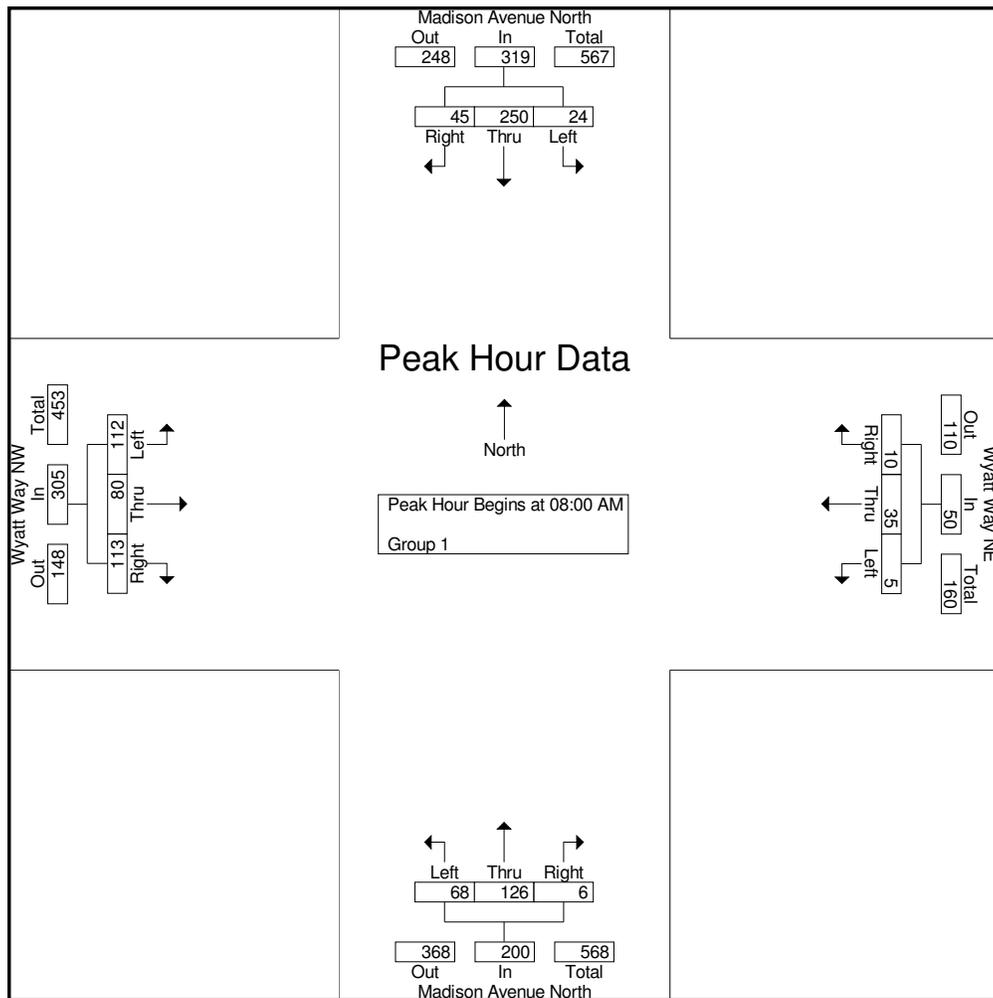


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911c
Site Code : 00003911
Start Date : 3/2/2017
Page No : 2

Start Time	Madison Avenue North Southbound				Wyatt Way NE Westbound				Madison Avenue North Northbound				Wyatt Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	7	53	6	66	2	9	1	12	0	26	16	42	18	9	27	54	174
08:15 AM	13	51	3	67	2	5	0	7	4	36	15	55	36	30	40	106	235
08:30 AM	11	61	4	76	3	13	1	17	1	28	24	53	32	17	28	77	223
08:45 AM	14	85	11	110	3	8	3	14	1	36	13	50	27	24	17	68	242
Total Volume	45	250	24	319	10	35	5	50	6	126	68	200	113	80	112	305	874
% App. Total	14.1	78.4	7.5		20	70	10		3	63	34		37	26.2	36.7		
PHF	.804	.735	.545	.725	.833	.673	.417	.735	.375	.875	.708	.909	.785	.667	.700	.719	.903



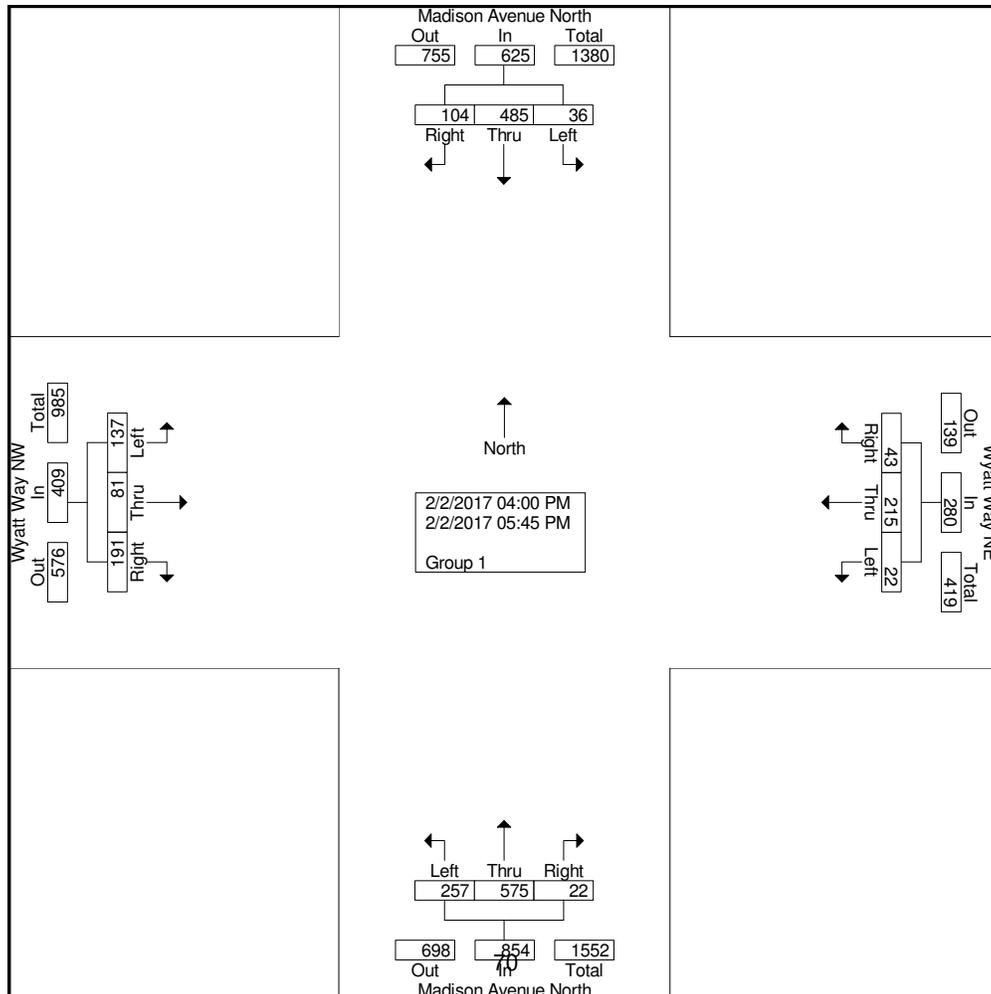
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911d
Site Code : 00003911
Start Date : 2/2/2017
Page No : 1

Groups Printed- Group 1

Start Time	Madison Avenue North Southbound			Wyatt Way NE Westbound			Madison Avenue North Northbound			Wyatt Way NW Eastbound			Int. Total
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	17	63	2	6	20	1	1	77	33	30	14	8	272
04:15 PM	9	65	5	4	19	1	2	58	29	24	13	17	246
04:30 PM	15	51	9	7	42	4	2	74	38	19	11	16	288
04:45 PM	14	66	4	4	25	4	5	69	27	28	10	22	278
Total	55	245	20	21	106	10	10	278	127	101	48	63	1084
05:00 PM	12	59	4	1	25	1	3	82	27	30	10	16	270
05:15 PM	12	66	1	6	22	5	2	64	32	27	10	22	269
05:30 PM	11	53	3	8	43	4	2	88	44	14	8	18	296
05:45 PM	14	62	8	7	19	2	5	63	27	19	5	18	249
Total	49	240	16	22	109	12	12	297	130	90	33	74	1084
Grand Total	104	485	36	43	215	22	22	575	257	191	81	137	2168
Apprch %	16.6	77.6	5.8	15.4	76.8	7.9	2.6	67.3	30.1	46.7	19.8	33.5	
Total %	4.8	22.4	1.7	2	9.9	1	1	26.5	11.9	8.8	3.7	6.3	

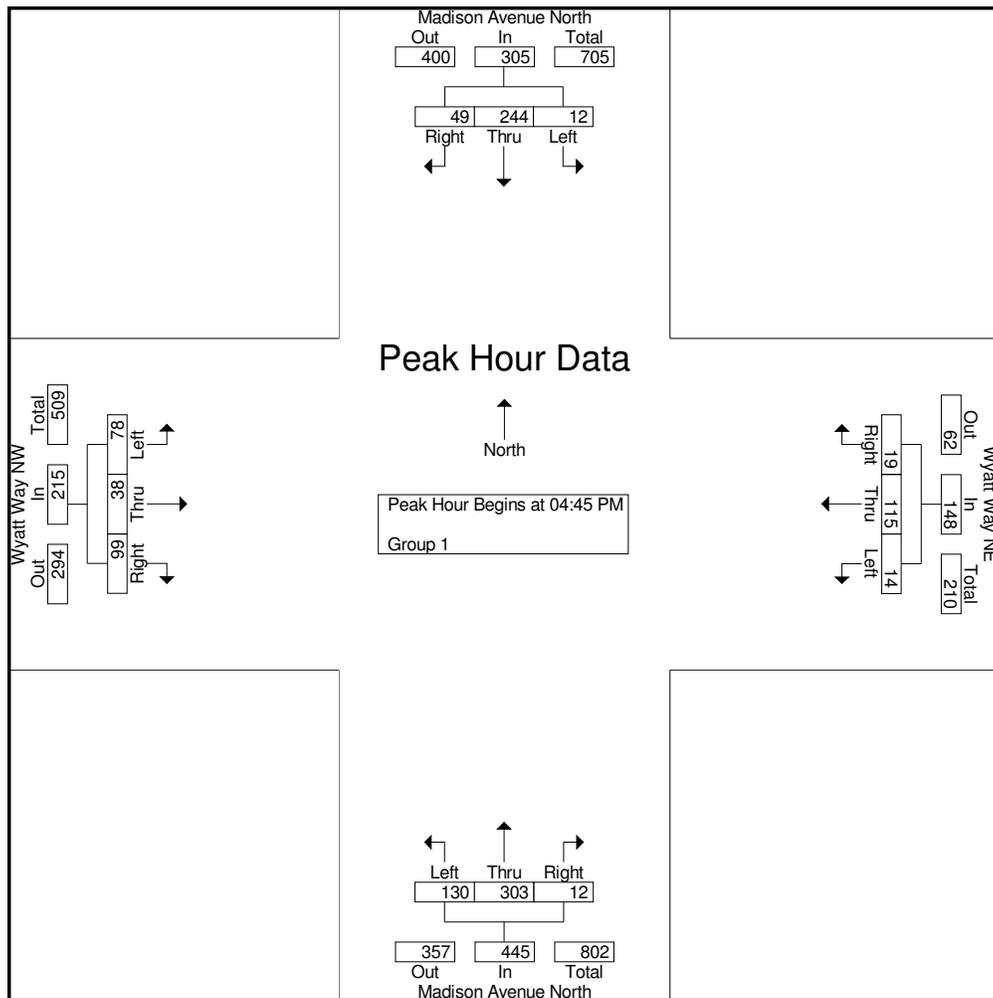


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3911d
Site Code : 00003911
Start Date : 2/2/2017
Page No : 2

Start Time	Madison Avenue North Southbound				Wyatt Way NE Westbound				Madison Avenue North Northbound				Wyatt Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	14	66	4	84	4	25	4	33	5	69	27	101	28	10	22	60	278
05:00 PM	12	59	4	75	1	25	1	27	3	82	27	112	30	10	16	56	270
05:15 PM	12	66	1	79	6	22	5	33	2	64	32	98	27	10	22	59	269
05:30 PM	11	53	3	67	8	43	4	55	2	88	44	134	14	8	18	40	296
Total Volume	49	244	12	305	19	115	14	148	12	303	130	445	99	38	78	215	1113
% App. Total	16.1	80	3.9		12.8	77.7	9.5		2.7	68.1	29.2		46	17.7	36.3		
PHF	.875	.924	.750	.908	.594	.669	.700	.673	.600	.861	.739	.830	.825	.950	.886	.896	.940



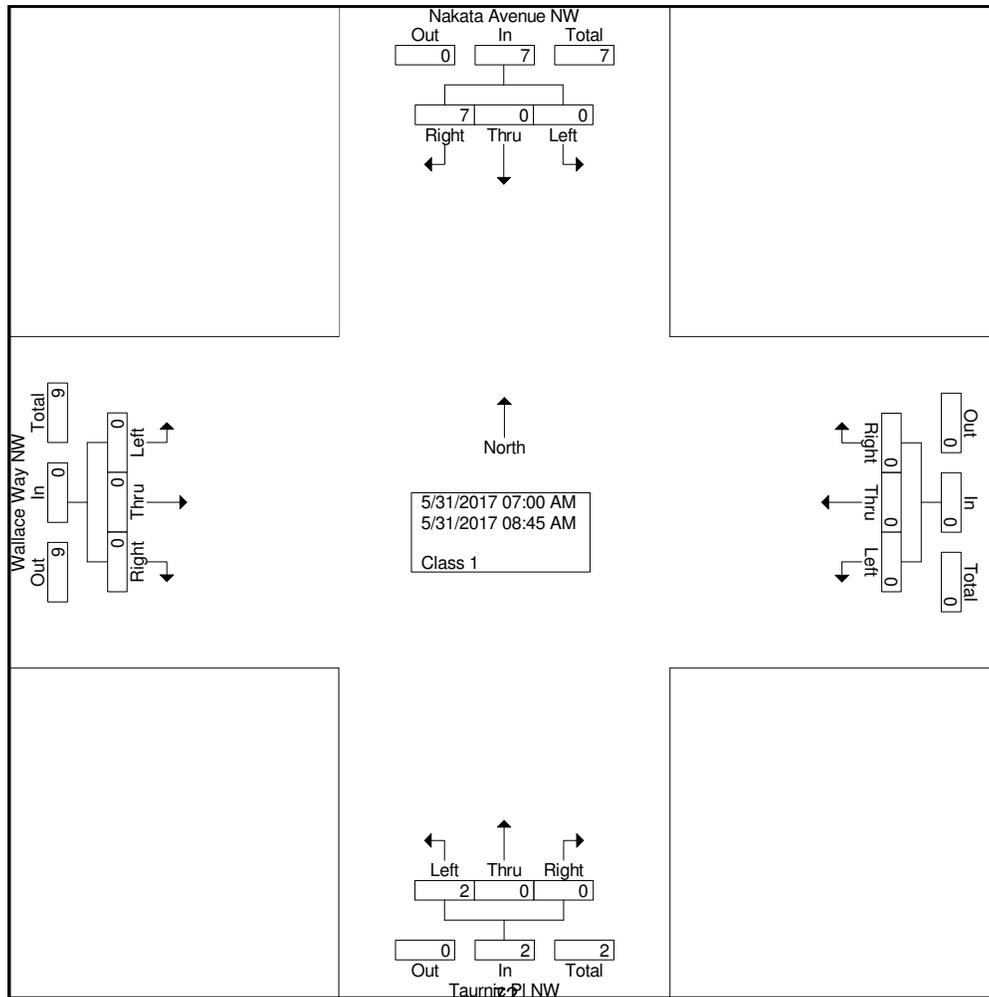
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968c
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Nakata Avenue NW Southbound				Westbound				Taurnic Pl NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
*** BREAK ***																	
07:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0
Total	4	0	0	4	0	0	0	0	0	0	1	1	0	0	0	0	0
*** BREAK ***																	
08:15 AM	2	0	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0
08:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***																	
Total	3	0	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0
Grand Total	7	0	0	7	0	0	0	0	0	0	2	2	0	0	0	0	9
Apprch %	100	0	0		0	0	0		0	0	100		0	0	0		
Total %	77.8	0	0	77.8	0	0	0	0	0	0	22.2	22.2	0	0	0	0	

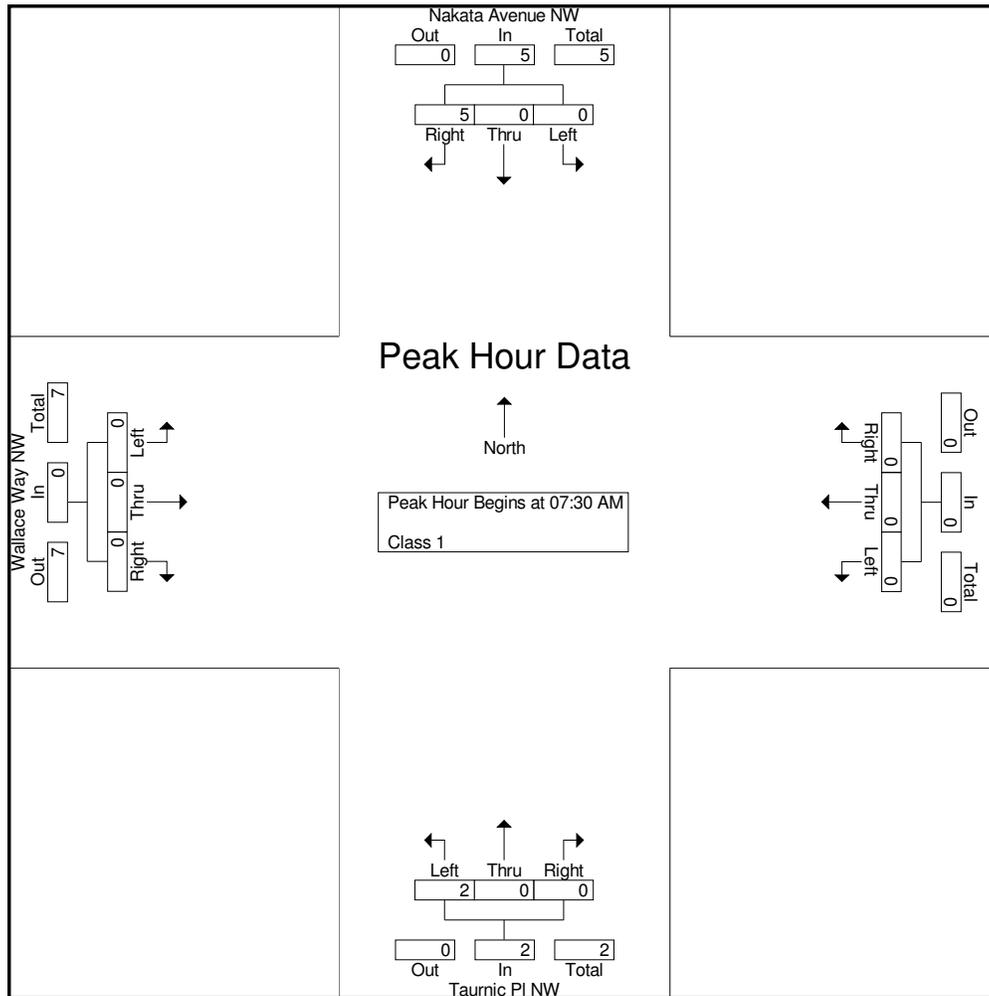


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968c
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Nakata Avenue NW Southbound				Westbound				Taurnic PI NW Northbound				Wallace Way NW Eastbound				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total		
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	2	0	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	3
Total Volume	5	0	0	5	0	0	0	0	0	0	2	2	0	0	0	0	0	7
% App. Total	100	0	0		0	0	0		0	0	100		0	0	0			
PHF	.625	.000	.000	.625	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.583



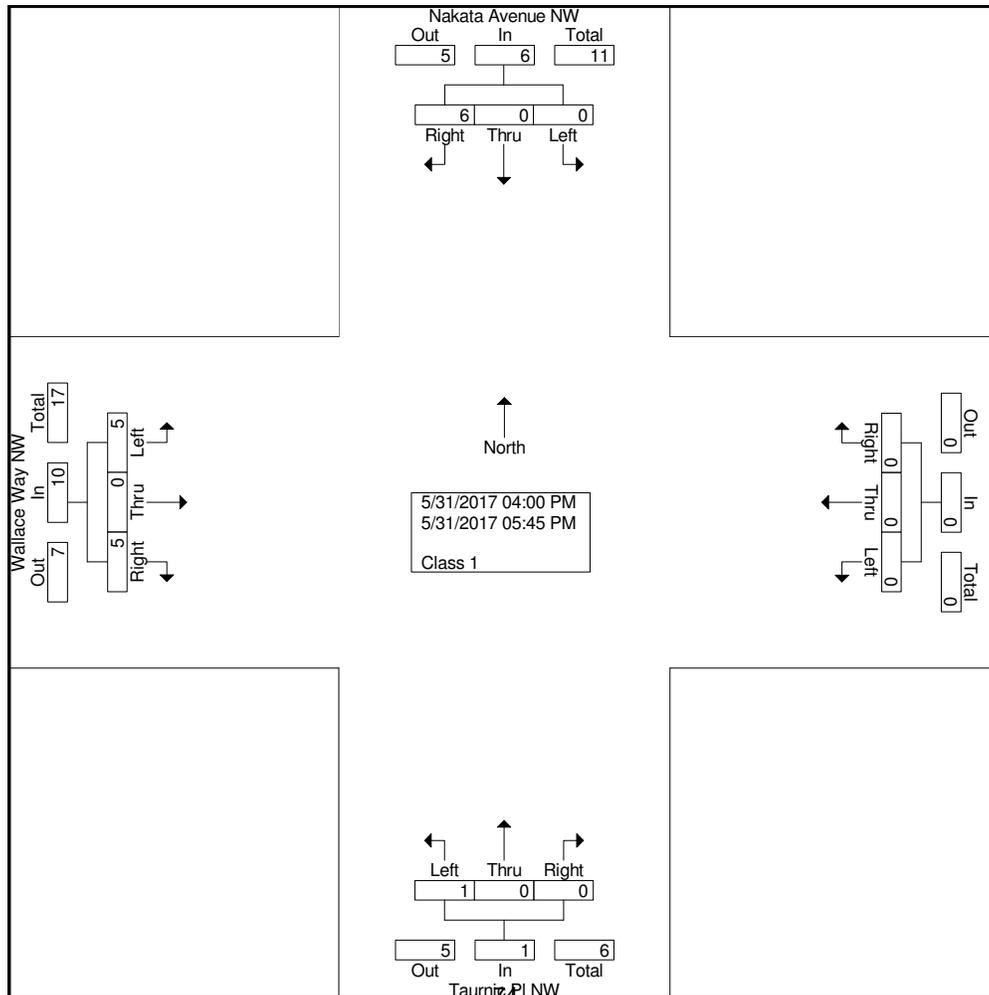
Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968d
Site Code : 00003968
Start Date : 5/31/2017
Page No : 1

Groups Printed- Class 1

Start Time	Nakata Avenue NW Southbound				Westbound				Taurnic PI NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
04:45 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	3	6
05:00 PM	3	0	0	3	0	0	0	0	0	0	0	0	1	0	1	2	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	5	5
*** BREAK ***																	
Total	3	0	0	3	0	0	0	0	0	0	1	1	5	0	2	7	11
Grand Total	6	0	0	6	0	0	0	0	0	0	1	1	5	0	5	10	17
Apprch %	100	0	0		0	0	0		0	0	100		50	0	50		
Total %	35.3	0	0	35.3	0	0	0	0	0	0	5.9	5.9	29.4	0	29.4	58.8	

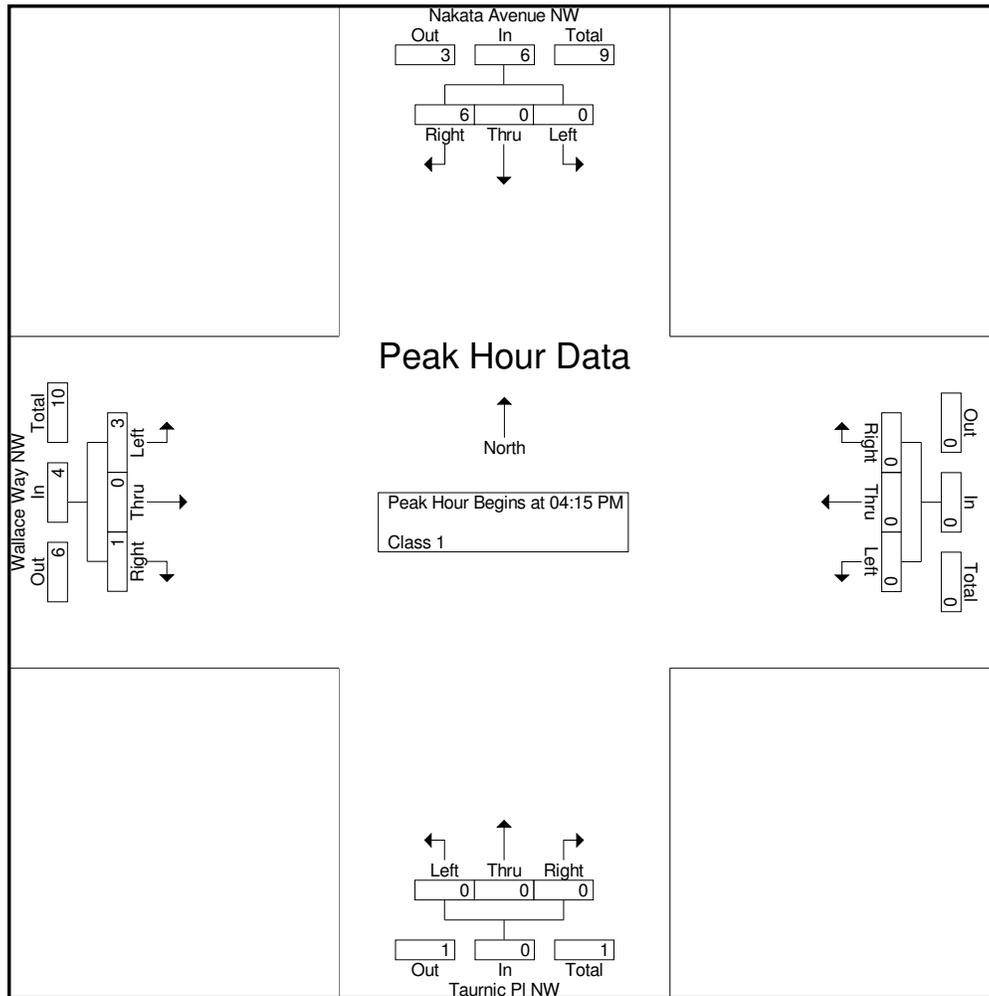


Heath & Associates, Inc

2214 Tacoma Road
Puyallup, WA 98371

File Name : 3968d
Site Code : 00003968
Start Date : 5/31/2017
Page No : 2

Start Time	Nakata Avenue NW Southbound				Westbound				Taurnic PI NW Northbound				Wallace Way NW Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
04:45 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	3	0	0	3	0	0	0	0	0	0	0	0	1	0	1	2	5
Total Volume	6	0	0	6	0	0	0	0	0	0	0	0	1	0	3	4	10
% App. Total	100	0	0		0	0	0		0	0	0		25	0	75		
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.750	.500	.500



WALLACE COTTAGES
TRAFFIC IMPACT ANALYSIS
LEVEL OF SERVICE

APPENDIX

Intersection				
Intersection Delay, s/veh	9.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	437	433	296	464
Demand Flow Rate, veh/h	446	442	302	473
Vehicles Circulating, veh/h	402	254	463	374
Vehicles Exiting, veh/h	445	511	385	322
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.2	7.9	8.3	10.3
Approach LOS	B	A	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	446	442	302	473
Cap Entry Lane, veh/h	916	1065	861	942
Entry HV Adj Factor	0.980	0.980	0.979	0.981
Flow Entry, veh/h	437	433	296	464
Cap Entry, veh/h	897	1044	843	924
V/C Ratio	0.487	0.415	0.351	0.502
Control Delay, s/veh	10.2	7.9	8.3	10.3
LOS	B	A	A	B
95th %tile Queue, veh	3	2	2	3

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	14	0	17	2	226	15	27	303	4
Future Vol, veh/h	0	0	1	14	0	17	2	226	15	27	303	4
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	1	15	0	18	2	246	16	29	329	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	656	655	331	648	649	254	333	0	0	262	0	0
Stage 1	389	389	-	258	258	-	-	-	-	-	-	-
Stage 2	267	266	-	390	391	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	382	388	715	386	391	790	1238	-	-	1314	-	-
Stage 1	639	612	-	751	698	-	-	-	-	-	-	-
Stage 2	743	692	-	638	611	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	365	377	715	377	380	790	1238	-	-	1314	-	-
Mov Cap-2 Maneuver	365	377	-	377	380	-	-	-	-	-	-	-
Stage 1	638	595	-	749	697	-	-	-	-	-	-	-
Stage 2	724	691	-	620	595	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	12.3	0.1	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1238	-	-	715	529	1314	-
HCM Lane V/C Ratio	0.002	-	-	0.002	0.064	0.022	-
HCM Control Delay (s)	7.9	0	-	10	12.3	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	112	80	113	0	5	35	10	0	68	126	6
Future Vol, veh/h	0	112	80	113	0	5	35	10	0	68	126	6
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	124	89	126	0	6	39	11	0	76	140	7
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	14.3	9.8	10.9
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	37%	10%	8%
Vol Thru, %	0%	95%	26%	70%	78%
Vol Right, %	0%	5%	37%	20%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	132	305	50	319
LT Vol	68	0	112	5	24
Through Vol	0	126	80	35	250
RT Vol	0	6	113	10	45
Lane Flow Rate	76	147	339	56	354
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.141	0.251	0.516	0.094	0.541
Departure Headway (Hd)	6.696	6.156	5.48	6.104	5.495
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	534	582	657	583	656
Service Time	4.451	3.91	3.53	4.18	3.542
HCM Lane V/C Ratio	0.142	0.253	0.516	0.096	0.54
HCM Control Delay	10.6	11	14.3	9.8	14.9
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.5	1	3	0.3	3.3

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	24	250	45
Future Vol, veh/h	0	24	250	45
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	27	278	50
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	14.9
HCM LOS	B

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	38	256	114	0	19	103	4	0	44	41	16
Future Vol, veh/h	0	38	256	114	0	19	103	4	0	44	41	16
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	305	136	0	23	123	5	0	52	49	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	16.7	10.1	10.3
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	9%	15%	26%
Vol Thru, %	41%	63%	82%	55%
Vol Right, %	16%	28%	3%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	408	126	137
LT Vol	44	38	19	36
Through Vol	41	256	103	76
RT Vol	16	114	4	25
Lane Flow Rate	120	486	150	163
Geometry Grp	1	1	1	1
Degree of Util (X)	0.196	0.655	0.228	0.26
Departure Headway (Hd)	5.862	4.857	5.469	5.728
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	611	743	656	626
Service Time	3.908	2.889	3.512	3.771
HCM Lane V/C Ratio	0.196	0.654	0.229	0.26
HCM Control Delay	10.3	16.7	10.1	10.8
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	0.7	4.9	0.9	1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	36	76	25
Future Vol, veh/h	0	36	76	25
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	43	90	30
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.8
HCM LOS	B

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	3	4	0	5	1	51	1	3	80	2
Future Vol, veh/h	10	0	3	4	0	5	1	51	1	3	80	2
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	16	0	5	6	0	8	2	81	2	5	127	3
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	229	226	129	227	226	82	130	0	0	83	0	0
Stage 1	139	139	-	86	86	-	-	-	-	-	-	-
Stage 2	90	87	-	141	140	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	730	677	926	733	677	983	1468	-	-	1527	-	-
Stage 1	869	785	-	927	827	-	-	-	-	-	-	-
Stage 2	922	827	-	867	785	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	721	674	926	726	674	983	1468	-	-	1527	-	-
Mov Cap-2 Maneuver	721	674	-	726	674	-	-	-	-	-	-	-
Stage 1	868	782	-	926	826	-	-	-	-	-	-	-
Stage 2	914	826	-	859	782	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.9			9.3			0.1			0.3		
HCM LOS	A			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1468	-	-	760	849	1527	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.027	0.017	0.003	-	-				
HCM Control Delay (s)	7.5	0	-	9.9	9.3	7.4	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	2	0	0	5
Future Vol, veh/h	0	0	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	59	59	59	59	59	59
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	3	0	0	8

Major/Minor

	Minor2	Major2
Conflicting Flow All	4	4
Stage 1	4	4
Stage 2	0	0
Critical Hdwy	6.4	6.5
Critical Hdwy Stg 1	5.4	5.5
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	3.5	4
Pot Cap-1 Maneuver	1023	896
Stage 1	1024	897
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	1023	0
Mov Cap-2 Maneuver	1023	0
Stage 1	1024	0
Stage 2	-	0

Approach

	NB	SB
HCM Control Delay, s	8.5	0
HCM LOS	A	

Minor Lane/Major Mvmt

	NBLn1	SBT	SBR
Capacity (veh/h)	1023	-	-
HCM Lane V/C Ratio	0.003	-	-
HCM Control Delay (s)	8.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	416	69	49	210	11	43
Future Vol, veh/h	416	69	49	210	11	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	473	78	56	239	13	49

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	551
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1019
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1019
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	480	-	-	1019	-
HCM Lane V/C Ratio	0.128	-	-	0.055	-
HCM Control Delay (s)	13.6	-	-	8.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection				
Intersection Delay, s/veh	11.2			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	391	503	542	354
Demand Flow Rate, veh/h	398	513	553	361
Vehicles Circulating, veh/h	368	407	403	507
Vehicles Exiting, veh/h	500	549	363	413
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	11.9	13.0	10.1
Approach LOS	A	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	398	513	553	361
Cap Entry Lane, veh/h	948	911	915	823
Entry HV Adj Factor	0.982	0.981	0.980	0.980
Flow Entry, veh/h	391	503	542	354
Cap Entry, veh/h	931	893	896	806
V/C Ratio	0.420	0.563	0.604	0.439
Control Delay, s/veh	8.7	11.9	13.0	10.1
LOS	A	B	B	B
95th %tile Queue, veh	2	4	4	2

Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	52	0	44	0	481	35	26	297	1
Future Vol, veh/h	0	0	0	52	0	44	0	481	35	26	297	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	58	0	49	0	534	39	29	330	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	967	962	331	943	943	554	331	0	0	573	0	0
Stage 1	389	389	-	554	554	-	-	-	-	-	-	-
Stage 2	578	573	-	389	389	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	236	258	715	245	265	536	1240	-	-	1010	-	-
Stage 1	639	612	-	520	517	-	-	-	-	-	-	-
Stage 2	505	507	-	639	612	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	209	249	715	238	256	536	1240	-	-	1010	-	-
Mov Cap-2 Maneuver	209	249	-	238	256	-	-	-	-	-	-	-
Stage 1	639	591	-	520	517	-	-	-	-	-	-	-
Stage 2	459	507	-	617	591	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	21.9	0	0.7
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1240	-	-	- 319	1010	-	-
HCM Lane V/C Ratio	-	-	-	- 0.334	0.029	-	-
HCM Control Delay (s)	0	-	-	0 21.9	8.7	0	-
HCM Lane LOS	A	-	-	A C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 1.4	0.1	-	-

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	78	38	99	0	14	115	19	0	130	303	12
Future Vol, veh/h	0	78	38	99	0	14	115	19	0	130	303	12
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	83	40	105	0	15	122	20	0	138	322	13
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	13.7	12.5	16.3
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	36%	9%	4%
Vol Thru, %	0%	96%	18%	78%	80%
Vol Right, %	0%	4%	46%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	315	215	148	305
LT Vol	130	0	78	14	12
Through Vol	0	303	38	115	244
RT Vol	0	12	99	19	49
Lane Flow Rate	138	335	229	157	324
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.266	0.594	0.405	0.293	0.55
Departure Headway (Hd)	6.915	6.379	6.369	6.71	6.104
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	521	570	565	534	594
Service Time	4.627	4.091	4.418	4.765	4.117
HCM Lane V/C Ratio	0.265	0.588	0.405	0.294	0.545
HCM Control Delay	12.1	18	13.7	12.5	16.3
HCM Lane LOS	B	C	B	B	C
HCM 95th-tile Q	1.1	3.9	2	1.2	3.3

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	12	244	49
Future Vol, veh/h	0	12	244	49
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	260	52
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16.3
HCM LOS	C

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	10	156	76	0	11	310	16	0	122	40	6
Future Vol, veh/h	0	10	156	76	0	11	310	16	0	122	40	6
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	186	90	0	13	369	19	0	145	48	7
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.8	14.9	11.9
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	4%	3%	5%
Vol Thru, %	24%	64%	92%	70%
Vol Right, %	4%	31%	5%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	242	337	56
LT Vol	122	10	11	3
Through Vol	40	156	310	39
RT Vol	6	76	16	14
Lane Flow Rate	200	288	401	67
Geometry Grp	1	1	1	1
Degree of Util (X)	0.33	0.413	0.574	0.111
Departure Headway (Hd)	5.948	5.156	5.15	5.994
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	604	697	698	595
Service Time	3.997	3.199	3.189	4.055
HCM Lane V/C Ratio	0.331	0.413	0.574	0.113
HCM Control Delay	11.9	11.8	14.9	9.8
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.4	2	3.7	0.4

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	3	39	14
Future Vol, veh/h	0	3	39	14
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	46	17
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.8
HCM LOS	A

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	3	0	2	0	77	3	1	90	0
Future Vol, veh/h	0	0	0	3	0	2	0	77	3	1	90	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	3	0	2	0	88	3	1	102	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	195	195	102	194	194	90	102	0	0	91	0	0
Stage 1	104	104	-	90	90	-	-	-	-	-	-	-
Stage 2	91	91	-	104	104	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	769	704	959	770	705	973	1503	-	-	1517	-	-
Stage 1	907	813	-	922	824	-	-	-	-	-	-	-
Stage 2	921	823	-	907	813	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	767	703	959	769	704	973	1503	-	-	1517	-	-
Mov Cap-2 Maneuver	767	703	-	769	704	-	-	-	-	-	-	-
Stage 1	907	812	-	922	824	-	-	-	-	-	-	-
Stage 2	919	823	-	906	812	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.3	0	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1503	-	-	- 839	1517	-	-
HCM Lane V/C Ratio	-	-	-	- 0.007	0.001	-	-
HCM Control Delay (s)	0	-	-	0 9.3	7.4	0	-
HCM Lane LOS	A	-	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 0	0	-	-

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1	0	0	0	6
Future Vol, veh/h	3	1	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	2	0	0	0	12

Major/Minor

	Minor2	Major2
Conflicting Flow All	6	6
Stage 1	6	6
Stage 2	0	0
Critical Hdwy	6.4	6.5
Critical Hdwy Stg 1	5.4	5.5
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	3.5	4
Pot Cap-1 Maneuver	1021	893
Stage 1	1022	895
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	1021	0
Mov Cap-2 Maneuver	1021	0
Stage 1	1022	0
Stage 2	-	0

Approach

	NB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt

	NBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection

Int Delay, s/veh 2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	332	39	60	369	34	53
Future Vol, veh/h	332	39	60	369	34	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	349	41	63	388	36	56

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	390
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1169
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1169
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	448	-	-	1169	-
HCM Lane V/C Ratio	0.204	-	-	0.054	-
HCM Control Delay (s)	15.1	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Intersection				
Intersection Delay, s/veh	9.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	453	448	305	476
Demand Flow Rate, veh/h	462	457	311	485
Vehicles Circulating, veh/h	412	261	481	386
Vehicles Exiting, veh/h	459	531	393	332
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	8.2	8.7	10.8
Approach LOS	B	A	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	462	457	311	485
Cap Entry Lane, veh/h	906	1057	845	931
Entry HV Adj Factor	0.980	0.981	0.979	0.981
Flow Entry, veh/h	453	448	305	476
Cap Entry, veh/h	888	1037	827	913
V/C Ratio	0.510	0.432	0.368	0.521
Control Delay, s/veh	10.7	8.2	8.7	10.8
LOS	B	A	A	B
95th %tile Queue, veh	3	2	2	3

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	14	0	18	2	233	15	28	312	4
Future Vol, veh/h	0	0	1	14	0	18	2	233	15	28	312	4
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	1	15	0	20	2	253	16	30	339	4
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	676	674	341	667	668	261	343	0	0	269	0	0
Stage 1	401	401	-	265	265	-	-	-	-	-	-	-
Stage 2	275	273	-	402	403	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	370	379	706	375	382	783	1227	-	-	1306	-	-
Stage 1	630	604	-	745	693	-	-	-	-	-	-	-
Stage 2	736	688	-	629	603	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	353	368	706	366	371	783	1227	-	-	1306	-	-
Mov Cap-2 Maneuver	353	368	-	366	371	-	-	-	-	-	-	-
Stage 1	629	587	-	744	692	-	-	-	-	-	-	-
Stage 2	716	687	-	610	586	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	10.1			12.4			0.1			0.6		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1227	-	-	706	523	1306	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.002	0.067	0.023	-	-				
HCM Control Delay (s)	7.9	0	-	10.1	12.4	7.8	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-	-				

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	115	82	118	0	5	36	10	0	71	130	6
Future Vol, veh/h	0	115	82	118	0	5	36	10	0	71	130	6
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	128	91	131	0	6	40	11	0	79	144	7
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	15	10	11
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	37%	10%	8%
Vol Thru, %	0%	96%	26%	71%	78%
Vol Right, %	0%	4%	37%	20%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	136	315	51	329
LT Vol	71	0	115	5	25
Through Vol	0	130	82	36	258
RT Vol	0	6	118	10	46
Lane Flow Rate	79	151	350	57	366
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.148	0.262	0.539	0.098	0.565
Departure Headway (Hd)	6.773	6.233	5.544	6.213	5.563
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	528	574	648	573	647
Service Time	4.537	3.997	3.6	4.296	3.616
HCM Lane V/C Ratio	0.15	0.263	0.54	0.099	0.566
HCM Control Delay	10.7	11.2	15	10	15.7
HCM Lane LOS	B	B	B	A	C
HCM 95th-tile Q	0.5	1	3.2	0.3	3.5

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	25	258	46
Future Vol, veh/h	0	25	258	46
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	28	287	51
Number of Lanes	0	0	1	0
Approach	SB			
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	1			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	15.7			
HCM LOS	C			

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	40	264	117	0	20	106	5	0	45	42	16
Future Vol, veh/h	0	40	264	117	0	20	106	5	0	45	42	16
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	314	139	0	24	126	6	0	54	50	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	18	10.4	10.5
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	10%	15%	27%
Vol Thru, %	41%	63%	81%	54%
Vol Right, %	16%	28%	4%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	421	131	145
LT Vol	45	40	20	39
Through Vol	42	264	106	79
RT Vol	16	117	5	27
Lane Flow Rate	123	501	156	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.203	0.685	0.24	0.278
Departure Headway (Hd)	5.961	4.917	5.548	5.807
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	601	737	646	618
Service Time	4.016	2.952	3.597	3.858
HCM Lane V/C Ratio	0.205	0.68	0.241	0.28
HCM Control Delay	10.5	18	10.4	11.1
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	0.8	5.5	0.9	1.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	39	79	27
Future Vol, veh/h	0	39	79	27
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	46	94	32
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.1
HCM LOS	B

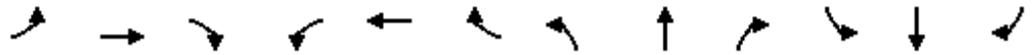
Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	3	8	0	11	1	53	3	5	82	2
Future Vol, veh/h	10	0	3	8	0	11	1	53	3	5	82	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	16	0	5	13	0	17	2	84	5	8	130	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	247	241	132	241	240	87	133	0	0	89	0	0
Stage 1	148	148	-	91	91	-	-	-	-	-	-	-
Stage 2	99	93	-	150	149	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	711	664	923	717	665	977	1464	-	-	1519	-	-
Stage 1	859	779	-	921	823	-	-	-	-	-	-	-
Stage 2	912	822	-	857	778	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	695	659	923	710	660	977	1464	-	-	1519	-	-
Mov Cap-2 Maneuver	695	659	-	710	660	-	-	-	-	-	-	-
Stage 1	858	774	-	920	822	-	-	-	-	-	-	-
Stage 2	895	821	-	847	773	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.4	0.1	0.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1464	-	-	737	843	1519	-
HCM Lane V/C Ratio	0.001	-	-	0.028	0.036	0.005	-
HCM Control Delay (s)	7.5	0	-	10	9.4	7.4	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM Unsignalized Intersection Capacity Analysis Forecast 2020 AM Peak Hour - Scenario 1
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/14/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	0	4	0	0	10	0	2	0	0	0	0	5
Future Volume (vph)	0	4	0	0	10	0	2	0	0	0	0	5
Peak Hour Factor	0.59	0.92	0.59	0.92	0.92	0.92	0.59	0.59	0.92	0.92	0.59	0.59
Hourly flow rate (vph)	0	4	0	0	11	0	3	0	0	0	0	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	11	3	8
Volume Left (vph)	0	0	3	0
Volume Right (vph)	0	0	0	8
Hadj (s)	0.03	0.03	0.20	-0.60
Departure Headway (s)	4.0	4.0	4.1	3.3
Degree Utilization, x	0.00	0.01	0.00	0.01
Capacity (veh/h)	898	901	853	1068
Control Delay (s)	7.0	7.0	7.2	6.4
Approach Delay (s)	7.0	7.0	7.2	6.4
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.8
Level of Service	A
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	429	71	52	216	12	49
Future Vol, veh/h	429	71	52	216	12	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	488	81	59	245	14	56

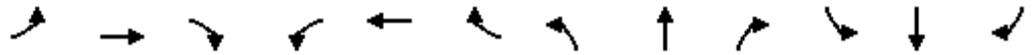
Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	569	892
Stage 1	-	-	529
Stage 2	-	-	363
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1003	312
Stage 1	-	-	591
Stage 2	-	-	704
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1003	291
Mov Cap-2 Maneuver	-	-	291
Stage 1	-	-	551
Stage 2	-	-	704

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	468	-	-	1003	-
HCM Lane V/C Ratio	0.148	-	-	0.059	-
HCM Control Delay (s)	14	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	2	14	0	18	0	233	15	28	312	0
Future Vol, veh/h	5	0	2	14	0	18	0	233	15	28	312	0
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	5	0	2	15	0	20	0	253	16	30	339	0
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	670	668	339	661	660	261	339	0	0	269	0	0
Stage 1	399	399	-	261	261	-	-	-	-	-	-	-
Stage 2	271	269	-	400	399	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	373	382	708	379	386	783	1231	-	-	1306	-	-
Stage 1	631	606	-	748	696	-	-	-	-	-	-	-
Stage 2	739	690	-	630	606	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	356	371	708	370	375	783	1231	-	-	1306	-	-
Mov Cap-2 Maneuver	356	371	-	370	375	-	-	-	-	-	-	-
Stage 1	631	589	-	748	696	-	-	-	-	-	-	-
Stage 2	721	690	-	610	589	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.8			12.3			0			0.6		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1231	-	-	415	526	1306	-	-				
HCM Lane V/C Ratio	-	-	-	0.018	0.066	0.023	-	-				
HCM Control Delay (s)	0	-	-	13.8	12.3	7.8	0	-				
HCM Lane LOS	A	-	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-				

HCM Unsignalized Intersection Capacity Analysis Forecast 2020 AM Peak Hour - Scenario 1-2
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	0	4	0	0	3	0	2	0	0	0	0	5
Future Volume (vph)	0	4	0	0	3	0	2	0	0	0	0	5
Peak Hour Factor	0.59	0.92	0.59	0.92	0.92	0.92	0.59	0.59	0.92	0.92	0.59	0.59
Hourly flow rate (vph)	0	4	0	0	3	0	3	0	0	0	0	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	3	3	8
Volume Left (vph)	0	0	3	0
Volume Right (vph)	0	0	0	8
Hadj (s)	0.03	0.03	0.20	-0.60
Departure Headway (s)	4.0	4.0	4.1	3.3
Degree Utilization, x	0.00	0.00	0.00	0.01
Capacity (veh/h)	900	901	868	1076
Control Delay (s)	7.0	7.0	7.1	6.3
Approach Delay (s)	7.0	7.0	7.1	6.3
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.7
Level of Service	A
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection				
Intersection Delay, s/veh	9.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	448	448	313	476
Demand Flow Rate, veh/h	457	457	319	485
Vehicles Circulating, veh/h	414	263	476	388
Vehicles Exiting, veh/h	459	532	395	332
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	8.3	8.8	10.8
Approach LOS	B	A	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	457	457	319	485
Cap Entry Lane, veh/h	905	1055	849	929
Entry HV Adj Factor	0.980	0.981	0.980	0.981
Flow Entry, veh/h	448	448	313	476
Cap Entry, veh/h	886	1035	832	912
V/C Ratio	0.505	0.433	0.376	0.522
Control Delay, s/veh	10.7	8.3	8.8	10.8
LOS	B	A	A	B
95th %tile Queue, veh	3	2	2	3

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	5	14	0	18	4	233	15	28	312	6
Future Vol, veh/h	6	0	5	14	0	18	4	233	15	28	312	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	7	0	5	15	0	20	4	253	16	30	339	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	682	680	343	674	675	261	346	0	0	269	0	0
Stage 1	403	403	-	269	269	-	-	-	-	-	-	-
Stage 2	279	277	-	405	406	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	367	376	704	371	378	783	1224	-	-	1306	-	-
Stage 1	628	603	-	741	690	-	-	-	-	-	-	-
Stage 2	732	685	-	626	601	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	349	364	704	359	366	783	1224	-	-	1306	-	-
Mov Cap-2 Maneuver	349	364	-	359	366	-	-	-	-	-	-	-
Stage 1	625	586	-	738	687	-	-	-	-	-	-	-
Stage 2	711	682	-	604	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	12.5	0.1	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	453	516	1306	-
HCM Lane V/C Ratio	0.004	-	-	0.026	0.067	0.023	-
HCM Control Delay (s)	8	0	-	13.2	12.5	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	116	82	116	0	5	36	10	0	70	131	6
Future Vol, veh/h	0	116	82	116	0	5	36	10	0	70	131	6
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	129	91	129	0	6	40	11	0	78	146	7
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	15	10	11
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	37%	10%	8%
Vol Thru, %	0%	96%	26%	71%	78%
Vol Right, %	0%	4%	37%	20%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	137	314	51	333
LT Vol	70	0	116	5	25
Through Vol	0	131	82	36	261
RT Vol	0	6	116	10	47
Lane Flow Rate	78	152	349	57	370
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.146	0.264	0.539	0.098	0.572
Departure Headway (Hd)	6.779	6.239	5.56	6.226	5.562
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	527	574	645	571	648
Service Time	4.544	4.004	3.617	4.312	3.616
HCM Lane V/C Ratio	0.148	0.265	0.541	0.1	0.571
HCM Control Delay	10.7	11.2	15	10	15.8
HCM Lane LOS	B	B	B	A	C
HCM 95th-tile Q	0.5	1.1	3.2	0.3	3.6

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	25	261	47
Future Vol, veh/h	0	25	261	47
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	28	290	52
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		2		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		15.8		
HCM LOS		C		

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	39	265	117	0	20	107	4	0	45	42	16
Future Vol, veh/h	0	39	265	117	0	20	107	4	0	45	42	16
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	315	139	0	24	127	5	0	54	50	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	17.9	10.3	10.5
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	9%	15%	26%
Vol Thru, %	41%	63%	82%	55%
Vol Right, %	16%	28%	3%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	421	131	141
LT Vol	45	39	20	37
Through Vol	42	265	107	78
RT Vol	16	117	4	26
Lane Flow Rate	123	501	156	168
Geometry Grp	1	1	1	1
Degree of Util (X)	0.203	0.683	0.24	0.271
Departure Headway (Hd)	5.947	4.903	5.535	5.803
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	602	737	647	618
Service Time	4.002	2.938	3.584	3.854
HCM Lane V/C Ratio	0.204	0.68	0.241	0.272
HCM Control Delay	10.5	17.9	10.3	11
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	0.8	5.4	0.9	1.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	37	78	26
Future Vol, veh/h	0	37	78	26
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	44	93	31
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11
HCM LOS	B

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	3	4	0	5	1	53	1	3	82	2
Future Vol, veh/h	10	0	3	4	0	5	1	53	1	3	82	2
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	16	0	5	6	0	8	2	84	2	5	130	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	235	232	132	233	232	85	133	0	0	86	0	0
Stage 1	142	142	-	89	89	-	-	-	-	-	-	-
Stage 2	93	90	-	144	143	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	724	672	923	726	672	980	1464	-	-	1523	-	-
Stage 1	866	783	-	923	825	-	-	-	-	-	-	-
Stage 2	919	824	-	864	782	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	715	669	923	719	669	980	1464	-	-	1523	-	-
Mov Cap-2 Maneuver	715	669	-	719	669	-	-	-	-	-	-	-
Stage 1	865	780	-	922	824	-	-	-	-	-	-	-
Stage 2	911	823	-	856	779	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	9.3	0.1	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1464	-	-	754	844	1523	-
HCM Lane V/C Ratio	0.001	-	-	0.027	0.017	0.003	-
HCM Control Delay (s)	7.5	0	-	9.9	9.3	7.4	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Vol, veh/h	0	0	2	0	0	5
Future Vol, veh/h	0	0	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	59	59	59	59	59	59
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	3	0	0	8

Major/Minor

	Minor2	Major2
Conflicting Flow All	4	4
Stage 1	4	4
Stage 2	0	0
Critical Hdwy	6.4	6.5
Critical Hdwy Stg 1	5.4	5.5
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	3.5	4
Pot Cap-1 Maneuver	1023	896
Stage 1	1024	897
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	1023	0
Mov Cap-2 Maneuver	1023	0
Stage 1	1024	0
Stage 2	-	0

Approach

	NB	SB
HCM Control Delay, s	8.5	0
HCM LOS	A	

Minor Lane/Major Mvmt

	NBLn1	SBT	SBR
Capacity (veh/h)	1023	-	-
HCM Lane V/C Ratio	0.003	-	-
HCM Control Delay (s)	8.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	429	71	50	217	11	44
Future Vol, veh/h	429	71	50	217	11	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	488	81	57	247	13	50

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	569	890
Stage 1	-	-	529
Stage 2	-	-	361
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1003	313
Stage 1	-	-	591
Stage 2	-	-	705
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1003	292
Mov Cap-2 Maneuver	-	-	292
Stage 1	-	-	552
Stage 2	-	-	705

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	-	-	1003	-
HCM Lane V/C Ratio	0.134	-	-	0.057	-
HCM Control Delay (s)	13.9	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection				
Intersection Delay, s/veh	11.9			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	407	522	558	364
Demand Flow Rate, veh/h	414	532	569	371
Vehicles Circulating, veh/h	378	420	419	526
Vehicles Exiting, veh/h	519	568	373	426
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.2	12.8	14.0	10.7
Approach LOS	A	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	414	532	569	371
Cap Entry Lane, veh/h	938	899	900	807
Entry HV Adj Factor	0.982	0.981	0.980	0.980
Flow Entry, veh/h	407	522	558	364
Cap Entry, veh/h	922	882	882	791
V/C Ratio	0.441	0.592	0.632	0.460
Control Delay, s/veh	9.2	12.8	14.0	10.7
LOS	A	B	B	B
95th %tile Queue, veh	2	4	5	2

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	54	0	45	0	496	36	27	306	1
Future Vol, veh/h	0	0	0	54	0	45	0	496	36	27	306	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	60	0	50	0	551	40	30	340	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	997	992	341	972	972	571	341	0	0	591	0	0
Stage 1	401	401	-	571	571	-	-	-	-	-	-	-
Stage 2	596	591	-	401	401	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	225	248	706	234	254	524	1229	-	-	995	-	-
Stage 1	630	604	-	509	508	-	-	-	-	-	-	-
Stage 2	494	498	-	630	604	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	198	239	706	227	245	524	1229	-	-	995	-	-
Mov Cap-2 Maneuver	198	239	-	227	245	-	-	-	-	-	-	-
Stage 1	630	582	-	509	508	-	-	-	-	-	-	-
Stage 2	447	498	-	607	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	23.2	0	0.7
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1229	-	-	- 306	995	-	-
HCM Lane V/C Ratio	-	-	-	- 0.359	0.03	-	-
HCM Control Delay (s)	0	-	-	0 23.2	8.7	0	-
HCM Lane LOS	A	-	-	A C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 1.6	0.1	-	-

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	80	39	105	0	14	118	20	0	139	312	12
Future Vol, veh/h	0	80	39	105	0	14	118	20	0	139	312	12
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	41	112	0	15	126	21	0	148	332	13
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	14.3	12.9	17.1
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	36%	9%	4%
Vol Thru, %	0%	96%	17%	78%	80%
Vol Right, %	0%	4%	47%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	324	224	152	313
LT Vol	139	0	80	14	12
Through Vol	0	312	39	118	251
RT Vol	0	12	105	20	50
Lane Flow Rate	148	345	238	162	333
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.287	0.618	0.429	0.308	0.573
Departure Headway (Hd)	6.994	6.458	6.481	6.849	6.194
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	513	558	555	524	583
Service Time	4.738	4.201	4.528	4.9	4.24
HCM Lane V/C Ratio	0.288	0.618	0.429	0.309	0.571
HCM Control Delay	12.5	19.1	14.3	12.9	17.3
HCM Lane LOS	B	C	B	B	C
HCM 95th-tile Q	1.2	4.2	2.1	1.3	3.6

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	12	251	50
Future Vol, veh/h	0	12	251	50
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	267	53
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		2		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		17.3		
HCM LOS		C		

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	11	161	78	0	11	319	21	0	126	42	6
Future Vol, veh/h	0	11	161	78	0	11	319	21	0	126	42	6
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	13	192	93	0	13	380	25	0	150	50	7
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	12.3	16.1	12.3
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	4%	3%	10%
Vol Thru, %	24%	64%	91%	66%
Vol Right, %	3%	31%	6%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	250	351	62
LT Vol	126	11	11	6
Through Vol	42	161	319	41
RT Vol	6	78	21	15
Lane Flow Rate	207	298	418	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.348	0.435	0.607	0.126
Departure Headway (Hd)	6.056	5.258	5.228	6.129
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	592	682	689	582
Service Time	4.115	3.309	3.274	4.202
HCM Lane V/C Ratio	0.35	0.437	0.607	0.127
HCM Control Delay	12.3	12.3	16.1	10.1
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	1.6	2.2	4.1	0.4

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	6	41	15
Future Vol, veh/h	0	6	41	15
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	49	18
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.1
HCM LOS	B

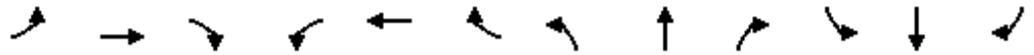
Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	8	0	4	0	79	10	6	93	0
Future Vol, veh/h	0	0	0	8	0	4	0	79	10	6	93	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	9	0	5	0	90	11	7	106	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	218	221	106	216	216	96	106	0	0	101	0	0
Stage 1	120	120	-	96	96	-	-	-	-	-	-	-
Stage 2	98	101	-	120	120	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	743	681	954	745	685	966	1498	-	-	1504	-	-
Stage 1	889	800	-	916	819	-	-	-	-	-	-	-
Stage 2	913	815	-	889	800	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	736	678	954	742	682	966	1498	-	-	1504	-	-
Mov Cap-2 Maneuver	736	678	-	742	682	-	-	-	-	-	-	-
Stage 1	889	796	-	916	819	-	-	-	-	-	-	-
Stage 2	909	815	-	885	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.6	0	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1498	-	-	- 804	1504	-	-
HCM Lane V/C Ratio	-	-	-	- 0.017	0.005	-	-
HCM Control Delay (s)	0	-	-	0 9.6	7.4	0	-
HCM Lane LOS	A	-	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 0.1	0	-	-

HCM Unsignalized Intersection Capacity Analysis Forecast 2020 PM Peak Hour - Scenario 1
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	3	12	1	0	7	0	0	0	0	0	0	6
Future Volume (vph)	3	12	1	0	7	0	0	0	0	0	0	6
Peak Hour Factor	0.50	0.92	0.50	0.92	0.92	0.92	0.50	0.50	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	6	13	2	0	8	0	0	0	0	0	0	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	21	8	0	12
Volume Left (vph)	6	0	0	0
Volume Right (vph)	2	0	0	12
Hadj (s)	0.02	0.03	0.00	-0.60
Departure Headway (s)	4.0	4.0	4.0	3.4
Degree Utilization, x	0.02	0.01	0.00	0.01
Capacity (veh/h)	901	897	900	1056
Control Delay (s)	7.0	7.0	7.0	6.4
Approach Delay (s)	7.0	7.0	0.0	6.4
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.8
Level of Service	A
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	342	41	66	380	35	57
Future Vol, veh/h	342	41	66	380	35	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	360	43	69	400	37	60

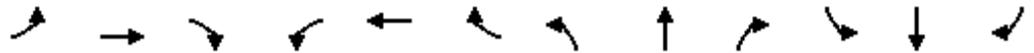
Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	403
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1156
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1156
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	435	-	-	1156	-
HCM Lane V/C Ratio	0.223	-	-	0.06	-
HCM Control Delay (s)	15.6	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Intersection													
Int Delay, s/veh	2.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕				↕	
Traffic Vol, veh/h	2	0	3	54	0	45	0	496	36	27	306	0	
Future Vol, veh/h	2	0	3	54	0	45	0	496	36	27	306	0	
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	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0	
Mvmt Flow	2	0	3	60	0	50	0	551	40	30	340	0	
Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	996	991	340	973	971	571	340	0	0	591	0	0	
Stage 1	400	400	-	571	571	-	-	-	-	-	-	-	
Stage 2	596	591	-	402	400	-	-	-	-	-	-	-	
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-	
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-	
Pot Cap-1 Maneuver	225	248	707	233	255	524	1230	-	-	995	-	-	
Stage 1	630	605	-	509	508	-	-	-	-	-	-	-	
Stage 2	494	498	-	629	605	-	-	-	-	-	-	-	
Platoon blocked, %													
Mov Cap-1 Maneuver	198	239	707	225	246	524	1230	-	-	995	-	-	
Mov Cap-2 Maneuver	198	239	-	225	246	-	-	-	-	-	-	-	
Stage 1	630	583	-	509	508	-	-	-	-	-	-	-	
Stage 2	447	498	-	603	583	-	-	-	-	-	-	-	
Approach	EB			WB			NB			SB			
HCM Control Delay, s	15.5			23.4			0			0.7			
HCM LOS	C			C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1230	-	-	349	304	995	-	-					
HCM Lane V/C Ratio	-	-	-	0.016	0.362	0.03	-	-					
HCM Control Delay (s)	0	-	-	15.5	23.4	8.7	0	-					
HCM Lane LOS	A	-	-	C	C	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	0	1.6	0.1	-	-					

HCM Unsignalized Intersection Capacity Analysis Forecast 2020 PM Peak Hour - Scenario 1-2
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	3	12	1	0	2	0	0	0	0	0	0	6
Future Volume (vph)	3	12	1	0	2	0	0	0	0	0	0	6
Peak Hour Factor	0.50	0.92	0.50	0.92	0.92	0.92	0.50	0.50	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	6	13	2	0	2	0	0	0	0	0	0	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	21	2	0	12
Volume Left (vph)	6	0	0	0
Volume Right (vph)	2	0	0	12
Hadj (s)	0.02	0.03	0.00	-0.60
Departure Headway (s)	3.9	4.0	4.0	3.3
Degree Utilization, x	0.02	0.00	0.00	0.01
Capacity (veh/h)	903	897	900	1062
Control Delay (s)	7.0	7.0	7.0	6.4
Approach Delay (s)	7.0	7.0	0.0	6.4
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.8
Level of Service	A
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection				
Intersection Delay, s/veh	12.0			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	406	522	560	364
Demand Flow Rate, veh/h	414	532	571	371
Vehicles Circulating, veh/h	382	420	417	526
Vehicles Exiting, veh/h	515	568	379	426
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.2	12.8	14.0	10.7
Approach LOS	A	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	414	532	571	371
Cap Entry Lane, veh/h	935	899	902	807
Entry HV Adj Factor	0.980	0.981	0.980	0.980
Flow Entry, veh/h	406	522	560	364
Cap Entry, veh/h	916	882	884	791
V/C Ratio	0.443	0.592	0.633	0.460
Control Delay, s/veh	9.2	12.8	14.0	10.7
LOS	A	B	B	B
95th %tile Queue, veh	2	4	5	2

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	5	54	0	45	7	496	36	27	306	6
Future Vol, veh/h	2	0	5	54	0	45	7	496	36	27	306	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	2	0	6	60	0	50	8	551	40	30	340	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1016	1011	344	994	994	571	347	0	0	591	0	0
Stage 1	404	404	-	587	587	-	-	-	-	-	-	-
Stage 2	612	607	-	407	407	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	218	241	703	226	247	524	1223	-	-	995	-	-
Stage 1	627	603	-	499	500	-	-	-	-	-	-	-
Stage 2	484	489	-	625	601	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	190	230	703	216	235	524	1223	-	-	995	-	-
Mov Cap-2 Maneuver	190	230	-	216	235	-	-	-	-	-	-	-
Stage 1	621	581	-	494	495	-	-	-	-	-	-	-
Stage 2	433	484	-	597	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	24.3	0.1	0.7
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	397	295	995	-
HCM Lane V/C Ratio	0.006	-	-	0.02	0.373	0.03	-
HCM Control Delay (s)	8	0	-	14.2	24.3	8.7	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	1.7	0.1	-

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	81	39	102	0	14	118	20	0	134	318	12
Future Vol, veh/h	0	81	39	102	0	14	118	20	0	134	318	12
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	86	41	109	0	15	126	21	0	143	338	13
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	14.4	13	17.6
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	36%	9%	4%
Vol Thru, %	0%	96%	18%	78%	80%
Vol Right, %	0%	4%	46%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	134	330	222	152	318
LT Vol	134	0	81	14	12
Through Vol	0	318	39	118	255
RT Vol	0	12	102	20	51
Lane Flow Rate	143	351	236	162	338
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.277	0.631	0.427	0.309	0.582
Departure Headway (Hd)	7.001	6.466	6.515	6.873	6.197
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	513	558	553	522	582
Service Time	4.745	4.209	4.564	4.925	4.244
HCM Lane V/C Ratio	0.279	0.629	0.427	0.31	0.581
HCM Control Delay	12.4	19.7	14.4	13	17.6
HCM Lane LOS	B	C	B	B	C
HCM 95th-tile Q	1.1	4.4	2.1	1.3	3.7

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	12	255	51
Future Vol, veh/h	0	12	255	51
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	271	54
Number of Lanes	0	0	1	0
Approach	SB			
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	1			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	17.6			
HCM LOS	C			

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	10	162	78	0	11	320	16	0	126	41	6
Future Vol, veh/h	0	10	162	78	0	11	320	16	0	126	41	6
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	193	93	0	13	381	19	0	150	49	7
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	12.2	15.7	12.2
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	4%	3%	5%
Vol Thru, %	24%	65%	92%	70%
Vol Right, %	3%	31%	5%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	250	347	57
LT Vol	126	10	11	3
Through Vol	41	162	320	40
RT Vol	6	78	16	14
Lane Flow Rate	206	298	413	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.345	0.431	0.597	0.115
Departure Headway (Hd)	6.022	5.218	5.205	6.091
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	688	694	586
Service Time	4.075	3.267	3.249	4.159
HCM Lane V/C Ratio	0.346	0.433	0.595	0.116
HCM Control Delay	12.2	12.2	15.7	10
HCM Lane LOS	B	B	C	A
HCM 95th-tile Q	1.5	2.2	4	0.4

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	3	40	14
Future Vol, veh/h	0	3	40	14
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	48	17
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10
HCM LOS	A

Intersection													
Int Delay, s/veh	0.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕				↕	
Traffic Vol, veh/h	0	0	0	3	0	2	0	79	3	1	93	0	
Future Vol, veh/h	0	0	0	3	0	2	0	79	3	1	93	0	
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	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88	
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0	
Mvmt Flow	0	0	0	3	0	2	0	90	3	1	106	0	
Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	201	201	106	200	200	92	106	0	0	93	0	0	
Stage 1	108	108	-	92	92	-	-	-	-	-	-	-	
Stage 2	93	93	-	108	108	-	-	-	-	-	-	-	
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-	
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-	
Pot Cap-1 Maneuver	762	699	954	763	699	971	1498	-	-	1514	-	-	
Stage 1	902	810	-	920	823	-	-	-	-	-	-	-	
Stage 2	919	822	-	902	810	-	-	-	-	-	-	-	
Platoon blocked, %													
Mov Cap-1 Maneuver	760	698	954	762	698	971	1498	-	-	1514	-	-	
Mov Cap-2 Maneuver	760	698	-	762	698	-	-	-	-	-	-	-	
Stage 1	902	809	-	920	823	-	-	-	-	-	-	-	
Stage 2	917	822	-	901	809	-	-	-	-	-	-	-	
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			9.3			0			0.1			
HCM LOS	A			A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	1498	-	-	-	834	1514	-	-					
HCM Lane V/C Ratio	-	-	-	-	0.007	0.001	-	-					
HCM Control Delay (s)	0	-	-	0	9.3	7.4	0	-					
HCM Lane LOS	A	-	-	A	A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-					

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1	0	0	0	6
Future Vol, veh/h	3	1	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	2	0	0	0	12

Major/Minor

	Minor2	Major2
Conflicting Flow All	6	6
Stage 1	6	6
Stage 2	0	0
Critical Hdwy	6.4	6.5
Critical Hdwy Stg 1	5.4	5.5
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	3.5	4
Pot Cap-1 Maneuver	1021	893
Stage 1	1022	895
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	1021	0
Mov Cap-2 Maneuver	1021	0
Stage 1	1022	0
Stage 2	-	0

Approach

	NB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt

	NBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection

Int Delay, s/veh 2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	343	40	62	380	35	55
Future Vol, veh/h	343	40	62	380	35	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	361	42	65	400	37	58

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	403	912
Stage 1	-	-	382
Stage 2	-	-	530
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1156	304
Stage 1	-	-	690
Stage 2	-	-	590
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1156	282
Mov Cap-2 Maneuver	-	-	282
Stage 1	-	-	640
Stage 2	-	-	590

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	435	-	-	1156	-
HCM Lane V/C Ratio	0.218	-	-	0.056	-
HCM Control Delay (s)	15.6	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Intersection				
Intersection Delay, s/veh	12.9			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	527	520	356	554
Demand Flow Rate, veh/h	537	531	363	566
Vehicles Circulating, veh/h	480	305	559	449
Vehicles Exiting, veh/h	535	617	458	387
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	14.7	10.2	11.1	14.9
Approach LOS	B	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	537	531	363	566
Cap Entry Lane, veh/h	846	1011	780	873
Entry HV Adj Factor	0.981	0.980	0.981	0.979
Flow Entry, veh/h	527	520	356	554
Cap Entry, veh/h	830	991	766	855
V/C Ratio	0.635	0.525	0.465	0.648
Control Delay, s/veh	14.7	10.2	11.1	14.9
LOS	B	B	B	B
95th %tile Queue, veh	5	3	2	5

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	17	0	20	2	270	18	32	362	5
Future Vol, veh/h	0	0	1	17	0	20	2	270	18	32	362	5
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	1	18	0	22	2	293	20	35	393	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	784	783	396	773	775	303	398	0	0	313	0	0
Stage 1	466	466	-	307	307	-	-	-	-	-	-	-
Stage 2	318	317	-	466	468	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	313	328	658	319	331	741	1172	-	-	1259	-	-
Stage 1	581	566	-	707	665	-	-	-	-	-	-	-
Stage 2	698	658	-	581	565	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	295	316	658	309	318	741	1172	-	-	1259	-	-
Mov Cap-2 Maneuver	295	316	-	309	318	-	-	-	-	-	-	-
Stage 1	580	546	-	706	664	-	-	-	-	-	-	-
Stage 2	676	657	-	559	545	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	13.8	0.1	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1172	-	-	658	451	1259	-
HCM Lane V/C Ratio	0.002	-	-	0.002	0.089	0.028	-
HCM Control Delay (s)	8.1	0	-	10.5	13.8	7.9	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	19.2
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	134	96	137	0	6	42	12	0	82	151	7
Future Vol, veh/h	0	134	96	137	0	6	42	12	0	82	151	7
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	149	107	152	0	7	47	13	0	91	168	8
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	21.1	11.1	12.5
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	37%	10%	8%
Vol Thru, %	0%	96%	26%	70%	78%
Vol Right, %	0%	4%	37%	20%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	158	367	60	382
LT Vol	82	0	134	6	29
Through Vol	0	151	96	42	299
RT Vol	0	7	137	12	54
Lane Flow Rate	91	176	408	67	424
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.186	0.332	0.683	0.129	0.714
Departure Headway (Hd)	7.357	6.813	6.03	6.967	6.058
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	487	527	599	513	598
Service Time	5.108	4.565	4.051	5.029	4.086
HCM Lane V/C Ratio	0.187	0.334	0.681	0.131	0.709
HCM Control Delay	11.8	12.9	21.1	11.1	22.8
HCM Lane LOS	B	B	C	B	C
HCM 95th-tile Q	0.7	1.4	5.3	0.4	5.9

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	29	299	54
Future Vol, veh/h	0	29	299	54
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	32	332	60
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	22.8
HCM LOS	C

Intersection	
Intersection Delay, s/veh	21.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	46	306	136	0	23	123	6	0	53	49	19
Future Vol, veh/h	0	46	306	136	0	23	123	6	0	53	49	19
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	55	364	162	0	27	146	7	0	63	58	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	29.3	11.6	11.8
HCM LOS	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	9%	15%	27%
Vol Thru, %	40%	63%	81%	54%
Vol Right, %	16%	28%	4%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	488	152	167
LT Vol	53	46	23	45
Through Vol	49	306	123	91
RT Vol	19	136	6	31
Lane Flow Rate	144	581	181	199
Geometry Grp	1	1	1	1
Degree of Util (X)	0.257	0.838	0.299	0.345
Departure Headway (Hd)	6.426	5.192	5.958	6.243
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	555	691	597	571
Service Time	4.525	3.256	4.049	4.335
HCM Lane V/C Ratio	0.259	0.841	0.303	0.349
HCM Control Delay	11.8	29.3	11.6	12.6
HCM Lane LOS	B	D	B	B
HCM 95th-tile Q	1	9.3	1.2	1.5

Intersection

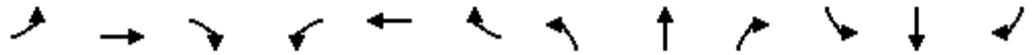
Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	45	91	31
Future Vol, veh/h	0	45	91	31
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	54	108	37
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.6
HCM LOS	B

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	0	4	9	0	12	1	61	3	6	96	2
Future Vol, veh/h	12	0	4	9	0	12	1	61	3	6	96	2
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	19	0	6	14	0	19	2	97	5	10	152	3
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	287	280	154	281	279	100	155	0	0	102	0	0
Stage 1	174	174	-	104	104	-	-	-	-	-	-	-
Stage 2	113	106	-	177	175	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	669	632	897	675	632	961	1438	-	-	1503	-	-
Stage 1	833	759	-	907	813	-	-	-	-	-	-	-
Stage 2	897	811	-	829	758	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	652	627	897	666	627	961	1438	-	-	1503	-	-
Mov Cap-2 Maneuver	652	627	-	666	627	-	-	-	-	-	-	-
Stage 1	832	754	-	906	812	-	-	-	-	-	-	-
Stage 2	878	810	-	817	753	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	10.3			9.6			0.1			0.4		
HCM LOS	B			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1438	-	-	700	808	1503	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.036	0.041	0.006	-	-				
HCM Control Delay (s)	7.5	0	-	10.3	9.6	7.4	0	-				
HCM Lane LOS	A	A	-	B	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

HCM Unsignalized Intersection Capacity Analysis Forecast 2035 AM Peak Hour - Scenario 1
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	0	4	0	0	10	0	2	0	0	0	0	6
Future Volume (vph)	0	4	0	0	10	0	2	0	0	0	0	6
Peak Hour Factor	0.59	0.92	0.59	0.92	0.92	0.92	0.59	0.59	0.92	0.92	0.59	0.59
Hourly flow rate (vph)	0	4	0	0	11	0	3	0	0	0	0	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	11	3	10
Volume Left (vph)	0	0	3	0
Volume Right (vph)	0	0	0	10
Hadj (s)	0.03	0.03	0.20	-0.60
Departure Headway (s)	4.0	4.0	4.1	3.3
Degree Utilization, x	0.00	0.01	0.00	0.01
Capacity (veh/h)	897	900	853	1068
Control Delay (s)	7.0	7.0	7.2	6.4
Approach Delay (s)	7.0	7.0	7.2	6.4
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.8
Level of Service	A
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	498	83	61	251	14	56
Future Vol, veh/h	498	83	61	251	14	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	566	94	69	285	16	64

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	660	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.218	-
Pot Cap-1 Maneuver	-	-	928	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	928	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	403	-	-	928	-
HCM Lane V/C Ratio	0.197	-	-	0.075	-
HCM Control Delay (s)	16.1	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

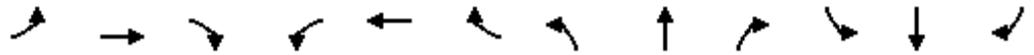
Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	2	17	0	20	0	270	18	32	362	0
Future Vol, veh/h	5	0	2	17	0	20	0	270	18	32	362	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	5	0	2	18	0	22	0	293	20	35	393	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	777	776	393	767	766	303	393	0	0	313	0	0
Stage 1	463	463	-	303	303	-	-	-	-	-	-	-
Stage 2	314	313	-	464	463	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	317	331	660	322	335	741	1177	-	-	1259	-	-
Stage 1	583	568	-	711	667	-	-	-	-	-	-	-
Stage 2	701	661	-	582	568	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	299	319	660	312	323	741	1177	-	-	1259	-	-
Mov Cap-2 Maneuver	299	319	-	312	323	-	-	-	-	-	-	-
Stage 1	583	548	-	711	667	-	-	-	-	-	-	-
Stage 2	680	661	-	559	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	13.7	0	0.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1177	-	-	354	454	1259	-
HCM Lane V/C Ratio	-	-	-	0.021	0.089	0.028	-
HCM Control Delay (s)	0	-	-	15.4	13.7	7.9	0
HCM Lane LOS	A	-	-	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-

HCM Unsignalized Intersection Capacity Analysis Forecast 2035 AM Peak Hour - Scenario 1-2
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	0	4	0	0	3	0	2	0	0	0	0	6
Future Volume (vph)	0	4	0	0	3	0	2	0	0	0	0	6
Peak Hour Factor	0.59	0.92	0.59	0.92	0.92	0.92	0.59	0.59	0.92	0.92	0.59	0.59
Hourly flow rate (vph)	0	4	0	0	3	0	3	0	0	0	0	10

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	3	3	10
Volume Left (vph)	0	0	3	0
Volume Right (vph)	0	0	0	10
Hadj (s)	0.03	0.03	0.20	-0.60
Departure Headway (s)	4.0	4.0	4.1	3.3
Degree Utilization, x	0.00	0.00	0.00	0.01
Capacity (veh/h)	899	900	858	1076
Control Delay (s)	7.0	7.0	7.1	6.3
Approach Delay (s)	7.0	7.0	7.1	6.3
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.7
Level of Service	A
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection				
Intersection Delay, s/veh	12.9			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	522	520	363	554
Demand Flow Rate, veh/h	532	531	370	566
Vehicles Circulating, veh/h	482	306	554	450
Vehicles Exiting, veh/h	534	618	460	387
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	14.6	10.2	11.1	14.9
Approach LOS	B	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	532	531	370	566
Cap Entry Lane, veh/h	844	1010	784	872
Entry HV Adj Factor	0.981	0.980	0.982	0.979
Flow Entry, veh/h	522	520	363	554
Cap Entry, veh/h	828	990	770	854
V/C Ratio	0.630	0.526	0.472	0.649
Control Delay, s/veh	14.6	10.2	11.1	14.9
LOS	B	B	B	B
95th %tile Queue, veh	5	3	3	5

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	5	17	0	20	4	270	18	32	362	7
Future Vol, veh/h	6	0	5	17	0	20	4	270	18	32	362	7
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	7	0	5	18	0	22	4	293	20	35	393	8
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	789	788	397	781	782	303	401	0	0	313	0	0
Stage 1	467	467	-	311	311	-	-	-	-	-	-	-
Stage 2	322	321	-	470	471	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	311	326	657	315	328	741	1169	-	-	1259	-	-
Stage 1	580	565	-	704	662	-	-	-	-	-	-	-
Stage 2	694	655	-	578	563	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	293	313	657	303	315	741	1169	-	-	1259	-	-
Mov Cap-2 Maneuver	293	313	-	303	315	-	-	-	-	-	-	-
Stage 1	578	545	-	701	659	-	-	-	-	-	-	-
Stage 2	671	652	-	553	543	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.5			13.9			0.1			0.6		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1169	-	-	392	445	1259	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.031	0.09	0.028	-	-				
HCM Control Delay (s)	8.1	0	-	14.5	13.9	7.9	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-				

Intersection	
Intersection Delay, s/veh	19.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	135	96	135	0	6	42	12	0	81	152	7
Future Vol, veh/h	0	135	96	135	0	6	42	12	0	81	152	7
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	150	107	150	0	7	47	13	0	90	169	8
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	21.1	11.1	12.6
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	37%	10%	8%
Vol Thru, %	0%	96%	26%	70%	78%
Vol Right, %	0%	4%	37%	20%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	159	366	60	386
LT Vol	81	0	135	6	29
Through Vol	0	152	96	42	302
RT Vol	0	7	135	12	55
Lane Flow Rate	90	177	407	67	429
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.184	0.335	0.683	0.129	0.722
Departure Headway (Hd)	7.367	6.824	6.048	6.985	6.061
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	487	526	598	512	596
Service Time	5.118	4.574	4.071	5.049	4.087
HCM Lane V/C Ratio	0.185	0.337	0.681	0.131	0.72
HCM Control Delay	11.8	13	21.1	11.1	23.3
HCM Lane LOS	B	B	C	B	C
HCM 95th-tile Q	0.7	1.5	5.3	0.4	6

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	29	302	55
Future Vol, veh/h	0	29	302	55
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	32	336	61
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		2		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		23.3		
HCM LOS		C		

Intersection	
Intersection Delay, s/veh	21
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	45	307	136	0	23	124	5	0	53	49	19
Future Vol, veh/h	0	45	307	136	0	23	124	5	0	53	49	19
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	54	365	162	0	27	148	6	0	63	58	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	29.1	11.6	11.7
HCM LOS	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	9%	15%	26%
Vol Thru, %	40%	63%	82%	55%
Vol Right, %	16%	28%	3%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	488	152	164
LT Vol	53	45	23	43
Through Vol	49	307	124	91
RT Vol	19	136	5	30
Lane Flow Rate	144	581	181	195
Geometry Grp	1	1	1	1
Degree of Util (X)	0.257	0.836	0.299	0.338
Departure Headway (Hd)	6.411	5.179	5.945	6.238
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	555	697	599	572
Service Time	4.51	3.241	4.035	4.331
HCM Lane V/C Ratio	0.259	0.834	0.302	0.341
HCM Control Delay	11.7	29.1	11.6	12.5
HCM Lane LOS	B	D	B	B
HCM 95th-tile Q	1	9.2	1.2	1.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	43	91	30
Future Vol, veh/h	0	43	91	30
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	51	108	36
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.5
HCM LOS	B

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	0	4	5	0	6	1	61	1	4	96	2
Future Vol, veh/h	12	0	4	5	0	6	1	61	1	4	96	2
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	19	0	6	8	0	10	2	97	2	6	152	3
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	273	269	154	271	269	98	155	0	0	99	0	0
Stage 1	166	166	-	102	102	-	-	-	-	-	-	-
Stage 2	107	103	-	169	167	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	684	641	897	686	641	963	1438	-	-	1507	-	-
Stage 1	841	765	-	909	815	-	-	-	-	-	-	-
Stage 2	903	814	-	838	764	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	674	638	897	678	638	963	1438	-	-	1507	-	-
Mov Cap-2 Maneuver	674	638	-	678	638	-	-	-	-	-	-	-
Stage 1	840	762	-	908	814	-	-	-	-	-	-	-
Stage 2	893	813	-	829	761	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	10.2			9.5			0.1			0.3		
HCM LOS	B			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1438	-	-	719	809	1507	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.035	0.022	0.004	-	-				
HCM Control Delay (s)	7.5	0	-	10.2	9.5	7.4	0	-				
HCM Lane LOS	A	A	-	B	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Vol, veh/h	0	0	2	0	0	6
Future Vol, veh/h	0	0	2	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	59	59	59	59	59	59
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	3	0	0	10

Major/Minor

	Minor2	Major2
Conflicting Flow All	5	5
Stage 1	5	5
Stage 2	0	0
Critical Hdwy	6.4	6.5
Critical Hdwy Stg 1	5.4	5.5
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	3.5	4
Pot Cap-1 Maneuver	1022	894
Stage 1	1023	896
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	1022	0
Mov Cap-2 Maneuver	1022	0
Stage 1	1023	0
Stage 2	-	0

Approach

	NB	SB
HCM Control Delay, s	8.5	0
HCM LOS	A	

Minor Lane/Major Mvmt

	NBLn1	SBT	SBR
Capacity (veh/h)	1022	-	-
HCM Lane V/C Ratio	0.003	-	-
HCM Control Delay (s)	8.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection

Int Delay, s/veh 1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	498	83	59	252	13	51
Future Vol, veh/h	498	83	59	252	13	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	566	94	67	286	15	58

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1033
Stage 1	-	-	613
Stage 2	-	-	420
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	928	258
Stage 1	-	-	541
Stage 2	-	-	663
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	928	236
Mov Cap-2 Maneuver	-	-	236
Stage 1	-	-	494
Stage 2	-	-	663

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	403	-	-	928	-
HCM Lane V/C Ratio	0.18	-	-	0.072	-
HCM Control Delay (s)	15.9	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection				
Intersection Delay, s/veh	17.6			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	471	605	649	424
Demand Flow Rate, veh/h	480	617	662	433
Vehicles Circulating, veh/h	442	487	485	611
Vehicles Exiting, veh/h	602	660	437	493
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.8	19.1	22.3	14.7
Approach LOS	B	C	C	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	480	617	662	433
Cap Entry Lane, veh/h	879	840	841	740
Entry HV Adj Factor	0.981	0.980	0.980	0.979
Flow Entry, veh/h	471	605	649	424
Cap Entry, veh/h	862	823	825	725
V/C Ratio	0.546	0.735	0.787	0.585
Control Delay, s/veh	11.8	19.1	22.3	14.7
LOS	B	C	C	B
95th %tile Queue, veh	3	7	8	4

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	62	0	53	0	575	42	32	355	1
Future Vol, veh/h	0	0	0	62	0	53	0	575	42	32	355	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	69	0	59	0	639	47	36	394	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1159	1153	395	1130	1130	663	395	0	0	686	0	0
Stage 1	467	467	-	663	663	-	-	-	-	-	-	-
Stage 2	692	686	-	467	467	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	174	199	659	183	205	465	1175	-	-	917	-	-
Stage 1	580	565	-	454	462	-	-	-	-	-	-	-
Stage 2	437	451	-	580	565	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	146	189	659	176	195	465	1175	-	-	917	-	-
Mov Cap-2 Maneuver	146	189	-	176	195	-	-	-	-	-	-	-
Stage 1	580	537	-	454	462	-	-	-	-	-	-	-
Stage 2	382	451	-	551	537	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	34.2	0	0.7
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1175	-	-	- 247	917	-	-
HCM Lane V/C Ratio	-	-	-	- 0.517	0.039	-	-
HCM Control Delay (s)	0	-	-	0 34.2	9.1	0	-
HCM Lane LOS	A	-	-	A D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 2.7	0.1	-	-

Intersection	
Intersection Delay, s/veh	24.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	93	45	121	0	17	138	23	0	160	362	14
Future Vol, veh/h	0	93	45	121	0	17	138	23	0	160	362	14
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	99	48	129	0	18	147	24	0	170	385	15
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	19.2	16.1	27.5
HCM LOS	C	C	D

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	36%	10%	4%
Vol Thru, %	0%	96%	17%	78%	80%
Vol Right, %	0%	4%	47%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	376	259	178	365
LT Vol	160	0	93	17	14
Through Vol	0	362	45	138	292
RT Vol	0	14	121	23	59
Lane Flow Rate	170	400	276	189	388
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.366	0.8	0.557	0.407	0.751
Departure Headway (Hd)	7.738	7.198	7.272	7.746	6.961
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	466	504	496	464	520
Service Time	5.456	4.917	5.331	5.813	4.975
HCM Lane V/C Ratio	0.365	0.794	0.556	0.407	0.746
HCM Control Delay	14.9	32.9	19.2	16.1	28.1
HCM Lane LOS	B	D	C	C	D
HCM 95th-tile Q	1.7	7.5	3.4	1.9	6.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	14	292	59
Future Vol, veh/h	0	14	292	59
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	311	63
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	28.1
HCM LOS	D

Intersection	
Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	13	187	91	0	13	371	24	0	146	49	7
Future Vol, veh/h	0	13	187	91	0	13	371	24	0	146	49	7
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	223	108	0	15	442	29	0	174	58	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	15.8	24.8	14.8
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	4%	3%	10%
Vol Thru, %	24%	64%	91%	66%
Vol Right, %	3%	31%	6%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	291	408	73
LT Vol	146	13	13	7
Through Vol	49	187	371	48
RT Vol	7	91	24	18
Lane Flow Rate	240	346	486	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.441	0.555	0.766	0.165
Departure Headway (Hd)	6.609	5.768	5.678	6.837
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	543	627	641	523
Service Time	4.657	3.784	3.69	4.899
HCM Lane V/C Ratio	0.442	0.552	0.758	0.166
HCM Control Delay	14.8	15.8	24.8	11.3
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	2.2	3.4	7.1	0.6

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	7	48	18
Future Vol, veh/h	0	7	48	18
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	57	21
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.3
HCM LOS	B

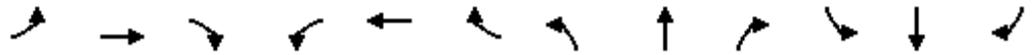
Intersection													
Int Delay, s/veh	0.8												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕				↕	
Traffic Vol, veh/h	0	0	0	9	0	4	0	92	11	6	108	0	
Future Vol, veh/h	0	0	0	9	0	4	0	92	11	6	108	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88	
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0	
Mvmt Flow	0	0	0	10	0	5	0	105	13	7	123	0	

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	251	255	123	249	249	112	123	0	0	118	0	0
Stage 1	137	137	-	112	112	-	-	-	-	-	-	-
Stage 2	114	118	-	137	137	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	707	652	933	709	657	947	1477	-	-	1483	-	-
Stage 1	871	787	-	898	807	-	-	-	-	-	-	-
Stage 2	896	802	-	871	787	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	701	649	933	706	654	947	1477	-	-	1483	-	-
Mov Cap-2 Maneuver	701	649	-	706	654	-	-	-	-	-	-	-
Stage 1	871	783	-	898	807	-	-	-	-	-	-	-
Stage 2	892	802	-	867	783	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.8	0	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1477	-	-	-	766	1483	-
HCM Lane V/C Ratio	-	-	-	-	0.019	0.005	-
HCM Control Delay (s)	0	-	-	0	9.8	7.4	0
HCM Lane LOS	A	-	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM Unsignalized Intersection Capacity Analysis Forecast 2035 PM Peak Hour - Scenario 1
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	4	12	1	0	7	0	0	0	0	0	0	7
Future Volume (vph)	4	12	1	0	7	0	0	0	0	0	0	7
Peak Hour Factor	0.50	0.92	0.50	0.92	0.92	0.92	0.50	0.50	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	8	13	2	0	8	0	0	0	0	0	0	14

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	23	8	0	14
Volume Left (vph)	8	0	0	0
Volume Right (vph)	2	0	0	14
Hadj (s)	0.04	0.03	0.00	-0.60
Departure Headway (s)	4.0	4.0	4.0	3.4
Degree Utilization, x	0.03	0.01	0.00	0.01
Capacity (veh/h)	897	895	900	1054
Control Delay (s)	7.1	7.0	7.0	6.4
Approach Delay (s)	7.1	7.0	0.0	6.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay		6.9	
Level of Service		A	
Intersection Capacity Utilization	14.2%		ICU Level of Service A
Analysis Period (min)		15	

Intersection

Int Delay, s/veh 2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	397	48	74	445	41	63
Future Vol, veh/h	397	48	74	445	41	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	418	51	78	468	43	66

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	469	1068
Stage 1	-	-	444
Stage 2	-	-	624
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1093	245
Stage 1	-	-	646
Stage 2	-	-	534
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1093	221
Mov Cap-2 Maneuver	-	-	221
Stage 1	-	-	584
Stage 2	-	-	534

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	361	-	-	1093	-
HCM Lane V/C Ratio	0.303	-	-	0.071	-
HCM Control Delay (s)	19.3	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.2	-

Intersection

Int Delay, s/veh 3.9

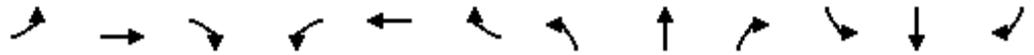
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	3	62	0	53	0	575	42	32	355	0
Future Vol, veh/h	2	0	3	62	0	53	0	575	42	32	355	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	2	0	3	69	0	59	0	639	47	36	394	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1158	1152	394	1131	1129	663	394	0	0	686	0	0
Stage 1	466	466	-	663	663	-	-	-	-	-	-	-
Stage 2	692	686	-	468	466	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	175	199	659	182	206	465	1176	-	-	917	-	-
Stage 1	581	566	-	454	462	-	-	-	-	-	-	-
Stage 2	437	451	-	579	566	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	147	189	659	174	196	465	1176	-	-	917	-	-
Mov Cap-2 Maneuver	147	189	-	174	196	-	-	-	-	-	-	-
Stage 1	581	538	-	454	462	-	-	-	-	-	-	-
Stage 2	382	451	-	547	538	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.4	34.7	0	0.8
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1176	-	-	275	245	917	-
HCM Lane V/C Ratio	-	-	-	0.02	0.522	0.039	-
HCM Control Delay (s)	0	-	-	18.4	34.7	9.1	0
HCM Lane LOS	A	-	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	2.8	0.1	-

HCM Unsignalized Intersection Capacity Analysis Forecast 2035 PM Peak Hour - Scenario 1-2
 12: Taurnic PI NW/Nakata Avenue NW & Wallace Way NW/Project Entrance 07/17/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Yield			Yield			Yield			Yield	
Traffic Volume (vph)	4	12	1	0	2	0	0	0	0	0	0	7
Future Volume (vph)	4	12	1	0	2	0	0	0	0	0	0	7
Peak Hour Factor	0.50	0.92	0.50	0.92	0.92	0.92	0.50	0.50	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	8	13	2	0	2	0	0	0	0	0	0	14

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	23	2	0	14
Volume Left (vph)	8	0	0	0
Volume Right (vph)	2	0	0	14
Hadj (s)	0.04	0.03	0.00	-0.60
Departure Headway (s)	4.0	4.0	4.0	3.4
Degree Utilization, x	0.03	0.00	0.00	0.01
Capacity (veh/h)	898	895	900	1060
Control Delay (s)	7.1	7.0	7.0	6.4
Approach Delay (s)	7.1	7.0	0.0	6.4
Approach LOS	A	A	A	A

Intersection Summary

Delay	6.8
Level of Service	A
Intersection Capacity Utilization	14.2%
ICU Level of Service	A
Analysis Period (min)	15

Intersection				
Intersection Delay, s/veh	17.6			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	470	605	651	424
Demand Flow Rate, veh/h	479	617	664	433
Vehicles Circulating, veh/h	446	487	483	611
Vehicles Exiting, veh/h	598	660	442	493
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.9	19.1	22.4	14.7
Approach LOS	B	C	C	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	479	617	664	433
Cap Entry Lane, veh/h	876	840	843	740
Entry HV Adj Factor	0.981	0.980	0.980	0.979
Flow Entry, veh/h	470	605	651	424
Cap Entry, veh/h	859	823	827	725
V/C Ratio	0.547	0.735	0.788	0.585
Control Delay, s/veh	11.9	19.1	22.4	14.7
LOS	B	C	C	B
95th %tile Queue, veh	3	7	8	4

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	5	62	0	53	7	575	42	31	355	6
Future Vol, veh/h	2	0	5	62	0	53	7	575	42	31	355	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	2	0	6	69	0	59	8	639	47	34	394	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1174	1168	398	1148	1148	663	401	0	0	686	0	0
Stage 1	466	466	-	679	679	-	-	-	-	-	-	-
Stage 2	708	702	-	469	469	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	170	195	656	177	200	465	1169	-	-	917	-	-
Stage 1	581	566	-	445	454	-	-	-	-	-	-	-
Stage 2	429	443	-	579	564	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	142	184	656	168	188	465	1169	-	-	917	-	-
Mov Cap-2 Maneuver	142	184	-	168	188	-	-	-	-	-	-	-
Stage 1	575	539	-	440	449	-	-	-	-	-	-	-
Stage 2	371	438	-	547	537	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	36.4	0.1	0.7
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1169	-	-	322	238	917	-
HCM Lane V/C Ratio	0.007	-	-	0.024	0.537	0.038	-
HCM Control Delay (s)	8.1	0	-	16.5	36.4	9.1	0
HCM Lane LOS	A	A	-	C	E	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	2.9	0.1	-

Intersection	
Intersection Delay, s/veh	25.3
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕			↕	↕	
Traffic Vol, veh/h	0	94	45	118	0	17	138	23	0	155	368	14
Future Vol, veh/h	0	94	45	118	0	17	138	23	0	155	368	14
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	100	48	126	0	18	147	24	0	165	391	15
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	19.2	16.2	28.7
HCM LOS	C	C	D

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	37%	10%	4%
Vol Thru, %	0%	96%	18%	78%	80%
Vol Right, %	0%	4%	46%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	382	257	178	370
LT Vol	155	0	94	17	14
Through Vol	0	368	45	138	296
RT Vol	0	14	118	23	60
Lane Flow Rate	165	406	273	189	394
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.355	0.814	0.556	0.409	0.762
Departure Headway (Hd)	7.755	7.215	7.316	7.78	6.973
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	465	504	492	462	520
Service Time	5.473	4.933	5.375	5.848	4.988
HCM Lane V/C Ratio	0.355	0.806	0.555	0.409	0.758
HCM Control Delay	14.7	34.4	19.2	16.2	29
HCM Lane LOS	B	D	C	C	D
HCM 95th-tile Q	1.6	7.8	3.3	2	6.7

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	14	296	60
Future Vol, veh/h	0	14	296	60
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	315	64
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		2		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		29		
HCM LOS		D		

Intersection	
Intersection Delay, s/veh	18
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕				↕				↕	
Traffic Vol, veh/h	0	12	188	91	0	13	372	19	0	146	48	7
Future Vol, veh/h	0	12	188	91	0	13	372	19	0	146	48	7
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	224	108	0	15	443	23	0	174	57	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	15.2	23	14.5
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	4%	3%	6%
Vol Thru, %	24%	65%	92%	69%
Vol Right, %	3%	31%	5%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	201	291	404	68
LT Vol	146	12	13	4
Through Vol	48	188	372	47
RT Vol	7	91	19	17
Lane Flow Rate	239	346	481	81
Geometry Grp	1	1	1	1
Degree of Util (X)	0.436	0.539	0.74	0.153
Departure Headway (Hd)	6.565	5.714	5.643	6.785
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	553	634	644	531
Service Time	4.565	3.714	3.643	4.797
HCM Lane V/C Ratio	0.432	0.546	0.747	0.153
HCM Control Delay	14.5	15.2	23	11
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	2.2	3.2	6.5	0.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	4	47	17
Future Vol, veh/h	0	4	47	17
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	56	20
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11
HCM LOS	B

Intersection													
Int Delay, s/veh	0.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕				↕	
Traffic Vol, veh/h	0	0	0	4	0	2	0	92	4	1	108	0	
Future Vol, veh/h	0	0	0	4	0	2	0	92	4	1	108	0	
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	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88	
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0	
Mvmt Flow	0	0	0	5	0	2	0	105	5	1	123	0	
Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	234	235	123	233	233	108	123	0	0	110	0	0	
Stage 1	125	125	-	108	108	-	-	-	-	-	-	-	
Stage 2	109	110	-	125	125	-	-	-	-	-	-	-	
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-	
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-	
Pot Cap-1 Maneuver	725	669	933	726	671	951	1477	-	-	1493	-	-	
Stage 1	884	796	-	902	810	-	-	-	-	-	-	-	
Stage 2	901	808	-	884	796	-	-	-	-	-	-	-	
Platoon blocked, %													
Mov Cap-1 Maneuver	723	668	933	725	670	951	1477	-	-	1493	-	-	
Mov Cap-2 Maneuver	723	668	-	725	670	-	-	-	-	-	-	-	
Stage 1	884	795	-	902	810	-	-	-	-	-	-	-	
Stage 2	899	808	-	883	795	-	-	-	-	-	-	-	
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			9.6			0			0.1			
HCM LOS	A			A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1477	-	-	-	787	1493	-	-					
HCM Lane V/C Ratio	-	-	-	-	0.009	0.001	-	-					
HCM Control Delay (s)	0	-	-	0	9.6	7.4	0	-					
HCM Lane LOS	A	-	-	A	A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-					

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1	0	0	0	7
Future Vol, veh/h	4	1	0	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	2	0	0	0	14

Major/Minor

	Minor2	Major2
Conflicting Flow All	7	7
Stage 1	7	7
Stage 2	0	0
Critical Hdwy	6.4	6.5
Critical Hdwy Stg 1	5.4	5.5
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	3.5	4
Pot Cap-1 Maneuver	1019	892
Stage 1	1021	894
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	1019	0
Mov Cap-2 Maneuver	1019	0
Stage 1	1021	0
Stage 2	-	0

Approach

	NB	SB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt

	NBLn1	SBT	SBR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	398	47	72	441	41	63
Future Vol, veh/h	398	47	72	441	41	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	419	49	76	464	43	66

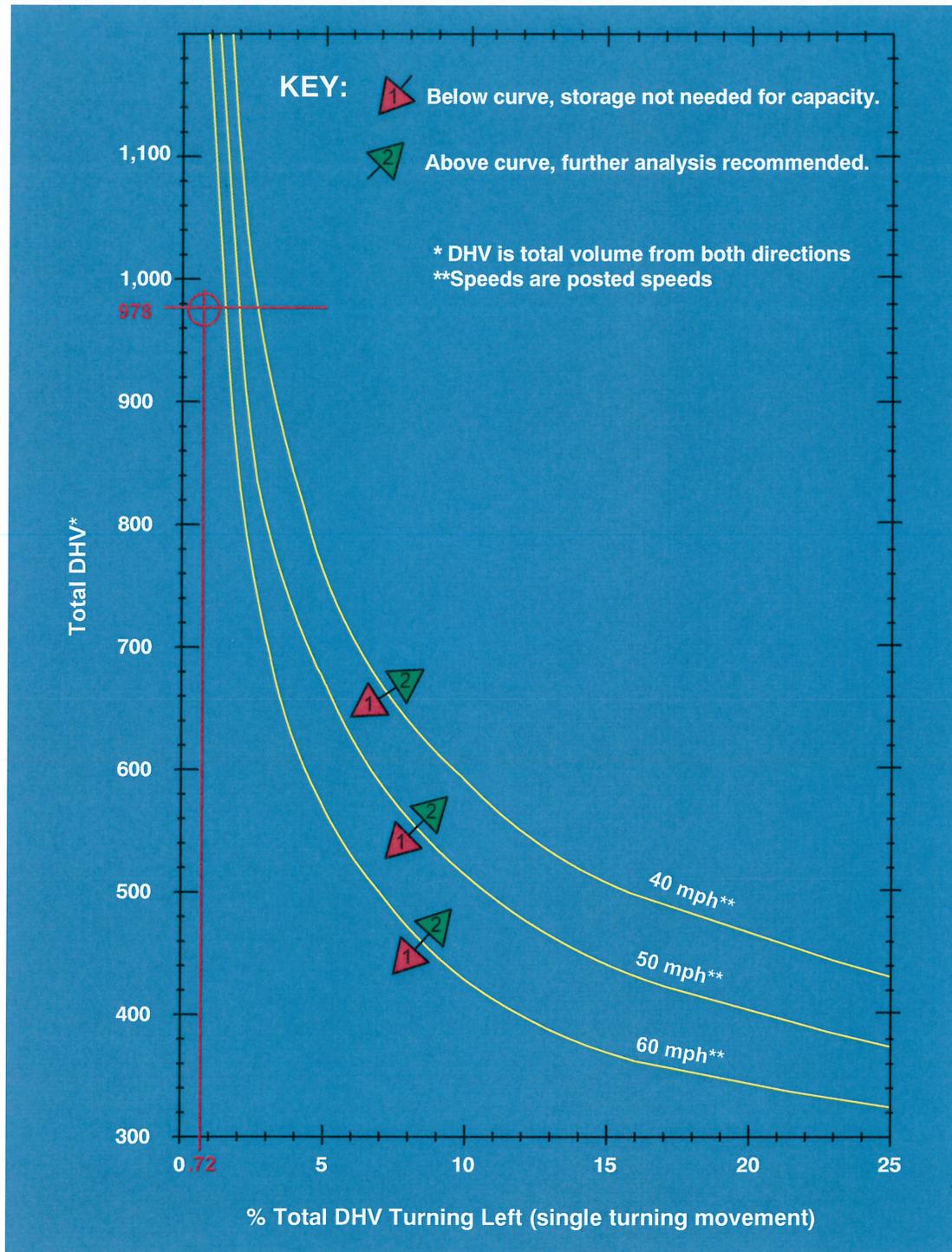
Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	468
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1094
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1094
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	19
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	365	-	-	1094	-
HCM Lane V/C Ratio	0.3	-	-	0.069	-
HCM Control Delay (s)	19	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.2	-

WALLACE COTTAGES
TRAFFIC IMPACT ANALYSIS
LEFT TURN WARRANT

APPENDIX



Madison Ave North & Entrance
 2018 PM Peak Hour Volumes With
 Project Total DHV: 978 vph
 Left Turn %: $7/978 = 0.72\%$
LEFT TURN LANE NOT WARRANTED

Left-Turn Storage Guidelines: Two-Lane, Unsignalized

Exhibit 1310-7a