

Stephens Hillside Farm Subdivision

Transportation Impact Study
La Center, Washington

Date:

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LANCASTER
ENGINEERING



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Executive Summary

1. The proposed Stephens Hillside Farm Subdivision will construct an 85-lot subdivision on multiple properties located at/near 34700 NE North Fork Avenue in La Center, Washington.
2. The trip generation calculations show that the proposed development is projected to generate an additional 61 morning peak hour and 81 evening peak hour site trips.
3. No significant trends or crash patterns were identified at any of the study intersections.
4. Adequate sight distance is available at the site access to ensure safe operation of the intersection along NE North Fork Avenue and Aspen Avenue.
5. Left-turn lane warrants are not projected to be met at any of the applicable study intersections under any of the analysis scenarios through the 2020 build-out year.
6. Traffic signal warrants are projected to be met at the intersection of W 4th Street at Pacific Highway under year 2020 background conditions, without the addition of site trips. According to the City of La Center's *Six Year Transportation Improvement Program from 2016 to 2021*, the intersection is planned for improvements and will be reconstructed as a roundabout. It is recommended that the applicant work with the City to determine a reasonable proportionate share fee for intersection improvements based on the impacts of the proposed development relative to the existing/future impacts at the intersection without site trips.
7. Traffic signal warrants are not projected to be met for any of the other unsignalized study intersections under any of the analysis scenarios.
8. All study intersections are currently operating acceptably per City of La Center standards and are projected to continue operating acceptably upon build-out of the proposed development through year 2020.



Project Description and Location

Introduction

The proposed Stephens Hillside Farm Subdivision will construct an 85-lot subdivision on multiple properties located at/near 34700 NE North Fork Avenue in La Center, Washington. This report addresses the traffic impacts of the proposed development on the nearby street system.

Based on the pre-application conference notes as well as correspondence with City of La Center staff, the report conducts safety and capacity/level of service analyses at the following intersections:

- NE 348th Street at NE North Fork Avenue/Aspen Avenue (site access intersection);
- E 18th Street at Aspen Avenue;
- E Heritage Loop at Aspen Avenue;
- W 10th Street/E Southview Heights Drive at Aspen Avenue;
- W 5th Street at Aspen Avenue;
- W 4th Street at Pacific Highway;
- E/W 4th Street at Aspen Avenue; and
- E 4th Street/NE Lockwood Creek Road at NE Highland Avenue/E Ivy Avenue.

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the existing and proposed uses and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

Project and Location Description

The project site is located west of Aspen Avenue/NE North Fork Avenue and along NE 348th Street in La Center, Washington. The subject site is located along the northern border of La Center city limits, with low density single-family houses/rural lands to the north, northeast, and west, and higher density single-family houses to the south and east. The site includes five properties, assessor parcels 258901000, 258919000, 258922000, 258971000, and 258972000, which encompass an approximate total of 42.3 acres. The site is currently developed with four single-family houses, with one on each of the parcels 258901000, 258919000, 258922000, and 258972000. Upon redevelopment of the site, three of the houses will be removed while the house on parcel 258922000 will be maintained.

The proposed development will take access onto Aspen Avenue/NE North Fork Avenue at the current NE 348th Street intersection location. NE 348th Street will be realigned through the site and improved to public street standards.



Vicinity Streets

The proposed development is expected to predominantly impact the following 13 nearby vicinity roadways: NE North Fork Avenue, Aspen Avenue, Pacific Highway, NE Highland Avenue, E Ivy Avenue, NE 348th Street, E 18th Street, E Heritage Loop, W 10th Street, E Southview Heights Drive, W 5th Street, E/W 4th Street, and NE Lockwood Creek Road. Table 1 provides a description of each of the vicinity roadways.

Table 1 – Vicinity Roadway Descriptions

Roadway	Jurisdiction	Functional Classification	Cross-Section	Speed	On-street Parking	Bicycle Lanes	Curbs	Sidewalks
NE North Fork Avenue	City of La Center	Minor Collector	2 Lanes	25 mph Posted	Partially Permitted	None	Partial South Side	Partial South Side
Aspen Avenue	City of La Center	Minor Collector	2 Lanes	25 mph Posted	Partially Permitted	None	Partial Both Sides	Partial Both Sides
Pacific Highway	City of La Center	Major Collector	2 to 3 Lanes	25 mph Posted	Partially Permitted	None	Partial Both Sides	Partial Both Sides
NE Highland Avenue	City of La Center	Minor Collector	2 Lanes	25 mph Posted	Not Permitted	Partial Both Sides	Partial Both Sides	Partial Both Sides
E Ivy Avenue	City of La Center	Local Road	2 Lanes	25 mph Design	Not Permitted	None	Both Sides	Both Sides
NE 348 th Street	City of La Center	Private Road	2 Lanes	25 mph Design*	Not Permitted	None	None	None
E 18 th Street	City of La Center	Local Road	2 Lanes	25 mph Posted	Permitted	None	Both Sides	Both Sides
E Heritage Loop	City of La Center	Local Road	2 Lanes	25 mph Design	Permitted	None	Both Sides	Both Sides
W 10 th Street	City of La Center	Local Road	2 Lanes	25 mph Posted	Not Permitted	None	Both Sides	Both Sides

Note: Design speeds determined per Table 2.1 - *Street Design Standards* in *City of La Centers Public Works Engineering Standards for Construction*.

* Design speed assumed to be 25 mph.



Roadway	Jurisdiction	Functional Classification	Cross-Section	Speed	On-street Parking	Bicycle Lanes	Curbs	Sidewalks
E Southview Heights Drive	City of La Center	Local Road	2 Lanes	25 mph Posted	Permitted	None	Both Sides	Both Sides
W 5th Street	City of La Center	Local Road	2 Lanes	25 mph Design	Not Permitted	None	Both Sides	Both Sides
E/W 4th Street	City of La Center	Major Collector	2 to 3 Lanes	25 mph Posted	Partially Permitted	Partial Both Sides	Partial Both Sides	Partial Both Sides
NE Lockwood Creek Road	City of La Center	Major Collector	2 to 3 Lanes	25/35 mph Posted	Partially Permitted	Partial Both Sides	Partial Both Sides	Partial Both Sides

Note: Design speeds determined per Table 2.1 - *Street Design Standards* in *City of La Centers Public Works Engineering Standards for Construction*.

Study Intersections

The site access intersection of NE 348th Street at NE North Fork Avenue/Aspen Avenue is a three-legged intersection that is stop-controlled for the eastbound approach of NE 348th Street. All three approaches each have one shared lane for all turning-movements. Crosswalks are unmarked across all three intersection legs.

The intersection of E 18th Street at Aspen Avenue is a three-legged intersection that is stop-controlled for the westbound approach of E 18th Street. All three approaches each have one shared lane for all turning-movements. A crosswalk is marked across the southern intersection leg.

The intersection of E Heritage Loop at Aspen Avenue is a three-legged intersection that is stop-controlled for the westbound approach of E Heritage Loop. All three approaches each have one shared lane for all turning-movements. A crosswalk is marked across the eastern intersection leg.

The intersection of W 10th Street/E Southview Heights Drive at Aspen Avenue is a four-legged intersection that is all-way stop-controlled. All four intersection approaches each have one shared lane for all turning-movements. Crosswalks are unmarked across all four intersection legs.

The intersection of W 5th Street at Aspen Avenue is a three-legged intersection that is stop-controlled for the eastbound approach of W 5th Street. All three approaches each have one shared lane for all turning-movements. Crosswalks are marked across the southern and western intersection legs.

The intersection of W 4th Street at Pacific Highway is a four-legged intersection that is stop-controlled for the eastbound and westbound approaches. The northbound approach has one shared left-turn/through lane and one right-turn lane. The southbound approach has one left-turn lane and one shared through/right-turn lane. The eastbound approach is striped as having one right-turn lane; however, this striping is not always



observed, and vehicles will occasionally make left-turn and through movements. The westbound approach is striped as having one left-turn lane and one right-turn lane; however, this striping is also not always observed, and vehicles will occasionally make through movements. Crosswalks are marked across the northern, eastern, and western intersection legs.

The intersection of E/W 4th Street at Aspen Avenue is a three-legged intersection that is stop-controlled for the southbound approach of Aspen Avenue. The southbound approach has one left-turn lane and one right-turn lane. The eastbound approach has one left-turn lane and one through lane. The westbound approach has one shared lane for all turning-movements. Crosswalks are marked across the eastern and northern intersection legs.

The intersection of E 4th Street/NE Lockwood Creek Road at NE Highland Avenue/E Ivy Avenue is a four-legged intersection that is stop-controlled for the northbound and southbound approaches of E Ivy Avenue and NE Highland Avenue, respectively. The northbound approach has one left-turn lane and one shared through/right-turn lane. The southbound, eastbound, and westbound approaches each have one left-turn lane, one through/right-turn lane, and a bicycle lane to the right of the outermost standard travel lane. Crosswalks are marked across all four intersection legs.

A vicinity map displaying the project site, vicinity streets, and the study intersections with their associated lane configurations is shown in Figure 1 on page 6.

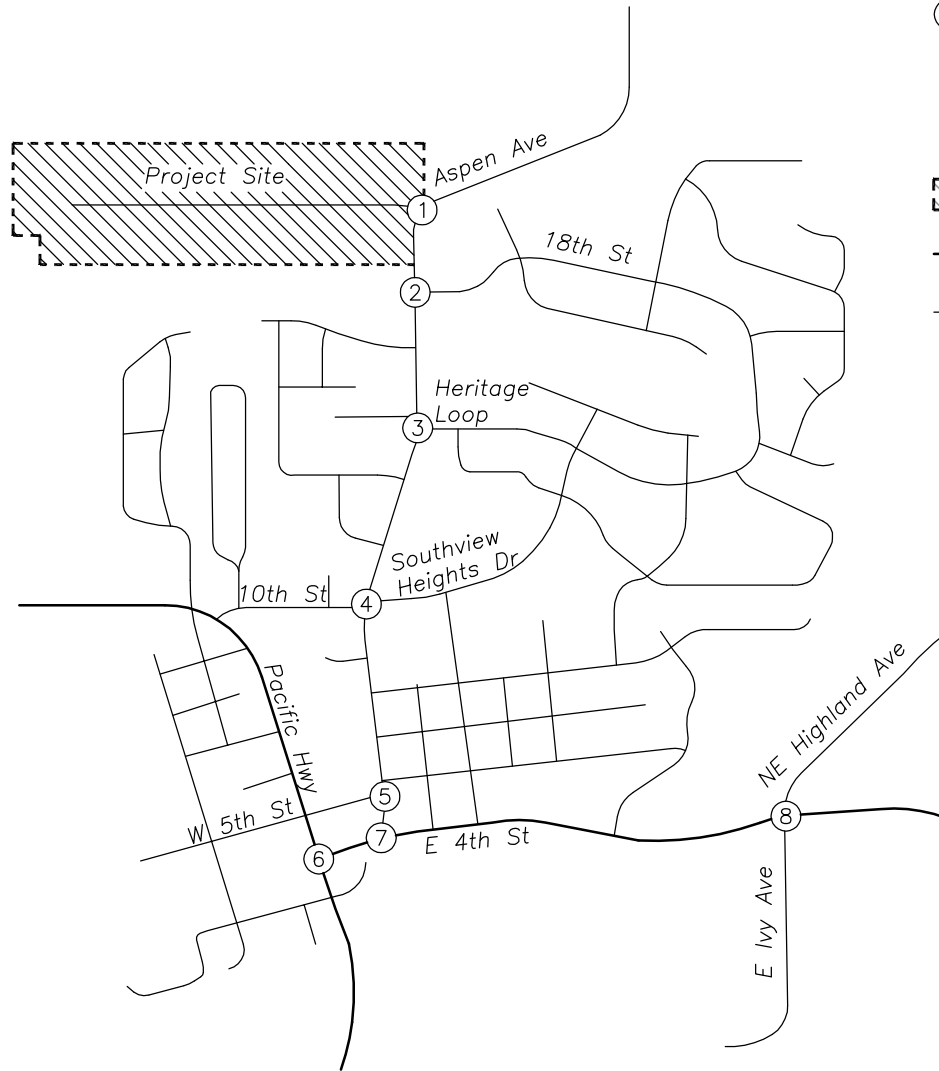
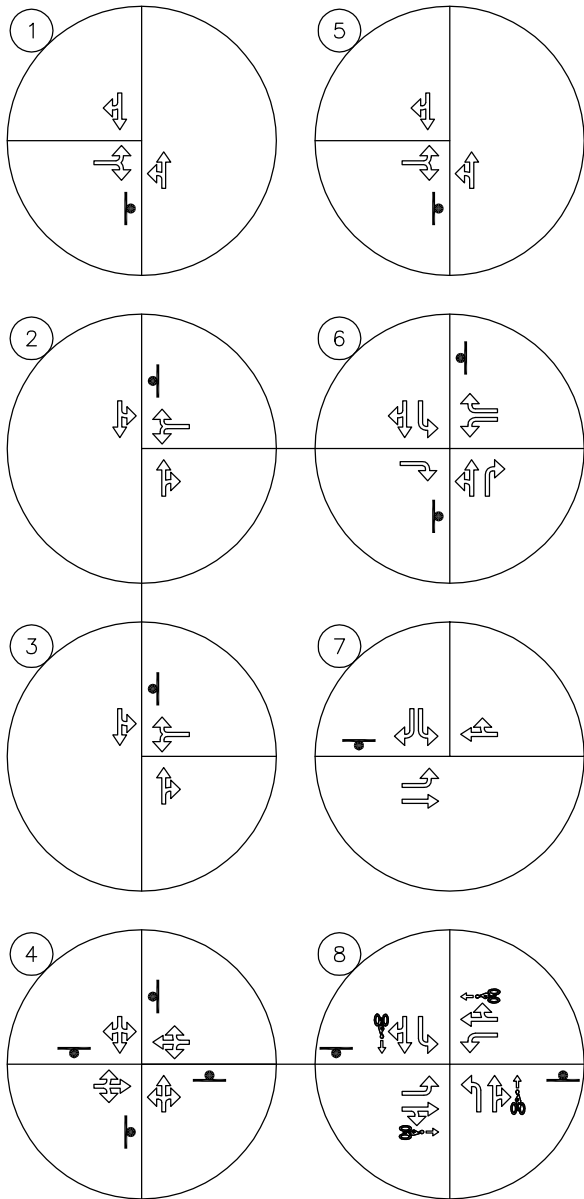
Traffic Counts

Traffic counts were conducted at the study intersections on Wednesday, December 6th, 2017, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Data was used from each intersection's respective morning and evening peak hours.

To determine traffic volumes at the site access intersection of NE 348th Street at NE North Fork Avenue/Aspen Avenue, through volumes along Aspen Avenue were balanced with the nearby intersection of E 18th Street at Aspen Avenue. To determine current turning volumes at the intersection, trip rates from the *TRIP GENERATION MANUAL*¹ were used. Data from land-use code 210, *Single-Family Detached Housing*, was used to estimate vehicle traffic utilizing NE 348th Street based on the five existing houses served by the roadway. The directional distribution of turning volumes to/from NE 348th Street is based on methodologies provided in the *Trip Distribution* section of this report.

Figure 2 on page 7 and Figure 3 on page 8 show the existing morning and evening peak hour traffic volumes at the study intersections, respectively.

¹ Institute of Transportation Engineers (ITE), *TRIP GENERATION MANUAL*, 10th Edition, 2017.



- LEGEND**
- STUDY INTERSECTION
 - STOP SIGN
 - BIKE LANE
 - PROJECT SITE
 - COLLECTOR ROADWAY
 - LOCAL ROADWAY



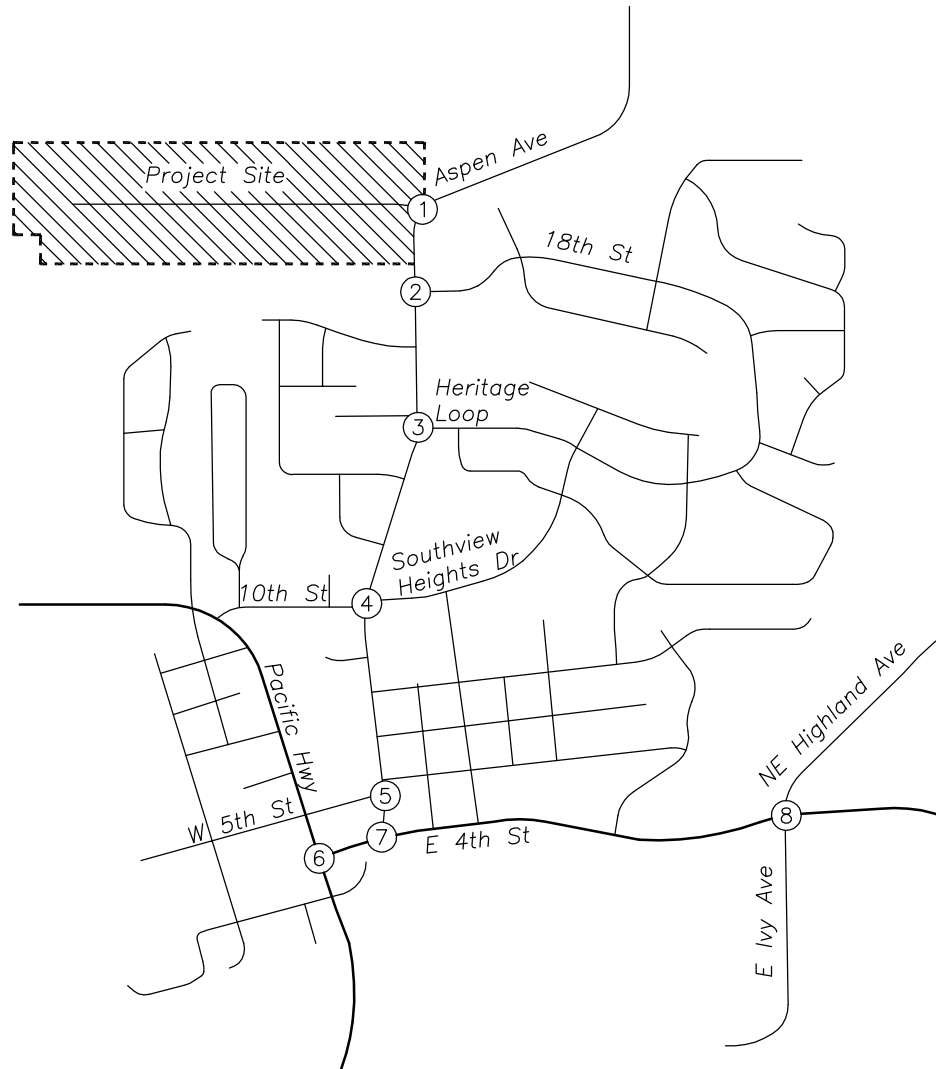
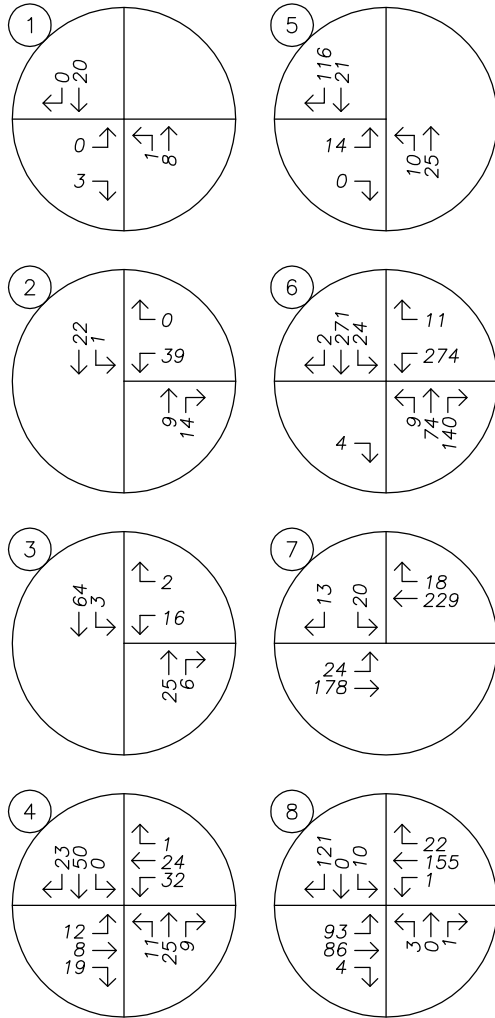
VICINITY MAP



FIGURE 1

PAGE 6

AM PEAK HOUR



TRAFFIC VOLUMES
Existing Conditions
AM Peak Hour

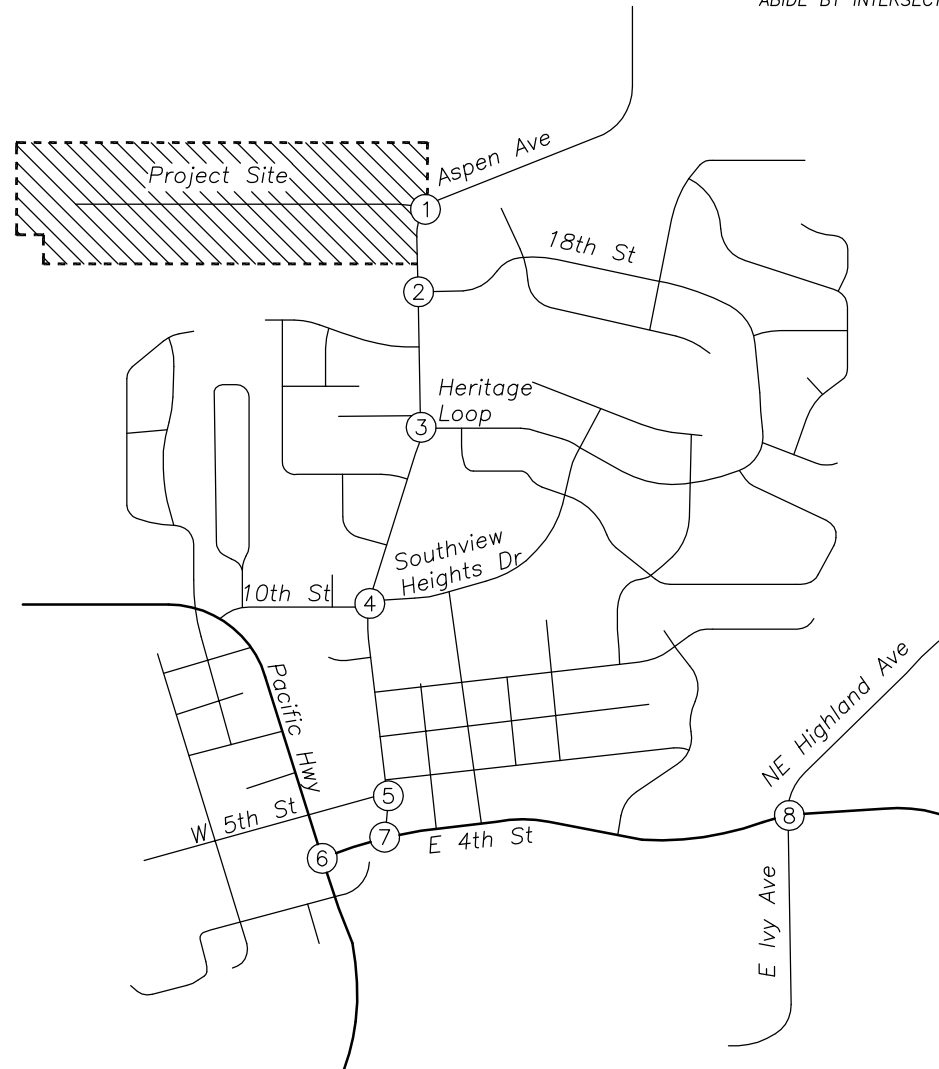
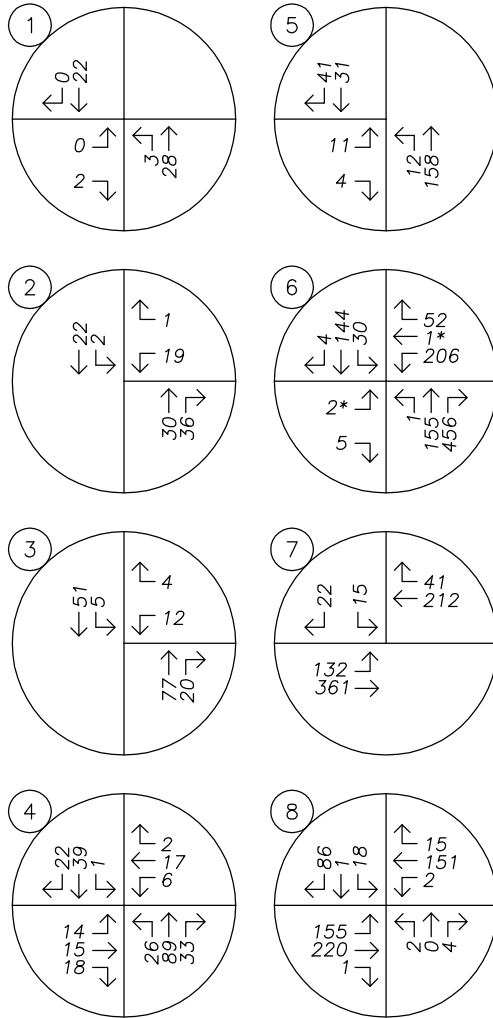


FIGURE
2

PAGE
7

PM PEAK HOUR

NOTE: * INDICATE TURNING VOLUMES WHICH DO NOT ABIDE BY INTERSECTION TURN-LANE STRIPING



TRAFFIC VOLUMES
Existing Conditions
PM Peak Hour





Site Trips

Trip Generation

The proposed Stephens Hillside Farm Subdivision will construct an 85-lot subdivision, removing 3 existing single-family houses while maintaining 1 existing house for a net addition of 81 houses. To estimate the number of trips that will be generated by the proposed development, trip rates from the *TRIP GENERATION MANUAL* were used. Data from land-use code 210, *Single-Family Detached Housing*, was used to estimate the existing and proposed development's trip generation based on the number of dwelling units.

The trip generation calculations show that the proposed development is projected to generate an additional 60 morning peak hour and 80 evening peak hour site trips. The trip generation estimates of the proposed development are summarized in Table 2 below. Detailed trip generation calculations are included in the technical appendix to this report.

Table 2 – Trip Generation Summary

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing Homes	210	4 units	1	2	3	3	1	4	38
Proposed Development	210	85 units	16	47	63	53	31	84	802
Total		81 units	15	45	60	50	30	80	764

Trip Distribution

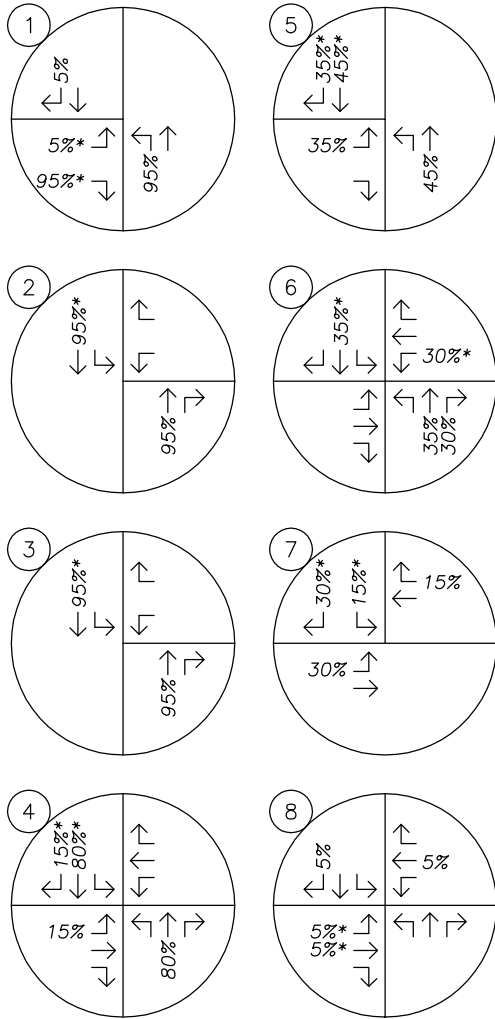
The trip distribution of site trips to/from the project site was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study intersections.



The following trip distribution was estimated and used for analysis:

- Approximately 65 percent of site trips will travel to/from the south along Pacific Highway;
- Approximately 15 percent of site trips will travel to/from the west along Pacific Highway;
- Approximately 5 percent of site trips will travel to/from the north along NE Highland Avenue;
- Approximately 5 percent of site trips will travel to/from the north along NE North Fork Avenue;
- Approximately 5 percent of site trips will travel to/from the east along NE Lockwood Creek Road;
and
- Approximately 5 percent of site trips will travel to/from locales within the immediate vicinity.

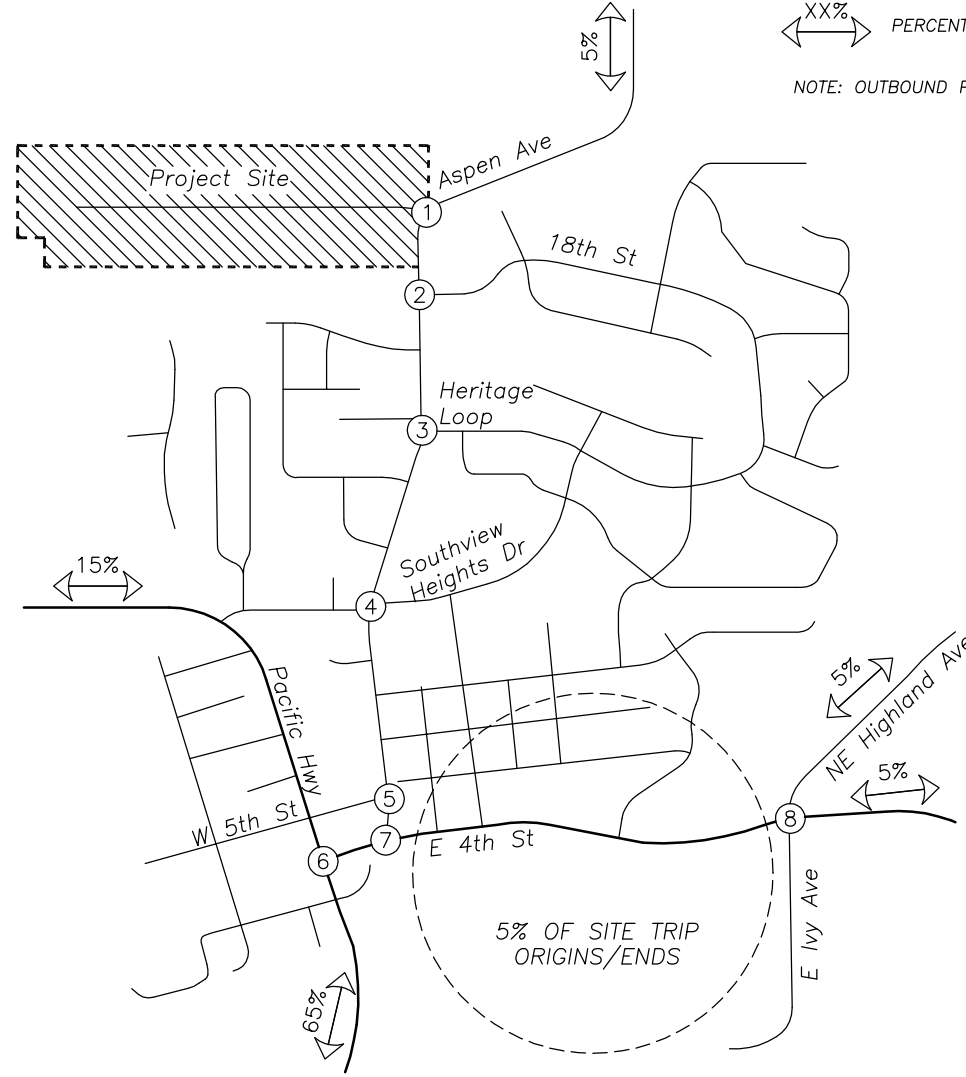
The trip distribution percentages utilized for the site trips generated by the proposed development are shown in Figure 4 on page 11. The trip assignment for the site trips generated by the proposed development during the morning and evening peak hours is shown in Figure 5 on page 11 and Figure 6 on page 13, respectively.



LEGEND

XX% PERCENT OF PROJECT TRIPS

NOTE: OUTBOUND PERCENTAGES ARE *



SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages – Site Trips
AM & PM Peak Hours



FIGURE
4

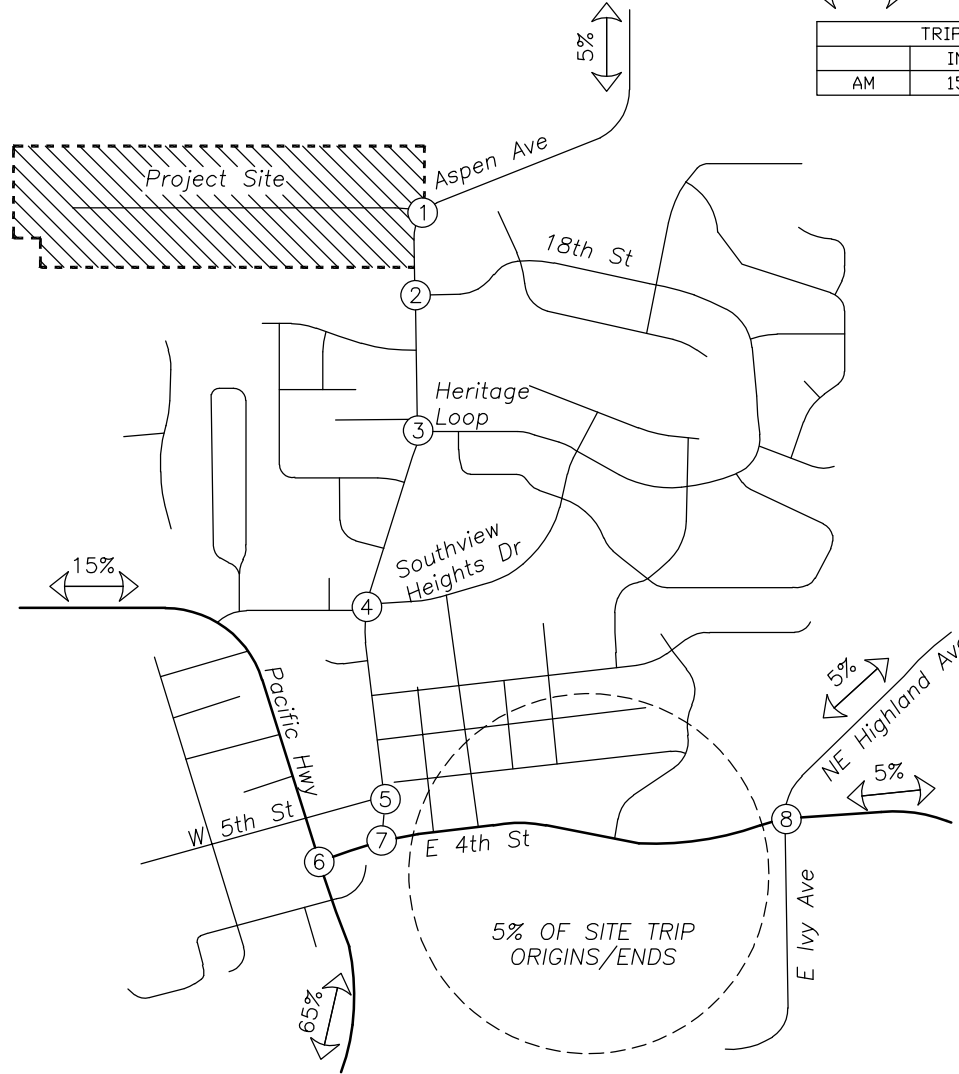
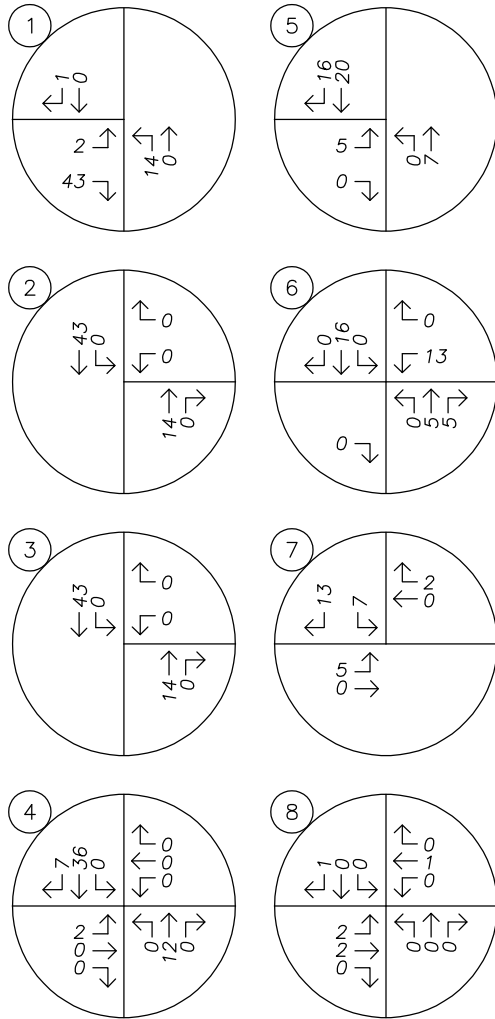
PAGE
11

AM PEAK HOUR

LEGEND

XX% PERCENT OF PROJECT TRIPS

TRIP GENERATION			
	IN	OUT	TOTAL
AM	15	45	60



SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
AM Peak Hour



FIGURE 5

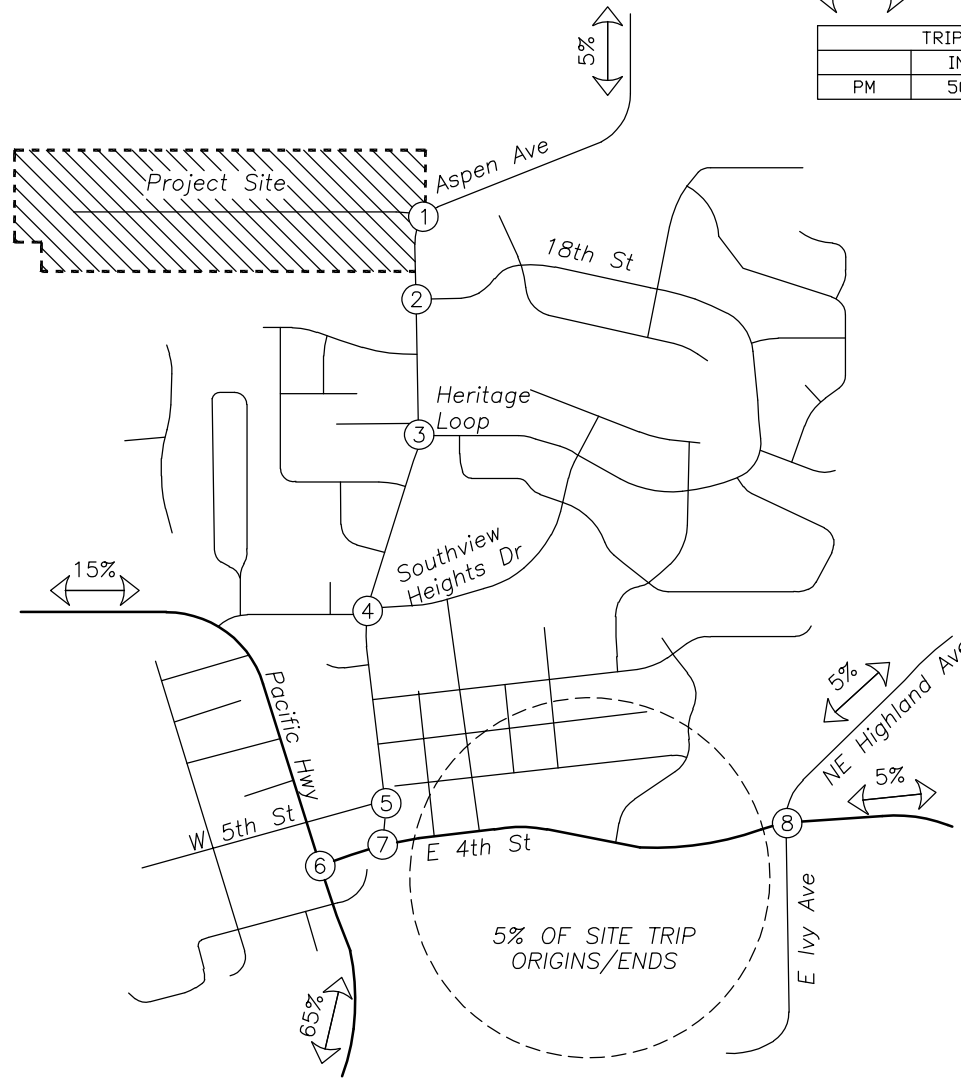
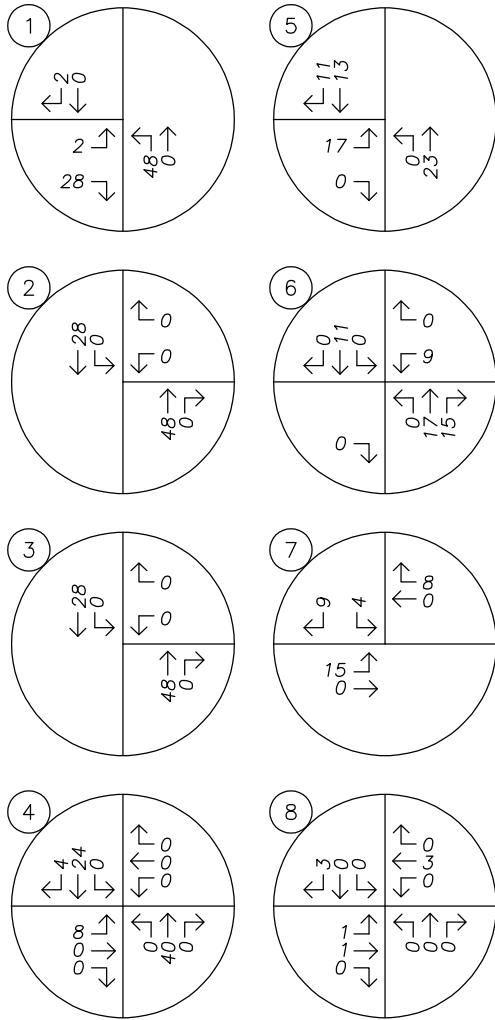
PAGE 12

PM PEAK HOUR

LEGEND

XX% PERCENT OF PROJECT TRIPS

TRIP GENERATION			
	IN	OUT	TOTAL
PM	50	30	80



SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
PM Peak Hour





Future Traffic Volumes

Background Volumes

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. In order to approximate the future year 2020 traffic volumes at the study intersections, a compounded growth rate of two percent per year for an assumed build-out condition of three years was applied to the measured existing traffic volumes.

In addition to the traffic volume growth described above, the Sunrise Terrace Subdivision is currently approved for construction near the site vicinity and is expected to impact nearby study intersections. The in-process development is currently not fully contributing trips to the transportation system, but is assumed to be by the 2020 build-out year of the proposed development. Additional trips corresponding to the in-process development were added to the year 2020 background growth volumes at each of the applicable study intersections. To maintain a conservative analysis of operation at the study intersections, the in-process development was assumed to be fully built-out by year 2020.

Figure 7 on page 15 and Figure 8 on page 16 show the projected year 2020 background traffic volumes at the study intersections during the morning and evening peak hours, respectively.

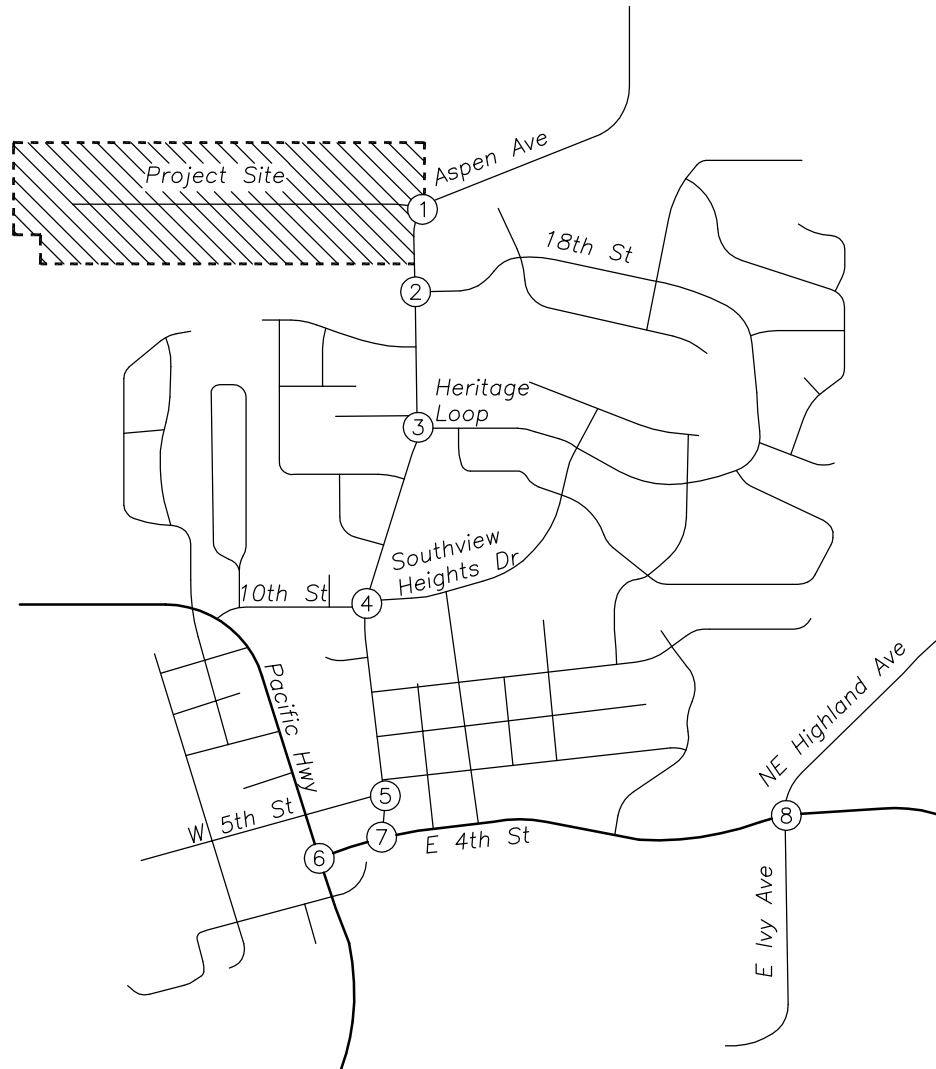
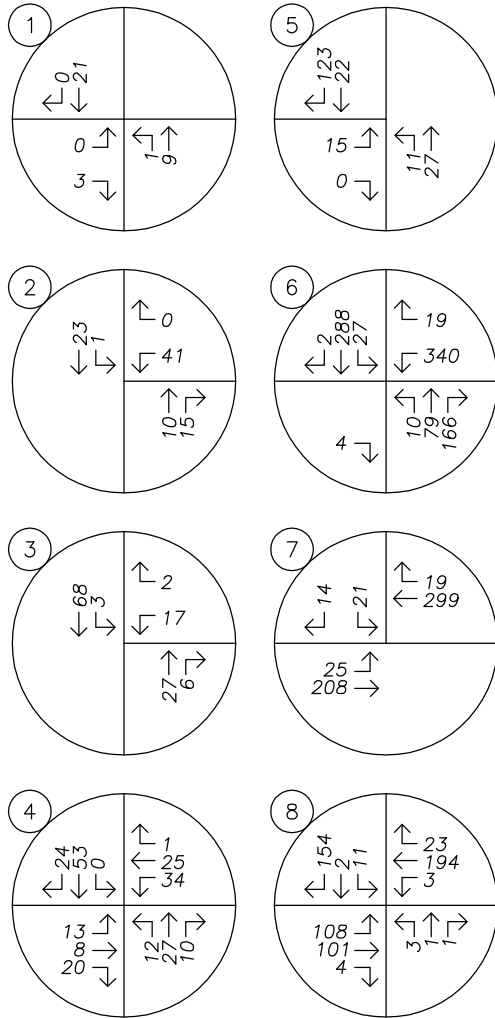
Background Volumes plus Site Trips

Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2020 background traffic volumes to obtain the expected 2020 background volumes plus site trips.

Figure 9 on page 17 and Figure 10 on page 18 show the projected year 2020 peak hour background traffic volumes plus proposed development site trips at the study intersections during the morning and evening peak hours, respectively.

AM PEAK HOUR

GROWTH RATE: 2.0 PERCENT PER YEAR COMPOUNDED



TRAFFIC VOLUMES
 Year 2020 Background Conditions
 AM Peak Hour



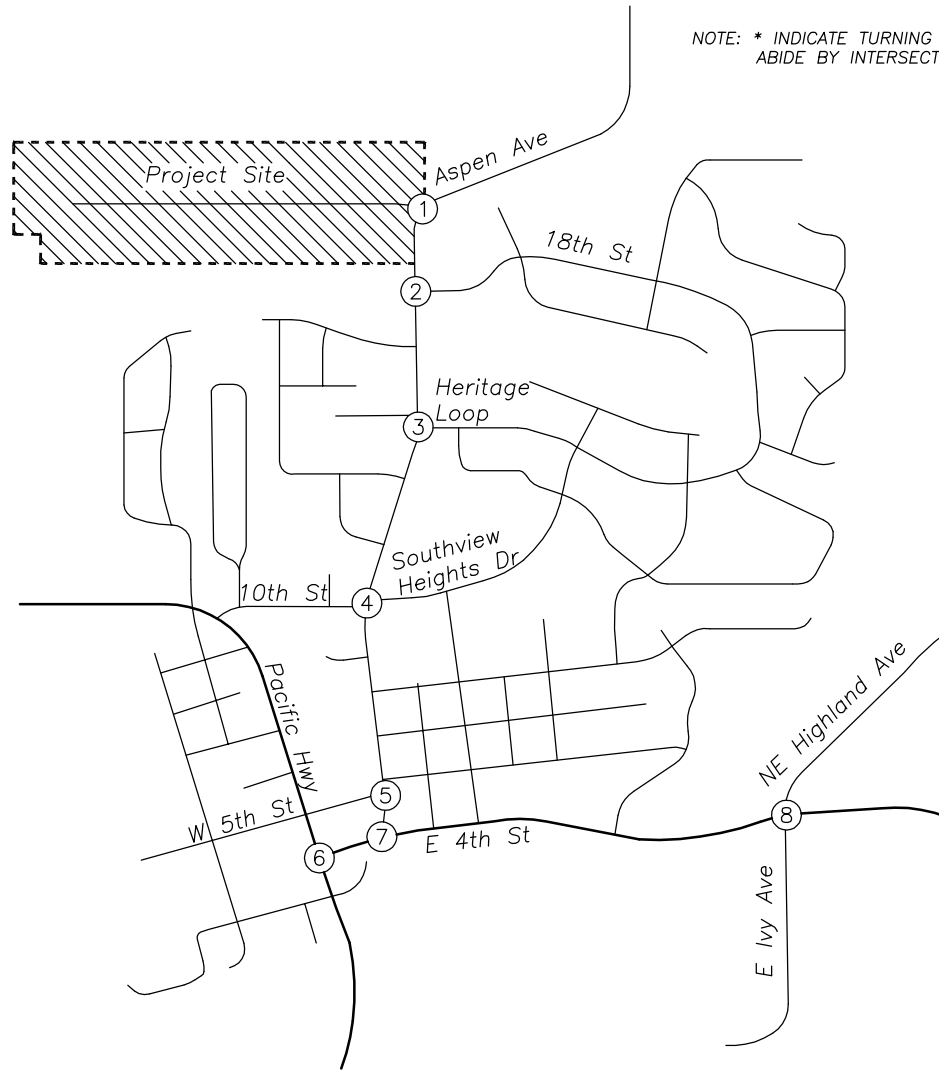
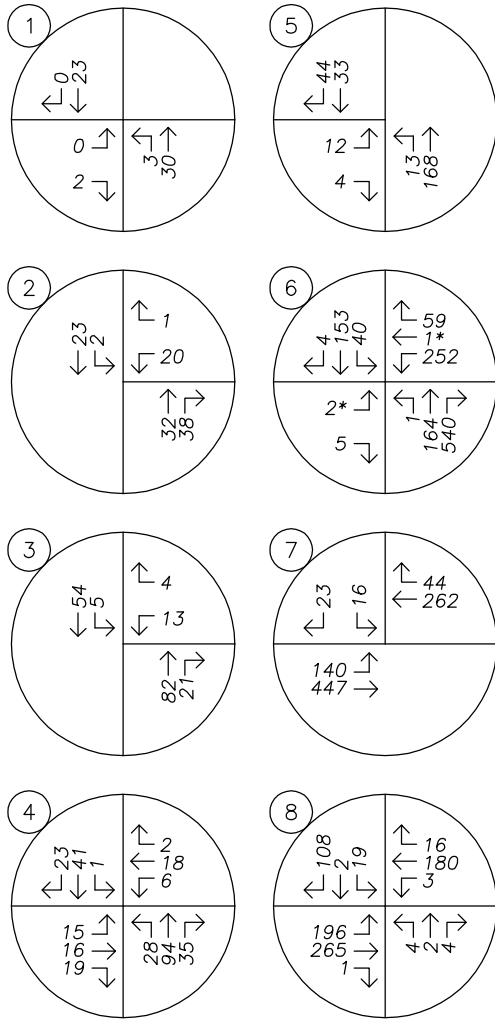
FIGURE
7

PAGE
15

PM PEAK HOUR

GROWTH RATE: 2.0 PERCENT PER YEAR COMPOUNDED

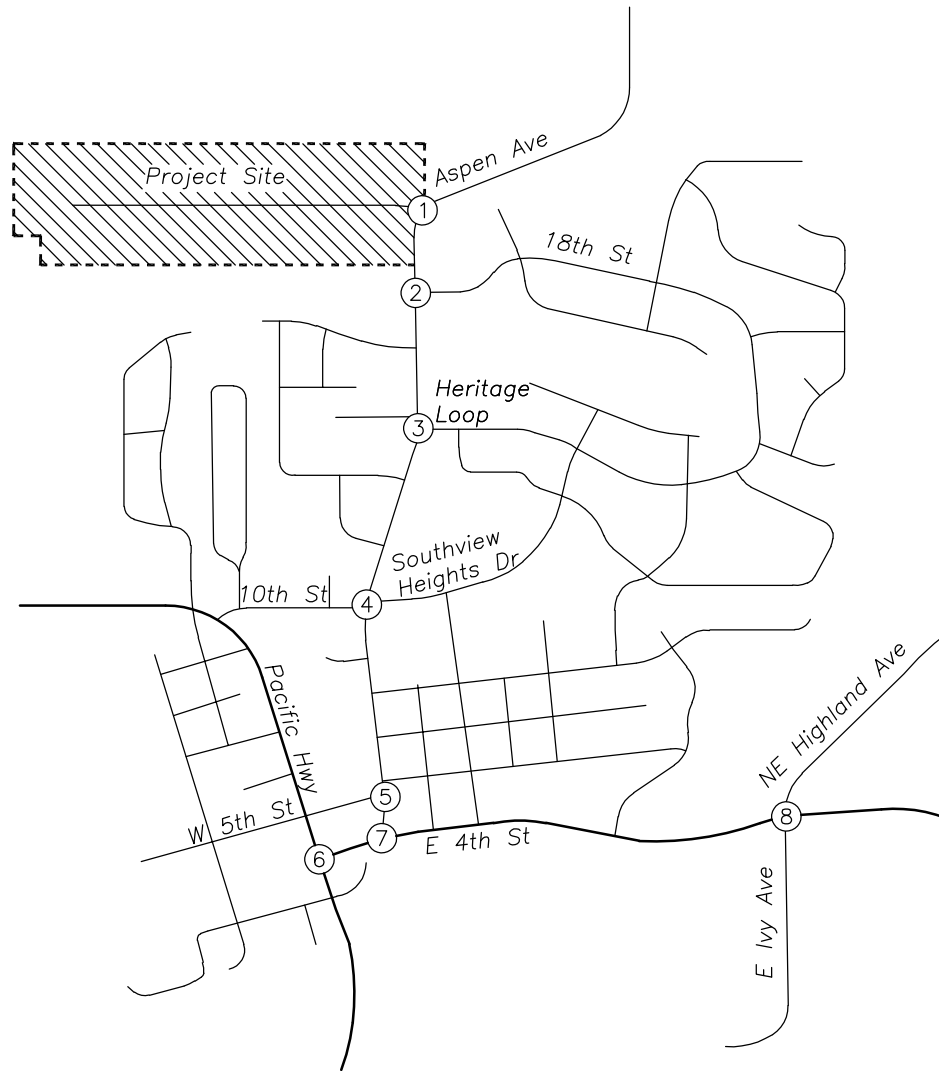
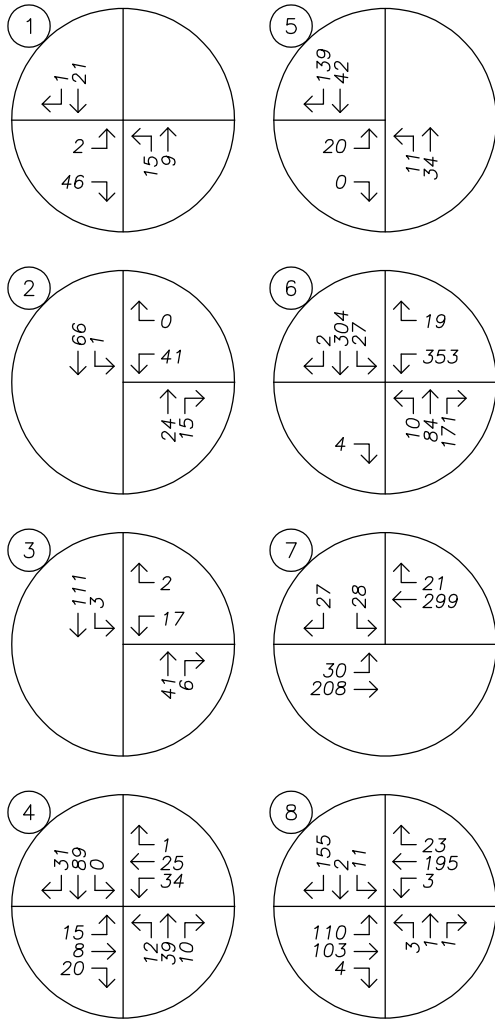
NOTE: * INDICATE TURNING VOLUMES WHICH DO NOT ABIDE BY INTERSECTION TURN-LANE STRIPING



TRAFFIC VOLUMES
Year 2020 Background Conditions
PM Peak Hour



AM PEAK HOUR

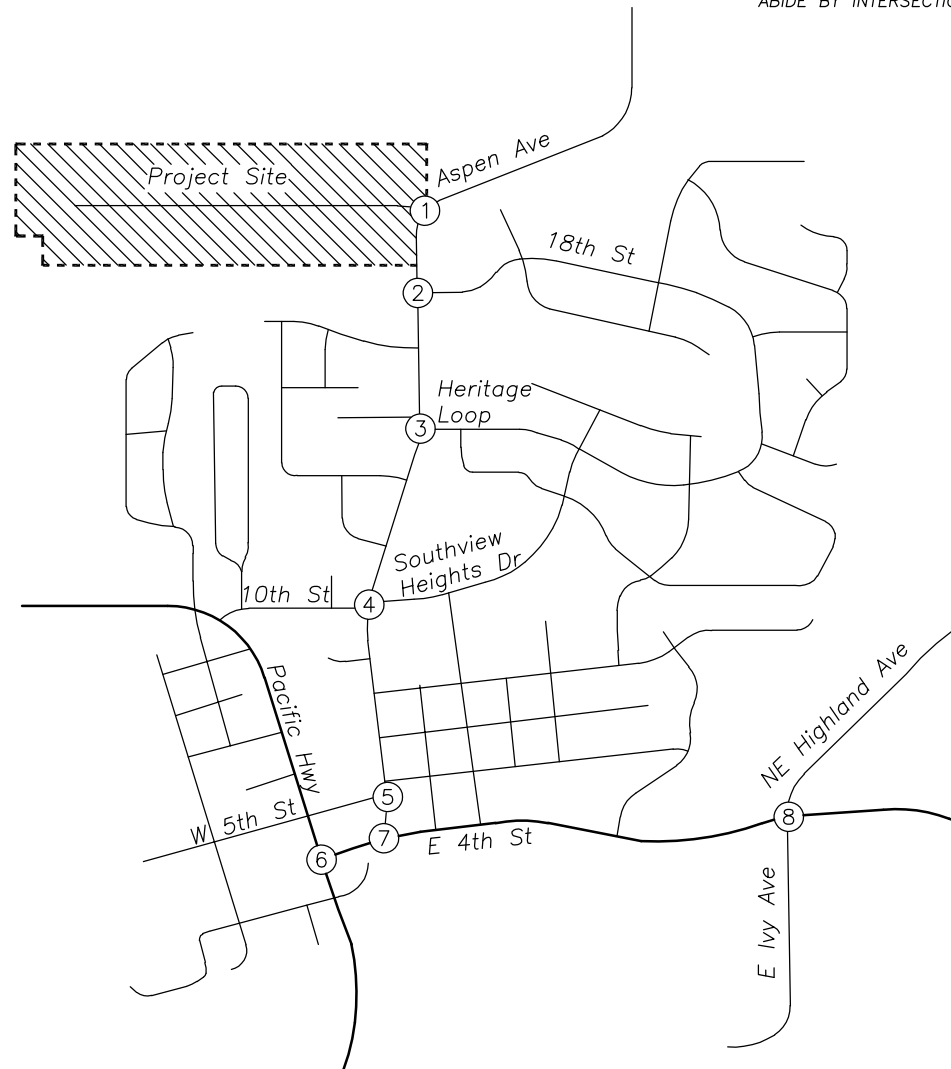
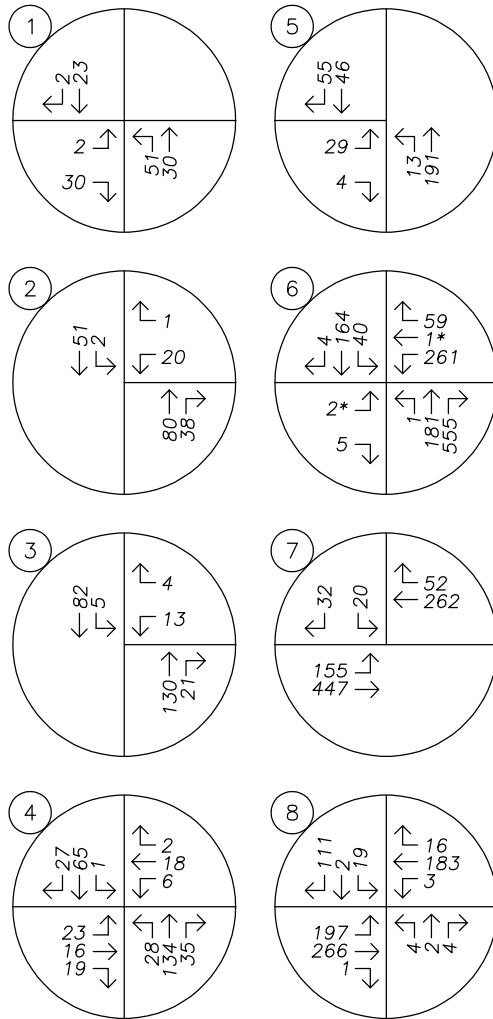


TRAFFIC VOLUMES
 Year 2020 Background plus Site Trips Conditions
 AM Peak Hour



PM PEAK HOUR

NOTE: * INDICATE TURNING VOLUMES WHICH DO NOT ABIDE BY INTERSECTION TURN-LANE STRIPING



TRAFFIC VOLUMES
 Year 2020 Background plus Site Trips Conditions
 PM Peak Hour





Safety Analysis

Crash Data Analysis

Using data obtained from the Washington Department of Transportation's (WSDOT) Crash Data and Reporting Branch, a review of the most recent available five years of crash history (January 2012 to December 2016) at the study intersections was performed. The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection. Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak period represents 10 percent of average daily traffic (ADT) at the intersection. Crash rates in excess of one to two crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

The intersection of W 4th Street at Pacific Highway had eight reported crashes during the analysis period. The crashes consisted of seven turning-movement collisions and one rear-end collision. Of the reported crashes, four resulted in “*No Apparent Injury*”, three resulted in “*Possible Injury*” and one resulted in “*Suspected Minor Injury*”. The crash rate at the intersection was calculated to be 0.42 CMEV.

The intersection of E 4th Street/NE Lockwood Creek Road at NE Highland Avenue/E Ivy Avenue had four reported crashes during the analysis period. The crashes consisted of two turning-movement collisions, one fixed-object collision, and one rear-end collision. All four crashes resulted in “*No Apparent Injury*”. The crash rate at the intersection was calculated to be 0.33 CMEV.

All other study intersections had no reported crashes during the analysis period.

Based on the most recent five years of crash data, no significant trends or crash patterns were identified at any of the study intersections. Accordingly, no specific safety mitigation is recommended at the intersections.

Sight Distance Analysis

Intersection sight distance was examined for the site access intersection of NE 348th Street at NE North Fork Avenue/Aspen Avenue. According to intersection sight distance standards established in *A Policy on Geometric Design of Highways and Streets*², the driver's eye is assumed to be 15 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the minor-street approach pavement. The major-street approaching driver's eye-height is assumed to be 3.5 feet above the cross-street pavement.

Based on the posted regulatory speed limit of 25 mph along NE North Fork Avenue and Aspen Avenue, the minimum recommended intersection sight distance at the proposed site access intersection is 280 feet to the

² American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.



northeast and south. However, NE North Fork Avenue and Aspen Avenue are not flat roadways, and both have significant changes in elevation when approaching the site access intersection. Provided that the average approach grade to the site access is less than 3.0 percent, intersection sight distance may be used to evaluate adequacy of sight lines; however, if the average approach grade is greater than 3.0 percent, stopping sight distance must also be considered.

Stopping sight distance is considered the minimum requirement to ensure safe operation of an intersection. This is the distance that allows an oncoming driver to see a hazard on the roadway, react, and come to a complete stop if necessary to avoid a collision. Conversely, intersection sight distance is an operational measure intended to provide sufficient line of sight along the major-street so that a driver could turn from the minor-street approach without impeding traffic flow.

To determine the average approach grade, grade measurements were conducted between the site access to the extents of measured intersection sight distance in increments of 50 feet. The measured grades were averaged for each approach and calculated to be 13.52 percent uphill for the northbound approach and 11.82 percent downhill for the southwest-bound approach. Based on these calculated grades, the minimum required stopping sight distance to ensure safe operation of the site access intersection was calculated to be 215 feet for northbound approaching vehicles and 310 feet for southwest-bound approaching vehicles (assuming a roadway design speed of 35 mph, or 10 mph above the posted speed limit).

Based on field measurements, intersection sight distances were measured to be in excess of 350 feet to the northeast and south of the site access intersection. Since the measured intersection sight distances are greater than the minimum required stopping sight distances and minimum recommended intersection sight distance, adequate sight distance is available at the site access to ensure safe operation of the intersection along NE North Fork Avenue and Aspen Avenue. No sight distance mitigation is necessary or recommended.

Warrant Analysis

Left-turn lane and traffic signal warrants were examined for the study intersections where such treatments would be applicable.

A left-turn refuge lane is primarily a safety consideration for the major-street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants used were based on methodologies outlined in the National Cooperative Highway Research Project's (NCHRP) Report 457. Turn lane warrants were evaluated based on the number of advancing and opposing vehicles as well as the number of turning vehicles, the travel speed, and the number of through lanes.

Left-turn lane warrants are not projected to be met at any of the applicable study intersections under any of the analysis scenarios through the 2020 build-out year. No new turn lanes are necessary or recommended.

Traffic signal warrants were examined for the unsignalized study intersections to determine whether the installation of any new traffic signal will be warranted upon completion of the proposed development. Based on the analysis, traffic signal warrants are projected to be met at the intersection of W 4th Street at Pacific Highway under year 2020 background conditions, without the addition of site trips, per *Conditions A: Minimum*



Vehicle Volume and a *Combination Warrant* of Warrant 1. According to the City of La Center's *Six Year Transportation Improvement Program from 2016 to 2021*, the intersection is planned for improvements and will be reconstructed as a roundabout. It is recommended that the applicant work with the City to determine a reasonable proportionate share fee for intersection improvements based on the impacts of the proposed development relative to the existing/future impacts at the intersection without site trips.

Traffic signal warrants are not projected to be met for any of the other unsignalized study intersections under any of the analysis scenarios.



Operational Analysis

Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the unsignalized intersection analysis methodologies in the *HIGHWAY CAPACITY MANUAL*³ (HCM). The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

The City of La Center's operating standards, as described in the *La Center Urban Area Capital Facilities Plan (2008)*, require signalized intersections operate at LOS D or better and unsignalized intersections operate at LOS E or better; however, unsignalized intersections that meet signal warrants and/or operate at LOS D or worse should be recommended for installation of a traffic signal. Intersections comprised of local streets do not have an LOS standard.

The intersection of NE 348th Street at NE North Fork Avenue/Aspen Avenue operates at LOS A during the morning and evening peak hours for all analysis scenarios.

The intersection of E 18th Street at Aspen Avenue operates at LOS A during the morning and evening peak hours for all analysis scenarios.

The intersection of E Heritage Loop at Aspen Avenue operates at LOS A during the morning and evening peak hours for all analysis scenarios, except under 2020 build-out conditions where it operates at LOS B during the evening peak hour.

The intersection of W 10th Street/E Southview Heights Drive at Aspen Avenue operates at LOS A during the morning and evening peak hours for all analysis scenarios.

The intersection of W 5th Street at Aspen Avenue operates at LOS B during the morning and evening peak hours for all analysis scenarios, except under existing conditions where it operates at LOS A during the evening peak hour.

The intersection of W 4th Street at Pacific Highway currently operates at LOS C during the morning and evening peak hours. Under year 2020 background conditions, the intersection is projected to operate at LOS D during the morning peak hour and at LOS C during the evening peak hour, regardless of the addition of development site trips.

The intersection of E/W 4th Street at Aspen Avenue currently operates at LOS B during the morning peak hour and at LOS C during the evening peak hour. Under year 2020 background conditions, the intersection is projected to operate at LOS C during the morning peak hour and at LOS D during the evening peak hour, regardless of the addition of development site trips.

³ Transportation Research Board, *HIGHWAY CAPACITY MANUAL 2010*.



The intersection of E 4th Street/NE Lockwood Creek Road at NE Highland Avenue/E Ivy Avenue currently operates at LOS C during the morning and evening peak hours. Under year 2020 background conditions, the intersection is projected to operate at LOS E during the morning peak hour and at LOS D during the evening peak hour, regardless of the addition of development site trips.

The v/c, delay, and LOS results of the capacity analysis are shown in Table 3 for the morning and evening peak hours. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

Table 3 – Intersection Capacity Analysis Summary

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
NE 348th St at NE North Fork Ave/Aspen Ave						
2017 Existing Conditions	A	9	0.01	A	9	< 0.01
2020 Background Conditions	A	9	0.01	A	9	< 0.01
2020 Background plus Site Conditions*	A	9	0.06	A	9	0.04
E 18th St at Aspen Ave						
2017 Existing Conditions	A	9	0.06	A	9	0.03
2020 Background Conditions	A	9	0.06	A	9	0.03
2020 Background plus Site Conditions*	A	10	0.07	A	10	0.03
E Heritage Loop at Aspen Ave						
2017 Existing Conditions	A	9	0.03	A	10	0.02
2020 Background Conditions	A	9	0.03	A	10	0.02
2020 Background plus Site Conditions*	A	10	0.03	B	10	0.03
W 10th St/E Southview Heights Dr at Aspen Ave						
2017 Existing Conditions	A	8	-	A	8	-
2020 Background Conditions	A	8	-	A	8	-
2020 Background plus Site Conditions*	A	8	-	A	8	-



	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
W 5th St at Aspen Ave						
2017 Existing Conditions	B	10	0.03	A	10	0.03
2020 Background Conditions	B	10	0.03	B	10	0.03
2020 Background plus Site Conditions*	B	11	0.04	B	11	0.06
W 4th St at Pacific Hwy						
2017 Existing Conditions	C	21	0.58	C	18	0.46
2020 Background Conditions	D	29	0.72	C	21	0.55
2020 Background plus Site Conditions*	D	34	0.78	C	23	0.60
E/W 4th St at Aspen Ave						
2017 Existing Conditions	B	15	0.07	C	24	0.13
2020 Background Conditions	C	17	0.09	D	28	0.14
2020 Background plus Site Conditions*	C	18	0.13	D	31	0.15
E 4th St/NE Lockwood Creek Rd at NE Highland Ave/E Ivy Ave						
2017 Existing Conditions	C	18	0.28	C	24	0.13
2020 Background Conditions	E	38	0.35	D	31	0.17
2020 Background plus Site Conditions*	E	39	0.35	D	32	0.17

Based on the results of the operational analysis, all study intersections are currently operating acceptably per City of La Center standards and are projected to continue operating acceptably upon build-out of the proposed development through year 2020. No operational mitigation is necessary or recommended.



Conclusions

No significant trends or crash patterns were identified at any of the study intersections.

Adequate sight distance is available at the site access to ensure safe operation of the intersection along NE North Fork Avenue and Aspen Avenue.

Left-turn lane warrants are not projected to be met at any of the applicable study intersections under any of the analysis scenarios through the 2020 build-out year.

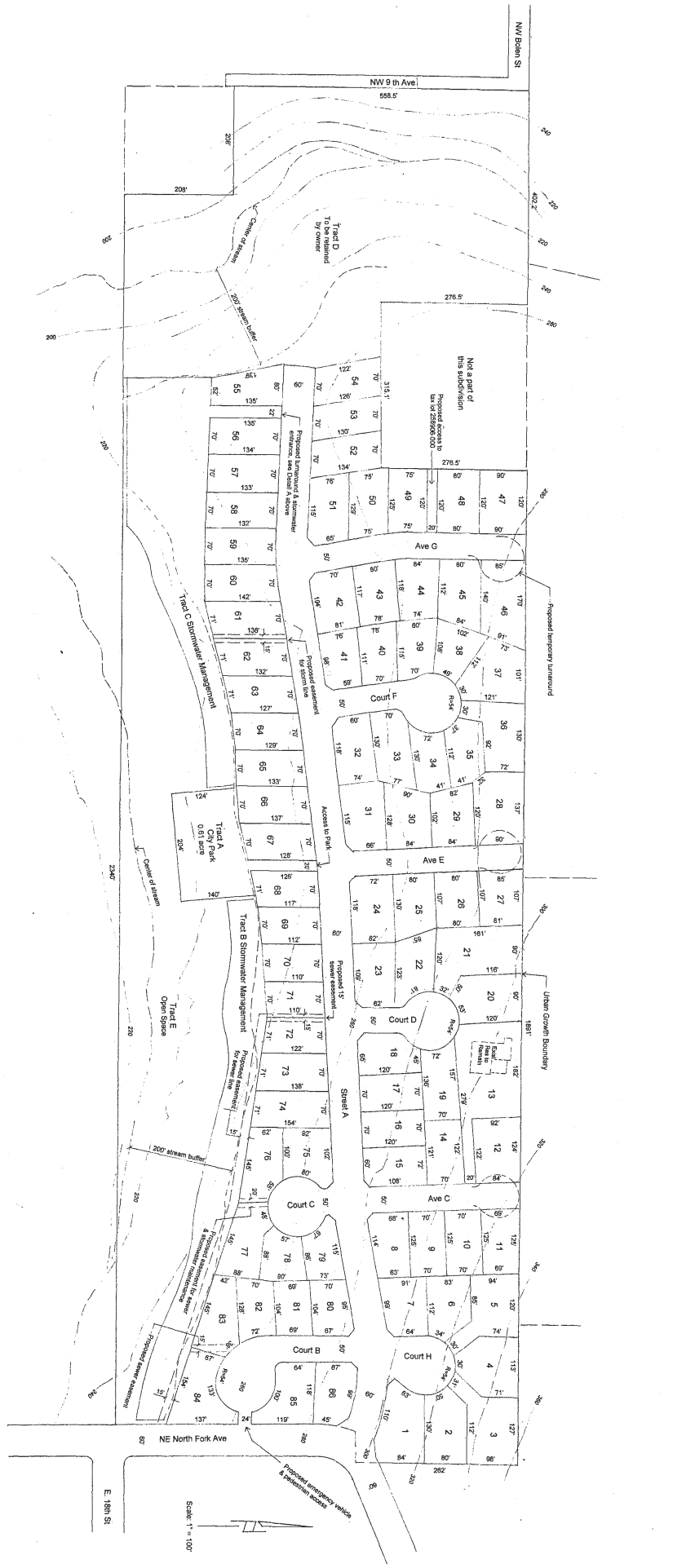
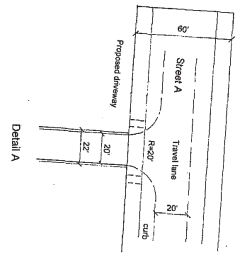
Traffic signal warrants are projected to be met at the intersection of W 4th Street at Pacific Highway under year 2020 background conditions, without the addition of site trips, per *Conditions A: Minimum Vehicular Volume* and a *Combination Warrant* of Warrant 1. According to the City of La Center's *Six Year Transportation Improvement Program from 2016 to 2021*, the intersection is planned for improvements and will be reconstructed as a roundabout. It is recommended that the applicant work with the City to determine a reasonable proportionate share fee for intersection improvements based on the impacts of the proposed development relative to the existing/future impacts at the intersection without site trips.

Traffic signal warrants are not projected to be met for any of the other unsignalized study intersections under any of the analysis scenarios.

All study intersections are currently operating acceptably per City of La Center standards and are projected to continue operating acceptably upon build-out of the proposed development through year 2020.



Appendix



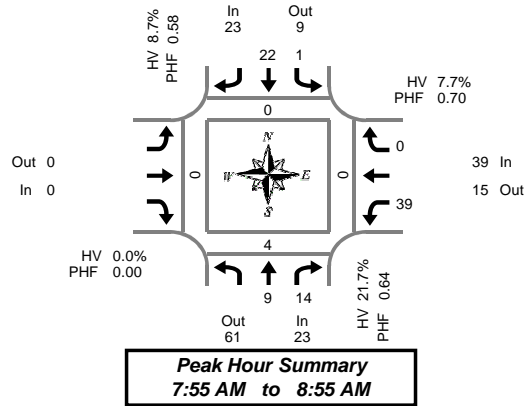
- Notes
1. The project proposes residential lots for detached homes on 1.3 acres in the UIR-7.5 zoning district.
 2. Site address: 34701 NE North Fork Ave, 119 NE 24th St.
 3. The site consists of Clark County tax lot numbers: 25891-000, 25891-001, 25891-002, 25891-003, 25891-004, 25891-005, 25891-006, 25891-007, 25891-008, 25891-009, 25891-010, 25891-011, 25891-012, 25891-013, 25891-014, 25891-015, 25891-016, 25891-017, 25891-018, 25891-019, 25891-020, 25891-021, 25891-022, 25891-023, 25891-024, 25891-025, 25891-026, 25891-027, 25891-028, 25891-029, 25891-030, 25891-031, 25891-032, 25891-033, 25891-034, 25891-035, 25891-036, 25891-037, 25891-038, 25891-039, 25891-040, 25891-041, 25891-042, 25891-043, 25891-044, 25891-045, 25891-046, 25891-047, 25891-048, 25891-049, 25891-050, 25891-051, 25891-052, 25891-053, 25891-054, 25891-055, 25891-056, 25891-057, 25891-058, 25891-059, 25891-060, 25891-061, 25891-062, 25891-063, 25891-064, 25891-065, 25891-066, 25891-067, 25891-068, 25891-069, 25891-070, 25891-071, 25891-072, 25891-073, 25891-074, 25891-075, 25891-076, 25891-077, 25891-078, 25891-079, 25891-080, 25891-081, 25891-082, 25891-083, 25891-084, 25891-085, 25891-086, 25891-087, 25891-088, 25891-089, 25891-090, 25891-091, 25891-092, 25891-093, 25891-094, 25891-095, 25891-096, 25891-097, 25891-098, 25891-099, 25891-100, 25891-101, 25891-102, 25891-103, 25891-104, 25891-105, 25891-106, 25891-107, 25891-108, 25891-109, 25891-110, 25891-111, 25891-112, 25891-113, 25891-114, 25891-115.
 4. A City Park consisting of 0.81 acre is proposed in the area of the east slope and a central location within a Stormwater Management Area.
 5. All proposed lots exceed 7,000 sq ft in area, except L4 numbers 26-47-75, 26-47-76, 26-47-77, 26-47-78, 26-47-79, 26-47-80, 26-47-81, 26-47-82, 26-47-83, 26-47-84, 26-47-85, 26-47-86, 26-47-87, 26-47-88, 26-47-89, 26-47-90, 26-47-91, 26-47-92, 26-47-93, 26-47-94, 26-47-95, 26-47-96, 26-47-97, 26-47-98, 26-47-99, 26-47-100, 26-47-101, 26-47-102, 26-47-103, 26-47-104, 26-47-105, 26-47-106, 26-47-107, 26-47-108, 26-47-109, 26-47-110, 26-47-111, 26-47-112, 26-47-113, 26-47-114, 26-47-115.

<p>Preliminary Plat</p>	<p>Stephens Hillside Farm a residential subdivision City of La Center Washington</p>	<p>Applicant: Carleen Stephens 24600 NE 88th Court Battle Ground WA 98604 360.907.3490 carleenstephens@gmail.com</p>	<p>Contact Person: Ed Greer Greer & Greer, Inc. Land Use Planning 13023 NE Hwy 99 Suite 7-126 Vancouver WA 98686 360.904.4964 ed@greer.net</p>
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Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E 18th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	1	0		0	3	0	0	4	0	2	0	0
7:05 AM	0	0	0	0	2	0		0	3	0	0	5	0	0	0	0
7:10 AM	1	0	0	0	5	0		0	1	0	0	7	0	0	0	0
7:15 AM	0	0	0	0	4	0		0	3	0	0	7	0	0	0	0
7:20 AM	0	0	0	0	4	0		0	4	0	0	8	0	0	0	0
7:25 AM	0	0	0	0	0	0		0	2	0	0	2	0	0	0	0
7:30 AM	1	1	0	0	0	0		0	0	1	0	3	0	0	0	0
7:35 AM	1	0	0	0	0	0		0	2	0	0	3	0	0	0	0
7:40 AM	0	0	0	0	1	0		0	5	0	0	6	0	0	0	0
7:45 AM	0	0	0	1	1	0		0	3	0	0	5	0	0	0	0
7:50 AM	0	0	0	0	1	0		0	1	0	0	2	0	0	0	0
7:55 AM	2	2	0	0	4	0		0	7	0	0	15	0	2	0	0
8:00 AM	0	1	0	0	2	0		0	2	0	0	5	0	0	0	0
8:05 AM	1	0	0	0	0	0		0	5	0	0	6	0	0	0	0
8:10 AM	1	1	0	0	0	0		0	1	0	0	3	0	1	0	0
8:15 AM	0	1	0	0	2	0		0	1	0	0	4	0	0	0	0
8:20 AM	0	1	0	0	1	0		0	2	0	0	4	0	0	0	0
8:25 AM	0	0	0	0	0	0		0	5	0	0	5	0	1	0	0
8:30 AM	1	0	0	0	1	0		0	2	0	0	4	0	0	0	0
8:35 AM	1	2	0	0	3	0		0	3	0	0	9	0	0	0	0
8:40 AM	1	3	0	0	2	0		0	3	0	0	9	0	0	0	0
8:45 AM	0	2	0	1	3	0		0	4	0	0	10	0	0	0	0
8:50 AM	2	1	0	0	4	0		0	4	0	0	11	0	0	0	0
8:55 AM	1	2	0	0	2	0		0	2	0	0	7	0	0	0	0
Total Survey	13	17	0	2	43	0		0	68	1	0	144	0	6	0	0

15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes		North	South	East	West
7:00 AM	1	0	0	0	8	0		0	7	0	0	16	0	2	0	0
7:15 AM	0	0	0	0	8	0		0	9	0	0	17	0	0	0	0
7:30 AM	2	1	0	0	1	0		0	7	1	0	12	0	0	0	0
7:45 AM	2	2	0	1	6	0		0	11	0	0	22	0	2	0	0
8:00 AM	2	2	0	0	2	0		0	8	0	0	14	0	1	0	0
8:15 AM	0	2	0	0	3	0		0	8	0	0	13	0	1	0	0
8:30 AM	3	5	0	0	6	0		0	8	0	0	22	0	0	0	0
8:45 AM	3	5	0	1	9	0		0	10	0	0	28	0	0	0	0
Total Survey	13	17	0	2	43	0		0	68	1	0	144	0	6	0	0

Peak Hour Summary 7:55 AM to 8:55 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Total	Pedestrians Crosswalk						
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total		North	South	East	West			
Volume	23	61	84	0	23	9	32	0	0	0	0	39	15	54	0	85	0	4	0	0
%HV	21.7%			8.7%			0.0%			7.7%			11.8%							
PHF	0.64			0.58			0.00			0.70			0.71							

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Total			
	T	R	Total	L	T	Total		Total	L	R	Total					
Volume	9	14	23	1	22	23		0	39	0	39	85				
%HV	NA	33.3%	14.3%	21.7%	#####	4.5%	NA	8.7%	NA	NA	0.0%	7.7%	NA	0.0%	7.7%	11.8%
PHF	0.75	0.50	0.64	0.25	0.61	0.58		0.00	0.70	0.00	0.70	0.71				

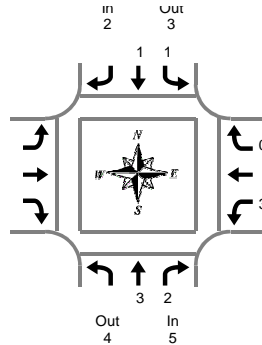
Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes		North	South	East	West
7:00 AM	5	3	0	1	23	0		0	34	1	0	67	0	4	0	0
7:15 AM	6	5	0	1	17	0		0	35	1	0	65	0	3	0	0
7:30 AM	6	7	0	1	12	0		0	34	1	0	61	0	4	0	0
7:45 AM	7	11	0	1	17	0		0	35	0	0	71	0	4	0	0
8:00 AM	8	14	0	1	20	0		0	34	0	0	77	0	2	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:55 AM to 8:55 AM

Aspen Ave & E 18th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:05 AM	0	0	0	0	0	0			0	0	0	0	0
7:10 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:20 AM	0	0	0	0	0	0			0	0	0	0	0
7:25 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	1	0	1	0	0	0			0	0	0	0	1
7:35 AM	0	0	0	0	0	0			0	0	0	0	0
7:40 AM	0	0	0	0	0	0			0	0	0	0	0
7:45 AM	0	0	0	0	0	0			0	0	0	0	0
7:50 AM	0	0	0	0	0	0			0	0	0	0	0
7:55 AM	1	0	1	0	0	0			0	1	0	1	2
8:00 AM	0	1	1	0	0	0			0	0	0	0	1
8:05 AM	0	0	0	0	0	0			0	0	0	0	0
8:10 AM	1	0	1	0	0	0			0	0	0	0	1
8:15 AM	0	0	0	0	0	0			0	0	0	0	0
8:20 AM	0	0	0	0	0	0			0	0	0	0	0
8:25 AM	0	0	0	0	0	0			0	0	0	0	0
8:30 AM	1	0	1	0	0	0			0	0	0	0	1
8:35 AM	0	1	1	0	0	0			0	0	0	0	1
8:40 AM	0	0	0	0	1	1			0	1	0	1	2
8:45 AM	0	0	0	1	0	1			0	0	0	0	1
8:50 AM	0	0	0	0	0	0			0	1	0	1	1
8:55 AM	0	0	0	0	0	0			0	0	0	0	0
Total Survey	4	2	6	1	1	2			0	3	0	3	11

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	1	0	1	0	0	0			0	0	0	0	1
7:45 AM	1	0	1	0	0	0			0	1	0	1	2
8:00 AM	1	1	2	0	0	0			0	0	0	0	2
8:15 AM	0	0	0	0	0	0			0	0	0	0	0
8:30 AM	1	1	2	0	1	1			0	1	0	1	4
8:45 AM	0	0	0	1	0	1			0	1	0	1	2
Total Survey	4	2	6	1	1	2			0	3	0	3	11

Heavy Vehicle Peak Hour Summary 7:55 AM to 8:55 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	5	4	9	2	3	5	0	0	0	3	3	6	10
PHF	0.63			0.25			0.00			0.38			0.63

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	3	2	5	1	1	2			0	3	0	3	10
PHF	0.75	0.50	0.63	0.25	0.25	0.25			0.00	0.38	0.00	0.38	0.63

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	2	0	2	0	0	0			0	1	0	1	3
7:15 AM	3	1	4	0	0	0			0	1	0	1	5
7:30 AM	3	1	4	0	0	0			0	1	0	1	5
7:45 AM	3	2	5	0	1	1			0	2	0	2	8
8:00 AM	2	2	4	1	1	2			0	2	0	2	8

Peak Hour Summary

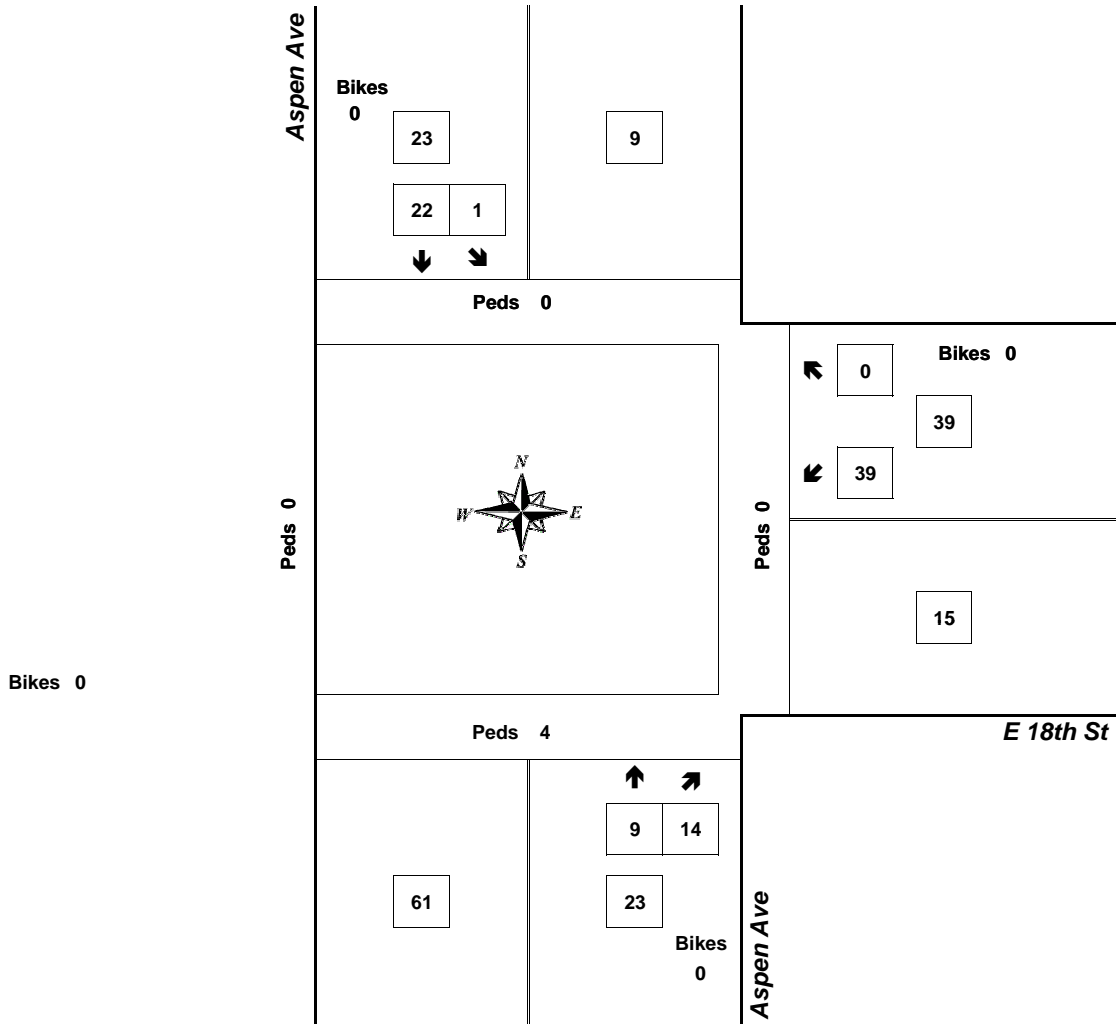


Clay Carney
(503) 833-2740

Aspen Ave & E 18th St

7:55 AM to 8:55 AM

Wednesday, December 06, 2017



Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.70	7.7%	39
NB	0.64	21.7%	23
SB	0.58	8.7%	23
Intersection	0.71	11.8%	85

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

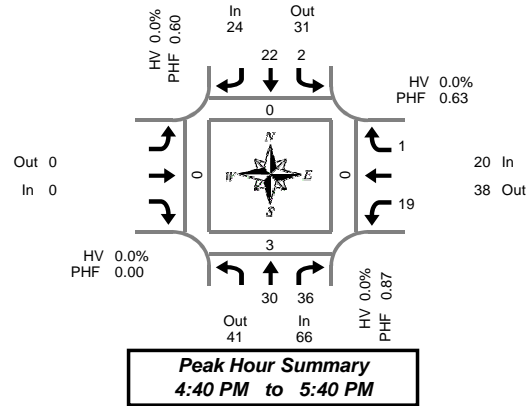


Clay Carney
(503) 833-2740

Aspen Ave & E 18th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM



5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	1	1	0	0	1	0	0	0	4	0	0	7	0	0	0	0
4:05 PM	2	1	0	1	0	0	0	0	2	0	0	6	0	0	0	0
4:10 PM	8	5	0	0	0	0	0	0	0	0	0	13	0	1	0	0
4:15 PM	3	5	0	0	2	0	0	0	3	0	0	13	0	0	0	0
4:20 PM	2	3	0	0	1	0	0	0	3	0	0	9	0	1	1	0
4:25 PM	3	6	0	0	0	0	0	0	0	0	0	9	0	0	0	0
4:30 PM	2	1	0	0	1	0	0	0	0	0	0	4	0	1	1	0
4:35 PM	1	2	0	0	0	0	0	0	1	0	0	4	0	0	0	0
4:40 PM	1	4	0	0	1	0	0	0	1	0	0	7	0	0	0	0
4:45 PM	4	3	0	0	2	0	0	0	2	0	0	11	0	1	0	0
4:50 PM	2	3	0	0	3	0	0	0	1	0	0	9	0	0	0	0
4:55 PM	2	5	0	0	5	0	0	0	1	0	0	13	0	0	0	0
5:00 PM	2	3	0	1	0	0	0	0	1	0	0	7	0	1	0	0
5:05 PM	2	3	0	0	0	0	0	0	1	0	0	6	0	1	0	0
5:10 PM	2	3	0	0	1	0	0	0	0	1	0	7	0	0	0	0
5:15 PM	2	3	0	0	1	0	0	0	2	0	0	8	0	0	0	0
5:20 PM	2	2	0	1	1	0	0	0	3	0	0	9	0	0	0	0
5:25 PM	0	1	0	0	0	0	0	0	2	0	0	3	0	0	0	0
5:30 PM	6	5	0	0	6	0	0	0	3	0	0	20	0	0	0	0
5:35 PM	5	1	0	0	2	0	0	0	2	0	0	10	0	0	0	0
5:40 PM	1	2	0	0	0	0	0	0	2	0	0	5	0	0	0	0
5:45 PM	3	2	0	0	5	0	0	0	3	0	0	13	0	0	0	0
5:50 PM	3	2	0	0	1	0	0	0	2	0	0	8	0	0	0	0
5:55 PM	5	4	0	0	1	0	0	0	3	0	0	13	0	0	0	0
Total Survey	64	70	0	3	34	0	0	0	42	1	0	214	0	6	2	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	11	7	0	1	1	0	0	0	6	0	0	26	0	1	0	0
4:15 PM	8	14	0	0	3	0	0	0	6	0	0	31	0	1	1	0
4:30 PM	4	7	0	0	2	0	0	0	2	0	0	15	0	1	1	0
4:45 PM	8	11	0	0	10	0	0	0	4	0	0	33	0	1	0	0
5:00 PM	6	9	0	1	1	0	0	0	2	1	0	20	0	2	0	0
5:15 PM	4	6	0	1	2	0	0	0	7	0	0	20	0	0	0	0
5:30 PM	12	8	0	0	8	0	0	0	7	0	0	35	0	0	0	0
5:45 PM	11	8	0	0	7	0	0	0	8	0	0	34	0	0	0	0
Total Survey	64	70	0	3	34	0	0	0	42	1	0	214	0	6	2	0

Peak Hour Summary

4:40 PM to 5:40 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Total	Pedestrians Crosswalk			
	In	Out	Total	In	Out	Total	In	Out	In	Out	Total		North	South	East	West
Volume	66	41	107	0	24	31	55	0	0	0	0	20	38	58	0	110
%HV	0.0%			0.0%			0.0%		0.0%			0.0%	0.0%			
PHF	0.87			0.60			0.00		0.63			0.83				

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Total
	T	R	Total	L	T	Total	Total	L	R	Total		
Volume	30	36	66	2	22	24	0	19	1	20	110	
%HV	NA	0.0%	0.0%	0.0%	0.0%	NA	0.0%	NA	NA	0.0%	0.0%	
PHF	0.68	0.82	0.87	0.50	0.55	0.60	0.00	0.59	0.25	0.63	0.83	

Rolling Hour Summary

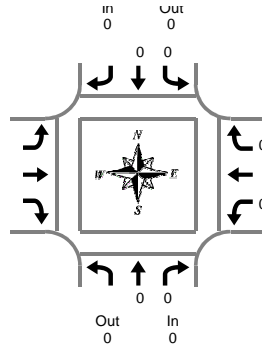
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St		Westbound E 18th St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	31	39	0	1	16	0	0	0	18	0	0	105	0	4	2	0
4:15 PM	26	41	0	1	16	0	0	0	14	1	0	99	0	5	2	0
4:30 PM	22	33	0	2	15	0	0	0	15	1	0	88	0	4	1	0
4:45 PM	30	34	0	2	21	0	0	0	20	1	0	108	0	3	0	0
5:00 PM	33	31	0	2	18	0	0	0	24	1	0	109	0	2	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Out 0
In 0

Peak Hour Summary
4:40 PM to 5:40 PM

Aspen Ave & E 18th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	0	0	0	0	0	0			0	0	0	0	0
4:05 PM	0	0	0	0	0	0			0	0	0	0	0
4:10 PM	0	0	0	0	0	0			0	0	0	0	0
4:15 PM	0	0	0	0	1	1			0	0	0	0	1
4:20 PM	0	0	0	0	0	0			0	0	0	0	0
4:25 PM	0	0	0	0	0	0			0	0	0	0	0
4:30 PM	0	0	0	0	0	0			0	0	0	0	0
4:35 PM	0	0	0	0	0	0			0	0	0	0	0
4:40 PM	0	0	0	0	0	0			0	0	0	0	0
4:45 PM	0	0	0	0	0	0			0	0	0	0	0
4:50 PM	0	0	0	0	0	0			0	0	0	0	0
4:55 PM	0	0	0	0	0	0			0	0	0	0	0
5:00 PM	0	0	0	0	0	0			0	0	0	0	0
5:05 PM	0	0	0	0	0	0			0	0	0	0	0
5:10 PM	0	0	0	0	0	0			0	0	0	0	0
5:15 PM	0	0	0	0	0	0			0	0	0	0	0
5:20 PM	0	0	0	0	0	0			0	0	0	0	0
5:25 PM	0	0	0	0	0	0			0	0	0	0	0
5:30 PM	0	0	0	0	0	0			0	0	0	0	0
5:35 PM	0	0	0	0	0	0			0	0	0	0	0
5:40 PM	0	0	0	0	0	0			0	0	0	0	0
5:45 PM	0	0	0	0	0	0			0	0	0	0	0
5:50 PM	0	0	0	0	0	0			0	0	0	0	0
5:55 PM	0	0	0	0	0	0			0	0	0	0	0
Total Survey	0	0	0	0	1	1			0	0	0	0	1

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	0	0	0	0	0	0			0	0	0	0	0
4:15 PM	0	0	0	0	1	1			0	0	0	0	1
4:30 PM	0	0	0	0	0	0			0	0	0	0	0
4:45 PM	0	0	0	0	0	0			0	0	0	0	0
5:00 PM	0	0	0	0	0	0			0	0	0	0	0
5:15 PM	0	0	0	0	0	0			0	0	0	0	0
5:30 PM	0	0	0	0	0	0			0	0	0	0	0
5:45 PM	0	0	0	0	0	0			0	0	0	0	0
Total Survey	0	0	0	0	1	1			0	0	0	0	1

Heavy Vehicle Peak Hour Summary 4:40 PM to 5:40 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00			0.00			0.00			0.00			0.00

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	0	0	0	0	0	0			0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 18th St			Westbound E 18th St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	0	0	0	0	1	1			0	0	0	0	1
4:15 PM	0	0	0	0	1	1			0	0	0	0	1
4:30 PM	0	0	0	0	0	0			0	0	0	0	0
4:45 PM	0	0	0	0	0	0			0	0	0	0	0
5:00 PM	0	0	0	0	0	0			0	0	0	0	0

Peak Hour Summary

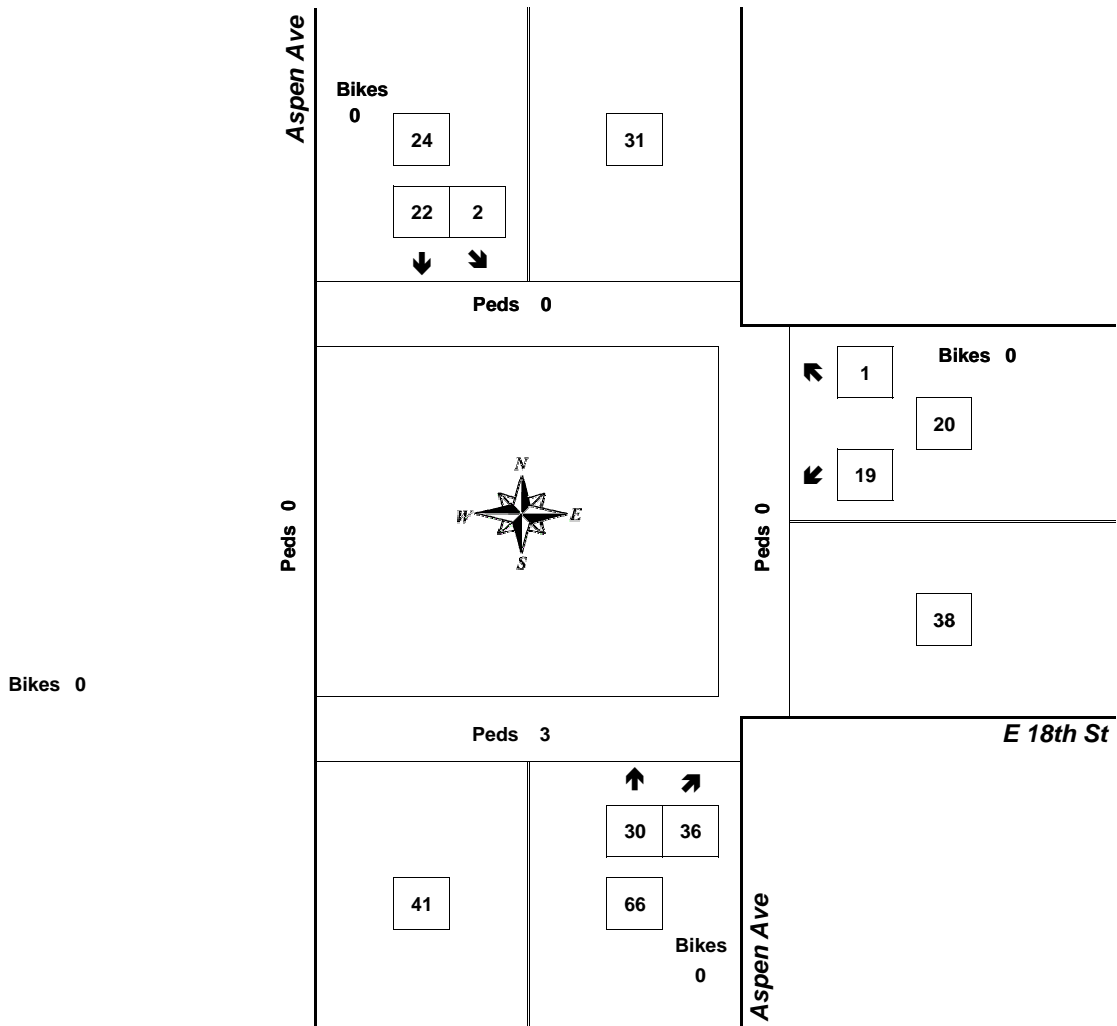


Clay Carney
(503) 833-2740

Aspen Ave & E 18th St

4:40 PM to 5:40 PM

Wednesday, December 06, 2017



Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.63	0.0%	20
NB	0.87	0.0%	66
SB	0.60	0.0%	24
Intersection	0.83	0.0%	110

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

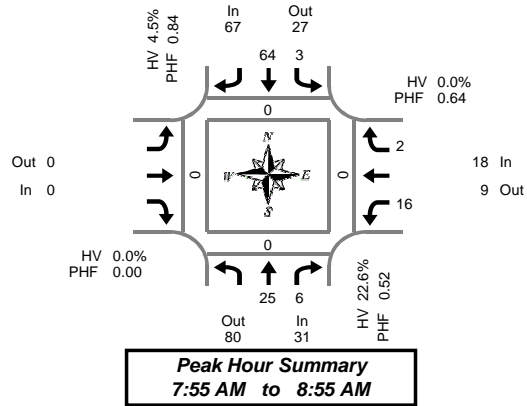


Clay Carney
(503) 833-2740

Aspen Ave & E Heritage Loop

Wednesday, December 06, 2017

7:00 AM to 9:00 AM



Peak Hour Summary
7:55 AM to 8:55 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
7:00 AM	0	0	0	1	7	0			0	4	0	0	12	0	0	0	0
7:05 AM	0	0	0	0	6	0			0	2	0	0	8	0	0	0	0
7:10 AM	1	0	0	0	7	0			0	2	0	0	10	0	1	0	0
7:15 AM	0	1	0	0	10	0			0	2	0	0	13	0	0	0	0
7:20 AM	0	0	0	0	7	0			0	2	0	0	9	0	0	0	0
7:25 AM	0	0	0	0	6	0			0	0	0	0	6	0	0	0	0
7:30 AM	2	0	0	0	3	0			0	2	0	0	7	0	0	0	0
7:35 AM	1	1	0	0	1	0			0	1	0	0	4	0	0	0	0
7:40 AM	1	1	0	0	9	0			0	1	0	0	12	0	0	0	0
7:45 AM	1	0	0	0	3	0			0	4	0	0	8	0	0	0	0
7:50 AM	0	0	0	0	6	0			0	1	0	0	7	0	0	0	0
7:55 AM	2	1	0	0	12	0			0	1	1	0	17	0	0	0	0
8:00 AM	3	0	0	0	3	0			0	1	0	0	7	0	0	0	0
8:05 AM	1	1	0	0	5	0			0	0	0	0	7	0	0	0	0
8:10 AM	2	0	0	0	4	0			0	1	0	0	7	0	0	0	0
8:15 AM	0	0	0	0	3	0			0	1	0	0	4	0	0	0	0
8:20 AM	2	0	0	0	2	0			0	1	0	0	5	0	0	0	0
8:25 AM	0	1	0	1	3	0			0	1	0	0	6	0	0	0	0
8:30 AM	0	0	0	0	6	0			0	3	0	0	9	0	0	0	0
8:35 AM	4	0	0	0	8	0			0	1	0	0	13	0	0	0	0
8:40 AM	5	2	0	0	2	0			0	3	0	0	12	0	0	0	0
8:45 AM	3	1	0	2	4	0			0	1	0	0	11	0	0	0	0
8:50 AM	3	0	0	0	12	0			0	2	1	0	18	0	0	0	0
8:55 AM	4	0	0	0	8	0			0	0	0	0	12	0	0	0	0
Total Survey	35	9	0	4	137	0			0	37	2	0	224	0	1	0	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
7:00 AM	1	0	0	1	20	0			0	8	0	0	30	0	1	0	0
7:15 AM	0	1	0	0	23	0			0	4	0	0	28	0	0	0	0
7:30 AM	4	2	0	0	13	0			0	4	0	0	23	0	0	0	0
7:45 AM	3	1	0	0	21	0			0	6	1	0	32	0	0	0	0
8:00 AM	6	1	0	0	12	0			0	2	0	0	21	0	0	0	0
8:15 AM	2	1	0	1	8	0			0	3	0	0	15	0	0	0	0
8:30 AM	9	2	0	0	16	0			0	7	0	0	34	0	0	0	0
8:45 AM	10	1	0	2	24	0			0	3	1	0	41	0	0	0	0
Total Survey	35	9	0	4	137	0			0	37	2	0	224	0	1	0	0

Peak Hour Summary

7:55 AM to 8:55 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	31	80	111	0	67	27	94	0	0	0	0	0	18	9	27	0	116
%HV	22.6%				4.5%				0.0%				0.0%			8.6%	
PHF	0.52				0.84				0.00				0.64			0.71	

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	25	6	31	3	64	67			0	16	2	18	116
%HV	NA	24.0%	16.7%	22.6%	33.3%	3.1%	NA	4.5%	NA	NA	NA	0.0%	8.6%
PHF	0.52	0.50	0.52	0.38	0.80	0.84			0.00	0.57	0.50	0.64	0.71

Rolling Hour Summary

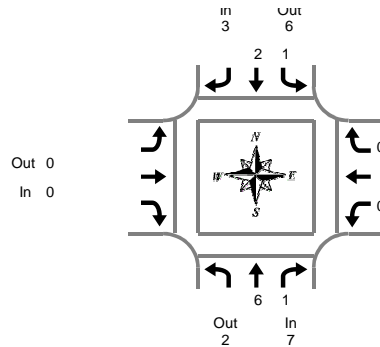
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
7:00 AM	8	4	0	1	77	0			0	22	1	0	113	0	1	0	0
7:15 AM	13	5	0	0	69	0			0	16	1	0	104	0	0	0	0
7:30 AM	15	5	0	1	54	0			0	15	1	0	91	0	0	0	0
7:45 AM	20	5	0	1	57	0			0	18	1	0	102	0	0	0	0
8:00 AM	27	5	0	3	60	0			0	15	1	0	111	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:55 AM to 8:55 AM

Aspen Ave & E Heritage Loop

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:05 AM	0	0	0	0	0	0			0	0	0	0	0
7:10 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:20 AM	0	0	0	0	0	0			0	0	0	0	0
7:25 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	1	0	1	0	0	0			0	0	0	0	1
7:35 AM	0	0	0	0	0	0			0	0	0	0	0
7:40 AM	0	0	0	0	0	0			0	0	0	0	0
7:45 AM	0	0	0	0	0	0			0	0	0	0	0
7:50 AM	0	0	0	0	0	0			0	0	0	0	0
7:55 AM	0	0	0	0	1	1			0	0	0	0	1
8:00 AM	3	0	3	0	0	0			0	0	0	0	3
8:05 AM	0	0	0	0	0	0			0	0	0	0	0
8:10 AM	1	0	1	0	0	0			0	0	0	0	1
8:15 AM	0	0	0	0	0	0			0	0	0	0	0
8:20 AM	0	0	0	0	0	0			0	0	0	0	0
8:25 AM	0	0	0	0	0	0			0	0	0	0	0
8:30 AM	0	0	0	0	0	0			0	0	0	0	0
8:35 AM	2	0	2	0	0	0			0	0	0	0	2
8:40 AM	0	1	1	0	1	1			0	0	0	0	2
8:45 AM	0	0	0	1	0	1			0	0	0	0	1
8:50 AM	0	0	0	0	0	0			0	0	0	0	0
8:55 AM	0	0	0	0	1	1			0	0	0	0	1
Total Survey	7	1	8	1	3	4			0	0	0	0	12

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	1	0	1	0	0	0			0	0	0	0	1
7:45 AM	0	0	0	0	1	1			0	0	0	0	1
8:00 AM	4	0	4	0	0	0			0	0	0	0	4
8:15 AM	0	0	0	0	0	0			0	0	0	0	0
8:30 AM	2	1	3	0	1	1			0	0	0	0	4
8:45 AM	0	0	0	1	1	2			0	0	0	0	2
Total Survey	7	1	8	1	3	4			0	0	0	0	12

Heavy Vehicle Peak Hour Summary

7:55 AM to 8:55 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	7	2	9	3	6	9	0	0	0	0	2	2	10
PHF	0.44			0.38			0.00			0.00			0.50

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	6	1	7	1	2	3			0	0	0	0	10
PHF	0.38	0.25	0.44	0.25	0.50	0.38			0.00	0.00	0.00	0.00	0.50

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	1	0	1	0	1	1			0	0	0	0	2
7:15 AM	5	0	5	0	1	1			0	0	0	0	6
7:30 AM	5	0	5	0	1	1			0	0	0	0	6
7:45 AM	6	1	7	0	2	2			0	0	0	0	9
8:00 AM	6	1	7	1	2	3			0	0	0	0	10

Peak Hour Summary

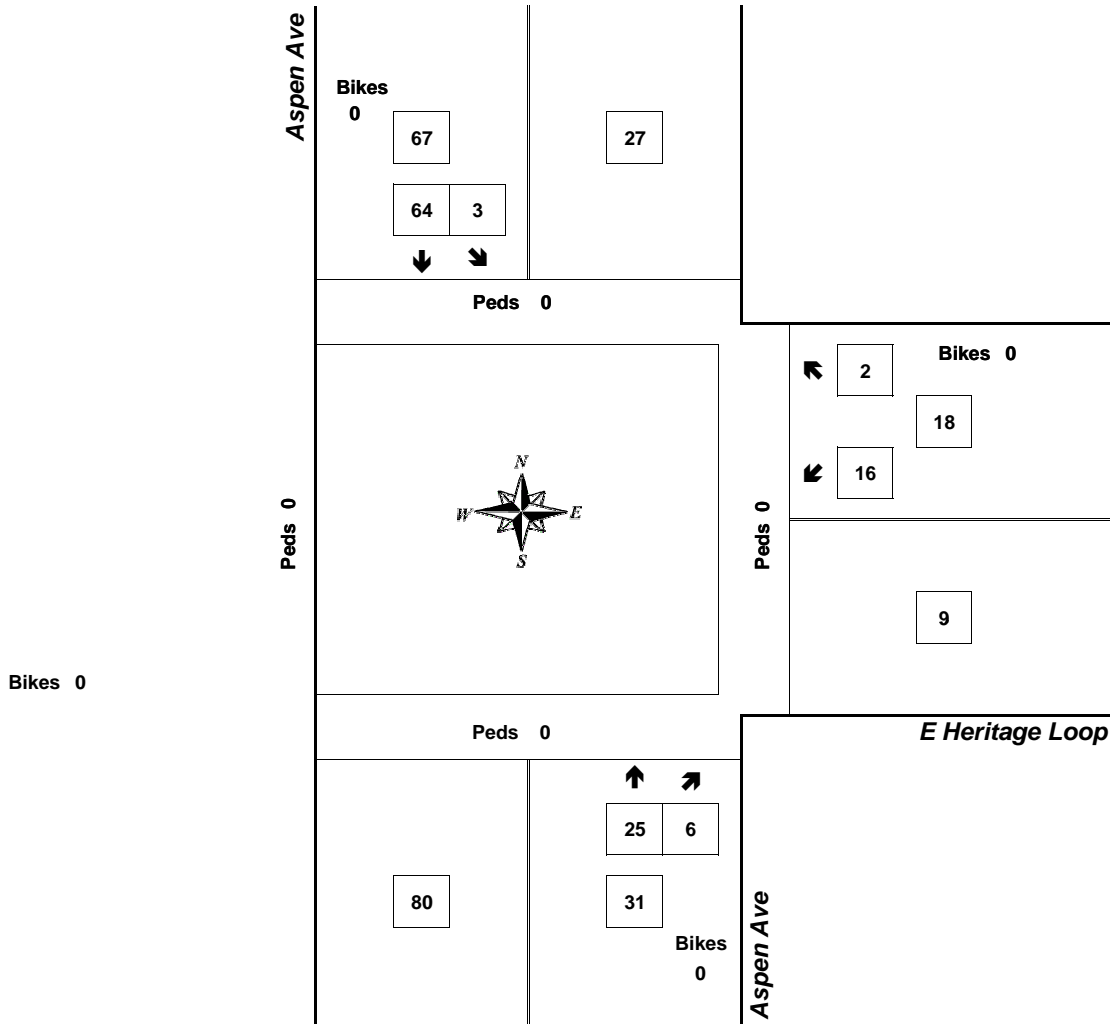


Clay Carney
(503) 833-2740

Aspen Ave & E Heritage Loop

7:55 AM to 8:55 AM

Wednesday, December 06, 2017



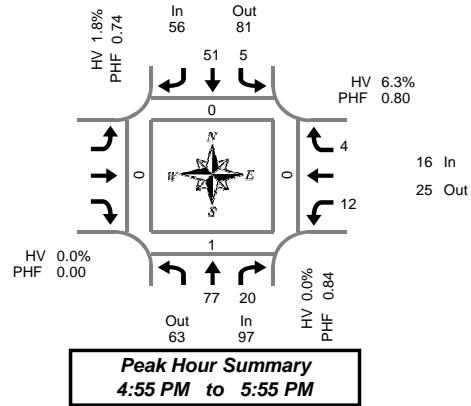
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.64	0.0%	18
NB	0.52	22.6%	31
SB	0.84	4.5%	67
Intersection	0.71	8.6%	116

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E Heritage Loop

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	3	2	0	0	4	0		0	0	0	0	9	0	0	0	0	
4:05 PM	4	2	0	0	3	0		0	2	0	0	11	0	0	0	0	
4:10 PM	15	3	0	1	0	0		0	0	1	0	20	0	1	0	0	
4:15 PM	9	1	0	0	9	0		0	2	1	0	22	0	0	0	0	
4:20 PM	8	0	0	0	4	0		0	0	0	0	12	0	0	0	0	
4:25 PM	8	2	0	0	0	0		0	2	0	0	12	0	0	0	0	
4:30 PM	7	0	0	0	1	0		0	2	0	0	10	0	0	0	0	
4:35 PM	3	3	0	0	3	0		0	2	1	0	12	0	0	0	0	
4:40 PM	5	0	0	0	3	0		0	0	0	0	8	0	1	0	0	
4:45 PM	7	3	0	0	6	0		0	0	0	0	16	0	0	0	0	
4:50 PM	7	3	0	0	4	0		0	0	0	0	14	0	0	0	0	
4:55 PM	7	2	0	0	9	0		0	2	0	0	20	0	0	0	0	
5:00 PM	5	0	0	0	2	0		0	0	0	0	7	0	0	0	0	
5:05 PM	6	2	0	0	1	0		0	1	1	0	11	0	0	0	0	
5:10 PM	6	2	0	1	1	0		0	1	0	0	11	0	0	0	0	
5:15 PM	7	5	0	0	4	0		0	0	0	0	16	0	1	0	0	
5:20 PM	4	2	0	0	3	0		0	3	0	0	12	0	0	0	0	
5:25 PM	4	0	0	1	1	0		0	0	0	0	6	0	0	0	0	
5:30 PM	12	2	0	2	7	0		0	0	1	0	24	0	0	0	0	
5:35 PM	8	1	0	0	5	0		0	2	1	0	17	0	0	0	0	
5:40 PM	4	2	0	1	3	0		0	0	1	0	11	0	0	0	0	
5:45 PM	5	1	0	0	10	0		0	1	0	0	17	0	0	0	0	
5:50 PM	9	1	0	0	5	0		0	2	0	0	17	0	0	0	0	
5:55 PM	9	0	0	0	3	0		0	0	0	0	12	0	0	0	0	
Total Survey	162	39	0	6	91	0		0	22	7	0	327	0	3	0	0	

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	22	7	0	1	7	0		0	2	1	0	40	0	1	0	0	
4:15 PM	25	3	0	0	13	0		0	4	1	0	46	0	0	0	0	
4:30 PM	15	3	0	0	7	0		0	4	1	0	30	0	1	0	0	
4:45 PM	21	8	0	0	19	0		0	2	0	0	50	0	0	0	0	
5:00 PM	17	4	0	1	4	0		0	2	1	0	29	0	0	0	0	
5:15 PM	15	7	0	1	8	0		0	3	0	0	34	0	1	0	0	
5:30 PM	24	5	0	3	15	0		0	2	3	0	52	0	0	0	0	
5:45 PM	23	2	0	0	18	0		0	3	0	0	46	0	0	0	0	
Total Survey	162	39	0	6	91	0		0	22	7	0	327	0	3	0	0	

Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	97	63	160	0	56	81	137	0	0	0	0	0	16	25	41	0	169
%HV	0.0%				1.8%				0.0%				6.3%			1.2%	
PHF	0.84				0.74				0.00				0.80			0.81	

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total	
	T	R	Total	L	T	Total		Total	L	R	Total			
Volume	77	20	97	5	51	56		0	12	4	16	169		
%HV	NA	0.0%	0.0%	0.0%	20.0%	0.0%	NA	1.8%	NA	NA	NA	25.0%	6.3%	1.2%
PHF	0.80	0.56	0.84	0.42	0.71	0.74		0.00	0.75	0.33	0.80	0.81		

Rolling Hour Summary

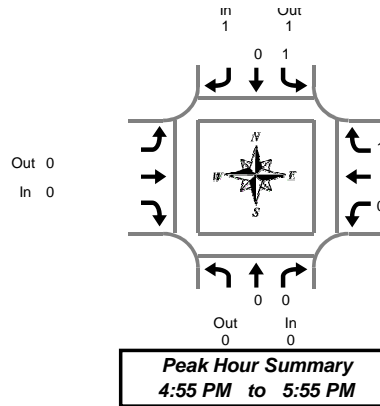
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	83	21	0	1	46	0		0	12	3	0	166	0	2	0	0	
4:15 PM	78	18	0	1	43	0		0	12	3	0	155	0	1	0	0	
4:30 PM	68	22	0	2	38	0		0	11	2	0	143	0	2	0	0	
4:45 PM	77	24	0	5	46	0		0	9	4	0	165	0	1	0	0	
5:00 PM	79	18	0	5	45	0		0	10	4	0	161	0	1	0	0	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E Heritage Loop

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10 PM	1	1	2	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	1	1	0	1	0	0	1	2	0
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	1	1	2	0
5:40 PM	0	0	0	1	0	1	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	2	1	3	1	1	2	2	0	1	1	2	2	7	7

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
4:00 PM	1	1	2	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	1	1	1	0	1	0	0	1	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	0	1	1	0	0	1	1	2	2	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	2	1	3	1	1	2	2	0	1	1	2	2	7	7

Heavy Vehicle Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	1	2	0	0	0	1	1	2	2
PHF	0.00			0.25			0.00			0.25			0.25

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
Volume	0	0	0	1	0	1	1	0	0	0	1	1	2	2
PHF	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.25	0.25	0.25	0.25	0.25

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E Heritage Loop			Westbound E Heritage Loop			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
4:00 PM	2	1	3	0	1	1	1	0	1	0	1	1	5	5
4:15 PM	1	0	1	0	1	1	1	0	1	0	1	1	3	3
4:30 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
4:45 PM	1	0	1	1	0	1	1	0	0	1	1	1	3	3
5:00 PM	0	0	0	1	0	1	1	0	0	1	1	1	2	2

Peak Hour Summary

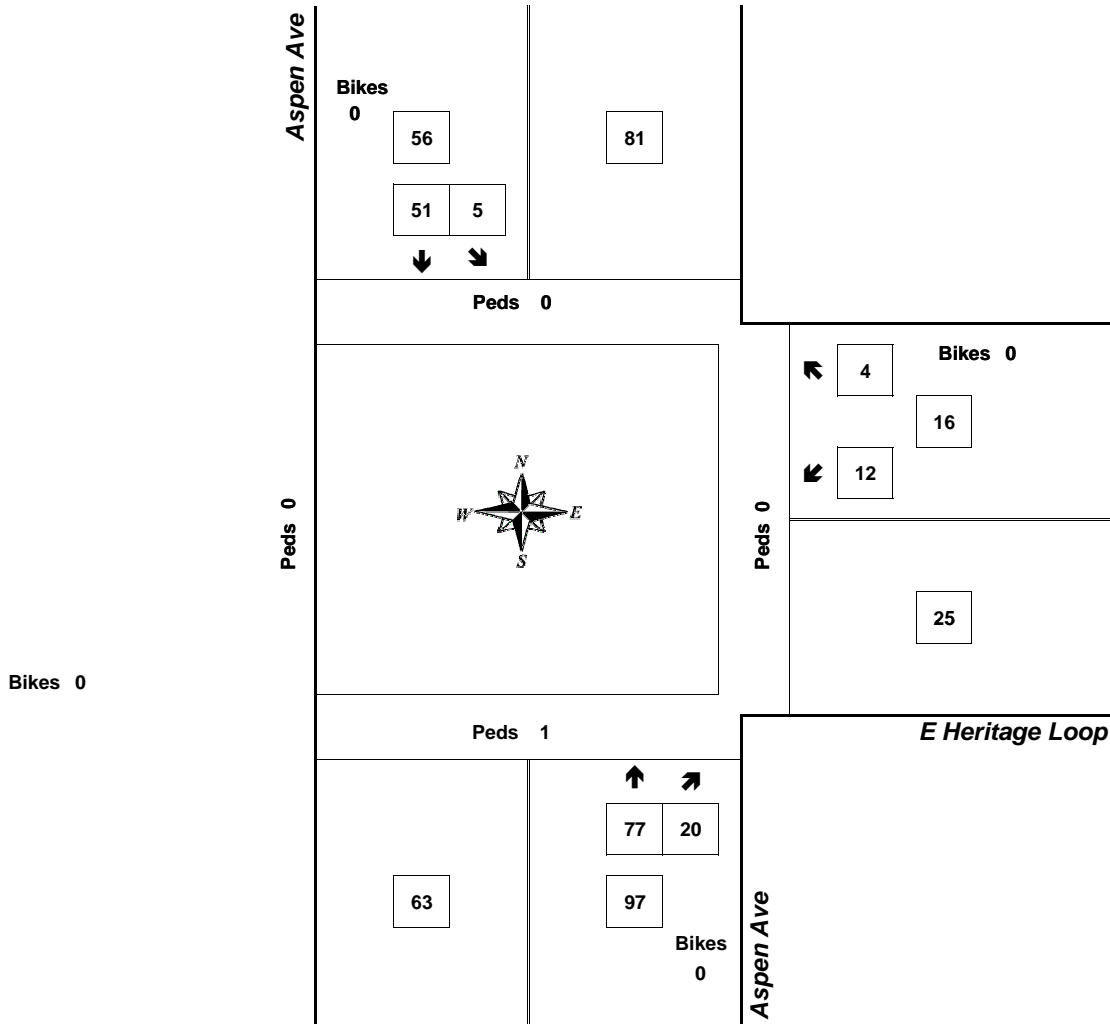


Clay Carney
(503) 833-2740

Aspen Ave & E Heritage Loop

4:55 PM to 5:55 PM

Wednesday, December 06, 2017



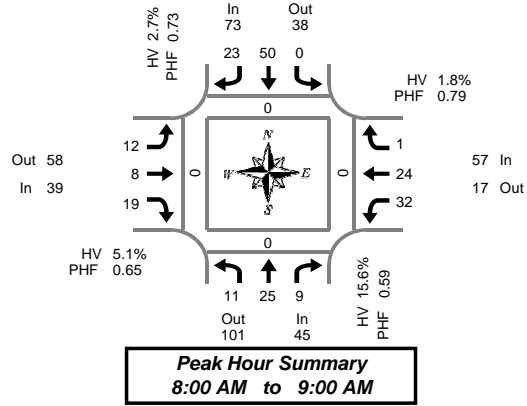
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.80	6.3%	16
NB	0.84	0.0%	97
SB	0.74	1.8%	56
Intersection	0.81	1.2%	169

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & W 10th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	2	0	0	0	0	4	4	0	0	0	1	0	2	2	0	0	15	0	0	0	0
7:05 AM	0	0	0	0	0	7	3	0	0	0	1	0	3	1	0	0	15	0	0	0	0
7:10 AM	1	1	0	0	0	9	0	0	0	0	0	0	2	1	0	0	14	0	0	0	0
7:15 AM	0	1	1	0	0	6	6	0	0	0	2	0	1	2	0	0	19	0	0	0	0
7:20 AM	0	1	0	0	0	6	4	0	0	1	3	0	6	2	0	0	23	0	0	0	0
7:25 AM	2	0	0	0	0	6	2	0	0	1	2	0	6	1	0	0	20	0	0	0	0
7:30 AM	0	2	1	0	0	1	2	0	0	1	0	0	1	5	0	0	13	0	0	0	0
7:35 AM	1	3	0	0	0	4	0	0	1	0	1	0	3	3	0	0	16	0	0	0	0
7:40 AM	1	0	2	0	0	5	5	0	1	1	0	0	3	3	0	0	21	0	0	0	0
7:45 AM	0	1	0	0	1	4	1	0	0	0	2	0	1	0	0	0	10	0	0	0	0
7:50 AM	0	0	1	0	0	5	2	0	0	0	0	0	1	0	0	0	9	0	0	0	0
7:55 AM	0	4	1	0	0	10	4	0	0	1	0	0	2	1	0	0	23	0	0	0	0
8:00 AM	0	3	0	0	0	3	0	0	0	2	3	0	3	3	0	0	17	0	0	0	0
8:05 AM	0	2	1	0	0	4	1	0	2	1	1	0	5	1	0	0	18	0	0	0	0
8:10 AM	1	0	0	0	0	2	4	0	2	0	0	0	3	1	0	0	13	0	0	0	0
8:15 AM	0	1	0	0	0	2	2	0	0	0	0	0	6	1	0	0	12	0	0	0	0
8:20 AM	2	2	1	0	0	2	1	0	0	0	0	0	0	2	0	0	10	0	0	0	0
8:25 AM	2	1	1	0	0	3	1	0	0	0	1	0	1	2	0	0	12	0	0	0	0
8:30 AM	0	1	0	0	0	5	4	0	0	1	1	0	1	4	0	0	17	0	0	0	0
8:35 AM	0	4	0	0	0	6	2	0	2	2	1	0	1	1	0	0	19	0	0	0	0
8:40 AM	1	3	0	0	0	2	4	0	3	1	1	0	1	3	0	0	19	0	0	0	0
8:45 AM	0	1	4	0	0	5	0	0	0	0	2	0	3	2	1	0	18	0	0	0	0
8:50 AM	2	3	2	0	0	10	3	0	1	0	5	0	6	2	0	0	34	0	0	0	0
8:55 AM	3	4	0	0	0	6	1	0	2	1	4	0	2	2	0	0	25	0	0	0	0
Total Survey	18	38	15	0	1	117	56	0	14	13	31	0	63	45	1	0	412	0	0	0	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	3	1	0	0	0	20	7	0	0	0	2	0	7	4	0	0	44	0	0	0	0
7:15 AM	2	2	1	0	0	18	12	0	0	2	7	0	13	5	0	0	62	0	0	0	0
7:30 AM	2	5	3	0	0	10	7	0	2	2	1	0	7	11	0	0	50	0	0	0	0
7:45 AM	0	5	2	0	1	19	7	0	0	1	2	0	4	1	0	0	42	0	0	0	0
8:00 AM	1	5	1	0	0	9	5	0	4	3	4	0	11	5	0	0	48	0	0	0	0
8:15 AM	4	4	2	0	0	7	4	0	0	0	1	0	7	5	0	0	34	0	0	0	0
8:30 AM	1	8	0	0	0	13	10	0	5	4	3	0	3	8	0	0	55	0	0	0	0
8:45 AM	5	8	6	0	0	21	4	0	3	1	11	0	11	6	1	0	77	0	0	0	0
Total Survey	18	38	15	0	1	117	56	0	14	13	31	0	63	45	1	0	412	0	0	0	0

Peak Hour Summary

8:00 AM to 9:00 AM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	45	101	146	0	73	38	111	0	39	58	97	0	57	17	74	0	214	0	0	0	0
%HV	15.6%				2.7%				5.1%				1.8%				5.6%				
PHF	0.59				0.73				0.65				0.79				0.69				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	11	25	9	45	0	50	23	73	12	8	19	39	32	24	1	57	214
%HV	18.2%	20.0%	0.0%	15.6%	0.0%	2.0%	4.3%	2.7%	8.3%	0.0%	5.3%	5.1%	3.1%	0.0%	0.0%	1.8%	5.6%
PHF	0.55	0.78	0.38	0.59	0.00	0.60	0.58	0.73	0.60	0.50	0.43	0.65	0.57	0.75	0.25	0.79	0.69

Rolling Hour Summary

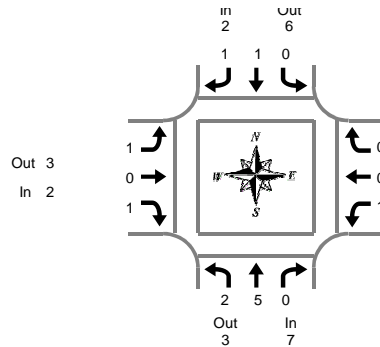
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	7	13	6	0	1	67	33	0	2	5	12	0	31	21	0	0	198	0	0	0	0
7:15 AM	5	17	7	0	1	56	31	0	6	8	14	0	35	22	0	0	202	0	0	0	0
7:30 AM	7	19	8	0	1	45	23	0	6	6	8	0	29	22	0	0	174	0	0	0	0
7:45 AM	6	22	5	0	1	48	26	0	9	8	10	0	25	19	0	0	179	0	0	0	0
8:00 AM	11	25	9	0	0	50	23	0	12	8	19	0	32	24	1	0	214	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
8:00 AM to 9:00 AM

Aspen Ave & W 10th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:35 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:40 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
8:50 AM	2	0	0	2	0	0	0	0	0	0	0	1	0	0	1	0	3
8:55 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Survey	2	8	0	10	0	1	1	2	1	0	1	2	1	0	0	1	15

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	2	0	2	0	0	0	0	1	0	0	1	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	3	0	3	0	0	1	1	0	0	0	0	0	0	0	0	4
8:45 AM	2	0	0	2	0	1	0	1	0	0	1	1	1	0	0	1	5
Total Survey	2	8	0	10	0	1	1	2	1	0	1	2	1	0	0	1	15

Heavy Vehicle Peak Hour Summary

8:00 AM to 9:00 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound W 10th St			Westbound W 10th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	7	3	10	2	6	8	2	3	5	1	0	1	12
PHF	0.58			0.50			0.50			0.25			0.60

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	5	0	7	0	1	1	2	1	0	1	2	1	0	0	1	12
PHF	0.25	0.42	0.00	0.58	0.00	0.25	0.25	0.50	0.25	0.00	0.25	0.50	0.25	0.00	0.00	0.25	0.60

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	5	0	5	0	0	0	0	1	0	0	1	0	0	0	0	6
7:30 AM	0	5	0	5	0	0	0	0	1	0	0	1	0	0	0	0	6
7:45 AM	0	7	0	7	0	0	1	1	1	0	0	1	0	0	0	0	9
8:00 AM	2	5	0	7	0	1	1	2	1	0	1	2	1	0	0	1	12

Peak Hour Summary

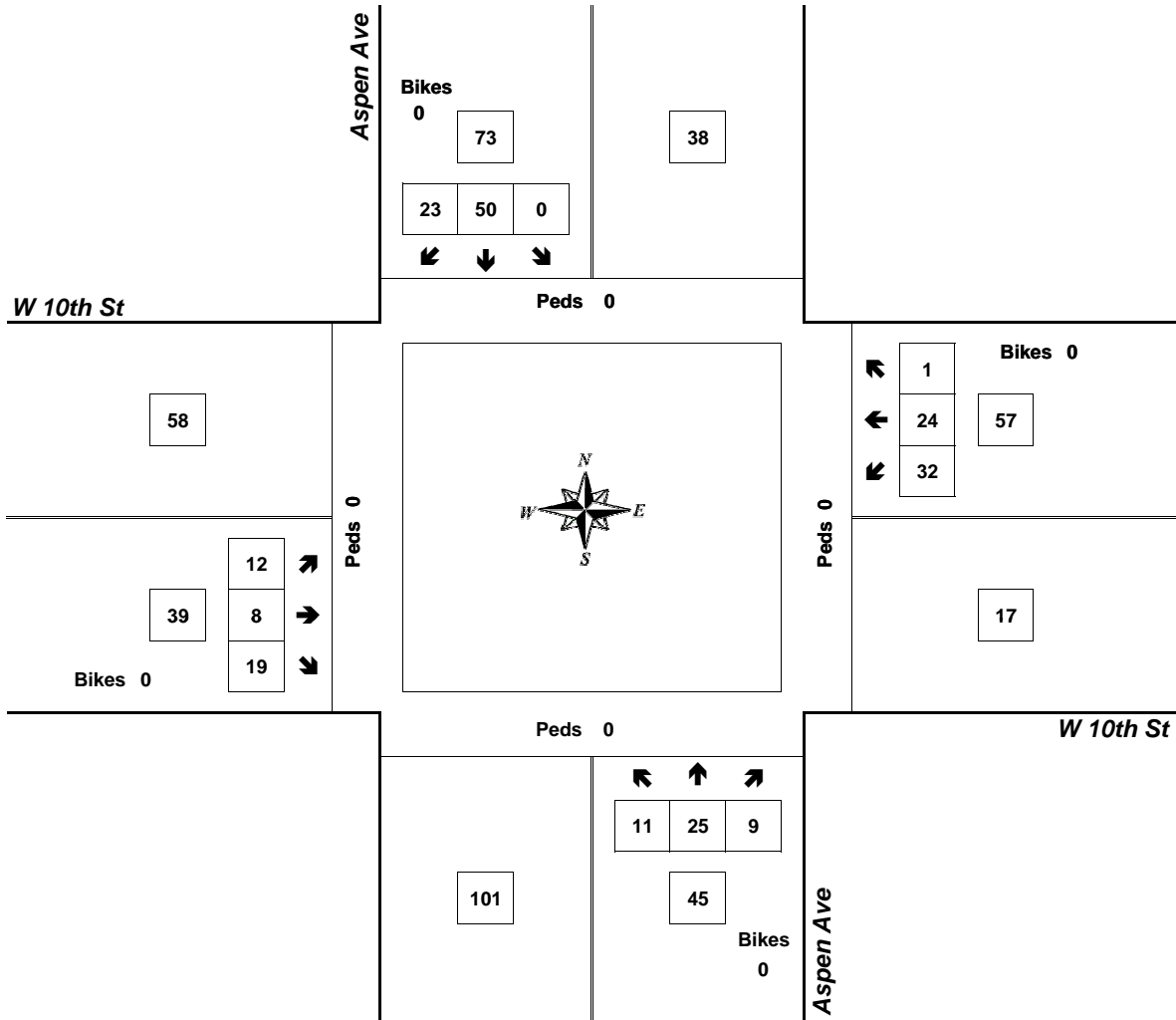


Clay Carney
(503) 833-2740

Aspen Ave & W 10th St

8:00 AM to 9:00 AM

Wednesday, December 06, 2017



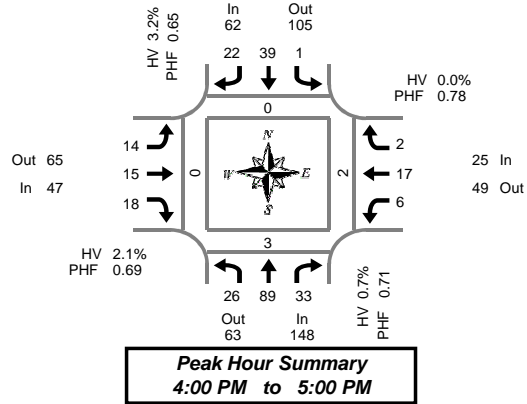
Approach	PHF	HV%	Volume
EB	0.65	5.1%	39
WB	0.79	1.8%	57
NB	0.59	15.6%	45
SB	0.73	2.7%	73
Intersection	0.69	5.6%	214

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & W 10th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	2	3	2	0	0	3	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
4:05 PM	2	9	4	0	0	4	2	0	0	2	1	0	0	2	0	0	0	2	0	0	
4:10 PM	3	14	3	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	
4:15 PM	3	9	5	0	0	4	4	0	3	2	2	0	1	0	0	0	0	0	0	0	
4:20 PM	3	4	2	0	0	6	1	0	1	1	1	0	1	3	0	0	0	0	0	0	
4:25 PM	3	11	4	0	0	1	1	0	0	1	4	0	0	0	0	0	0	0	2	0	
4:30 PM	3	5	4	0	0	2	1	0	1	1	2	0	0	1	0	0	0	0	0	0	
4:35 PM	1	5	0	0	1	2	4	0	1	0	3	0	0	2	0	0	0	0	0	0	
4:40 PM	3	6	1	0	0	1	1	0	0	1	0	0	2	2	0	0	0	0	0	0	
4:45 PM	1	8	3	0	0	5	2	0	3	3	2	0	0	1	1	0	0	0	0	0	
4:50 PM	2	8	2	0	0	2	4	0	3	1	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	7	3	0	0	9	2	0	1	2	2	0	0	5	0	0	0	0	0	0	
5:00 PM	2	6	0	0	1	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	
5:05 PM	3	6	5	0	0	0	2	0	2	1	2	0	1	1	0	0	0	0	0	0	
5:10 PM	1	7	2	0	0	1	0	0	1	2	0	0	3	3	0	0	0	0	0	1	
5:15 PM	1	9	2	0	0	3	1	0	2	2	1	0	0	1	0	0	0	0	0	0	
5:20 PM	2	3	5	0	0	5	1	0	2	5	0	0	1	3	0	0	0	0	0	0	
5:25 PM	2	3	2	0	0	1	1	0	1	2	1	0	2	0	0	0	0	0	0	0	
5:30 PM	3	11	7	0	0	5	1	0	2	1	0	0	0	0	1	0	0	0	0	0	
5:35 PM	1	9	4	0	0	4	2	0	0	0	1	0	0	0	0	0	0	0	0	1	
5:40 PM	0	6	1	0	0	4	1	0	1	3	1	0	0	1	0	0	0	0	0	0	
5:45 PM	3	5	6	0	0	6	5	0	1	4	1	0	2	0	1	0	0	0	0	0	
5:50 PM	0	8	3	0	1	6	1	0	1	1	2	0	1	0	0	0	0	0	0	0	
5:55 PM	3	7	6	0	0	0	3	0	2	2	1	0	0	1	1	0	0	0	0	0	
Total Survey	47	169	76	0	3	74	41	0	29	39	29	0	17	28	5	0	0	3	2	2	

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	7	26	9	0	0	7	2	0	1	3	2	0	2	3	1	0	0	0	3	0	
4:15 PM	9	24	11	0	0	11	6	0	4	4	7	0	2	3	0	0	0	0	0	2	
4:30 PM	7	16	5	0	1	5	6	0	2	2	5	0	2	5	0	0	0	0	0	0	
4:45 PM	3	23	8	0	0	16	8	0	7	6	4	0	0	6	1	0	0	0	0	0	
5:00 PM	6	19	7	0	1	1	3	0	3	4	3	0	5	5	0	0	0	0	0	1	
5:15 PM	5	15	9	0	0	9	3	0	5	9	2	0	3	4	0	0	0	0	0	0	
5:30 PM	4	26	12	0	0	13	4	0	3	4	2	0	0	1	1	0	0	0	0	1	
5:45 PM	6	20	15	0	1	12	9	0	4	7	4	0	3	1	2	0	0	0	0	0	
Total Survey	47	169	76	0	3	74	41	0	29	39	29	0	17	28	5	0	0	3	2	2	

Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	148	63	211	0	62	105	167	0	47	65	112	0	25	49	74	0	0	3	2	0	
%HV	0.7%				3.2%				2.1%				0.0%				1.4%				
PHF	0.71				0.65				0.69				0.78				0.86				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	26	89	33	148	1	39	22	62	14	15	18	47	6	17	2	25	
%HV	0.0%	1.1%	0.0%	0.7%	0.0%	0.0%	9.1%	3.2%	0.0%	0.0%	5.6%	2.1%	0.0%	0.0%	0.0%	0.0%	
PHF	0.72	0.70	0.69	0.71	0.25	0.61	0.69	0.65	0.50	0.63	0.50	0.69	0.50	0.71	0.50	0.78	

Rolling Hour Summary

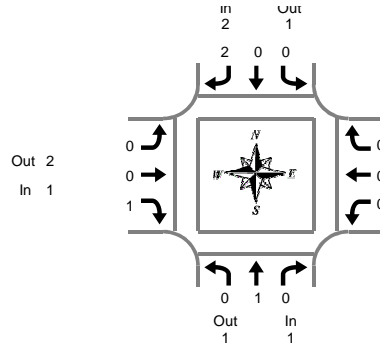
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	26	89	33	0	1	39	22	0	14	15	18	0	6	17	2	0	0	3	2	0	
4:15 PM	25	82	31	0	2	33	23	0	16	16	19	0	9	19	1	0	0	0	2	1	
4:30 PM	21	73	29	0	2	31	20	0	17	21	14	0	10	20	1	0	0	0	0	1	
4:45 PM	18	83	36	0	1	39	18	0	18	23	11	0	8	16	2	0	0	0	0	2	
5:00 PM	21	80	43	0	2	35	19	0	15	24	11	0	11	11	3	0	0	0	0	2	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:00 PM to 5:00 PM

Aspen Ave & W 10th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	3
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	2
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	2	1	4	0	0	2	2	0	1	2	3	0	0	0	0	0	9

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:30 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	2	1	4	0	0	2	2	0	1	2	3	0	0	0	0	0	9

Heavy Vehicle Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound W 10th St			Westbound W 10th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	1	2	2	1	3	1	2	3	0	0	0	4
PHF	0.25			0.25			0.25			0.00			0.25

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
Volume	0	1	0	1	0	0	2	2	0	0	1	1	0	0	0	0	0	4
PHF	0.00	0.25	0.00	0.25	0.00	0.00	0.25	0.25	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound W 10th St				Westbound W 10th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	0	1	0	0	2	2	0	0	1	1	0	0	0	0	0	4
4:15 PM	1	0	0	1	0	0	2	2	0	0	2	2	0	0	0	0	0	5
4:30 PM	1	0	0	1	0	0	0	0	0	1	1	2	0	0	0	0	0	3
4:45 PM	1	1	1	3	0	0	0	0	0	1	1	2	0	0	0	0	0	5
5:00 PM	1	1	1	3	0	0	0	0	0	1	1	2	0	0	0	0	0	5

Peak Hour Summary

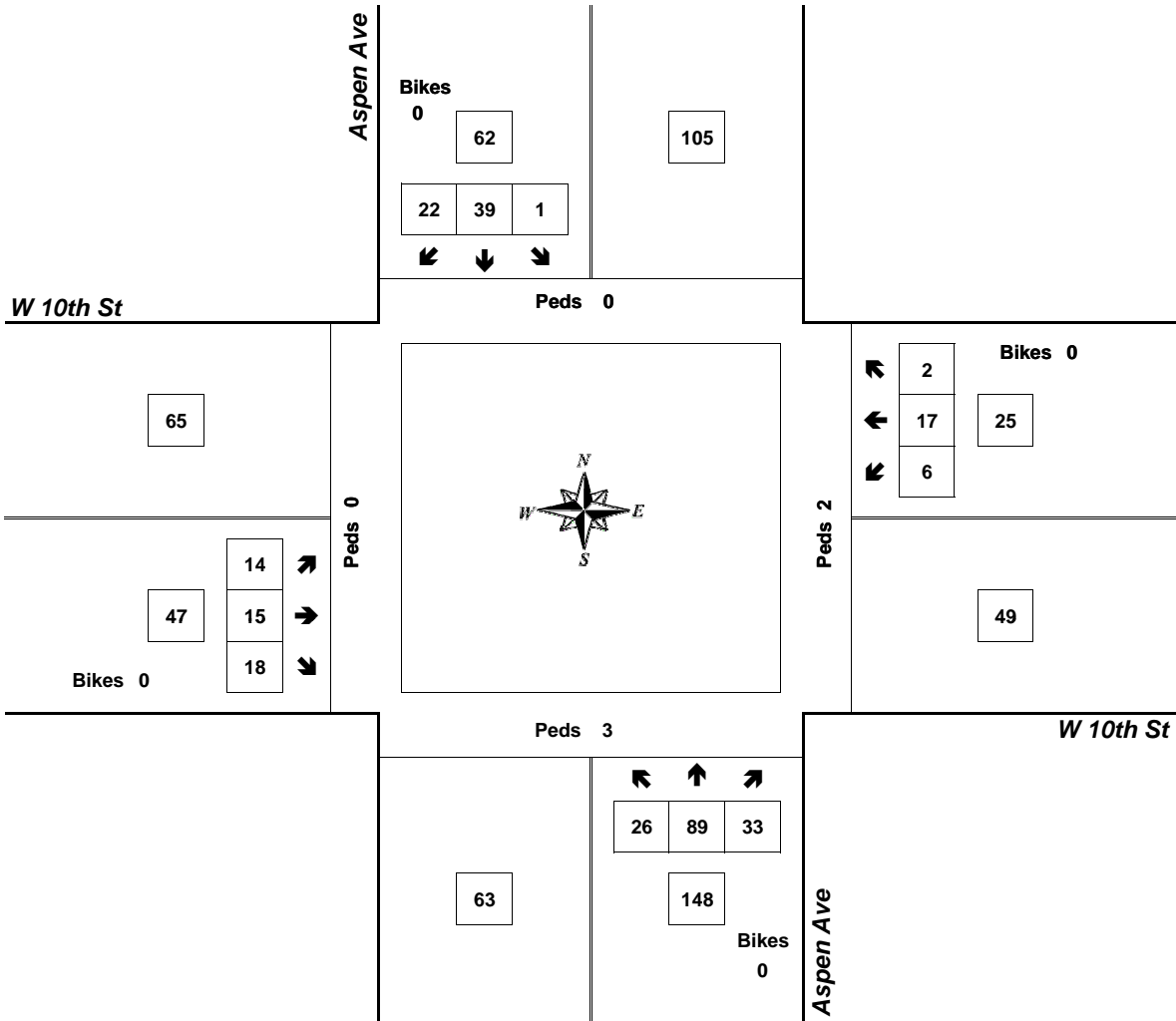


Clay Carney
(503) 833-2740

Aspen Ave & W 10th St

4:00 PM to 5:00 PM

Wednesday, December 06, 2017



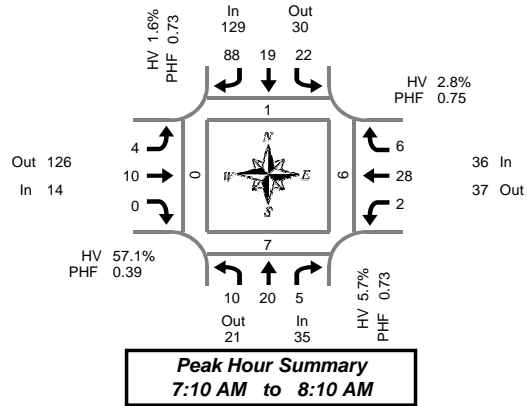
Approach	PHF	HV%	Volume
EB	0.69	2.1%	47
WB	0.78	0.0%	25
NB	0.71	0.7%	148
SB	0.65	3.2%	62
Intersection	0.86	1.4%	282

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 5th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	1	0	0	0	1	7	0	0	0	0	1	1	1	0	12	0	0	0	0	
7:05 AM	0	1	0	0	1	5	6	0	0	0	0	0	1	0	0	14	0	0	0	0	
7:10 AM	2	1	0	0	2	2	9	0	0	0	0	0	3	0	0	19	0	3	3	0	
7:15 AM	1	1	0	0	1	2	11	0	0	0	0	1	1	1	0	19	0	1	0	0	
7:20 AM	0	0	0	0	3	2	12	0	0	0	0	0	0	0	0	17	0	0	0	0	
7:25 AM	0	1	1	0	3	0	10	0	2	0	0	0	2	0	0	19	1	0	0	0	
7:30 AM	0	2	0	0	0	1	2	0	0	0	0	0	4	0	0	9	0	0	0	0	
7:35 AM	2	4	1	0	2	2	5	0	0	0	0	1	2	0	0	19	0	0	2	0	
7:40 AM	0	2	0	0	2	2	7	0	1	0	0	0	2	0	0	16	0	0	0	0	
7:45 AM	1	1	1	0	2	1	3	0	0	2	0	0	3	1	0	15	0	0	0	0	
7:50 AM	0	2	0	0	0	2	6	0	0	0	0	0	3	0	0	13	0	1	0	0	
7:55 AM	2	3	0	0	0	2	10	0	1	1	0	0	2	2	0	23	0	1	0	0	
8:00 AM	1	1	2	0	5	1	4	0	0	3	0	0	0	2	0	19	0	1	1	0	
8:05 AM	1	2	0	0	2	2	9	0	0	4	0	0	4	2	0	26	0	0	0	0	
8:10 AM	0	1	0	0	0	0	5	0	0	0	0	1	1	0	0	8	0	0	0	0	
8:15 AM	0	3	0	0	0	1	8	0	0	3	0	0	1	0	0	16	0	0	3	0	
8:20 AM	0	1	0	0	1	0	5	0	0	1	0	0	1	1	0	10	0	1	0	0	
8:25 AM	0	1	0	0	1	1	4	0	1	0	0	0	1	0	0	9	0	0	0	0	
8:30 AM	0	2	0	0	0	3	6	0	0	0	0	0	2	1	0	14	0	0	0	0	
8:35 AM	1	2	0	0	2	3	6	0	1	0	1	0	1	1	0	18	0	0	0	0	
8:40 AM	0	3	1	0	1	1	1	0	1	0	0	0	2	0	0	10	0	0	0	0	
8:45 AM	0	5	0	0	1	4	3	0	1	0	0	0	0	0	0	14	0	2	2	0	
8:50 AM	1	5	0	0	8	8	8	0	2	2	1	0	1	1	3	40	0	0	0	0	
8:55 AM	0	6	0	0	4	3	2	0	1	2	0	0	1	1	1	21	0	0	0	0	
Total Survey	12	51	6	0	41	49	149	0	11	18	2	0	6	41	14	400	1	10	11	0	

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	2	3	0	0	3	8	22	0	0	0	0	1	5	1	0	45	0	3	3	0	
7:15 AM	1	2	1	0	7	4	33	0	2	0	0	1	3	1	0	55	1	1	0	0	
7:30 AM	2	8	1	0	4	5	14	0	1	0	0	1	8	0	0	44	0	0	2	0	
7:45 AM	3	6	1	0	2	5	19	0	1	3	0	0	8	3	0	51	0	2	0	0	
8:00 AM	2	4	2	0	7	3	18	0	0	7	0	0	1	7	2	53	0	1	1	0	
8:15 AM	0	5	0	0	2	2	17	0	1	4	0	0	3	1	0	35	0	1	3	0	
8:30 AM	1	7	1	0	3	7	13	0	2	0	1	0	5	2	0	42	0	0	0	0	
8:45 AM	1	16	0	0	13	15	13	0	4	4	1	0	2	2	4	75	0	2	2	0	
Total Survey	12	51	6	0	41	49	149	0	11	18	2	0	6	41	14	400	1	10	11	0	

Peak Hour Summary

7:10 AM to 8:10 AM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	35	21	56	0	129	30	159	0	14	126	140	0	36	37	73	0	214	1	7	6	0
%HV	5.7%				1.6%				57.1%				2.8%				6.1%				
PHF	0.73				0.73				0.39				0.75				0.79				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	10	20	5	35	22	19	88	129	4	10	0	14	2	28	6	36	214
%HV	0.0%	5.0%	20.0%	5.7%	0.0%	0.0%	2.3%	1.6%	25.0%	70.0%	0.0%	57.1%	0.0%	0.0%	16.7%	2.8%	6.1%
PHF	0.63	0.63	0.63	0.73	0.79	0.79	0.67	0.73	0.50	0.31	0.00	0.39	0.50	0.88	0.38	0.75	0.79

Rolling Hour Summary

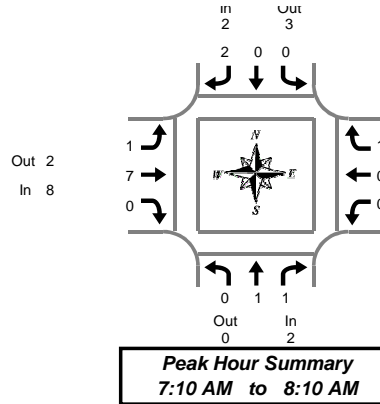
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	8	19	3	0	16	22	88	0	4	3	0	0	3	24	5	0	195	1	6	5	0
7:15 AM	8	20	5	0	20	17	84	0	4	10	0	0	3	26	6	0	203	1	4	3	0
7:30 AM	7	23	4	0	15	15	68	0	3	14	0	0	2	26	6	0	183	0	4	6	0
7:45 AM	6	22	4	0	14	17	67	0	4	14	1	0	1	23	8	0	181	0	4	4	0
8:00 AM	4	32	3	0	25	27	61	0	7	15	2	0	3	17	9	0	205	0	4	6	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 5th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55 AM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	1	1	1	3
8:00 AM	0	0	1	1	0	0	0	0	0	3	0	3	0	0	0	0	0	4
8:05 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	4
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	3
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:35 AM	0	1	0	1	0	1	1	2	1	0	1	2	0	0	0	0	0	5
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
8:50 AM	0	1	0	1	1	0	0	1	0	1	0	1	1	0	1	2	1	5
8:55 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	2
Total Survey	0	6	1	7	2	2	3	7	2	10	1	13	1	0	2	3	30	30

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	1	1	1	3
8:00 AM	0	0	1	1	0	0	0	0	0	7	0	7	0	0	0	0	0	8
8:15 AM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	3
8:30 AM	0	2	0	2	0	1	1	2	1	0	1	2	0	0	0	0	0	6
8:45 AM	0	1	0	1	2	1	0	3	0	2	0	2	1	0	1	2	1	8
Total Survey	0	6	1	7	2	2	3	7	2	10	1	13	1	0	2	3	30	30

Heavy Vehicle Peak Hour Summary 7:10 AM to 8:10 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 5th St			Westbound 5th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	0	2	2	3	5	8	2	10	1	8	9	13
PHF	0.50			0.50			0.25			0.25			0.30

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	1	1	2	0	0	2	2	1	7	0	8	0	0	1	1	13
PHF	0.00	0.25	0.25	0.50	0.00	0.00	0.50	0.50	0.25	0.25	0.00	0.25	0.00	0.00	0.25	0.25	0.30

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	1	0	1	0	0	2	2	1	0	0	1	0	0	1	1	5
7:15 AM	0	1	1	2	0	0	2	2	1	7	0	8	0	0	1	1	13
7:30 AM	0	3	1	4	0	0	1	1	1	8	0	9	0	0	1	1	15
7:45 AM	0	4	1	5	0	1	2	3	2	8	1	11	0	0	1	1	20
8:00 AM	0	5	1	6	2	2	1	5	1	10	1	12	1	0	1	2	25

Peak Hour Summary

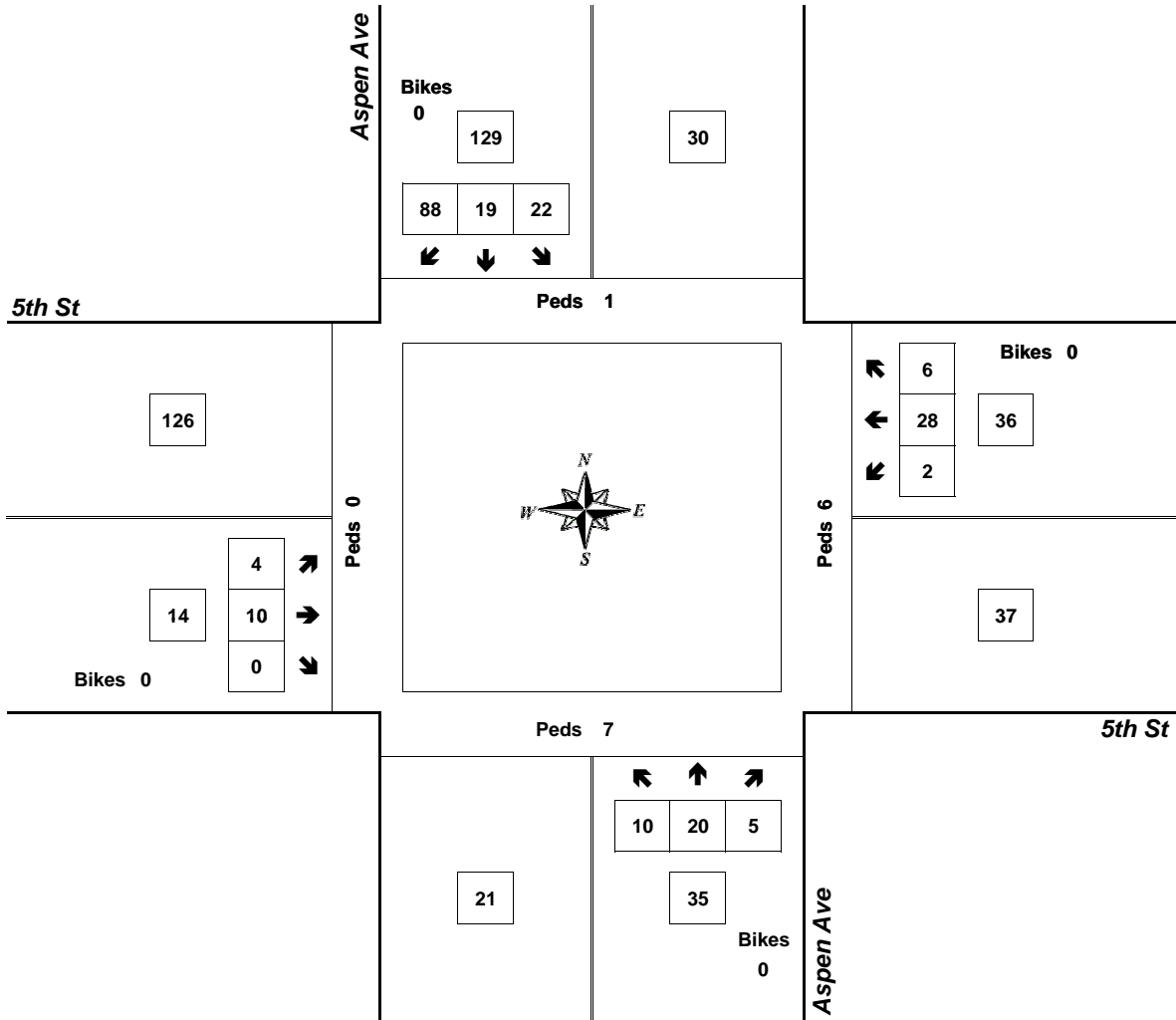


Clay Carney
(503) 833-2740

Aspen Ave & 5th St

7:10 AM to 8:10 AM

Wednesday, December 06, 2017



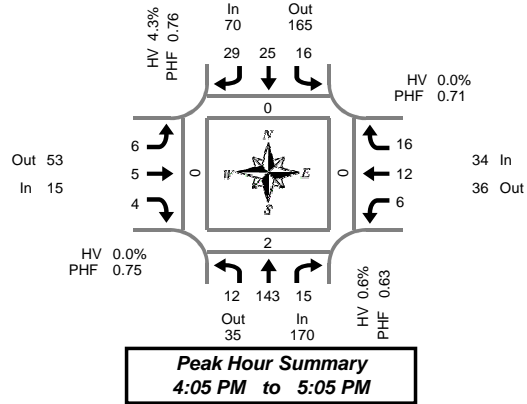
Approach	PHF	HV%	Volume
EB	0.39	57.1%	14
WB	0.75	2.8%	36
NB	0.73	5.7%	35
SB	0.73	1.6%	129
Intersection	0.79	6.1%	214

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 5th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	7	1	0	1	2	1	0	0	0	0	0	0	2	1	0	15	0	1	2	0
4:05 PM	1	23	2	0	1	2	2	0	0	0	1	0	0	0	1	0	33	0	2	0	0
4:10 PM	3	18	1	0	0	0	2	0	2	2	0	0	0	2	1	0	31	0	0	0	0
4:15 PM	2	16	2	0	0	5	2	0	0	0	0	0	0	0	1	0	28	0	0	0	0
4:20 PM	0	11	1	0	1	5	2	0	0	0	0	0	0	4	1	0	25	0	0	0	0
4:25 PM	1	19	0	0	3	3	1	0	2	0	0	0	2	0	1	0	32	0	0	0	0
4:30 PM	0	7	1	0	2	1	2	0	1	0	1	0	2	0	2	0	19	0	0	0	0
4:35 PM	1	5	1	0	1	2	1	0	0	1	0	0	1	0	1	0	14	0	0	0	0
4:40 PM	0	6	2	0	1	2	2	0	0	0	0	0	0	1	1	0	15	0	0	0	0
4:45 PM	1	13	2	0	2	2	4	0	0	0	0	0	1	2	0	0	27	0	0	0	0
4:50 PM	1	8	0	0	1	0	2	0	1	1	1	0	0	0	2	0	17	0	0	0	0
4:55 PM	1	9	1	0	3	2	7	0	0	0	0	0	1	2	2	0	28	0	0	0	0
5:00 PM	1	8	2	0	1	1	2	0	0	1	1	0	0	2	1	0	20	0	0	0	0
5:05 PM	0	7	0	0	0	2	4	0	1	0	0	0	1	1	2	0	18	0	0	0	0
5:10 PM	0	17	1	0	1	3	2	0	0	0	0	0	0	1	1	0	26	0	0	0	0
5:15 PM	1	7	1	0	2	2	2	0	0	1	0	0	0	1	0	0	17	0	0	0	0
5:20 PM	1	10	3	0	1	1	5	0	0	0	0	0	1	3	1	0	26	0	0	0	0
5:25 PM	1	10	3	0	0	2	1	0	1	0	0	0	0	1	0	1	19	0	0	0	0
5:30 PM	0	19	0	0	0	3	2	0	0	0	0	0	0	0	0	0	24	0	0	0	0
5:35 PM	0	12	0	0	0	2	1	0	0	0	0	0	1	1	1	0	18	0	0	0	0
5:40 PM	0	12	1	0	1	2	4	0	1	2	0	0	0	1	0	0	24	0	0	0	0
5:45 PM	0	10	3	0	2	3	2	0	0	1	1	0	1	2	2	0	27	0	0	0	0
5:50 PM	0	14	0	0	1	3	3	0	0	1	1	0	0	1	1	0	25	0	2	0	0
5:55 PM	1	11	2	0	0	2	0	0	0	0	1	0	0	0	2	0	19	0	3	0	0
Total Survey	16	279	30	0	25	52	56	0	9	10	7	0	10	26	27	1	547	0	8	2	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	4	48	4	0	2	4	5	0	2	2	1	0	0	4	3	0	79	0	3	2	0
4:15 PM	3	46	3	0	4	13	5	0	2	0	0	0	2	4	3	0	85	0	0	0	0
4:30 PM	1	18	4	0	4	5	5	0	1	1	1	0	3	1	4	0	48	0	0	0	0
4:45 PM	3	30	3	0	6	4	13	0	1	1	1	0	1	3	6	0	72	0	0	0	0
5:00 PM	1	32	3	0	2	6	8	0	1	1	1	0	1	4	4	0	64	0	0	0	0
5:15 PM	3	27	7	0	3	5	8	0	1	1	0	0	1	5	1	1	62	0	0	0	0
5:30 PM	0	43	1	0	1	7	7	0	1	2	0	0	1	2	1	0	66	0	0	0	0
5:45 PM	1	35	5	0	3	8	5	0	0	2	3	0	1	3	5	0	71	0	5	0	0
Total Survey	16	279	30	0	25	52	56	0	9	10	7	0	10	26	27	1	547	0	8	2	0

Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	170	35	205	0	70	165	235	0	15	53	68	0	34	36	70	0	289	0	2	0	0
%HV	0.6%				4.3%				0.0%				0.0%				1.4%				
PHF	0.63				0.76				0.75				0.71				0.79				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	12	143	15	170	16	25	29	70	6	5	4	15	6	12	16	34	289
%HV	0.0%	0.7%	0.0%	0.6%	12.5%	4.0%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
PHF	0.50	0.63	0.75	0.63	0.67	0.48	0.56	0.76	0.50	0.63	0.50	0.75	0.30	0.50	0.67	0.71	0.79

Rolling Hour Summary

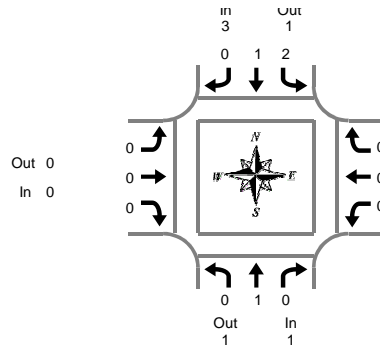
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	11	142	14	0	16	26	28	0	6	4	3	0	6	12	16	0	284	0	3	2	0
4:15 PM	8	126	13	0	16	28	31	0	5	3	3	0	7	12	17	0	269	0	0	0	0
4:30 PM	8	107	17	0	15	20	34	0	4	4	3	0	6	13	15	1	246	0	0	0	0
4:45 PM	7	132	14	0	12	22	36	0	4	5	2	0	4	14	12	1	264	0	0	0	0
5:00 PM	5	137	16	0	9	26	28	0	3	6	4	0	4	14	11	1	263	0	5	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:05 PM to 5:05 PM

Aspen Ave & 5th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:10 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	2	0	3	2	3	0	5	0	0	0	0	0	1	0	1	0	9

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	2
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2
Total Survey	1	2	0	3	2	3	0	5	0	0	0	0	0	1	0	1	0	9

Heavy Vehicle Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 5th St			Westbound 5th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	1	2	3	1	4	0	0	0	0	2	2	4
PHF	0.25			0.38			0.00			0.00			0.50

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
Volume	0	1	0	1	2	1	0	3	0	0	0	0	0	0	0	0	0	4
PHF	0.00	0.25	0.00	0.25	0.25	0.25	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 5th St				Westbound 5th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	0	1	2	1	0	3	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	1	0	1	2	2	0	4	0	0	0	0	0	0	0	0	0	5
4:30 PM	1	1	0	2	2	1	0	3	0	0	0	0	0	0	0	0	0	5
4:45 PM	1	1	0	2	2	1	0	3	0	0	0	0	0	0	0	0	0	5
5:00 PM	1	1	0	2	0	2	0	2	0	0	0	0	0	0	1	0	1	5

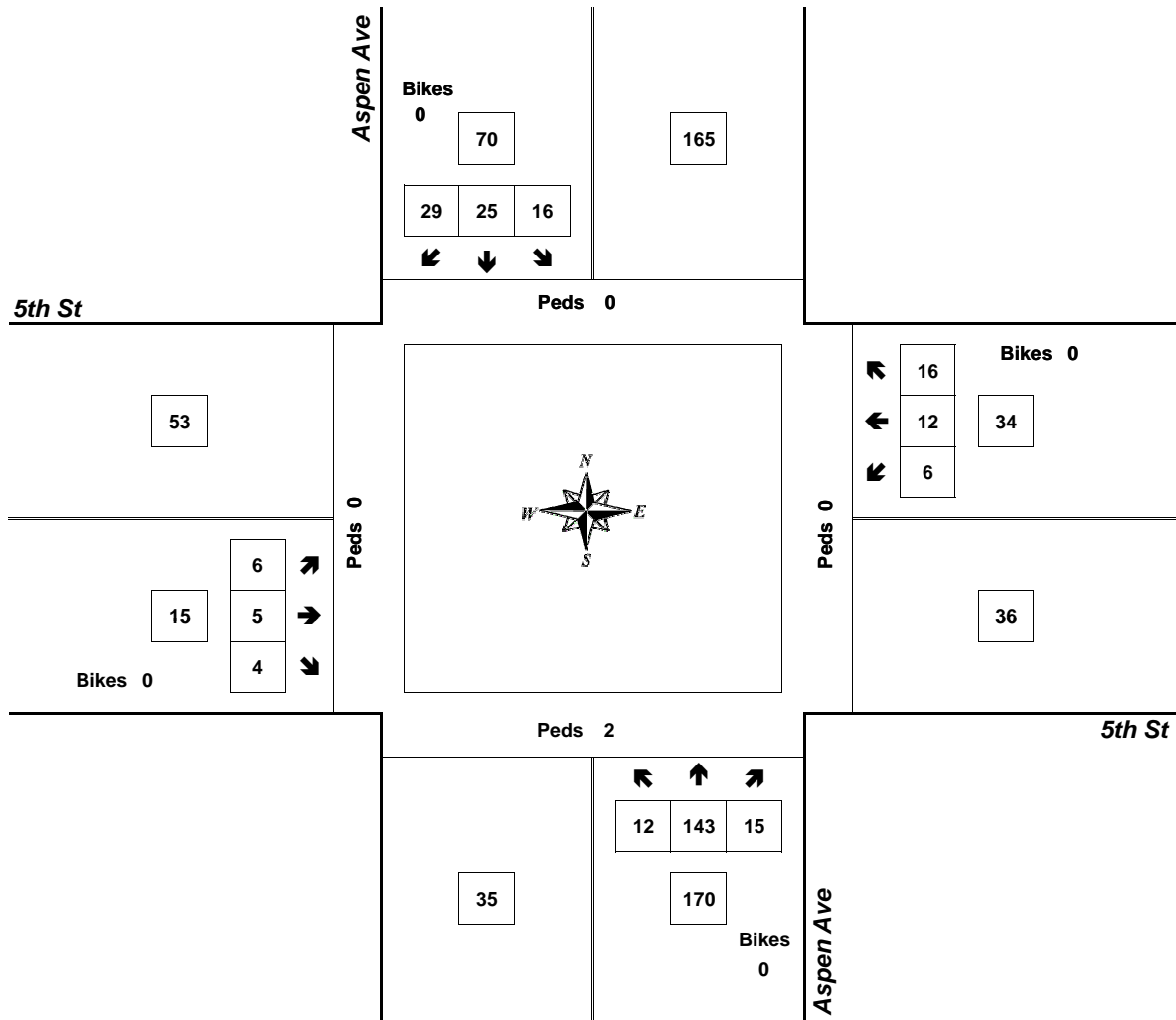
Peak Hour Summary



Clay Carney
(503) 833-2740

Aspen Ave & 5th St

4:05 PM to 5:05 PM
Wednesday, December 06, 2017



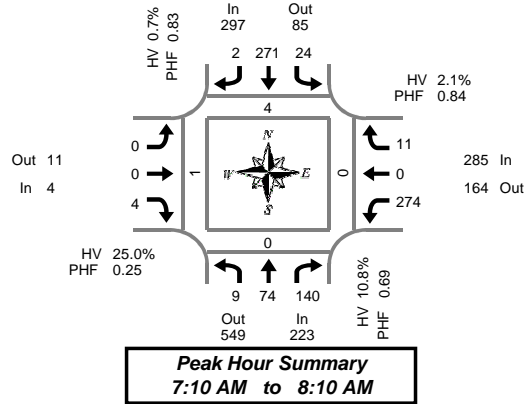
Approach	PHF	HV%	Volume
EB	0.75	0.0%	15
WB	0.71	0.0%	34
NB	0.63	0.6%	170
SB	0.76	4.3%	70
Intersection	0.79	1.4%	289

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



NW Pacific Hwy & W 4th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	5	7	0	2	20	0	0	0	0	0	0	15	0	1	0	50	0	0	0	0
7:05 AM	0	2	7	0	1	22	0	0	0	0	0	0	24	0	0	0	56	0	0	0	0
7:10 AM	0	3	8	0	0	25	0	0	0	0	0	0	34	0	0	0	70	0	0	0	0
7:15 AM	0	4	5	0	1	36	0	0	0	0	0	0	18	0	2	0	66	0	0	0	0
7:20 AM	1	1	9	0	1	21	0	0	0	0	0	0	20	0	2	0	55	0	0	0	0
7:25 AM	1	3	6	0	2	28	0	0	0	0	0	0	18	0	1	0	59	3	0	0	1
7:30 AM	1	4	13	0	3	20	0	0	0	0	0	0	33	0	0	0	74	0	0	0	0
7:35 AM	0	9	10	0	1	17	0	0	0	0	0	0	25	0	1	0	63	0	0	0	0
7:40 AM	1	6	10	0	1	28	1	0	0	0	0	0	24	0	2	0	73	0	0	0	0
7:45 AM	1	6	22	0	4	16	0	0	0	0	0	0	17	0	1	0	67	0	0	0	0
7:50 AM	3	10	17	0	5	18	0	0	0	0	0	0	23	0	1	0	77	0	0	0	0
7:55 AM	0	11	11	0	3	21	0	0	0	0	0	0	23	0	1	0	70	0	0	0	0
8:00 AM	0	6	16	0	2	14	0	0	0	0	1	0	19	0	0	0	58	1	0	0	0
8:05 AM	1	11	13	0	1	27	1	0	0	0	3	0	20	0	0	0	77	0	0	0	0
8:10 AM	0	12	14	0	0	14	0	0	0	0	0	0	15	0	1	0	56	1	0	0	0
8:15 AM	0	8	10	0	1	18	0	0	0	0	0	0	21	0	2	0	60	3	0	0	0
8:20 AM	0	4	13	0	1	19	0	0	0	0	1	0	12	1	3	0	54	0	0	0	0
8:25 AM	1	5	8	0	1	20	0	0	0	0	0	0	16	0	2	0	53	0	0	0	0
8:30 AM	0	6	10	0	1	23	0	0	0	0	0	0	19	0	1	0	60	0	0	0	0
8:35 AM	0	7	8	0	3	18	0	0	0	0	0	0	19	0	2	0	57	0	0	0	0
8:40 AM	0	9	13	0	5	18	0	0	0	0	0	0	18	0	3	0	66	0	0	0	0
8:45 AM	0	7	15	0	4	9	0	0	0	0	0	0	14	0	2	0	51	0	0	2	0
8:50 AM	0	9	13	0	7	17	0	0	0	0	0	0	24	1	2	0	73	0	0	0	0
8:55 AM	0	8	20	0	15	10	0	0	0	0	0	0	21	0	7	0	81	0	0	0	0
Total Survey	10	156	278	0	65	479	2	0	0	0	5	0	492	2	37	0	1,526	8	0	2	1

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	10	22	0	3	67	0	0	0	0	0	0	73	0	1	0	176	0	0	0	0
7:15 AM	2	8	20	0	4	85	0	0	0	0	0	0	56	0	5	0	180	3	0	0	1
7:30 AM	2	19	33	0	5	65	1	0	0	0	0	0	82	0	3	0	210	0	0	0	0
7:45 AM	4	27	50	0	12	55	0	0	0	0	0	0	63	0	3	0	214	0	0	0	0
8:00 AM	1	29	43	0	3	55	1	0	0	0	4	0	54	0	1	0	191	2	0	0	0
8:15 AM	1	17	31	0	3	57	0	0	0	0	1	0	49	1	7	0	167	3	0	0	0
8:30 AM	0	22	31	0	9	59	0	0	0	0	0	0	56	0	6	0	183	0	0	0	0
8:45 AM	0	24	48	0	26	36	0	0	0	0	0	0	59	1	11	0	205	0	0	2	0
Total Survey	10	156	278	0	65	479	2	0	0	0	5	0	492	2	37	0	1,526	8	0	2	1

Peak Hour Summary

7:10 AM to 8:10 AM

By Approach	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	223	549	772	0	297	85	382	0	4	11	15	0	285	164	449	0	809	4	0	0	1
%HV	10.8%				0.7%				25.0%				2.1%				4.1%				
PHF	0.69				0.83				0.25				0.84				0.93				

By Movement	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	9	74	140	223	24	271	2	297	0	0	4	4	274	0	11	285	809
%HV	0.0%	16.2%	8.6%	10.8%	0.0%	0.7%	0.0%	0.7%	0.0%	0.0%	25.0%	25.0%	2.2%	0.0%	0.0%	2.1%	4.1%
PHF	0.45	0.66	0.70	0.69	0.50	0.80	0.50	0.83	0.00	0.00	0.25	0.25	0.84	0.00	0.55	0.84	0.93

Rolling Hour Summary

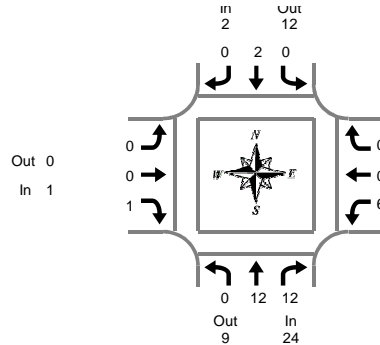
7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	8	64	125	0	24	272	1	0	0	0	0	0	274	0	12	0	780	3	0	0	1
7:15 AM	9	83	146	0	24	260	2	0	0	0	0	0	255	0	12	0	795	5	0	0	1
7:30 AM	8	92	157	0	23	232	2	0	0	0	5	0	248	1	14	0	782	5	0	0	0
7:45 AM	6	95	155	0	27	226	1	0	0	0	5	0	222	1	17	0	755	5	0	0	0
8:00 AM	2	92	153	0	41	207	1	0	0	0	5	0	218	2	25	0	746	5	0	2	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:10 AM to 8:10 AM

NW Pacific Hwy & W 4th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
7:10 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	1	1	0	2	0	2	0	0	0	0	1	0	0	1	4
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:35 AM	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	2	3	0	0	0	0	0	0	0	0	1	0	0	1	4
7:50 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:55 AM	0	1	1	2	0	0	0	0	0	0	0	0	3	0	0	3	5
8:00 AM	0	3	3	6	0	0	0	0	0	0	1	1	1	0	0	1	8
8:05 AM	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
8:10 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	3	2	5	0	0	0	0	0	0	0	2	0	0	2	7	
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
8:30 AM	0	0	1	1	0	3	0	3	0	0	0	1	0	0	1	5	
8:35 AM	0	1	0	1	0	0	0	0	0	0	0	1	0	0	1	2	
8:40 AM	0	0	0	0	1	1	0	2	0	0	0	1	0	0	1	3	
8:45 AM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2	
8:50 AM	0	1	0	1	0	0	0	0	0	0	0	2	0	0	2	3	
8:55 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	2	
Total Survey	0	21	17	38	1	7	0	8	0	0	1	1	16	0	0	16	63

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	1	0	0	1	3
7:15 AM	0	0	1	1	0	2	0	2	0	0	0	0	1	0	0	1	4
7:30 AM	0	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	5
7:45 AM	0	3	3	6	0	0	0	0	0	0	0	4	0	0	4	10	
8:00 AM	0	10	3	13	0	0	0	0	0	0	1	1	1	0	0	1	15
8:15 AM	0	3	2	5	0	0	0	0	0	0	0	4	0	0	4	9	
8:30 AM	0	1	1	2	1	4	0	5	0	0	0	3	0	0	3	10	
8:45 AM	0	3	1	4	0	1	0	1	0	0	0	2	0	0	2	7	
Total Survey	0	21	17	38	1	7	0	8	0	0	1	1	16	0	0	16	63

Heavy Vehicle Peak Hour Summary

7:10 AM to 8:10 AM

By Approach	Northbound NW Pacific Hwy			Southbound NW Pacific Hwy			Eastbound W 4th St			Westbound W 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	24	9	33	2	12	14	1	0	1	6	12	18	33
PHF	0.46			0.25			0.25			0.38			0.46

By Movement	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	12	12	24	0	2	0	2	0	0	1	1	6	0	0	6	33
PHF	0.00	0.33	0.75	0.46	0.00	0.25	0.00	0.25	0.00	0.00	0.25	0.25	0.38	0.00	0.00	0.38	0.46

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	4	10	14	0	2	0	2	0	0	0	0	6	0	0	6	22
7:15 AM	0	14	11	25	0	2	0	2	0	0	1	1	6	0	0	6	34
7:30 AM	0	17	12	29	0	0	0	0	0	0	1	1	9	0	0	9	39
7:45 AM	0	17	9	26	1	4	0	5	0	0	1	1	12	0	0	12	44
8:00 AM	0	17	7	24	1	5	0	6	0	0	1	1	10	0	0	10	41

Peak Hour Summary

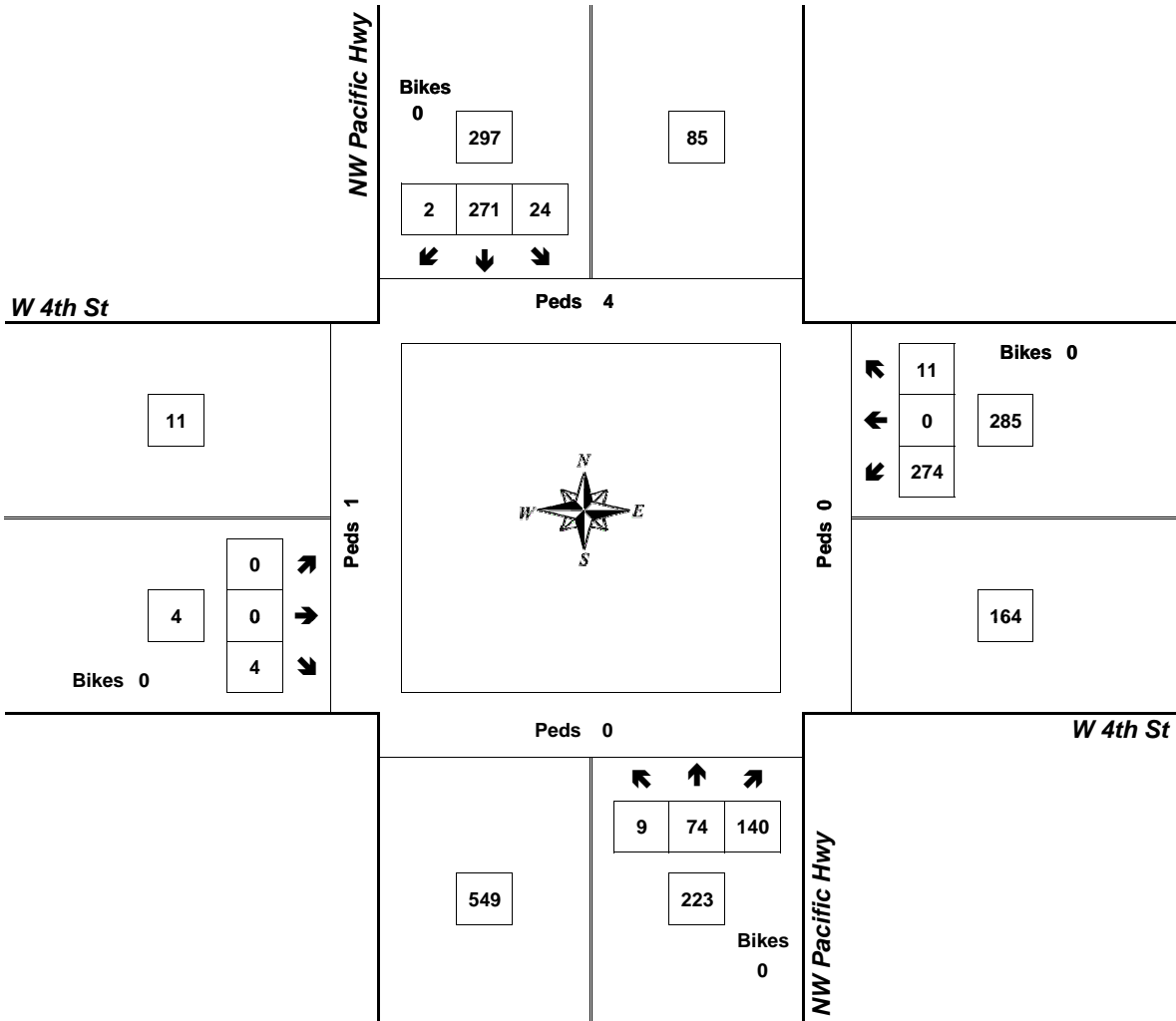


Clay Carney
(503) 833-2740

NW Pacific Hwy & W 4th St

7:10 AM to 8:10 AM

Wednesday, December 06, 2017



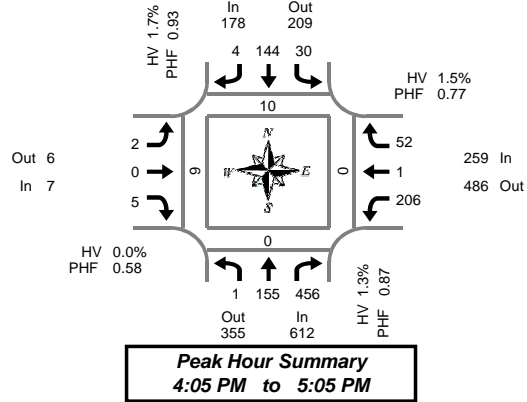
Approach	PHF	HV%	Volume
EB	0.25	25.0%	4
WB	0.84	2.1%	285
NB	0.69	10.8%	223
SB	0.83	0.7%	297
Intersection	0.93	4.1%	809

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



NW Pacific Hwy & W 4th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	9	31	0	2	17	0	0	1	0	0	0	11	0	4	0	75	0	0	0	0
4:05 PM	0	16	40	0	3	10	1	0	0	0	1	0	23	0	5	0	99	0	0	0	0
4:10 PM	0	14	50	0	3	11	0	0	0	0	1	0	25	0	4	0	108	0	0	0	0
4:15 PM	0	9	46	0	3	16	0	0	0	0	1	0	22	0	5	0	102	0	0	0	0
4:20 PM	0	13	35	0	6	8	1	0	0	0	0	0	16	0	4	0	83	3	0	0	3
4:25 PM	0	7	40	0	3	11	0	0	0	0	0	0	21	0	6	0	88	0	0	0	0
4:30 PM	0	10	34	0	1	11	0	0	0	0	0	0	9	1	2	0	68	1	0	0	1
4:35 PM	1	12	25	0	2	16	0	0	0	0	0	0	18	0	2	0	76	1	0	0	0
4:40 PM	0	10	36	0	2	9	0	0	0	0	1	0	8	0	7	0	73	0	0	0	0
4:45 PM	0	12	40	0	3	11	0	0	0	0	0	0	18	0	3	0	87	1	0	0	1
4:50 PM	0	14	33	0	2	10	1	0	0	0	0	0	22	0	5	0	87	1	0	0	3
4:55 PM	0	20	39	0	1	20	0	0	0	0	1	0	14	0	3	0	98	3	0	0	0
5:00 PM	0	18	38	0	1	11	1	0	2	0	0	0	10	0	6	0	87	0	0	0	1
5:05 PM	0	11	26	0	4	14	0	0	1	0	0	0	16	0	2	0	74	1	0	0	0
5:10 PM	0	13	47	0	0	14	0	0	1	0	0	0	11	0	3	0	89	0	0	0	0
5:15 PM	0	14	36	0	0	9	0	0	0	0	0	0	11	0	2	0	72	2	0	0	1
5:20 PM	0	13	39	0	2	8	0	0	0	0	0	0	13	0	3	0	78	0	0	0	0
5:25 PM	0	18	42	0	2	6	1	0	0	0	0	0	11	1	2	0	83	0	0	0	0
5:30 PM	0	11	40	0	3	13	0	0	0	0	0	0	12	0	1	0	80	2	0	0	0
5:35 PM	0	11	34	1	5	6	0	0	0	0	0	0	12	0	4	0	72	0	0	0	0
5:40 PM	0	15	41	0	1	10	1	0	0	0	0	0	9	0	4	0	81	0	0	0	0
5:45 PM	0	17	42	0	4	10	0	0	0	0	0	0	13	0	4	0	90	0	0	0	0
5:50 PM	0	11	41	0	3	13	0	0	0	0	0	0	18	0	1	0	87	1	0	0	0
5:55 PM	0	14	41	0	1	12	0	0	0	0	0	0	14	0	6	0	88	0	0	0	0
Total Survey	1	312	916	1	57	276	6	0	5	0	5	0	357	2	88	0	2,025	16	0	0	10

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	39	121	0	8	38	1	0	1	0	2	0	59	0	13	0	282	0	0	0	0
4:15 PM	0	29	121	0	12	35	1	0	0	0	1	0	59	0	15	0	273	3	0	0	3
4:30 PM	1	32	95	0	5	36	0	0	0	0	1	0	35	1	11	0	217	2	0	0	1
4:45 PM	0	46	112	0	6	41	1	0	0	0	1	0	54	0	11	0	272	5	0	0	4
5:00 PM	0	42	111	0	5	39	1	0	4	0	0	0	37	0	11	0	250	1	0	0	1
5:15 PM	0	45	117	0	4	23	1	0	0	0	0	0	35	1	7	0	233	2	0	0	1
5:30 PM	0	37	115	1	9	29	1	0	0	0	0	0	33	0	9	0	233	2	0	0	0
5:45 PM	0	42	124	0	8	35	0	0	0	0	0	0	45	0	11	0	265	1	0	0	0
Total Survey	1	312	916	1	57	276	6	0	5	0	5	0	357	2	88	0	2,025	16	0	0	10

Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	612	355	967	0	178	209	387	0	7	6	13	0	259	486	745	0	1,056	10	0	0	9
%HV	1.3%				1.7%				0.0%				1.5%				1.4%				
PHF	0.87				0.93				0.58				0.77				0.85				

By Movement	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	155	456	612	30	144	4	178	2	0	5	7	206	1	52	259	1,056
%HV	0.0%	1.9%	1.1%	1.3%	0.0%	2.1%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	1.5%	1.4%
PHF	0.25	0.75	0.84	0.87	0.63	0.88	0.50	0.93	0.25	0.00	0.42	0.58	0.74	0.25	0.87	0.77	0.85

Rolling Hour Summary

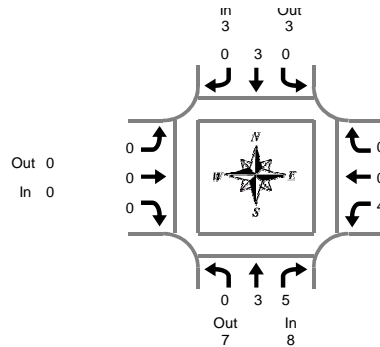
4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	146	449	0	31	150	3	0	1	0	5	0	207	1	50	0	1,044	10	0	0	8
4:15 PM	1	149	439	0	28	151	3	0	4	0	3	0	185	1	48	0	1,012	11	0	0	9
4:30 PM	1	165	435	0	20	139	3	0	4	0	2	0	161	2	40	0	972	10	0	0	7
4:45 PM	0	170	455	1	24	132	4	0	4	0	1	0	159	1	38	0	988	10	0	0	6
5:00 PM	0	166	467	1	26	126	3	0	4	0	0	0	150	1	38	0	981	6	0	0	2

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:05 PM to 5:05 PM

NW Pacific Hwy & W 4th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	2	2	0	3	0	3	0	0	0	0	1	0	0	1	6
4:05 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
4:10 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:20 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:25 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:40 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:10 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
5:35 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	4	8	12	1	10	0	11	0	0	0	0	8	0	0	8	31

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	6	6	0	4	0	4	0	0	0	0	2	0	0	2	12
4:15 PM	0	1	0	1	0	2	0	2	0	0	0	0	2	0	0	2	5
4:30 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
5:00 PM	0	0	1	1	0	1	0	1	0	0	0	0	2	0	0	2	4
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
Total Survey	0	4	8	12	1	10	0	11	0	0	0	0	8	0	0	8	31

Heavy Vehicle Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound NW Pacific Hwy			Southbound NW Pacific Hwy			Eastbound W 4th St			Westbound W 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	8	7	15	3	3	6	0	0	0	4	5	9	15
PHF	0.50			0.38			0.00			0.50			0.54

By Movement	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	3	5	8	0	3	0	3	0	0	0	0	4	0	0	4	15
PHF	0.00	0.38	0.31	0.50	0.00	0.38	0.00	0.38	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50	0.54

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Pacific Hwy				Southbound NW Pacific Hwy				Eastbound W 4th St				Westbound W 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	3	7	10	0	6	0	6	0	0	0	0	5	0	0	5	21
4:15 PM	0	3	2	5	0	3	0	3	0	0	0	0	5	0	0	5	13
4:30 PM	0	3	2	5	0	1	0	1	0	0	0	0	3	0	0	3	9
4:45 PM	0	2	1	3	1	3	0	4	0	0	0	0	3	0	0	3	10
5:00 PM	0	1	1	2	1	4	0	5	0	0	0	0	3	0	0	3	10

Peak Hour Summary

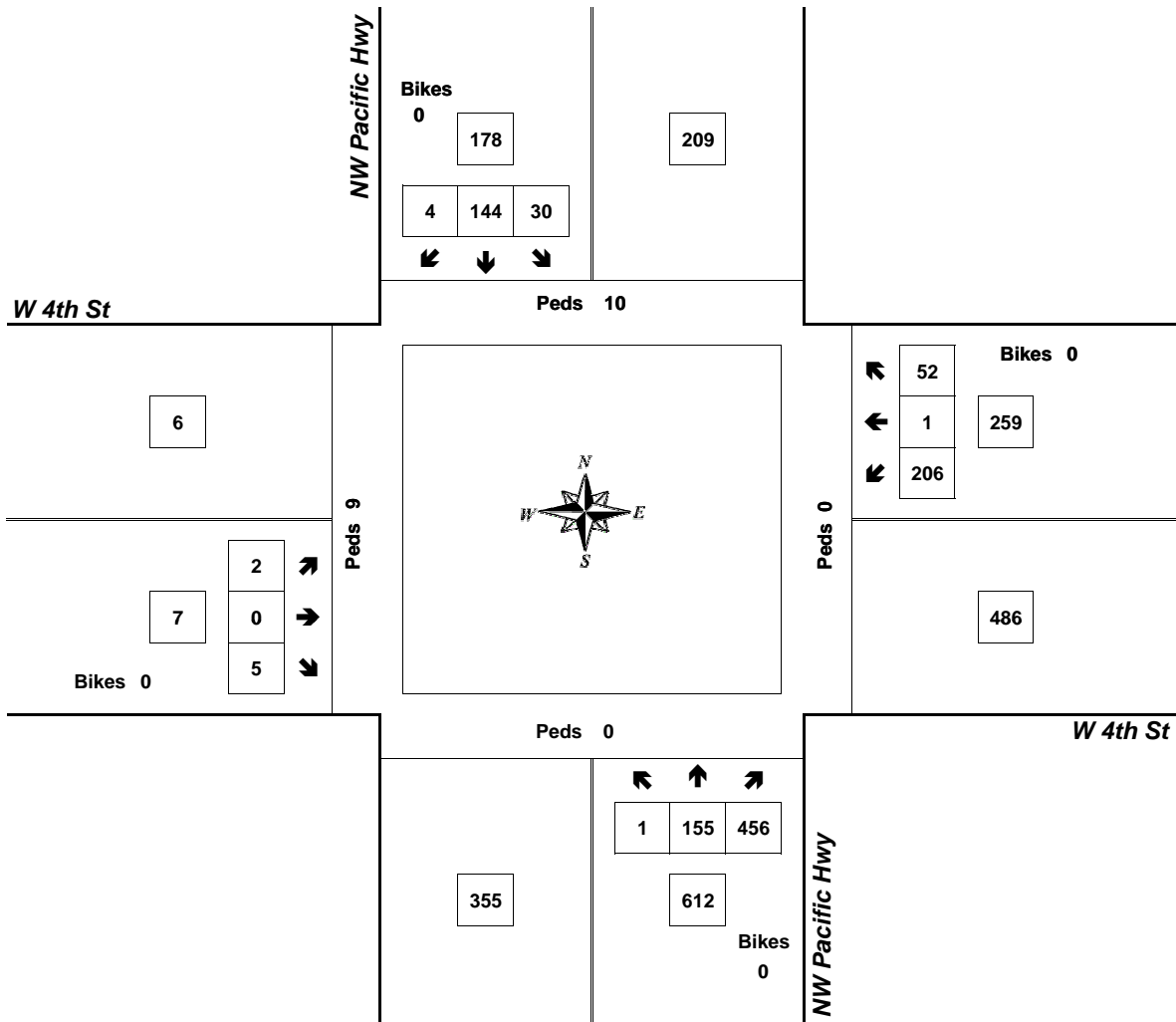


Clay Carney
(503) 833-2740

NW Pacific Hwy & W 4th St

4:05 PM to 5:05 PM

Wednesday, December 06, 2017



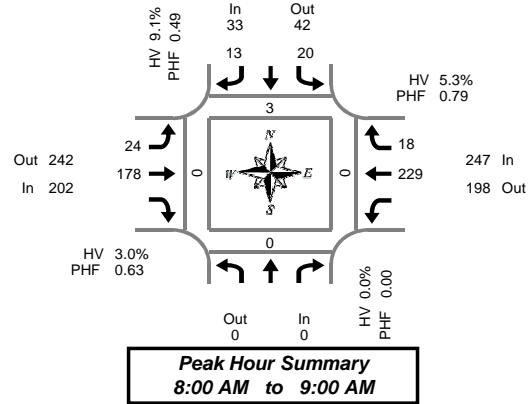
Approach	PHF	HV%	Volume
EB	0.58	0.0%	7
WB	0.77	1.5%	259
NB	0.87	1.3%	612
SB	0.93	1.7%	178
Intersection	0.85	1.4%	1,056

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 4th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St			Westbound 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes	North		South	East	West	
7:00 AM				0	1	1	0	0	9	0	14	1	0	26	0	0	0	0	
7:05 AM				0	3	1	0	1	9	0	30	1	0	45	0	0	0	0	
7:10 AM				0	2	1	0	2	5	0	26	0	0	36	0	0	0	0	
7:15 AM				0	2	1	0	1	7	0	21	1	0	33	0	0	0	0	
7:20 AM				0	1	1	0	0	9	0	19	0	0	30	0	0	0	0	
7:25 AM				0	0	0	0	0	7	0	20	1	0	28	0	0	0	0	
7:30 AM				0	0	1	0	2	14	0	31	0	0	48	0	0	0	0	
7:35 AM				0	1	2	0	3	7	0	25	4	0	42	0	0	0	0	
7:40 AM				0	1	0	0	2	12	0	25	1	0	41	0	0	0	0	
7:45 AM				0	1	1	0	2	22	0	15	1	0	42	0	0	0	0	
7:50 AM				0	2	0	0	3	21	0	27	1	0	54	0	0	0	0	
7:55 AM				0	2	0	0	3	10	0	18	4	1	37	0	0	0	0	
8:00 AM				0	1	0	0	3	14	0	18	1	0	37	0	0	0	0	
8:05 AM				0	0	2	0	2	12	0	15	1	0	32	0	0	0	0	
8:10 AM				0	0	2	0	2	11	0	13	0	0	28	0	0	0	0	
8:15 AM				0	0	1	0	2	10	0	23	1	0	37	3	0	0	0	
8:20 AM				0	0	0	0	2	10	0	13	1	0	26	0	0	0	0	
8:25 AM				0	0	1	0	0	12	0	23	0	0	36	0	0	0	0	
8:30 AM				0	2	1	0	0	9	0	15	2	0	29	0	0	0	0	
8:35 AM				0	1	3	0	1	13	0	28	2	0	48	0	0	0	0	
8:40 AM				0	1	1	0	3	16	0	12	1	0	34	0	0	0	0	
8:45 AM				0	3	0	0	3	19	0	18	2	0	45	0	0	0	0	
8:50 AM				0	9	1	0	2	15	0	25	4	0	56	0	0	0	0	
8:55 AM				0	3	1	0	4	37	0	26	3	0	74	0	0	0	0	
Total Survey				0	36	22	0	43	310	0	500	33	1	944	3	0	0	0	

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St			Westbound 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes	North		South	East	West	
7:00 AM				0	6	3	0	3	23	0	70	2	0	107	0	0	0	0	
7:15 AM				0	3	2	0	1	23	0	60	2	0	91	0	0	0	0	
7:30 AM				0	2	3	0	7	33	0	81	5	0	131	0	0	0	0	
7:45 AM				0	5	1	0	8	53	0	60	6	1	133	0	0	0	0	
8:00 AM				0	1	4	0	7	37	0	46	2	0	97	0	0	0	0	
8:15 AM				0	0	2	0	4	32	0	59	2	0	99	3	0	0	0	
8:30 AM				0	4	5	0	4	38	0	55	5	0	111	0	0	0	0	
8:45 AM				0	15	2	0	9	71	0	69	9	0	175	0	0	0	0	
Total Survey				0	36	22	0	43	310	0	500	33	1	944	3	0	0	0	

Peak Hour Summary

8:00 AM to 9:00 AM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	33	42	75	0	202	242	444	0	247	198	445	0	482	3	0	0	0
%HV	0.0%				9.1%				3.0%				5.3%				4.6%				
PHF	0.00				0.49				0.63				0.79				0.69				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total
	Total	L	R	Total	L	T	Total	L	T	Total	T	R	Total				
Volume	0	20	13	33	24	178	202	229	18	247	482						
%HV	NA	NA	NA	0.0%	10.0%	NA	7.7%	9.1%	12.5%	1.7%	NA	3.0%	NA	3.9%	22.2%	5.3%	4.6%
PHF		0.00	0.33	0.65	0.49	0.67	0.63	0.63	0.63	0.83	0.50	0.79	0.69				

Rolling Hour Summary

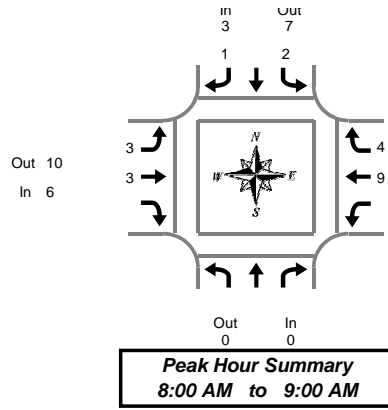
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St			Westbound 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes	North		South	East	West	
7:00 AM				0	16	9	0	19	132	0	271	15	1	462	0	0	0	0	
7:15 AM				0	11	10	0	23	146	0	247	15	1	452	0	0	0	0	
7:30 AM				0	8	10	0	26	155	0	246	15	1	460	3	0	0	0	
7:45 AM				0	10	12	0	23	160	0	220	15	1	440	3	0	0	0	
8:00 AM				0	20	13	0	24	178	0	229	18	0	482	3	0	0	0	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 4th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total
	In	Out	Total	L	R	Total	L	T	Total	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:05 AM	0	0	0	0	0	0	0	2	2	0	0	0	2
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	1	1	0	1	2
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	1	1	2	0	0	0	2
7:35 AM	0	0	0	0	0	0	1	0	1	0	0	0	1
7:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:45 AM	0	0	0	0	0	0	1	1	1	1	0	1	2
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55 AM	0	0	0	0	0	1	1	2	2	2	0	2	4
8:00 AM	0	0	0	0	0	1	1	2	2	1	0	1	3
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	2	1	3	3	2	1	3	6
8:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:25 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	1
8:35 AM	0	0	0	1	1	0	0	0	0	0	1	1	2
8:40 AM	0	0	0	0	0	0	0	1	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	0	1	1	0	1	0	0	0	0	2	1	3	4
8:55 AM	0	1	1	0	1	0	0	0	0	1	0	1	2
Total Survey	0	2	2	2	1	3	5	10	15	15	4	19	37

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total
	In	Out	Total	L	R	Total	L	T	Total	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	2	2	1	0	1	3
7:15 AM	0	0	0	0	0	0	0	1	1	1	0	1	2
7:30 AM	0	0	0	0	0	1	2	3	3	1	0	1	4
7:45 AM	0	0	0	0	0	1	2	3	3	3	0	3	6
8:00 AM	0	0	0	0	0	1	1	2	2	1	0	1	3
8:15 AM	0	0	0	0	0	2	1	3	3	5	1	6	9
8:30 AM	0	0	0	1	1	0	1	1	1	0	2	2	4
8:45 AM	0	2	2	0	2	0	0	0	0	3	1	4	6
Total Survey	0	2	2	2	1	3	5	10	15	15	4	19	37

Heavy Vehicle Peak Hour Summary 8:00 AM to 9:00 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	3	7	10	6	10	16	13	5	18	22
PHF	0.00			0.38			0.50			0.54			0.61

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total
	In	Out	Total	L	R	Total	L	T	Total	T	R	Total	
Volume	0	2	2	1	3	3	3	3	6	9	4	13	22
PHF	0.00	0.25	0.25	0.25	0.38	0.38	0.75	0.50	0.50	0.45	0.50	0.54	0.61

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total
	In	Out	Total	L	R	Total	L	T	Total	T	R	Total	
7:00 AM	0	0	0	0	0	0	2	7	9	6	0	6	15
7:15 AM	0	0	0	0	0	3	6	9	9	6	0	6	15
7:30 AM	0	0	0	0	0	5	6	11	11	10	1	11	22
7:45 AM	0	0	0	1	1	4	5	9	9	9	3	12	22
8:00 AM	0	2	2	1	3	3	3	6	6	9	4	13	22

Peak Hour Summary

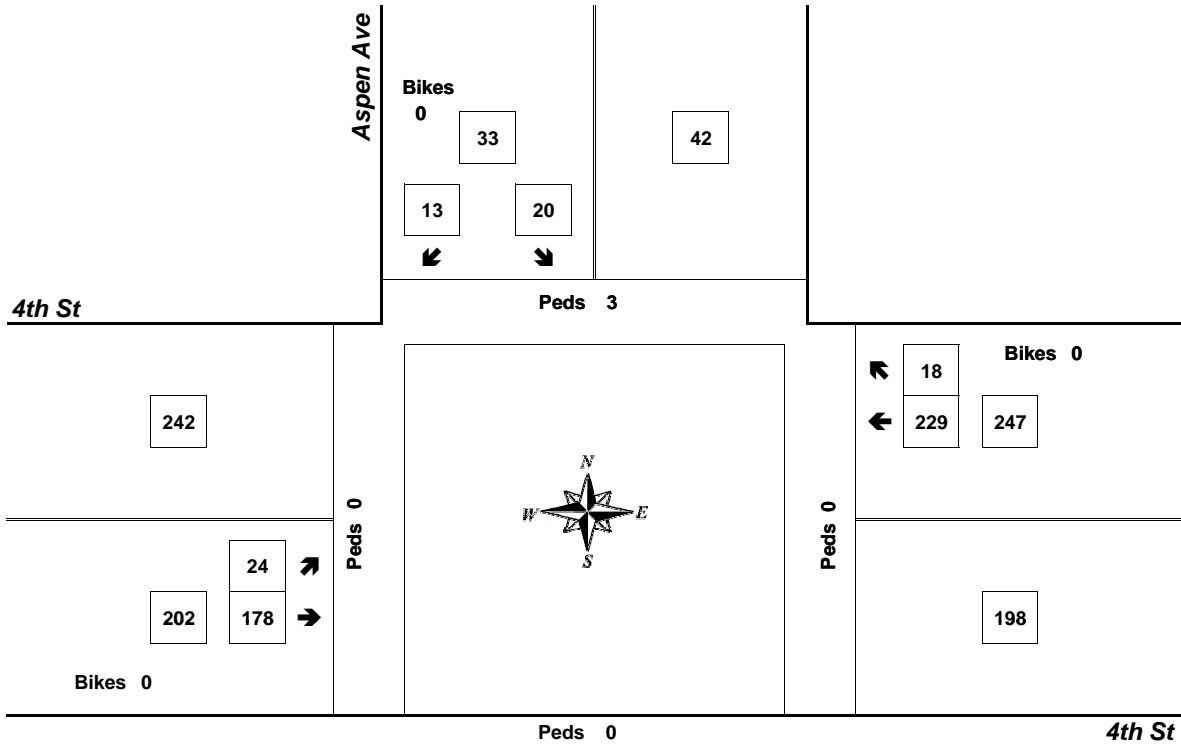


Clay Carney
(503) 833-2740

Aspen Ave & 4th St

8:00 AM to 9:00 AM

Wednesday, December 06, 2017



Bikes
0

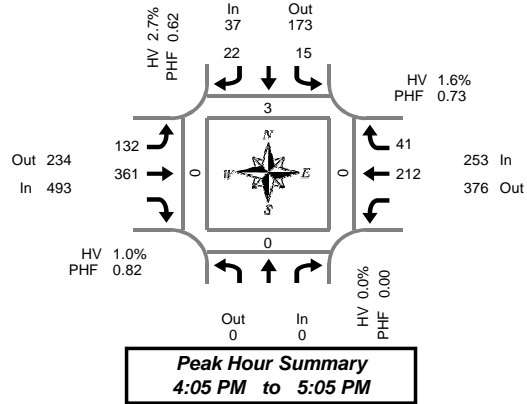
Approach	PHF	HV%	Volume
EB	0.63	3.0%	202
WB	0.79	5.3%	247
NB	0.00	0.0%	0
SB	0.49	9.1%	33
Intersection	0.69	4.6%	482

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 4th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM	0	1	0	0	0	0	5	31	0	17	3	0	57	1	0	0	0
4:05 PM	0	2	0	2	0	0	21	21	0	23	6	0	75	0	0	0	0
4:10 PM	0	0	0	0	0	0	15	41	0	29	7	0	92	0	0	0	0
4:15 PM	0	3	1	1	0	0	17	35	0	19	3	0	78	2	0	0	0
4:20 PM	0	2	0	2	0	0	8	32	0	17	4	0	65	1	0	0	0
4:25 PM	0	3	0	4	0	0	14	29	0	18	6	0	74	0	0	0	0
4:30 PM	0	1	0	2	0	0	6	27	0	11	2	0	49	0	0	0	0
4:35 PM	0	1	0	3	0	0	7	23	0	19	2	0	55	0	0	0	0
4:40 PM	0	0	0	1	0	0	6	31	0	7	1	0	46	0	0	0	0
4:45 PM	0	0	0	3	0	0	12	31	0	18	3	0	67	0	0	0	0
4:50 PM	0	1	0	1	0	0	7	26	0	24	4	0	63	0	0	0	0
4:55 PM	0	0	0	3	0	0	10	31	0	15	1	0	60	0	0	0	0
5:00 PM	0	2	0	0	0	0	9	34	0	12	2	0	59	0	0	0	0
5:05 PM	0	1	0	2	0	0	4	24	0	17	4	0	52	0	0	0	0
5:10 PM	0	0	0	2	0	0	14	35	0	9	4	0	64	0	0	0	0
5:15 PM	0	2	0	1	0	0	6	31	0	14	2	0	56	0	0	0	0
5:20 PM	0	0	0	2	0	0	10	29	0	11	3	0	55	0	0	0	0
5:25 PM	0	1	0	2	0	0	11	34	0	9	3	0	60	0	0	0	0
5:30 PM	0	1	0	3	0	0	15	30	0	11	2	0	62	0	0	0	0
5:35 PM	0	2	0	1	0	0	10	28	0	11	2	0	54	0	0	0	0
5:40 PM	0	1	0	1	0	0	13	32	0	11	2	0	60	0	0	0	0
5:45 PM	0	2	0	0	0	0	10	33	0	17	2	0	64	0	0	0	0
5:50 PM	0	2	0	2	0	0	13	33	0	16	3	0	69	0	0	0	0
5:55 PM	0	2	0	2	0	0	11	31	0	15	1	0	62	0	0	0	0
Total Survey	0	0	0	30	40	0	254	732	0	370	72	0	1,498	4	0	0	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM	0	3	0	2	0	0	41	93	0	69	16	0	224	1	0	0	0
4:15 PM	0	8	0	7	0	0	39	96	0	54	13	0	217	3	0	0	0
4:30 PM	0	2	0	6	0	0	19	81	0	37	5	0	150	0	0	0	0
4:45 PM	0	1	0	7	0	0	29	88	0	57	8	0	190	0	0	0	0
5:00 PM	0	3	0	4	0	0	27	93	0	38	10	0	175	0	0	0	0
5:15 PM	0	3	0	5	0	0	27	94	0	34	8	0	171	0	0	0	0
5:30 PM	0	4	0	5	0	0	38	90	0	33	6	0	176	0	0	0	0
5:45 PM	0	6	0	4	0	0	34	97	0	48	6	0	195	0	0	0	0
Total Survey	0	0	0	30	40	0	254	732	0	370	72	0	1,498	4	0	0	0

Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total	Pedestrians Crosswalk					
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total		North	South	East	West		
Volume	0	0	0	37	173	210	493	234	727	0	253	376	629	0	783	3	0	0	0
%HV	0.0%			2.7%			1.0%			1.6%			1.3%						
PHF	0.00			0.62			0.82			0.73			0.80						

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total				
	Total	L	R	Total	L	R	Total	L	T	Total	T	R		Total			
Volume	0	15	22	37	132	361	493	212	41	253	783						
%HV	NA	NA	NA	0.0%	0.0%	NA	4.5%	2.7%	0.8%	1.1%	NA	1.0%	NA	1.9%	0.0%	1.6%	1.3%
PHF		0.00	0.47	0.61	0.62	0.62	0.84	0.82		0.75	0.64	0.73	0.80				

Rolling Hour Summary

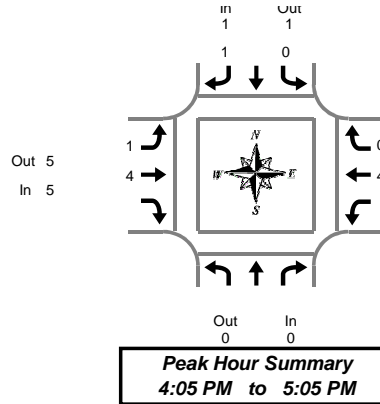
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM	0	14	0	22	0	128	358	0	217	42	0	781	4	0	0	0	
4:15 PM	0	14	0	24	0	114	358	0	186	36	0	732	3	0	0	0	
4:30 PM	0	9	0	22	0	102	356	0	166	31	0	686	0	0	0	0	
4:45 PM	0	11	0	21	0	121	365	0	162	32	0	712	0	0	0	0	
5:00 PM	0	16	0	18	0	126	374	0	153	30	0	717	0	0	0	0	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & 4th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	2	2	2	0	2	4
4:05 PM	0	0	0	0	0	0	1	2	3	0	0	0	3
4:10 PM	0	0	0	0	0	0	0	1	1	2	0	2	3
4:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	1
4:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	1	1	0	0	0	1
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:10 PM	0	0	0	0	0	1	0	1	1	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	1	1	1
5:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	2	2	0	0	0	2
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	2	9	11	7	1	8	20		

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	5	6	4	0	4	10
4:15 PM	0	0	1	1	0	0	0	0	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	1	0	1	1	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	1
5:30 PM	0	0	0	0	0	0	3	3	3	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	2	9	11	7	1	8	20		

Heavy Vehicle Peak Hour Summary 4:05 PM to 5:05 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	1	2	5	5	10	4	4	8	10
PHF	0.00			0.25			0.31			0.33			0.36

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	0	1	1	1	1	1	4	5	4	0	4	10
PHF	0.00	0.00	0.25	0.25	0.25	0.33	0.31	0.33	0.00	0.33		0.36	

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	1	1	1	1	1	6	7	6	0	6	14
4:15 PM	0	0	1	1	1	1	1	1	2	3	0	3	6
4:30 PM	0	0	0	0	1	1	1	2	2	2	1	3	5
4:45 PM	0	0	0	0	1	3	4	4	4	2	1	3	7
5:00 PM	0	0	0	0	1	3	4	4	4	1	1	2	6

Peak Hour Summary

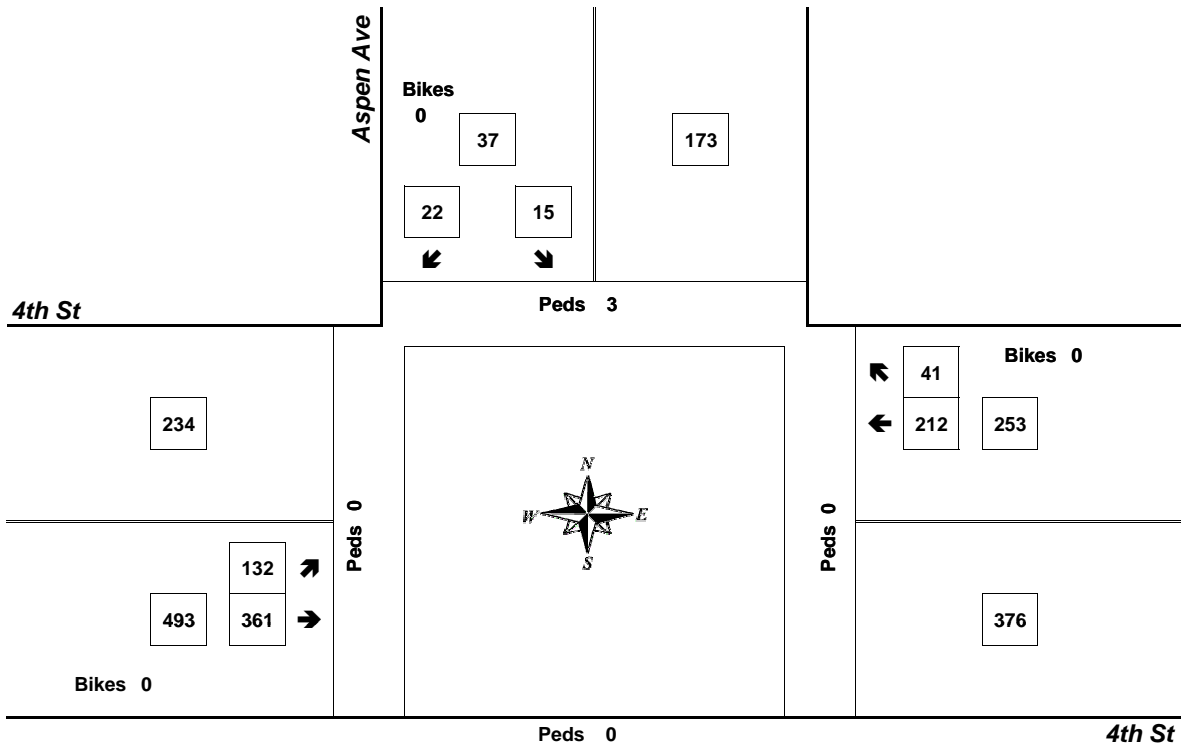


Clay Carney
(503) 833-2740

Aspen Ave & 4th St

4:05 PM to 5:05 PM

Wednesday, December 06, 2017



Bikes
0

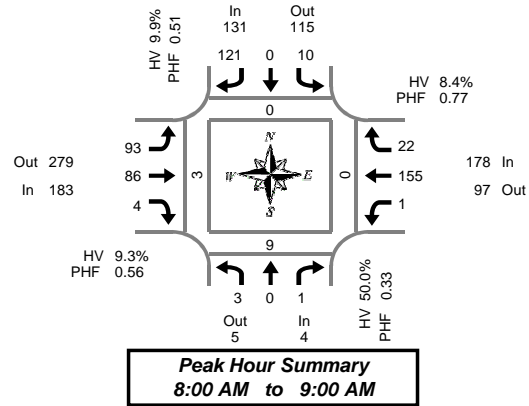
Approach	PHF	HV%	Volume
EB	0.82	1.0%	493
WB	0.73	1.6%	253
NB	0.00	0.0%	0
SB	0.62	2.7%	37
Intersection	0.80	1.3%	783

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



E Ivy Ave & E 4th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	13	0	2	3	0	0	0	10	0	0	28	0	0	0	0
7:05 AM	0	0	0	0	0	0	8	0	4	8	0	0	0	14	1	0	35	0	1	0	0
7:10 AM	0	0	0	0	0	0	11	0	2	4	0	0	0	17	0	0	34	0	0	0	0
7:15 AM	0	0	0	0	0	0	4	0	6	2	0	0	0	13	0	0	25	0	0	0	0
7:20 AM	0	0	0	0	0	0	7	0	1	3	0	0	0	11	2	0	24	0	0	0	0
7:25 AM	0	0	0	0	0	0	11	0	4	7	0	0	0	17	2	0	41	0	0	0	0
7:30 AM	0	0	0	0	0	0	12	0	8	4	0	0	0	11	0	0	35	0	0	0	0
7:35 AM	1	0	0	0	0	0	11	0	1	5	0	0	0	21	0	0	39	0	1	0	0
7:40 AM	0	0	0	0	0	0	12	0	8	4	0	0	0	13	1	0	38	0	0	0	0
7:45 AM	0	0	0	0	0	0	5	0	6	8	0	0	0	11	0	0	30	0	0	0	0
7:50 AM	0	0	0	0	0	0	12	0	3	4	0	0	0	20	2	0	41	0	1	0	0
7:55 AM	0	0	0	0	0	0	13	0	4	4	0	0	0	20	1	0	42	0	0	0	0
8:00 AM	0	0	0	0	0	0	8	0	8	3	0	0	0	12	2	0	33	0	0	0	0
8:05 AM	0	0	0	0	0	1	7	0	1	10	1	0	0	14	2	0	36	0	0	0	1
8:10 AM	0	0	0	0	0	0	6	0	3	13	0	0	0	8	1	0	31	0	0	0	0
8:15 AM	1	0	0	0	0	0	8	0	5	3	0	0	0	13	0	0	30	0	0	0	0
8:20 AM	0	0	0	0	0	0	6	0	5	2	0	0	0	13	0	0	26	0	0	0	0
8:25 AM	0	0	0	0	0	0	8	0	5	7	0	0	0	13	0	0	33	0	0	0	0
8:30 AM	0	0	0	0	1	0	4	0	6	7	0	0	0	7	1	0	26	0	0	0	0
8:35 AM	0	0	0	0	0	0	9	0	0	4	0	0	0	21	0	0	34	0	0	0	0
8:40 AM	0	0	0	0	2	0	7	0	11	7	0	0	0	9	4	0	40	0	3	0	0
8:45 AM	0	0	0	0	2	0	13	0	10	9	0	0	0	17	0	0	51	0	1	0	0
8:50 AM	0	0	1	0	1	0	24	0	20	9	1	0	0	17	2	0	75	0	5	0	0
8:55 AM	2	0	0	0	3	0	21	0	19	12	2	0	1	11	10	0	81	0	0	0	2
Total Survey	4	0	1	0	10	0	240	0	142	142	4	0	1	333	31	0	908	0	12	0	3

15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	32	0	8	15	0	0	0	41	1	0	97	0	1	0	0
7:15 AM	0	0	0	0	0	0	22	0	11	12	0	0	0	41	4	0	90	0	0	0	0
7:30 AM	1	0	0	0	0	0	35	0	17	13	0	0	0	45	1	0	112	0	1	0	0
7:45 AM	0	0	0	0	0	0	30	0	13	16	0	0	0	51	3	0	113	0	1	0	0
8:00 AM	0	0	0	0	1	0	21	0	12	26	1	0	0	34	5	0	100	0	0	0	1
8:15 AM	1	0	0	0	0	0	22	0	15	12	0	0	0	39	0	0	89	0	0	0	0
8:30 AM	0	0	0	0	3	0	20	0	17	18	0	0	0	37	5	0	100	0	3	0	0
8:45 AM	2	0	1	0	6	0	58	0	49	30	3	0	1	45	12	0	207	0	6	0	2
Total Survey	4	0	1	0	10	0	240	0	142	142	4	0	1	333	31	0	908	0	12	0	3

Peak Hour Summary 8:00 AM to 9:00 AM

By Approach	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	4	5	9	0	131	115	246	0	183	279	462	0	178	97	275	0	496	0	9	0	3
%HV	50.0%				9.9%				9.3%				8.4%				9.5%				
PHF	0.33				0.51				0.56				0.77				0.60				

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	0	1	4	10	0	121	131	93	86	4	183	1	155	22	178	496
%HV	66.7%	0.0%	0.0%	50.0%	20.0%	0.0%	9.1%	9.9%	9.7%	9.3%	0.0%	9.3%	0.0%	7.7%	13.6%	8.4%	9.5%
PHF	0.38	0.00	0.25	0.33	0.42	0.00	0.52	0.51	0.47	0.72	0.33	0.56	0.25	0.82	0.46	0.77	0.60

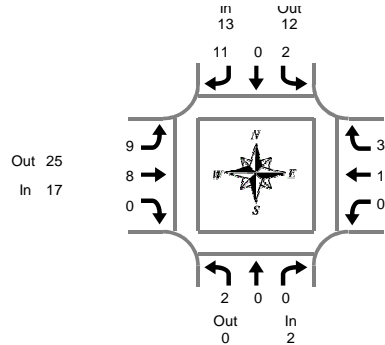
Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	1	0	0	0	0	0	119	0	49	56	0	0	0	178	9	0	412	0	3	0	0
7:15 AM	1	0	0	0	1	0	108	0	53	67	1	0	0	171	13	0	415	0	2	0	1
7:30 AM	2	0	0	0	1	0	108	0	57	67	1	0	0	169	9	0	414	0	2	0	1
7:45 AM	1	0	0	0	4	0	93	0	57	72	1	0	0	161	13	0	402	0	4	0	1
8:00 AM	3	0	1	0	10	0	121	0	93	86	4	0	1	155	22	0	496	0	9	0	3

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
8:00 AM to 9:00 AM

E Ivy Ave & E 4th St

Wednesday, December 06, 2017

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
7:05 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:35 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	2
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
7:50 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
7:55 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	1	0	1	0	3
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	2
8:05 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	4
8:10 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	1	1	0	4
8:15 AM	0	0	0	0	0	0	3	3	1	0	0	1	0	1	0	1	0	5
8:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
8:40 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2	0	3
8:45 AM	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	2
8:50 AM	0	0	0	0	0	0	2	2	3	0	0	3	0	2	0	2	0	7
8:55 AM	2	0	0	2	1	0	5	6	3	0	0	3	0	1	1	2	0	13
Total Survey	2	0	0	2	2	0	13	15	10	13	0	23	0	18	3	21	0	61

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
7:30 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	1	0	3
7:45 AM	0	0	0	0	0	0	1	1	0	3	0	3	0	3	0	3	0	7
8:00 AM	0	0	0	0	0	0	0	0	1	7	0	8	0	1	1	2	0	10
8:15 AM	0	0	0	0	0	0	3	3	1	1	0	2	0	3	0	3	0	8
8:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	5	1	6	0	7
8:45 AM	2	0	0	2	2	0	7	9	7	0	0	7	0	3	1	4	0	22
Total Survey	2	0	0	2	2	0	13	15	10	13	0	23	0	18	3	21	0	61

Heavy Vehicle Peak Hour Summary 8:00 AM to 9:00 AM

By Approach	Northbound E Ivy Ave			Southbound E Ivy Ave			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	0	2	13	12	25	17	25	42	15	10	25	47
PHF	0.25			0.36			0.53			0.63			0.53

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	0	0	2	2	0	11	13	9	8	0	17	0	12	3	15	47
PHF	0.25	0.00	0.00	0.25	0.25	0.00	0.39	0.36	0.32	0.29	0.00	0.53	0.00	0.50	0.75	0.63	0.53

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	2	2	1	5	0	6	0	6	0	6	0	14
7:15 AM	0	0	0	0	0	0	1	1	2	11	0	13	0	7	1	8	0	22
7:30 AM	0	0	0	0	0	0	4	4	3	12	0	15	0	8	1	9	0	28
7:45 AM	0	0	0	0	0	0	5	5	2	11	0	13	0	12	2	14	0	32
8:00 AM	2	0	0	2	2	0	11	13	9	8	0	17	0	12	3	15	0	47

Peak Hour Summary

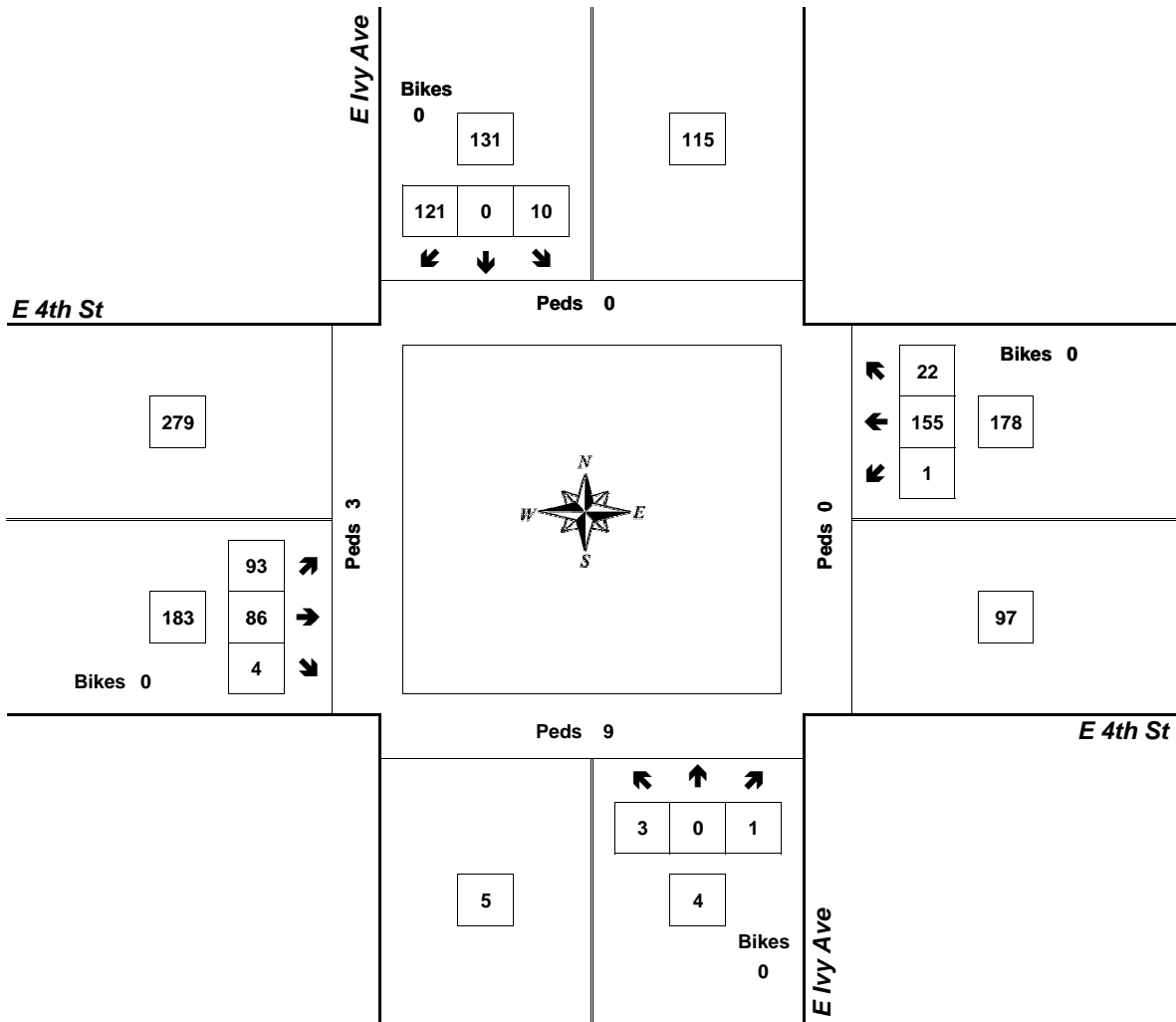


Clay Carney
(503) 833-2740

E Ivy Ave & E 4th St

8:00 AM to 9:00 AM

Wednesday, December 06, 2017



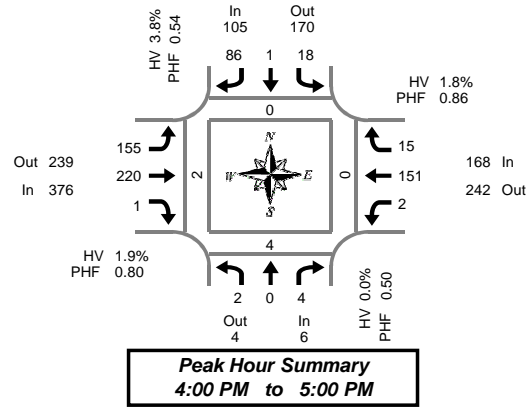
Approach	PHF	HV%	Volume
EB	0.56	9.3%	183
WB	0.77	8.4%	178
NB	0.33	50.0%	4
SB	0.51	9.9%	131
Intersection	0.60	9.5%	496

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



E Ivy Ave & E 4th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	0	1	0	2	0	5	0	8	18	0	0	10	1	0	46	0	0	0	0	
4:05 PM	0	0	1	0	2	0	14	0	21	20	0	0	1	8	4	71	0	0	0	0	
4:10 PM	0	0	0	0	7	1	16	0	14	12	0	0	0	15	1	66	0	0	0	2	
4:15 PM	0	0	1	0	1	0	8	0	16	25	0	0	0	14	1	66	0	2	0	0	
4:20 PM	0	0	0	0	0	0	4	0	21	21	0	0	1	13	1	61	0	0	0	0	
4:25 PM	0	0	0	0	1	0	6	0	9	25	0	0	0	15	4	60	0	0	0	0	
4:30 PM	0	0	0	0	1	0	5	0	13	13	0	0	0	10	1	43	0	0	0	0	
4:35 PM	0	0	1	0	0	0	11	0	12	13	0	0	0	9	0	46	0	0	0	0	
4:40 PM	0	0	0	0	0	0	1	0	10	18	0	0	0	14	0	43	0	0	0	0	
4:45 PM	0	0	0	0	2	0	5	0	6	24	0	0	0	12	0	49	0	1	0	0	
4:50 PM	1	0	0	0	0	0	7	0	12	13	1	0	0	16	2	52	0	1	0	0	
4:55 PM	0	0	0	0	2	0	4	0	13	18	0	0	0	15	0	52	0	0	0	0	
5:00 PM	0	0	0	0	0	0	5	0	11	16	0	0	0	12	2	46	0	0	0	0	
5:05 PM	0	0	0	0	0	0	4	0	9	19	0	0	0	12	0	44	0	0	0	0	
5:10 PM	0	1	0	0	0	0	7	0	7	15	0	0	0	13	1	44	0	0	0	0	
5:15 PM	1	0	0	0	1	0	7	0	8	29	1	0	0	15	0	62	0	1	0	0	
5:20 PM	0	0	0	0	0	0	7	0	13	20	0	0	0	10	1	51	0	1	0	2	
5:25 PM	2	0	0	0	0	0	8	0	9	17	0	0	0	11	0	47	0	3	0	0	
5:30 PM	0	0	1	0	0	0	9	0	17	18	0	0	0	7	1	53	0	0	0	0	
5:35 PM	1	0	0	0	3	0	9	0	11	24	0	0	0	12	0	60	0	0	0	0	
5:40 PM	1	0	0	0	1	0	7	0	8	11	0	0	0	11	0	39	0	0	0	0	
5:45 PM	0	0	0	0	0	0	8	0	12	29	0	0	1	14	0	64	0	3	0	0	
5:50 PM	2	0	0	0	1	0	7	0	9	14	0	0	0	12	0	45	0	0	0	0	
5:55 PM	5	1	0	0	0	0	6	0	13	18	0	0	0	15	0	58	0	0	0	0	
Total Survey	14	2	5	0	24	1	170	0	282	450	2	0	3	295	20	1,268	0	12	0	4	

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	0	2	0	11	1	35	0	43	50	0	0	1	33	6	183	0	0	0	2	
4:15 PM	0	0	1	0	2	0	18	0	46	71	0	0	1	42	6	187	0	2	0	0	
4:30 PM	0	0	1	0	1	0	17	0	35	44	0	0	0	33	1	132	0	0	0	0	
4:45 PM	1	0	0	0	4	0	16	0	31	55	1	0	0	43	2	153	0	2	0	0	
5:00 PM	0	1	0	0	0	0	16	0	27	50	0	0	0	37	3	134	0	0	0	0	
5:15 PM	3	0	0	0	1	0	22	0	30	66	1	0	0	36	1	160	0	5	0	2	
5:30 PM	2	0	1	0	4	0	25	0	36	53	0	0	0	30	1	152	0	0	0	0	
5:45 PM	7	1	0	0	1	0	21	0	34	61	0	0	1	41	0	167	0	3	0	0	
Total Survey	14	2	5	0	24	1	170	0	282	450	2	0	3	295	20	1,268	0	12	0	4	

Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	6	4	10	0	105	170	275	0	376	239	615	0	168	242	410	655	0	4	0	2	
%HV	0.0%				3.8%				1.9%				1.8%				2.1%				
PHF	0.50				0.54				0.80				0.86				0.81				

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	0	4	6	18	1	86	105	155	220	1	376	2	151	15	168	655
%HV	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	3.5%	3.8%	1.9%	1.8%	0.0%	1.9%	0.0%	1.3%	6.7%	1.8%	2.1%
PHF	0.50	0.00	0.50	0.50	0.41	0.25	0.57	0.54	0.76	0.77	0.25	0.80	0.50	0.88	0.63	0.86	0.81

Rolling Hour Summary

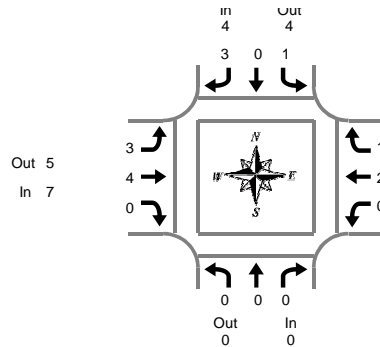
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	2	0	4	0	18	1	86	0	155	220	1	0	2	151	15	655	0	4	0	2	
4:15 PM	1	1	2	0	7	0	67	0	139	220	1	0	1	155	12	606	0	4	0	0	
4:30 PM	4	1	1	0	6	0	71	0	123	215	2	0	0	149	7	579	0	7	0	2	
4:45 PM	6	1	1	0	9	0	79	0	124	224	2	0	0	146	7	599	0	7	0	2	
5:00 PM	12	2	1	0	6	0	84	0	127	230	1	0	1	144	5	613	0	8	0	2	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:00 PM to 5:00 PM

E Ivy Ave & E 4th St

Wednesday, December 06, 2017

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	1	1	0	2	0	0	0	0	3
4:05 PM	0	0	0	0	0	0	1	1	1	2	0	3	0	0	1	1	5
4:10 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	1	0	3	4	3	7	0	10	0	4	1	5	19

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	1	0	2	3	2	4	0	6	0	1	1	2	11
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	1	0	3	4	3	7	0	10	0	4	1	5	19

Heavy Vehicle Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound E Ivy Ave			Southbound E Ivy Ave			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	4	4	8	7	5	12	3	5	8	14
PHF	0.00			0.33			0.29			0.38			0.32

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	1	0	3	4	3	4	0	7	0	2	1	3	14
PHF	0.00	0.00	0.00	0.00	0.25	0.00	0.38	0.33	0.38	0.25	0.00	0.29	0.00	0.25	0.25	0.38	0.32

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	1	0	3	4	3	4	0	7	0	2	1	3	14
4:15 PM	0	0	0	0	0	0	1	1	1	1	0	2	0	2	0	2	5
4:30 PM	0	0	0	0	0	0	1	1	1	1	0	2	0	2	0	2	5
4:45 PM	0	0	0	0	0	0	1	1	0	3	0	3	0	2	0	2	6
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5

Peak Hour Summary

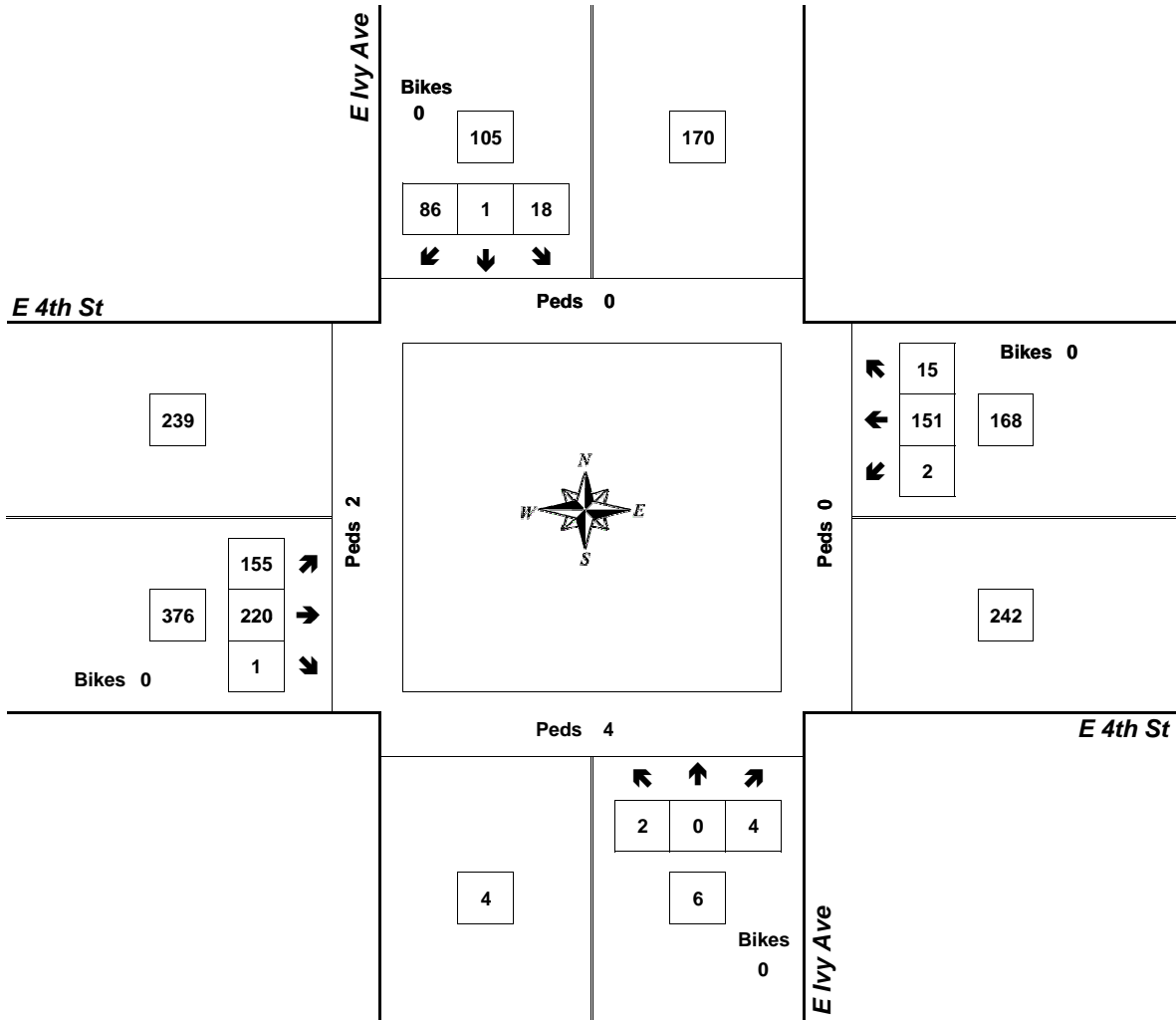


Clay Carney
(503) 833-2740

E Ivy Ave & E 4th St

4:00 PM to 5:00 PM

Wednesday, December 06, 2017



Approach	PHF	HV%	Volume
EB	0.80	1.9%	376
WB	0.86	1.8%	168
NB	0.50	0.0%	6
SB	0.54	3.8%	105
Intersection	0.81	2.1%	655

Count Period: 4:00 PM to 6:00 PM



TRIP GENERATION CALCULATIONS
Projected Volumes Along NE 348th Street

Land Use: Single-Family Detached Housing
Land Use Code: 210
Setting/Location: General Urban/Suburban
Variable: Dwelling Units
Variable Value: 5

AM PEAK HOUR

Trip Rate: 0.74

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	1	3	4

PM PEAK HOUR

Trip Rate: 0.99

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	3	2	5

WEEKDAY

Trip Rate: 9.44

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	24	24	48

SATURDAY

Trip Rate: 9.54

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	24	24	48

Source: TRIP GENERATION, Tenth Edition



TRIP GENERATION CALCULATIONS
Existing Development

Land Use: Single-Family Detached Housing
Land Use Code: 210
Setting/Location: General Urban/Suburban
Variable: Dwelling Units
Variable Value: 4

AM PEAK HOUR

Trip Rate: 0.74

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	1	2	3

PM PEAK HOUR

Trip Rate: 0.99

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	3	1	4

WEEKDAY

Trip Rate: 9.44

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	19	19	38

SATURDAY

Trip Rate: 9.54

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	19	19	38

Source: TRIP GENERATION, Tenth Edition



TRIP GENERATION CALCULATIONS Proposed Development

Land Use: Single-Family Detached Housing
Land Use Code: 210
Setting/Location: General Urban/Suburban
Variable: Dwelling Units
Variable Value: 85

AM PEAK HOUR

Trip Rate: 0.74

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	16	47	63

PM PEAK HOUR

Trip Rate: 0.99

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	53	31	84

WEEKDAY

Trip Rate: 9.44

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	401	401	802

SATURDAY

Trip Rate: 9.54

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	405	405	810

Source: TRIP GENERATION, Tenth Edition



TRIP GENERATION CALCULATIONS Net Additional Site Trips

Land Use: Single-Family Detached Housing
Land Use Code: 210
Setting/Location: General Urban/Suburban
Variable: Dwelling Units
Variable Value: 81

AM PEAK HOUR

Trip Rate: 0.74

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	15	45	60

PM PEAK HOUR

Trip Rate: 0.99

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	50	30	80

WEEKDAY

Trip Rate: 9.44

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	382	382	764

SATURDAY

Trip Rate: 9.54

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	386	386	772

Source: TRIP GENERATION, Tenth Edition

January 5, 2018

Jessica Hajar
Lancaster Engineering
321 SW 4th Ave Suite 400
Portland OR 97209

Dear Ms. Hajar:

In accordance with the Public Records Act, RCW 42.56, this letter acknowledges receipt of your request for records dated January 4, 2018 (Request Number PDR-18-0040).

We have prepared a history of officer reported crashes that occurred *at or in the vicinity of* multiple intersections in the City of La Center for the period of 1/1/2012 – 12/31/2016.

Federal law 23 United States Code Section 409 governs use of the data you requested. Under this law, data maintained for purposes of evaluating potential highway safety enhancements:

“ . . . shall not be subject to discovery or admitted into evidence in a federal or state court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.” [Emphasis added.]

The Washington State Department of Transportation (WSDOT) is releasing this data to you with the understanding that you will not use this data contrary to the restrictions in Section 409, which means you will not use this data in discovery or as evidence at trial in any action for damages against the WSDOT, the State of Washington, or any other jurisdiction involved in the locations mentioned in the data. If you should attempt to use this data in an action for damages against WSDOT, the State of Washington, or any other jurisdiction involved in the locations mentioned in the data, these entities expressly reserve the right, under Section 409, to object to the use of the data, including any opinions drawn from the data.

Public Disclosure Request PDR-18-0040

January 5, 2018

Page 2

With this package, your request for records is complete and closed.

If you have any further questions you may contact me at 360-570-2464.

Sincerely,

A handwritten signature in blue ink that reads "Julie Brown". The signature is written in a cursive style with a large initial "J" and "B".

Julie Brown

Transportation Planning Technician 3

Transportation Data, GIS & Modeling Office

OFFICER REPORTED CRASHES THAT OCCURRED AT OR IN THE VICINITY OF MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER
 01/01/2012 - 12/31/2016

Under 23 U.S. Code § 409 and 23 U.S. Code § 148, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A/B	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE
City Street	NW PACIFIC HWY	400	W 4TH ST							E358151	09/12/2014	07:45	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup/Panel Truck or Vanette under 10,000 lb
City Street	NW PACIFIC HWY	400	W 4TH ST							E367336	10/18/2014	20:00	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car
City Street	NW PACIFIC HWY	400	W 4TH ST							E402273	02/20/2015	19:44	Possible Injury	1	0	2	0	0	Pickup/Panel Truck or Vanette under 10,000 lb	Pickup/Panel Truck or Vanette under 10,000 lb
City Street	NW PACIFIC HWY	400	W 4TH ST							E457917	09/02/2015	06:50	Suspected Minor Injury	2	0	2	0	0	Pickup/Panel Truck or Vanette under 10,000 lb	Pickup/Panel Truck or Vanette under 10,000 lb
City Street	NW PACIFIC HWY	400	W 4TH ST							E523948	03/17/2016	15:45	No Apparent Injury	0	0	2	0	0	Pickup/Panel Truck or Vanette under 10,000 lb	Passenger Car
City Street	W 4TH ST	200	NW PACIFIC HWY							2427295	07/18/2012	07:25	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup/Panel Truck or Vanette under 10,000 lb
City Street	W 4TH ST	200	NW PACIFIC HWY							E230384	03/01/2013	08:02	Possible Injury	2	0	2	0	0	Passenger Car	Passenger Car
City Street	W 4TH ST	300	NW PACIFIC HWY							E464806	09/25/2015	08:10	No Apparent Injury	0	0	2	0	0	Pickup/Panel Truck or Vanette under 10,000 lb	Passenger Car

JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION TO	MV/DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV/DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV/DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV/DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV/DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV/DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - Y 2010 - FORWARD	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD	
At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	East	South	North	South	Did Not Grant RW to Vehicle	Driver Not Distracted	Driver Not Distracted	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	1086930.86	200420.01	200420.01	
At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	Entering at angle	Stopped at Signal or Stop Sign	Making Right Turn	Vehicle Stopped	South	East	South	None	Under Influence of Alcohol	Under Influence of Alcohol	Intersecting Trafficway	Intersecting Trafficway	Intersecting Trafficway	Intersecting Trafficway	1086930.86	200420.01	200420.01	
At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	North	South	West	South	None	Did Not Grant RW to Vehicle	Did Not Grant RW to Vehicle	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	1086930.86	200420.01	200420.01	
At Intersection and Related	Overcast	Wet	Daylight	Entering at angle	Going Straight Ahead	Making Left Turn	South	North	South	East	None	Did Not Grant RW to Vehicle	Did Not Grant RW to Vehicle	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	1086930.87	200420.01	200420.01	
At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	East	South	North	South	Improper Turn	Inattention	Inattention	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	1086930.87	200420.01	200420.01	
At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one car	Stopped at Signal or Stop Sign	Going Straight Ahead	East	East	West	West	None	None	Inattention	Inattention	Inattention	Inattention	Inattention	Lane of Primary Trafficway	Lane of Primary Trafficway	1086930.85	200420.01
At Intersection and Related	Clear or Partly Cloudy	Wet	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	East	South	North	South	Did Not Grant RW to Vehicle	None	None	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	Lane of Primary Trafficway	1086930.85	200420.01	200420.01	
At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	East	South	North	South	Did Not Grant RW to Vehicle	None	None	Intersecting Trafficway	Intersecting Trafficway	Intersecting Trafficway	Intersecting Trafficway	1086930.87	200420.01	200420.01	

OFFICER REPORTED CRASHES THAT OCCURRED AT OR IN THE VICINITY OF MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER
 01/01/2012 - 12/31/2016

Under 23 U.S. Code § 409 and 23 U.S. Code § 448, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A/B	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE
City Street	E 4TH ST	900	NE HIGHLAND AVE							E354317	09/02/2014	08:05	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car
City Street	E 4TH ST	1000		30	F	W	NE LOCKWOOD CREEK RD			2737465	02/03/2012	10:48	No Apparent Injury	0	0	2	0	0	Pickup Panel Truck or Vanette under 10,000 lb	Passenger Car
City Street	NE HIGHLAND AVE	400	E 4TH ST							E237901	04/14/2013	11:30	No Apparent Injury	0	0	1	0	0	Passenger Car	
City Street	NE HIGHLAND AVE	500		0.13	M	NE	E 4TH ST			E238817	04/23/2013	14:50	No Apparent Injury	0	0	2	0	0	Pickup Panel Truck or Vanette under 10,000 lb	Passenger Car

JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - Y 2010 - FORWARD	WA STATE PLANE SOUTH - X 2010 - FORWARD
At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Left Turn	Making Left Turn	West	Northeast	North	Southeast	Driver Not Distracted			Did Not Grant RW to Vehicle			Lane of Primary Trafficway	200594.82	1089710.53
At Driveway	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West	None			Did Not Grant RW to Vehicle			Lane of Primary Trafficway	200490.57	1090863.57
At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Street Light Pole or Base	Going Straight Ahead	Going Straight Ahead	North	South	South		Exceeding Stated Speed Limit						Outside Shoulder of roadway	200589.11	1089710.76
At Driveway	Clear or Partly Cloudy	Dry	Daylight	direction - both turning right - both	Making Right Turn	Making Right Turn	East	North	East	North	Follow Too Closely			None			Lane of Primary Trafficway	201117.96	1090111.53

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at NE 348th Street
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - AM Peak Hour (NB)

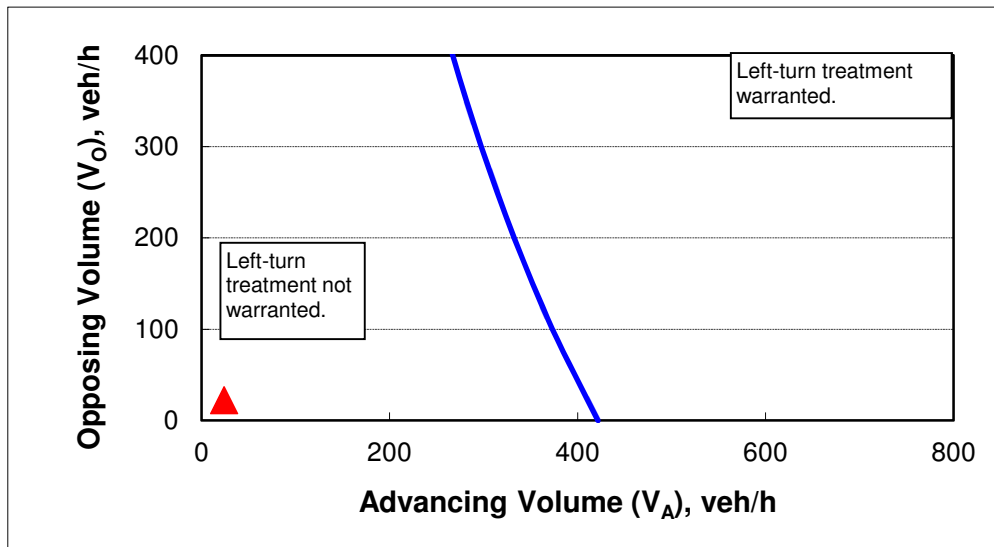
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	63%
Advancing volume (V_A), veh/h:	24
Opposing volume (V_O), veh/h:	22

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	410
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at 18th Street
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - AM Peak Hour (SB)

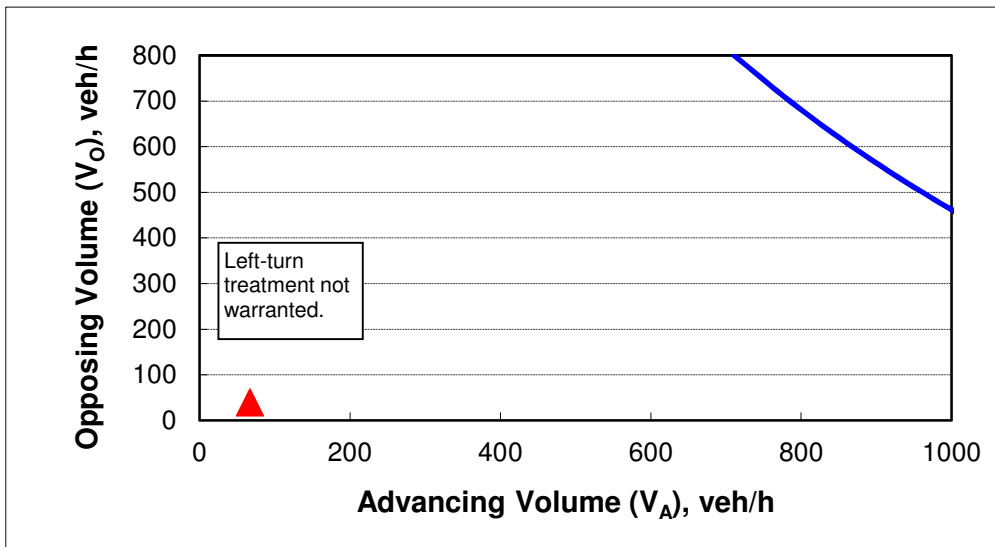
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	67
Opposing volume (V_O), veh/h:	39

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1604
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at Heritage Loop
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - AM Peak Hour (SB)

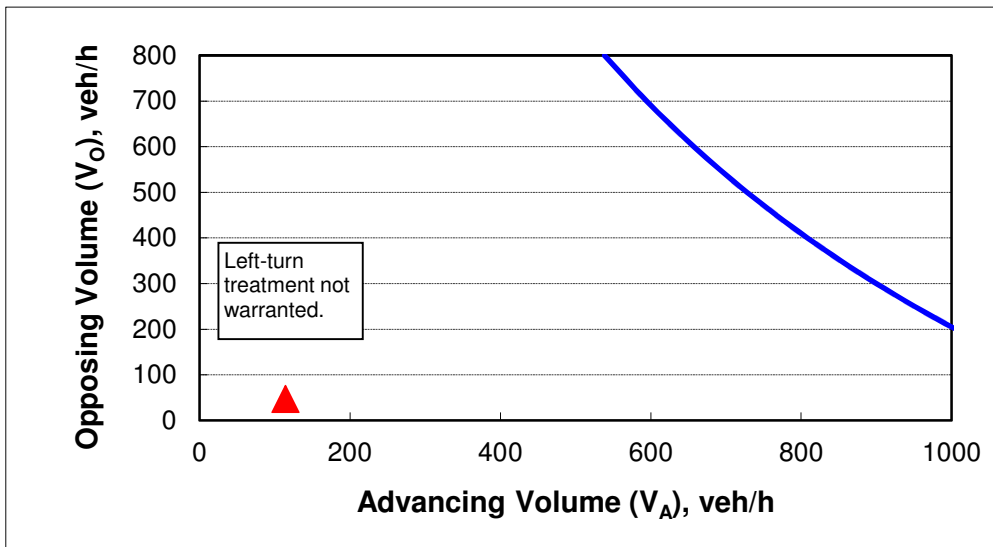
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	114
Opposing volume (V_O), veh/h:	47

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1203
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at 5th Street
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - AM Peak Hour (NB)

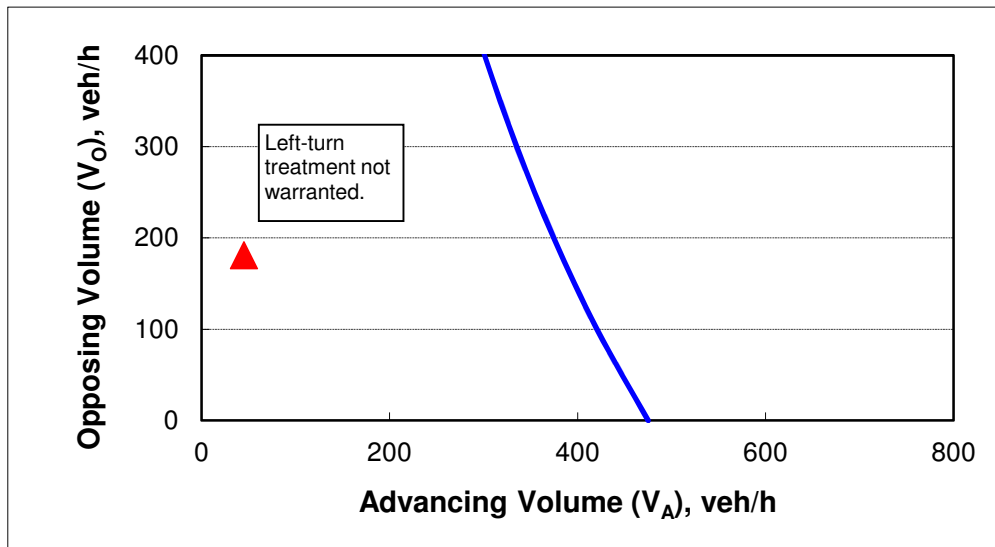
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	24%
Advancing volume (V_A), veh/h:	45
Opposing volume (V_O), veh/h:	181

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	383
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at NE 348th Street
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - PM Peak Hour (NB)

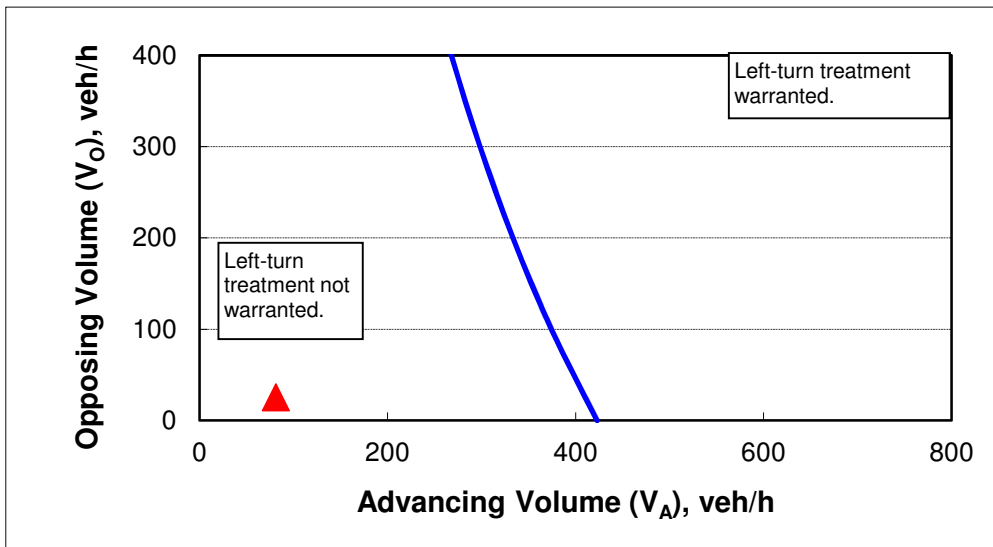
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	63%
Advancing volume (V_A), veh/h:	81
Opposing volume (V_O), veh/h:	25

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	410
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at 18th Street
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - PM Peak Hour (SB)

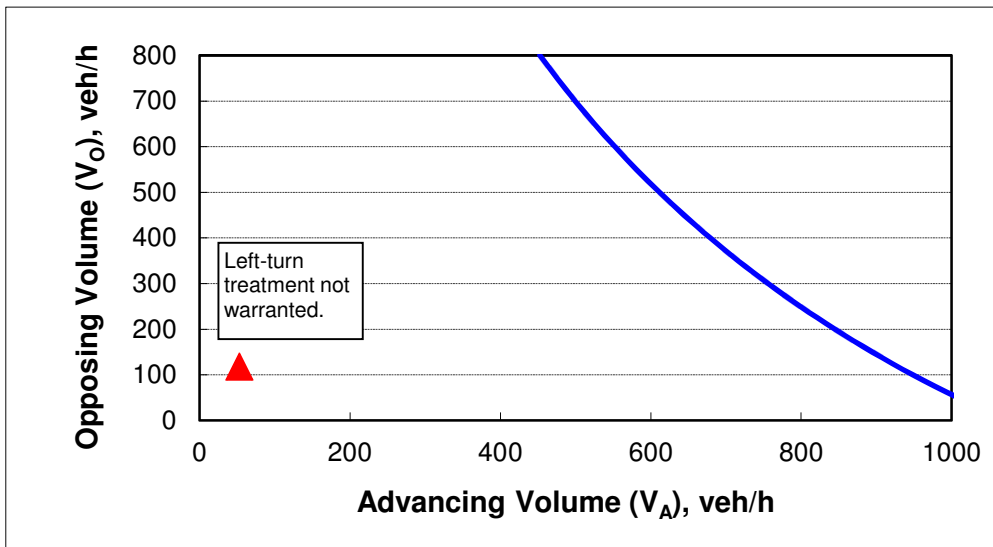
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	53
Opposing volume (V_O), veh/h:	118

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	929
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at Heritage Loop
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - PM Peak Hour (SB)

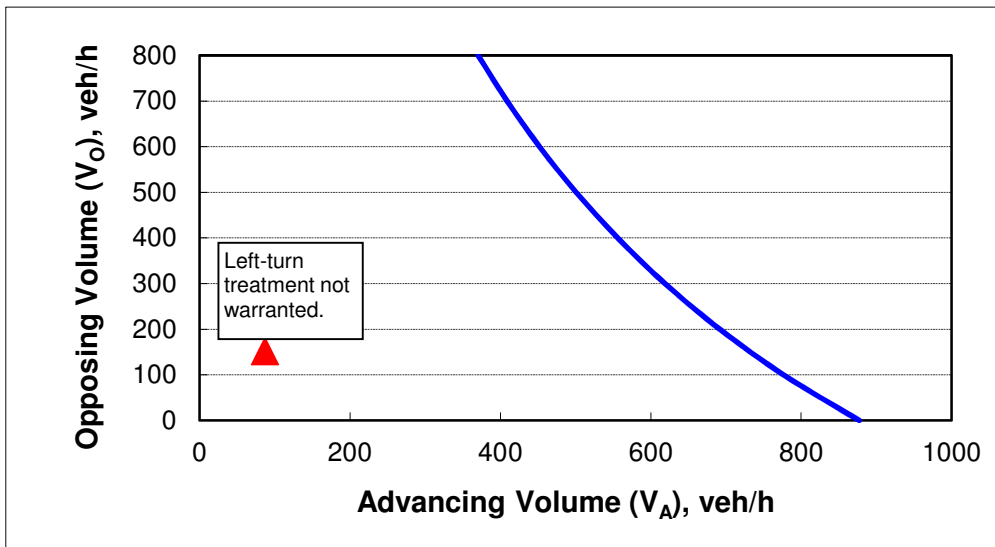
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	87
Opposing volume (V_O), veh/h:	151

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	732
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Intersection: Aspen Avenue at 5th Street
 Date: 2/1/2018
 Scenario: 2020 Background plus Site Conditions - PM Peak Hour (NB)

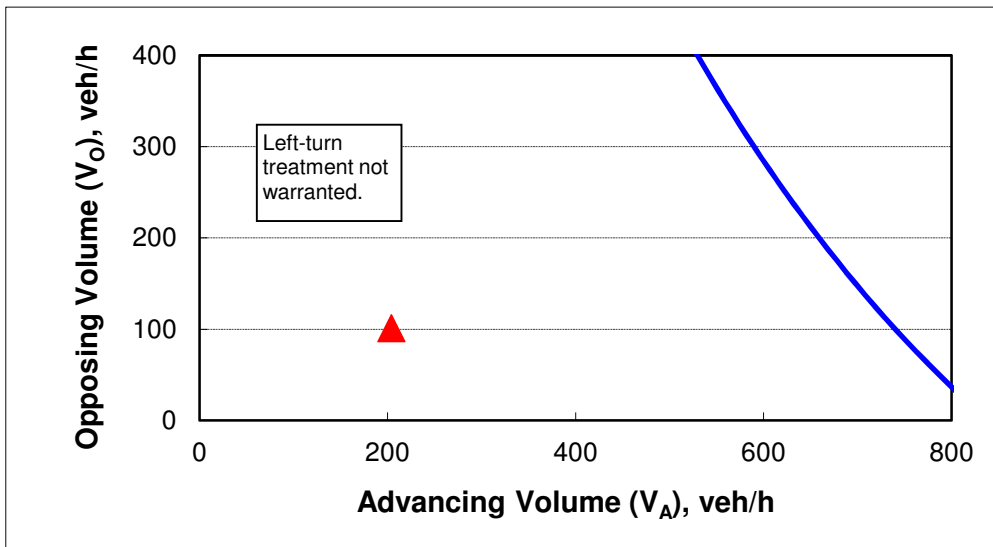
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	204
Opposing volume (V_O), veh/h:	101

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	739
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	Aspen Avenue	Minor Street:	NE 348th Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	107	PM Peak Hour Volumes:	25

Warrant Used:

_____ 100 percent of standard warrants used
 X 70 percent of standard warrants used due to 85th percentile speed in excess
 _____ of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	1,070	6,200	
Minor Street*	250	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	1,070	9,300	
Minor Street*	250	950	No
<i>Combination Warrant</i>			
Major Street	1,070	7,440	
Minor Street*	250	1,480	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	Aspen Avenue	Minor Street:	E18th Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	171	PM Peak Hour Volumes:	21

Warrant Used:

<u> </u>	100 percent of standard warrants used
<u> X </u>	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)	ADT on Minor St. (higher-volume approach)		
<u>WARRANT 1, CONDITION A</u>		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
<u>WARRANT 1, CONDITION B</u>					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	1,710	6,200	
Minor Street*	210	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	1,710	9,300	
Minor Street*	210	950	No
<i>Combination Warrant</i>			
Major Street	1,710	7,440	
Minor Street*	210	1,480	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	Aspen Avenue	Minor Street:	Heritage Loop
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	238	PM Peak Hour Volumes:	16

Warrant Used:

<u> </u>	100 percent of standard warrants used
<u> X </u>	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
<u>WARRANT 1, CONDITION A</u>		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
<u>WARRANT 1, CONDITION B</u>					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	2,380	6,200	
Minor Street*	160	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	2,380	9,300	
Minor Street*	160	950	No
<i>Combination Warrant</i>			
Major Street	2,380	7,440	
Minor Street*	160	1,480	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	Aspen Avenue	Minor Street:	10th Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	290	PM Peak Hour Volumes:	53

Warrant Used:

<u> </u>	100 percent of standard warrants used
<u> X </u>	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	2,900	6,200	
Minor Street*	530	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	2,900	9,300	
Minor Street*	530	950	No
<i>Combination Warrant</i>			
Major Street	2,900	7,440	
Minor Street*	530	1,480	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	Aspen Avenue	Minor Street:	W 5th Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	805	PM Peak Hour Volumes:	32

Warrant Used:

_____ 100 percent of standard warrants used
 X 70 percent of standard warrants used due to 85th percentile speed in excess
 _____ of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)	ADT on Minor St. (higher-volume approach)		
		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	8,050	6,200	
Minor Street*	320	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	8,050	9,300	
Minor Street*	320	950	No
<i>Combination Warrant</i>			
Major Street	8,050	7,440	
Minor Street*	320	1,480	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background Conditions

Major Street:	Pacific Hwy	Minor Street:	4th Street
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	902	PM Peak Hour Volumes:	297

Warrant Used:

- 100 percent of standard warrants used
- X 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
<u>Major St.</u>	<u>Minor St.</u>	<u>100% Warrants</u>	<u>70% Warrants</u>	<u>100% Warrants</u>	<u>70% Warrants</u>
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	9,020	7,400	
Minor Street*	2,970	2,500	Yes
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	9,020	11,100	
Minor Street*	2,970	1,250	No
<i>Combination Warrant</i>			
Major Street	9,020	8,880	
Minor Street*	2,970	2,000	Yes

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	4th Street	Minor Street:	Aspen Avenue
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	916	PM Peak Hour Volumes:	44

Warrant Used:

_____ 100 percent of standard warrants used
 X 70 percent of standard warrants used due to 85th percentile speed in excess
 _____ of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
<u>WARRANT 1, CONDITION A</u>		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
<u>WARRANT 1, CONDITION B</u>					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	9,160	6,200	
Minor Street*	440	2,500	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	9,160	9,300	
Minor Street*	440	1,250	No
<i>Combination Warrant</i>			
Major Street	9,160	7,440	
Minor Street*	440	2,000	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: Stephens Hillside Farm Subdivision
 Date: 1/22/2018
 Scenario: Year 2020 Background plus Site Trips

Major Street:	4th Street	Minor Street:	Highland/Ivy Avenue
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	666	PM Peak Hour Volumes:	104

Warrant Used:

_____ 100 percent of standard warrants used
 X 70 percent of standard warrants used due to 85th percentile speed in excess
 _____ of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	6,660	6,200	
Minor Street*	1,040	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	6,660	9,300	
Minor Street*	1,040	950	No
<i>Combination Warrant</i>			
Major Street	6,660	7,440	
Minor Street*	1,040	1,480	No

* Minor street right-turning traffic volumes reduced by 25%



LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

*LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

*LEVEL OF SERVICE CRITERIA
FOR UNSIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	3	1	8	20	1
Future Vol, veh/h	1	3	1	8	20	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	22	22	9	9
Mvmt Flow	1	4	1	11	28	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	43	29	30	0	0
Stage 1	29	-	-	-	-
Stage 2	14	-	-	-	-
Critical Hdwy	6.42	6.22	4.32	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.398	-	-
Pot Cap-1 Maneuver	968	1046	1463	-	-
Stage 1	994	-	-	-	-
Stage 2	1009	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	967	1046	1463	-	-
Mov Cap-2 Maneuver	967	-	-	-	-
Stage 1	994	-	-	-	-
Stage 2	1008	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1463	-	1025	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	7.5	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	1	9	14	1	22
Future Vol, veh/h	39	1	9	14	1	22
Conflicting Peds, #/hr	0	4	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	8	8	22	22	9	9
Mvmt Flow	55	1	13	20	1	31

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	61	31	0	0	36
Stage 1	27	-	-	-	-
Stage 2	34	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.19
Critical Hdwy Stg 1	5.48	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.281
Pot Cap-1 Maneuver	931	1026	-	-	1531
Stage 1	980	-	-	-	-
Stage 2	973	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	927	1018	-	-	1525
Mov Cap-2 Maneuver	927	-	-	-	-
Stage 1	976	-	-	-	-
Stage 2	972	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	929	1525
HCM Lane V/C Ratio	-	-	0.061	0.001
HCM Control Delay (s)	-	-	9.1	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	16	2	25	6	3	64
Future Vol, veh/h	16	2	25	6	3	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	23	23	5	5
Mvmt Flow	23	3	35	8	4	90

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	138	39	0	0	44
Stage 1	39	-	-	-	-
Stage 2	99	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245
Pot Cap-1 Maneuver	860	1038	-	-	1545
Stage 1	989	-	-	-	-
Stage 2	930	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	857	1038	-	-	1545
Mov Cap-2 Maneuver	857	-	-	-	-
Stage 1	989	-	-	-	-
Stage 2	927	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	1545
HCM Lane V/C Ratio	-	-	0.029	0.003
HCM Control Delay (s)	-	-	9.2	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	8	19	32	24	1	11	25	9	1	50	23
Future Vol, veh/h	12	8	19	32	24	1	11	25	9	1	50	23
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	5	5	5	2	2	2	16	16	16	3	3	3
Mvmt Flow	17	12	28	46	35	1	16	36	13	1	72	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	8	7.9	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	31%	56%	1%
Vol Thru, %	56%	21%	42%	68%
Vol Right, %	20%	49%	2%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	39	57	74
LT Vol	11	12	32	1
Through Vol	25	8	24	50
RT Vol	9	19	1	23
Lane Flow Rate	65	57	83	107
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.066	0.103	0.124
Departure Headway (Hd)	4.531	4.234	4.484	4.158
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	794	849	802	865
Service Time	2.541	2.246	2.495	2.168
HCM Lane V/C Ratio	0.082	0.067	0.103	0.124
HCM Control Delay	7.9	7.5	8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.3	0.4

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	14	1	10	25	21	116
Future Vol, veh/h	14	1	10	25	21	116
Conflicting Peds, #/hr	1	7	7	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	57	57	6	6	2	2
Mvmt Flow	18	1	13	32	27	147

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	165	114	180	0	-	0
Stage 1	107	-	-	-	-	-
Stage 2	58	-	-	-	-	-
Critical Hdwy	6.97	6.77	4.16	-	-	-
Critical Hdwy Stg 1	5.97	-	-	-	-	-
Critical Hdwy Stg 2	5.97	-	-	-	-	-
Follow-up Hdwy	4.013	3.813	2.254	-	-	-
Pot Cap-1 Maneuver	714	809	1372	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	697	798	1363	-	-	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	827	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1363	-	703	-	-
HCM Lane V/C Ratio	0.009	-	0.027	-	-
HCM Control Delay (s)	7.7	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 2010 TWSC
6: Pacific Highway & 4th Street

01/26/2018

Intersection												
Int Delay, s/veh	7.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘		↗		↘	↗	↘	↗	↘
Traffic Vol, veh/h	0	0	4	274	0	11	9	74	140	24	271	2
Future Vol, veh/h	0	0	4	274	0	11	9	74	140	24	271	2
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	145	-	0	-	-	145	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	25	25	25	2	2	2	11	11	11	1	1	1
Mvmt Flow	0	0	4	295	0	12	10	80	151	26	291	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	-	-	293	443	-	84	295	0	0	80	0	0
Stage 1	-	-	-	99	-	-	-	-	-	-	-	-
Stage 2	-	-	-	344	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.45	7.12	-	6.22	4.21	-	-	4.11	-	-
Critical Hdwy Stg 1	-	-	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.525	3.518	-	3.318	2.299	-	-	2.209	-	-
Pot Cap-1 Maneuver	0	0	695	525	0	975	1217	-	-	1524	-	-
Stage 1	0	0	-	907	0	-	-	-	-	-	-	-
Stage 2	0	0	-	671	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	694	511	-	971	1217	-	-	1518	-	-
Mov Cap-2 Maneuver	-	-	-	511	-	-	-	-	-	-	-	-
Stage 1	-	-	-	898	-	-	-	-	-	-	-	-
Stage 2	-	-	-	655	-	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	10.2		20.7		0.3			0.6		
HCM LOS	B		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1217	-	-	694	511	971	1518	-	-
HCM Lane V/C Ratio	0.008	-	-	0.006	0.577	0.012	0.017	-	-
HCM Control Delay (s)	8	0	-	10.2	21.2	8.8	7.4	-	-
HCM Lane LOS	A	A	-	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	3.6	0	0.1	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	24	178	229	18	20	13
Future Vol, veh/h	24	178	229	18	20	13
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	3	3	5	5	9	9
Mvmt Flow	35	258	332	26	29	19

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	361	0	-	0	676 348
Stage 1	-	-	-	-	348 -
Stage 2	-	-	-	-	328 -
Critical Hdwy	4.13	-	-	-	6.49 6.29
Critical Hdwy Stg 1	-	-	-	-	5.49 -
Critical Hdwy Stg 2	-	-	-	-	5.49 -
Follow-up Hdwy	2.227	-	-	-	3.581 3.381
Pot Cap-1 Maneuver	1192	-	-	-	408 680
Stage 1	-	-	-	-	700 -
Stage 2	-	-	-	-	714 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1192	-	-	-	394 678
Mov Cap-2 Maneuver	-	-	-	-	394 -
Stage 1	-	-	-	-	698 -
Stage 2	-	-	-	-	691 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1192	-	-	-	394	678
HCM Lane V/C Ratio	0.029	-	-	-	0.074	0.028
HCM Control Delay (s)	8.1	-	-	-	14.9	10.5
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	93	86	4	1	155	22	3	1	1	10	1	121
Future Vol, veh/h	93	86	4	1	155	22	3	1	1	10	1	121
Conflicting Peds, #/hr	0	0	9	9	0	0	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	180	-	-	105	-	-	185	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	9	9	9	8	8	8	50	50	50	10	10	10
Mvmt Flow	155	143	7	2	258	37	5	2	2	17	2	202

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	295	0	0	159	0	0	851	764	156	738	749	280
Stage 1	-	-	-	-	-	-	466	466	-	280	280	-
Stage 2	-	-	-	-	-	-	385	298	-	458	469	-
Critical Hdwy	4.19	-	-	4.18	-	-	7.6	7	6.7	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	6	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	6	-	6.2	5.6	-
Follow-up Hdwy	2.281	-	-	2.272	-	-	3.95	4.45	3.75	3.59	4.09	3.39
Pot Cap-1 Maneuver	1227	-	-	1385	-	-	233	283	778	324	331	740
Stage 1	-	-	-	-	-	-	495	489	-	710	665	-
Stage 2	-	-	-	-	-	-	552	589	-	568	547	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1223	-	-	1385	-	-	150	245	771	290	286	738
Mov Cap-2 Maneuver	-	-	-	-	-	-	150	245	-	290	286	-
Stage 1	-	-	-	-	-	-	429	423	-	620	664	-
Stage 2	-	-	-	-	-	-	398	588	-	493	474	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.3	0	23.8	12.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	150	372	1223	-	-	1385	-	-	290	729
HCM Lane V/C Ratio	0.033	0.009	0.127	-	-	0.001	-	-	0.057	0.279
HCM Control Delay (s)	29.8	14.8	8.4	-	-	7.6	-	-	18.2	11.8
HCM Lane LOS	D	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	0	0.4	-	-	0	-	-	0.2	1.1

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	2	3	28	22	1
Future Vol, veh/h	1	2	3	28	22	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	1	2	4	34	27	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	68	27	28	0	0
Stage 1	27	-	-	-	-
Stage 2	41	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-
Pot Cap-1 Maneuver	937	1048	1599	-	-
Stage 1	996	-	-	-	-
Stage 2	981	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	934	1048	1599	-	-
Mov Cap-2 Maneuver	934	-	-	-	-
Stage 1	996	-	-	-	-
Stage 2	978	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1599	-	1007	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	19	1	30	36	2	22
Future Vol, veh/h	19	1	30	36	2	22
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	1	36	43	2	27

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	89	61	0	0	80
Stage 1	58	-	-	-	-
Stage 2	31	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	917	1010	-	-	1531
Stage 1	970	-	-	-	-
Stage 2	997	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	916	1007	-	-	1527
Mov Cap-2 Maneuver	916	-	-	-	-
Stage 1	970	-	-	-	-
Stage 2	996	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	920	1527
HCM Lane V/C Ratio	-	-	0.026	0.002
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	12	4	77	20	5	51
Future Vol, veh/h	12	4	77	20	5	51
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	6	0	0	2	2
Mvmt Flow	15	5	95	25	6	63

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	182	108	0	0	120	0
Stage 1	107	-	-	-	-	-
Stage 2	75	-	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218	-
Pot Cap-1 Maneuver	798	935	-	-	1468	-
Stage 1	907	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	795	934	-	-	1467	-
Mov Cap-2 Maneuver	795	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	826	1467
HCM Lane V/C Ratio	-	-	0.024	0.004
HCM Control Delay (s)	-	-	9.5	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	15	18	6	17	2	26	89	33	1	39	22
Future Vol, veh/h	14	15	18	6	17	2	26	89	33	1	39	22
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	3	3	3
Mvmt Flow	16	17	21	7	20	2	30	103	38	1	45	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.7	8.1	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	30%	24%	2%
Vol Thru, %	60%	32%	68%	63%
Vol Right, %	22%	38%	8%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	47	25	62
LT Vol	26	14	6	1
Through Vol	89	15	17	39
RT Vol	33	18	2	22
Lane Flow Rate	172	55	29	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.192	0.066	0.036	0.081
Departure Headway (Hd)	4.02	4.321	4.486	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	883	834	803	877
Service Time	2.088	2.322	2.488	2.108
HCM Lane V/C Ratio	0.195	0.066	0.036	0.082
HCM Control Delay	8.1	7.6	7.7	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.2	0.1	0.3

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	11	4	12	158	31	41
Future Vol, veh/h	11	4	12	158	31	41
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	1	1	4	4
Mvmt Flow	14	5	15	200	39	52

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	297	69	93	0	0
Stage 1	67	-	-	-	-
Stage 2	230	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-
Pot Cap-1 Maneuver	698	1000	1508	-	-
Stage 1	961	-	-	-	-
Stage 2	813	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	688	996	1505	-	-
Mov Cap-2 Maneuver	688	-	-	-	-
Stage 1	959	-	-	-	-
Stage 2	803	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1505	-	750	-	-
HCM Lane V/C Ratio	0.01	-	0.025	-	-
HCM Control Delay (s)	7.4	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘		↗		↘	↗	↘	↗	↘
Traffic Vol, veh/h	2	0	5	206	1	52	1	155	456	30	144	4
Future Vol, veh/h	2	0	5	206	1	52	1	155	456	30	144	4
Conflicting Peds, #/hr	10	0	0	0	0	10	9	0	0	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	145	-	0	-	-	145	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	2	2	2
Mvmt Flow	2	0	6	242	1	61	1	182	536	35	169	5

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	446	-	181	427	439	192	183	0	0	182	0	0
Stage 1	251	-	-	185	185	-	-	-	-	-	-	-
Stage 2	195	-	-	242	254	-	-	-	-	-	-	-
Critical Hdwy	7.1	-	6.2	7.12	6.52	6.22	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	-	3.3	3.518	4.018	3.318	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	526	0	867	538	512	850	1398	-	-	1393	-	-
Stage 1	758	0	-	817	747	-	-	-	-	-	-	-
Stage 2	811	0	-	762	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	469	-	860	524	494	842	1398	-	-	1380	-	-
Mov Cap-2 Maneuver	469	-	-	524	494	-	-	-	-	-	-	-
Stage 1	751	-	-	816	746	-	-	-	-	-	-	-
Stage 2	743	-	-	738	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	16	0	1.3
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1398	-	-	860	524	842	1380	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.463	0.073	0.026	-	-
HCM Control Delay (s)	7.6	0	-	9.2	17.6	9.6	7.7	-	-
HCM Lane LOS	A	A	-	A	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.4	0.2	0.1	-	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↙	↘
Traffic Vol, veh/h	132	361	212	41	15	22
Future Vol, veh/h	132	361	212	41	15	22
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	1	1	2	2	3	3
Mvmt Flow	165	451	265	51	19	28

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	319	0	-	0	1075 294
Stage 1	-	-	-	-	294 -
Stage 2	-	-	-	-	781 -
Critical Hdwy	4.11	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.209	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1247	-	-	-	242 743
Stage 1	-	-	-	-	754 -
Stage 2	-	-	-	-	450 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1247	-	-	-	209 741
Mov Cap-2 Maneuver	-	-	-	-	209 -
Stage 1	-	-	-	-	752 -
Stage 2	-	-	-	-	389 -

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1247	-	-	-	209	741
HCM Lane V/C Ratio	0.132	-	-	-	0.09	0.037
HCM Control Delay (s)	8.3	-	-	-	23.9	10
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.3	0.1

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	155	220	1	2	151	15	2	1	4	18	1	86
Future Vol, veh/h	155	220	1	2	151	15	2	1	4	18	1	86
Conflicting Peds, #/hr	0	0	4	4	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	180	-	-	105	-	-	185	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	4	4	4
Mvmt Flow	191	272	1	2	186	19	2	1	5	22	1	106

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	277	0	0	915	869	276	859	861	198
Stage 1	-	-	-	-	-	-	659	659	-	201	201	-
Stage 2	-	-	-	-	-	-	256	210	-	658	660	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1366	-	-	1286	-	-	256	292	768	274	291	838
Stage 1	-	-	-	-	-	-	456	464	-	796	731	-
Stage 2	-	-	-	-	-	-	753	732	-	450	457	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1363	-	-	1286	-	-	197	250	765	242	249	836
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	250	-	242	249	-
Stage 1	-	-	-	-	-	-	391	397	-	684	730	-
Stage 2	-	-	-	-	-	-	654	731	-	383	391	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	0.1	15.1	12
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	197	542	1363	-	-	1286	-	-	242	814
HCM Lane V/C Ratio	0.013	0.011	0.14	-	-	0.002	-	-	0.092	0.132
HCM Control Delay (s)	23.5	11.7	8.1	-	-	7.8	-	-	21.4	10.1
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0	0	0.5	-	-	0	-	-	0.3	0.5

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	3	1	9	21	1
Future Vol, veh/h	1	3	1	9	21	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	22	22	9	9
Mvmt Flow	1	4	1	12	28	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	44	29	29	0	0
Stage 1	29	-	-	-	-
Stage 2	15	-	-	-	-
Critical Hdwy	6.42	6.22	4.32	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.398	-	-
Pot Cap-1 Maneuver	967	1046	1464	-	-
Stage 1	994	-	-	-	-
Stage 2	1008	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	966	1046	1464	-	-
Mov Cap-2 Maneuver	966	-	-	-	-
Stage 1	994	-	-	-	-
Stage 2	1007	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1464	-	1025	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	7.5	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	41	1	10	15	1	23
Future Vol, veh/h	41	1	10	15	1	23
Conflicting Peds, #/hr	0	4	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	8	8	22	22	9	9
Mvmt Flow	55	1	13	20	1	31

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	60	31	0	0	37
Stage 1	27	-	-	-	-
Stage 2	33	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.19
Critical Hdwy Stg 1	5.48	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.281
Pot Cap-1 Maneuver	932	1026	-	-	1530
Stage 1	980	-	-	-	-
Stage 2	974	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	928	1018	-	-	1524
Mov Cap-2 Maneuver	928	-	-	-	-
Stage 1	976	-	-	-	-
Stage 2	973	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	930	1524
HCM Lane V/C Ratio	-	-	0.06	0.001
HCM Control Delay (s)	-	-	9.1	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	2	27	6	3	68
Future Vol, veh/h	17	2	27	6	3	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	23	23	5	5
Mvmt Flow	23	3	36	8	4	91

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	139	40	0	0	44
Stage 1	40	-	-	-	-
Stage 2	99	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245
Pot Cap-1 Maneuver	859	1037	-	-	1545
Stage 1	988	-	-	-	-
Stage 2	930	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	856	1037	-	-	1545
Mov Cap-2 Maneuver	856	-	-	-	-
Stage 1	988	-	-	-	-
Stage 2	927	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	872	1545
HCM Lane V/C Ratio	-	-	0.029	0.003
HCM Control Delay (s)	-	-	9.3	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	8	20	34	25	1	12	27	10	1	53	24
Future Vol, veh/h	13	8	20	34	25	1	12	27	10	1	53	24
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	5	5	5	2	2	2	16	16	16	3	3	3
Mvmt Flow	19	11	29	49	36	1	17	39	14	1	76	34
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	8.1	8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	32%	57%	1%
Vol Thru, %	55%	20%	42%	68%
Vol Right, %	20%	49%	2%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	41	60	78
LT Vol	12	13	34	1
Through Vol	27	8	25	53
RT Vol	10	20	1	24
Lane Flow Rate	70	59	86	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.088	0.069	0.107	0.129
Departure Headway (Hd)	4.547	4.261	4.509	4.179
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	791	843	798	861
Service Time	2.557	2.273	2.52	2.189
HCM Lane V/C Ratio	0.088	0.07	0.108	0.129
HCM Control Delay	8	7.6	8.1	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.4	0.4

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	15	1	11	27	22	123
Future Vol, veh/h	15	1	11	27	22	123
Conflicting Peds, #/hr	1	7	7	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	57	57	6	6	2	2
Mvmt Flow	19	1	14	34	28	154

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	173	118	188	0	-	0
Stage 1	111	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.97	6.77	4.16	-	-	-
Critical Hdwy Stg 1	5.97	-	-	-	-	-
Critical Hdwy Stg 2	5.97	-	-	-	-	-
Follow-up Hdwy	4.013	3.813	2.254	-	-	-
Pot Cap-1 Maneuver	706	804	1362	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	689	793	1353	-	-	-
Mov Cap-2 Maneuver	689	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1353	-	695	-	-
HCM Lane V/C Ratio	0.01	-	0.029	-	-
HCM Control Delay (s)	7.7	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 2010 TWSC
6: Pacific Highway & 4th Street

01/26/2018

Intersection												
Int Delay, s/veh	11.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘		↗		↘	↗	↘	↗	↘
Traffic Vol, veh/h	0	0	4	340	0	19	10	79	166	27	288	2
Future Vol, veh/h	0	0	4	340	0	19	10	79	166	27	288	2
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	145	-	0	-	-	145	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	25	25	25	2	2	2	11	11	11	1	1	1
Mvmt Flow	0	0	4	358	0	20	11	83	175	28	303	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	-	-	305	465	-	87	306	0	0	83	0	0
Stage 1	-	-	-	104	-	-	-	-	-	-	-	-
Stage 2	-	-	-	361	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.45	7.12	-	6.22	4.21	-	-	4.11	-	-
Critical Hdwy Stg 1	-	-	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.525	3.518	-	3.318	2.299	-	-	2.209	-	-
Pot Cap-1 Maneuver	0	0	684	508	0	971	1205	-	-	1520	-	-
Stage 1	0	0	-	902	0	-	-	-	-	-	-	-
Stage 2	0	0	-	657	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	683	494	-	967	1205	-	-	1514	-	-
Mov Cap-2 Maneuver	-	-	-	494	-	-	-	-	-	-	-	-
Stage 1	-	-	-	892	-	-	-	-	-	-	-	-
Stage 2	-	-	-	641	-	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	10.3		28.1		0.3			0.6		
HCM LOS	B		D							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1205	-	-	683	494	967	1514	-	-
HCM Lane V/C Ratio	0.009	-	-	0.006	0.724	0.021	0.019	-	-
HCM Control Delay (s)	8	0	-	10.3	29.2	8.8	7.4	-	-
HCM Lane LOS	A	A	-	B	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	5.9	0.1	0.1	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	25	208	299	19	21	14
Future Vol, veh/h	25	208	299	19	21	14
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	3	5	5	9	9
Mvmt Flow	36	297	427	27	30	20

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	457	0	-	0	813 444
Stage 1	-	-	-	-	444 -
Stage 2	-	-	-	-	369 -
Critical Hdwy	4.13	-	-	-	6.49 6.29
Critical Hdwy Stg 1	-	-	-	-	5.49 -
Critical Hdwy Stg 2	-	-	-	-	5.49 -
Follow-up Hdwy	2.227	-	-	-	3.581 3.381
Pot Cap-1 Maneuver	1099	-	-	-	339 599
Stage 1	-	-	-	-	632 -
Stage 2	-	-	-	-	684 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1099	-	-	-	326 597
Mov Cap-2 Maneuver	-	-	-	-	326 -
Stage 1	-	-	-	-	630 -
Stage 2	-	-	-	-	660 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1099	-	-	-	326	597
HCM Lane V/C Ratio	0.032	-	-	-	0.092	0.034
HCM Control Delay (s)	8.4	-	-	-	17.2	11.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.1

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	108	101	4	3	194	23	3	1	1	11	2	154
Future Vol, veh/h	108	101	4	3	194	23	3	1	1	11	2	154
Conflicting Peds, #/hr	0	0	9	9	0	0	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	180	-	-	105	-	-	185	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	9	9	9	8	8	8	50	50	50	10	10	10
Mvmt Flow	166	155	6	5	298	35	5	2	2	17	3	237

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	334	0	0	171	0	0	948	843	167	817	828	319
Stage 1	-	-	-	-	-	-	500	500	-	325	325	-
Stage 2	-	-	-	-	-	-	448	343	-	492	503	-
Critical Hdwy	4.19	-	-	4.18	-	-	7.6	7	6.7	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	6	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	6	-	6.2	5.6	-
Follow-up Hdwy	2.281	-	-	2.272	-	-	3.95	4.45	3.75	3.59	4.09	3.39
Pot Cap-1 Maneuver	1187	-	-	1371	-	-	198	253	767	286	298	703
Stage 1	-	-	-	-	-	-	473	471	-	671	635	-
Stage 2	-	-	-	-	-	-	507	560	-	544	528	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1184	-	-	1371	-	-	114	215	760	253	253	701
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	215	-	253	253	-
Stage 1	-	-	-	-	-	-	403	401	-	577	633	-
Stage 2	-	-	-	-	-	-	332	558	-	465	450	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.3			0.1			29.1			13.6		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	114	335	1184	-	-	1371	-	-	253	685
HCM Lane V/C Ratio	0.04	0.009	0.14	-	-	0.003	-	-	0.067	0.35
HCM Control Delay (s)	37.9	15.8	8.5	-	-	7.6	-	-	20.2	13.1
HCM Lane LOS	E	C	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	0	0.5	-	-	0	-	-	0.2	1.6

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	2	3	30	23	1
Future Vol, veh/h	1	2	3	30	23	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	1	2	4	35	27	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	70	28	28	0	0
Stage 1	28	-	-	-	-
Stage 2	42	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-
Pot Cap-1 Maneuver	934	1047	1599	-	-
Stage 1	995	-	-	-	-
Stage 2	980	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	931	1047	1599	-	-
Mov Cap-2 Maneuver	931	-	-	-	-
Stage 1	995	-	-	-	-
Stage 2	977	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1599	-	1005	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	1	32	38	2	23
Future Vol, veh/h	20	1	32	38	2	23
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	1	38	45	2	27

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	92	63	0	0	82
Stage 1	60	-	-	-	-
Stage 2	32	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	913	1007	-	-	1528
Stage 1	968	-	-	-	-
Stage 2	996	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	912	1004	-	-	1524
Mov Cap-2 Maneuver	912	-	-	-	-
Stage 1	968	-	-	-	-
Stage 2	995	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1524
HCM Lane V/C Ratio	-	-	0.027	0.002
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 2010 TWSC
 3: Aspen Avenue & E Heritage Loop

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Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	13	4	82	21	5	54
Future Vol, veh/h	13	4	82	21	5	54
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	0	0	2	2
Mvmt Flow	15	5	96	25	6	64

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	184	110	0	0	121	0
Stage 1	109	-	-	-	-	-
Stage 2	75	-	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218	-
Pot Cap-1 Maneuver	796	933	-	-	1467	-
Stage 1	906	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	793	932	-	-	1466	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	822	1466
HCM Lane V/C Ratio	-	-	0.024	0.004
HCM Control Delay (s)	-	-	9.5	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	16	19	6	18	2	28	94	35	1	41	23
Future Vol, veh/h	15	16	19	6	18	2	28	94	35	1	41	23
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	3	3	3
Mvmt Flow	17	18	21	7	20	2	31	104	39	1	46	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.7	8.1	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	30%	23%	2%
Vol Thru, %	60%	32%	69%	63%
Vol Right, %	22%	38%	8%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	157	50	26	65
LT Vol	28	15	6	1
Through Vol	94	16	18	41
RT Vol	35	19	2	23
Lane Flow Rate	174	56	29	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.195	0.067	0.036	0.081
Departure Headway (Hd)	4.02	4.329	4.493	4.022
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	883	832	801	876
Service Time	2.09	2.33	2.495	2.113
HCM Lane V/C Ratio	0.197	0.067	0.036	0.082
HCM Control Delay	8.1	7.6	7.7	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.2	0.1	0.3

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	12	4	13	168	33	44
Future Vol, veh/h	12	4	13	168	33	44
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	1	1	4	4
Mvmt Flow	15	5	16	210	41	55

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	314	73	98	0	0
Stage 1	71	-	-	-	-
Stage 2	243	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-
Pot Cap-1 Maneuver	683	995	1501	-	-
Stage 1	957	-	-	-	-
Stage 2	802	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	672	991	1498	-	-
Mov Cap-2 Maneuver	672	-	-	-	-
Stage 1	955	-	-	-	-
Stage 2	791	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1498	-	731	-	-
HCM Lane V/C Ratio	0.011	-	0.027	-	-
HCM Control Delay (s)	7.4	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘		↗		↘	↗	↘	↗	↘
Traffic Vol, veh/h	2	0	5	252	1	59	1	164	540	40	153	4
Future Vol, veh/h	2	0	5	252	1	59	1	164	540	40	153	4
Conflicting Peds, #/hr	10	0	0	0	0	10	9	0	0	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	145	-	0	-	-	145	115	-	-
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	2	2	2	1	1	1	2	2	2
Mvmt Flow	2	0	6	280	1	66	1	182	600	44	170	4

Major/Minor	Minor2	Minor1		Major1			Major2					
Conflicting Flow All	465	-	181	445	456	192	183	0	0	182	0	0
Stage 1	270	-	-	184	184	-	-	-	-	-	-	-
Stage 2	195	-	-	261	272	-	-	-	-	-	-	-
Critical Hdwy	7.1	-	6.2	7.12	6.52	6.22	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	-	3.3	3.518	4.018	3.318	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	511	0	867	523	501	850	1398	-	-	1393	-	-
Stage 1	740	0	-	818	747	-	-	-	-	-	-	-
Stage 2	811	0	-	744	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	450	-	860	507	480	842	1398	-	-	1380	-	-
Mov Cap-2 Maneuver	450	-	-	507	480	-	-	-	-	-	-	-
Stage 1	733	-	-	817	746	-	-	-	-	-	-	-
Stage 2	739	-	-	716	657	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	18.4	0	1.6
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1398	-	-	860	507	842	1380	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.552	0.078	0.032	-	-
HCM Control Delay (s)	7.6	0	-	9.2	20.5	9.6	7.7	-	-
HCM Lane LOS	A	A	-	A	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	3.3	0.3	0.1	-	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	140	447	262	44	16	23
Future Vol, veh/h	140	447	262	44	16	23
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	2	2	3	3
Mvmt Flow	165	526	308	52	19	27

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	363	0	-	0	1192 337
Stage 1	-	-	-	-	337 -
Stage 2	-	-	-	-	855 -
Critical Hdwy	4.11	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.209	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1201	-	-	-	206 703
Stage 1	-	-	-	-	721 -
Stage 2	-	-	-	-	415 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1201	-	-	-	177 701
Mov Cap-2 Maneuver	-	-	-	-	177 -
Stage 1	-	-	-	-	719 -
Stage 2	-	-	-	-	357 -

Approach	EB	WB	SB
HCM Control Delay, s	2	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1201	-	-	-	177	701
HCM Lane V/C Ratio	0.137	-	-	-	0.106	0.039
HCM Control Delay (s)	8.5	-	-	-	27.7	10.3
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.4	0.1

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	196	265	1	3	180	16	4	2	4	19	2	108
Future Vol, veh/h	196	265	1	3	180	16	4	2	4	19	2	108
Conflicting Peds, #/hr	0	0	4	4	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	180	-	-	105	-	-	185	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	4	4	4
Mvmt Flow	231	312	1	4	212	19	5	2	5	22	2	127

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	231	0	0	317	0	0	1073	1016	316	1005	1006	223
Stage 1	-	-	-	-	-	-	778	778	-	228	228	-
Stage 2	-	-	-	-	-	-	295	238	-	777	778	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1337	-	-	1243	-	-	200	240	729	218	239	812
Stage 1	-	-	-	-	-	-	392	410	-	770	712	-
Stage 2	-	-	-	-	-	-	718	712	-	387	404	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1334	-	-	1243	-	-	144	197	726	186	196	810
Mov Cap-2 Maneuver	-	-	-	-	-	-	144	197	-	186	196	-
Stage 1	-	-	-	-	-	-	323	338	-	637	710	-
Stage 2	-	-	-	-	-	-	600	710	-	316	333	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	3.5		0.1		21.1		13.1	
HCM LOS					C		B	

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	144	383	1334	-	-	1243	-	-	186	766
HCM Lane V/C Ratio	0.033	0.018	0.173	-	-	0.003	-	-	0.12	0.169
HCM Control Delay (s)	30.8	14.6	8.3	-	-	7.9	-	-	27	10.7
HCM Lane LOS	D	B	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.1	0.1	0.6	-	-	0	-	-	0.4	0.6

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	2	46	15	9	21	1
Future Vol, veh/h	2	46	15	9	21	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	22	22	9	9
Mvmt Flow	3	61	20	12	28	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	81	29	29	0	0
Stage 1	29	-	-	-	-
Stage 2	52	-	-	-	-
Critical Hdwy	6.42	6.22	4.32	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.398	-	-
Pot Cap-1 Maneuver	921	1046	1464	-	-
Stage 1	994	-	-	-	-
Stage 2	970	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	908	1046	1464	-	-
Mov Cap-2 Maneuver	908	-	-	-	-
Stage 1	994	-	-	-	-
Stage 2	956	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	4.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1464	-	1039	-	-
HCM Lane V/C Ratio	0.014	-	0.062	-	-
HCM Control Delay (s)	7.5	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	1	24	15	1	66
Future Vol, veh/h	41	1	24	15	1	66
Conflicting Peds, #/hr	0	4	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	8	8	22	22	9	9
Mvmt Flow	55	1	32	20	1	88

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	137	50	0	0	56
Stage 1	46	-	-	-	-
Stage 2	91	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.19
Critical Hdwy Stg 1	5.48	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.281
Pot Cap-1 Maneuver	842	1002	-	-	1505
Stage 1	961	-	-	-	-
Stage 2	918	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	838	994	-	-	1499
Mov Cap-2 Maneuver	838	-	-	-	-
Stage 1	957	-	-	-	-
Stage 2	917	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	841	1499
HCM Lane V/C Ratio	-	-	0.067	0.001
HCM Control Delay (s)	-	-	9.6	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	17	2	41	6	3	111
Future Vol, veh/h	17	2	41	6	3	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	23	23	5	5
Mvmt Flow	23	3	55	8	4	148

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	215	59	0	0	63
Stage 1	59	-	-	-	-
Stage 2	156	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245
Pot Cap-1 Maneuver	778	1012	-	-	1521
Stage 1	969	-	-	-	-
Stage 2	877	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	776	1012	-	-	1521
Mov Cap-2 Maneuver	776	-	-	-	-
Stage 1	969	-	-	-	-
Stage 2	874	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	796	1521
HCM Lane V/C Ratio	-	-	0.032	0.003
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	15	8	20	34	25	1	12	39	10	1	89	31
Future Vol, veh/h	15	8	20	34	25	1	12	39	10	1	89	31
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	5	5	5	2	2	2	16	16	16	3	3	3
Mvmt Flow	21	11	29	49	36	1	17	56	14	1	127	44
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.3	8.3	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	35%	57%	1%
Vol Thru, %	64%	19%	42%	74%
Vol Right, %	16%	47%	2%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	43	60	121
LT Vol	12	15	34	1
Through Vol	39	8	25	89
RT Vol	10	20	1	31
Lane Flow Rate	87	61	86	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.112	0.076	0.112	0.204
Departure Headway (Hd)	4.645	4.468	4.697	4.248
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	773	803	765	847
Service Time	2.665	2.49	2.717	2.264
HCM Lane V/C Ratio	0.113	0.076	0.112	0.204
HCM Control Delay	8.3	7.9	8.3	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.4	0.8

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	1	11	34	42	139
Future Vol, veh/h	20	1	11	34	42	139
Conflicting Peds, #/hr	1	7	7	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	57	57	6	6	2	2
Mvmt Flow	25	1	14	43	53	174

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	217	153	233	0	-	0
Stage 1	146	-	-	-	-	-
Stage 2	71	-	-	-	-	-
Critical Hdwy	6.97	6.77	4.16	-	-	-
Critical Hdwy Stg 1	5.97	-	-	-	-	-
Critical Hdwy Stg 2	5.97	-	-	-	-	-
Follow-up Hdwy	4.013	3.813	2.254	-	-	-
Pot Cap-1 Maneuver	663	767	1311	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	647	757	1302	-	-	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1302	-	652	-	-
HCM Lane V/C Ratio	0.011	-	0.04	-	-
HCM Control Delay (s)	7.8	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	13											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘		↗		↘	↗	↘	↗	↘
Traffic Vol, veh/h	0	0	4	353	0	19	10	84	171	27	304	2
Future Vol, veh/h	0	0	4	353	0	19	10	84	171	27	304	2
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	145	-	0	-	-	145	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	25	25	25	2	2	2	11	11	11	1	1	1
Mvmt Flow	0	0	4	372	0	20	11	88	180	28	320	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	322	487	-	92	323	0	0	88	0	0
Stage 1	-	-	-	109	-	-	-	-	-	-	-	-
Stage 2	-	-	-	378	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.45	7.12	-	6.22	4.21	-	-	4.11	-	-
Critical Hdwy Stg 1	-	-	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.525	3.518	-	3.318	2.299	-	-	2.209	-	-
Pot Cap-1 Maneuver	0	0	669	491	0	965	1188	-	-	1514	-	-
Stage 1	0	0	-	896	0	-	-	-	-	-	-	-
Stage 2	0	0	-	644	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	668	477	-	961	1188	-	-	1508	-	-
Mov Cap-2 Maneuver	-	-	-	477	-	-	-	-	-	-	-	-
Stage 1	-	-	-	886	-	-	-	-	-	-	-	-
Stage 2	-	-	-	628	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.4		33.1		0.3		0.6	
HCM LOS	B		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1188	-	-	668	477	961	1508	-	-
HCM Lane V/C Ratio	0.009	-	-	0.006	0.779	0.021	0.019	-	-
HCM Control Delay (s)	8.1	0	-	10.4	34.4	8.8	7.4	-	-
HCM Lane LOS	A	A	-	B	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	6.9	0.1	0.1	-	-

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↗		↙	↗
Traffic Vol, veh/h	30	208	299	21	28	27
Future Vol, veh/h	30	208	299	21	28	27
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	3	5	5	9	9
Mvmt Flow	43	297	427	30	40	39

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	460	0	-	0	828 445
Stage 1	-	-	-	-	445 -
Stage 2	-	-	-	-	383 -
Critical Hdwy	4.13	-	-	-	6.49 6.29
Critical Hdwy Stg 1	-	-	-	-	5.49 -
Critical Hdwy Stg 2	-	-	-	-	5.49 -
Follow-up Hdwy	2.227	-	-	-	3.581 3.381
Pot Cap-1 Maneuver	1096	-	-	-	332 599
Stage 1	-	-	-	-	631 -
Stage 2	-	-	-	-	674 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1096	-	-	-	317 597
Mov Cap-2 Maneuver	-	-	-	-	317 -
Stage 1	-	-	-	-	629 -
Stage 2	-	-	-	-	646 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1096	-	-	-	317	597
HCM Lane V/C Ratio	0.039	-	-	-	0.126	0.065
HCM Control Delay (s)	8.4	-	-	-	18	11.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↔		↔	↔	
Traffic Vol, veh/h	110	103	4	3	195	23	3	1	1	11	2	155
Future Vol, veh/h	110	103	4	3	195	23	3	1	1	11	2	155
Conflicting Peds, #/hr	0	0	9	9	0	0	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	180	-	-	105	-	-	185	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	9	9	9	8	8	8	50	50	50	10	10	10
Mvmt Flow	169	158	6	5	300	35	5	2	2	17	3	238

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	335	0	0	174	0	0	960	854	171	829	839	321
Stage 1	-	-	-	-	-	-	509	509	-	327	327	-
Stage 2	-	-	-	-	-	-	451	345	-	502	512	-
Critical Hdwy	4.19	-	-	4.18	-	-	7.6	7	6.7	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	6	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	6	-	6.2	5.6	-
Follow-up Hdwy	2.281	-	-	2.272	-	-	3.95	4.45	3.75	3.59	4.09	3.39
Pot Cap-1 Maneuver	1186	-	-	1367	-	-	194	249	762	281	293	702
Stage 1	-	-	-	-	-	-	468	467	-	669	634	-
Stage 2	-	-	-	-	-	-	505	559	-	537	523	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1183	-	-	1367	-	-	111	211	755	248	248	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	211	-	248	248	-
Stage 1	-	-	-	-	-	-	398	397	-	573	632	-
Stage 2	-	-	-	-	-	-	329	557	-	458	444	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.3			0.1			29.7			13.6		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	111	330	1183	-	-	1367	-	-	248	684
HCM Lane V/C Ratio	0.042	0.009	0.143	-	-	0.003	-	-	0.068	0.353
HCM Control Delay (s)	38.8	16	8.6	-	-	7.6	-	-	20.6	13.1
HCM Lane LOS	E	C	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	0	0.5	-	-	0	-	-	0.2	1.6

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	2	30	51	30	23	2
Future Vol, veh/h	2	30	51	30	23	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	2	35	60	35	27	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	183	28	29	0	0
Stage 1	28	-	-	-	-
Stage 2	155	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-
Pot Cap-1 Maneuver	806	1047	1597	-	-
Stage 1	995	-	-	-	-
Stage 2	873	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	775	1047	1597	-	-
Mov Cap-2 Maneuver	775	-	-	-	-
Stage 1	995	-	-	-	-
Stage 2	840	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	4.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1597	-	1025	-	-
HCM Lane V/C Ratio	0.038	-	0.037	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	1	80	38	2	51
Future Vol, veh/h	20	1	80	38	2	51
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	1	94	45	2	60

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	181	119	0	0	139
Stage 1	116	-	-	-	-
Stage 2	65	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	813	938	-	-	1457
Stage 1	914	-	-	-	-
Stage 2	963	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	812	935	-	-	1453
Mov Cap-2 Maneuver	812	-	-	-	-
Stage 1	914	-	-	-	-
Stage 2	962	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	817	1453
HCM Lane V/C Ratio	-	-	0.03	0.002
HCM Control Delay (s)	-	-	9.5	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	13	4	130	21	5	82
Future Vol, veh/h	13	4	130	21	5	82
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	0	0	2	2
Mvmt Flow	15	5	153	25	6	96

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	273	166	0	0	178
Stage 1	165	-	-	-	-
Stage 2	108	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12
Critical Hdwy Stg 1	5.46	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218
Pot Cap-1 Maneuver	708	868	-	-	1398
Stage 1	855	-	-	-	-
Stage 2	907	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	704	867	-	-	1397
Mov Cap-2 Maneuver	704	-	-	-	-
Stage 1	855	-	-	-	-
Stage 2	902	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	737	1397
HCM Lane V/C Ratio	-	-	0.027	0.004
HCM Control Delay (s)	-	-	10	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	16	19	6	18	2	28	134	35	1	65	27
Future Vol, veh/h	23	16	19	6	18	2	28	134	35	1	65	27
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	3	3	3
Mvmt Flow	26	18	21	7	20	2	31	149	39	1	72	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.9	8.5	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	40%	23%	1%
Vol Thru, %	68%	28%	69%	70%
Vol Right, %	18%	33%	8%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	58	26	93
LT Vol	28	23	6	1
Through Vol	134	16	18	65
RT Vol	35	19	2	27
Lane Flow Rate	219	64	29	103
Geometry Grp	1	1	1	1
Degree of Util (X)	0.248	0.081	0.038	0.121
Departure Headway (Hd)	4.08	4.55	4.678	4.221
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	865	791	769	853
Service Time	2.177	2.558	2.685	2.23
HCM Lane V/C Ratio	0.253	0.081	0.038	0.121
HCM Control Delay	8.5	8	7.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.3	0.1	0.4

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	29	4	13	191	46	55
Future Vol, veh/h	29	4	13	191	46	55
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	1	1	4	4
Mvmt Flow	36	5	16	239	58	69

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	365	96	128	0	0
Stage 1	94	-	-	-	-
Stage 2	271	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-
Pot Cap-1 Maneuver	639	966	1464	-	-
Stage 1	935	-	-	-	-
Stage 2	779	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	628	962	1461	-	-
Mov Cap-2 Maneuver	628	-	-	-	-
Stage 1	933	-	-	-	-
Stage 2	767	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1461	-	656	-	-
HCM Lane V/C Ratio	0.011	-	0.063	-	-
HCM Control Delay (s)	7.5	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘		↗		↘	↗	↘	↗	↘
Traffic Vol, veh/h	2	0	5	261	1	59	1	181	555	40	164	4
Future Vol, veh/h	2	0	5	261	1	59	1	181	555	40	164	4
Conflicting Peds, #/hr	10	0	0	0	0	10	9	0	0	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	145	-	0	-	-	145	115	-	-
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	2	2	2	1	1	1	2	2	2
Mvmt Flow	2	0	6	290	1	66	1	201	617	44	182	4

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	496	-	193	476	488	211	196	0	0	201	0	0
Stage 1	282	-	-	203	203	-	-	-	-	-	-	-
Stage 2	214	-	-	273	285	-	-	-	-	-	-	-
Critical Hdwy	7.1	-	6.2	7.12	6.52	6.22	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	-	3.3	3.518	4.018	3.318	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	487	0	854	499	480	829	1383	-	-	1371	-	-
Stage 1	729	0	-	799	733	-	-	-	-	-	-	-
Stage 2	793	0	-	733	676	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	428	-	847	483	460	821	1383	-	-	1358	-	-
Mov Cap-2 Maneuver	428	-	-	483	460	-	-	-	-	-	-	-
Stage 1	721	-	-	797	732	-	-	-	-	-	-	-
Stage 2	720	-	-	705	648	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	9.3		20.6		0			1.5		
HCM LOS	A		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	847	483	821	1358	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.6	0.08	0.033	-	-
HCM Control Delay (s)	7.6	0	-	9.3	23	9.8	7.7	-	-
HCM Lane LOS	A	A	-	A	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	3.9	0.3	0.1	-	-

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↙	↘
Traffic Vol, veh/h	155	447	262	52	20	32
Future Vol, veh/h	155	447	262	52	20	32
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	2	2	3	3
Mvmt Flow	182	526	308	61	24	38

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	372	0	-	0	1233 342
Stage 1	-	-	-	-	342 -
Stage 2	-	-	-	-	891 -
Critical Hdwy	4.11	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.209	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1192	-	-	-	194 698
Stage 1	-	-	-	-	717 -
Stage 2	-	-	-	-	399 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1192	-	-	-	163 696
Mov Cap-2 Maneuver	-	-	-	-	163 -
Stage 1	-	-	-	-	715 -
Stage 2	-	-	-	-	337 -

Approach

	EB	WB	SB
HCM Control Delay, s	2.2	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1192	-	-	-	163	696
HCM Lane V/C Ratio	0.153	-	-	-	0.144	0.054
HCM Control Delay (s)	8.6	-	-	-	30.8	10.5
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.5	0.2

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	197	266	1	3	183	16	4	2	4	19	2	111
Future Vol, veh/h	197	266	1	3	183	16	4	2	4	19	2	111
Conflicting Peds, #/hr	0	0	4	4	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	180	-	-	105	-	-	185	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	4	4	4
Mvmt Flow	232	313	1	4	215	19	5	2	5	22	2	131

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	318	0	0	1081	1022	318	1013	1014	227
Stage 1	-	-	-	-	-	-	781	781	-	232	232	-
Stage 2	-	-	-	-	-	-	300	241	-	781	782	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1333	-	-	1242	-	-	197	238	727	216	237	807
Stage 1	-	-	-	-	-	-	391	408	-	766	709	-
Stage 2	-	-	-	-	-	-	713	710	-	385	402	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1242	-	-	140	195	724	184	194	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	195	-	184	194	-
Stage 1	-	-	-	-	-	-	322	336	-	632	707	-
Stage 2	-	-	-	-	-	-	592	708	-	314	331	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.5			0.1			21.5			13.1		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	140	380	1330	-	-	1242	-	-	184	762
HCM Lane V/C Ratio	0.034	0.019	0.174	-	-	0.003	-	-	0.121	0.174
HCM Control Delay (s)	31.6	14.7	8.3	-	-	7.9	-	-	27.3	10.7
HCM Lane LOS	D	B	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.1	0.1	0.6	-	-	0	-	-	0.4	0.6