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6645 SW Nyberg Lane Apartments

Transportation Impact Study

Tualatin, Oregon

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Executive Summary

1. The proposed SW Nyberg Lane Apartments will include the construction of a 264-unit apartment complex located at 6645 SW Nyberg Lane in Tualatin, Oregon. This report addresses the impacts of the proposed development on the nearby street system.
2. The trip generation calculations show that the proposed development is projected to generate approximately 133 site trips during the morning peak hour and 163 site trips during the evening peak hour.
3. The intersection of SW 65th Avenue at SW Borland Road is projected to operate with a v/c ratio in excess of 1.00 by year 2019 with or without proposed development site trips. One potential mitigation to reduce the v/c ratio includes restriping the northbound approach to include one shared left-turn/through lane and one right-turn lane. Upon implementation of the suggested mitigation, the intersection is projected to operate acceptably per City of Tualatin and Washington County standards.
4. All other study intersections are currently operating acceptably per their respective jurisdictional standards and are projected to continue operating acceptably upon build-out of the proposed development through year 2019. No operational mitigation is necessary or recommended at these intersections.
5. The I-5 southbound ramps intersection at SW Nyberg Street has experience a high number of pedestrian and bicycle related crashes between January 2011 and December 2015. According to the City of Tualatin's *Transportation System Plan*, two safety projects are planned for implementation in the short-term to help improve safety for pedestrians and bicyclists at the intersection. No other significant trends or crash patterns were identified at any of the other study intersection.
6. Adequate sight distance is available at the site access to ensure safe operation of the intersection along SW Nyberg Lane. No sight distance mitigation is necessary or recommended.

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Project Description and Location

Introduction

A 264-unit apartment complex is proposed for construction on the property located at 6645 SW Nyberg Lane in Tualatin, Oregon. This report addresses the impacts of the proposed development on the nearby street system. This study includes safety and capacity/level-of-service analyses at the following intersections:

- Interstate 5 (I-5) Southbound Ramps at SW Nyberg Street;
- I-5 Northbound Ramps at SW Nyberg Street;
- Nyberg Woods Shopping Mall Access at SW Nyberg Street;
- SW Nyberg Lane at SW Nyberg Street/SW 65th Avenue;
- Site Access at SW Nyberg Lane;
- SW 65th Avenue at SW Borland Road; and
- SW 65th Avenue at SW Sagert Street.

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 north of SW Nyberg Lane near the intersection of SW Nyberg Lane at SW Nyberg Street in Tualatin, Oregon. The subject site is surrounded by a mix of land-uses, with apartments to the east and west, commercial and service uses to the south, and the Tualatin River to the north. One notable development near the project site includes the Nyberg Woods Shopping Mall located within a quarter-mile walking/biking distance west of the site.

The site includes two tax lots (lots 2600 and 2601), which encompasses an approximate total of 10.89 acres, and is currently developed as an RV Park which has been vacated since 2012. Access to the site will be provided via a single existing driveway along SW Nyberg Lane.

Vicinity Streets

SW Nyberg Street is classified by the City of Tualatin as a Major Arterial. The roadway has a varying cross-section of four to eight lanes and has a posted speed limit of 35 mph east and west of the I-5 overpass and a posted speed of 30 mph along the overpass. Bicycle lanes are provided along both sides of the roadway east

of the Nyberg Woods Shopping Mall access. Curbs are provided along both sides of the roadway while sidewalks are provided on both sides except along the south side of the I-5 overpass.

SW Nyberg Lane is classified by the City of Tualatin as a Minor Collector. The roadway has a two to three-lane cross-section within the site vicinity and has a posted speed limit of 35 mph. Curbs and sidewalks are provided along both sides of the roadway while bicycle lanes are provided along both sides east of the project site.

SW Borland Road is classified by the City of Tualatin as a Major Arterial. The roadway has a three-lane cross-section, with one travel lane in each direction and a center two-way left-turn lane, and has a posted speed of 35 mph. Bicycle lanes are provided along both sides of the roadway east of the Legacy Meridian Park Medical Center access. Curbs and sidewalks are provided along the north side of the roadway while intermittently along the south side.

SW Sagert Street is classified by the City of Tualatin as a Major Arterial. The roadway has a two-lane cross-section and has a posted speed of 35 mph. Curbs, sidewalks, and bicycle lanes are provided along both sides of the roadway.

SW 65th Avenue is classified by the City of Tualatin as a Major Arterial north and a Minor Collector south of SW Sagert Street. The roadway has a three-lane cross-section, with one travel lane in each direction and a center two-way left-turn lane, north and a two-lane cross-section south of SW Sagert Street. It has a posted speed of 35 mph. Bicycle lanes are intermittently provided along both sides of the roadway. Curbs and sidewalks are generally provided along both sides of the roadway north of SW Sagert Street.

Study Intersections

The intersection of SW Nyberg Street at the I-5 southbound ramps is a four-legged intersection that is controlled by a traffic signal. The southbound I-5 ramp approach has two right-turn lanes, one shared through/left-turn lane, and one left-turn lane. The eastbound approach has three through lanes, one channelized right-turn lane that operates under yield control, and a bicycle lane situated in between the outermost through and right-turn lanes. The westbound approach has one left-turn lane served with protected phasing, two through lanes, and a bicycle lane to the right of the outermost standard travel lane. A crosswalk is marked across the northern intersection leg.

The intersection of SW Nyberg Street at the I-5 northbound ramps is a four-legged intersection that is controlled by a traffic signal. The northbound I-5 ramp approach has one left-turn lane, one shared left-turn/through lane, and one channelized right-turn lane that operates under signal control. The eastbound approach has two through lanes, two channelized right-turn lanes that operate under free-flow conditions, and a bicycle lane to the right of the outermost standard travel lane. The westbound approach has one channelized right-turn lane that operates under yield control, two through lanes, and a bicycle lane situated in between the outermost through and right-turn lanes. Crosswalks are marked across the northern and eastern intersection legs.

The Nyberg Woods Shopping Mall access intersection at SW Nyberg Street is a four-legged intersection that is controlled by a traffic signal. The northbound approach has one shared full-movement turning lane and one right-turn lane. The southbound approach has one shared left-turn/through lane and one right-turn lane served with permitted/overlap phasing. The eastbound approach has two left-turn lanes served with protected phasing, one through lane, one shared through/right-turn lane, and a bicycle lane to the right of the outermost standard travel lane. The westbound approach has one left-turn lane served with protected phasing, one through lane, one shared 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.

The intersection of SW Nyberg Lane at SW Nyberg Street/SW 65th Avenue is a four-legged intersection that is controlled by a traffic signal. The northbound approach has one shared left-turn/through lane and one right-turn lane. The southbound approach has one shared left-turn/through lane and one right-turn lane served with permitted/overlap phasing. The eastbound approach has one left-turn lane served with Flashing-Yellow-Arrow (FYA) phasing and one shared through/right-turn lane. The westbound approach has one left-turn lane served with FYA phasing, one through lane, and one shared through/right-turn lane. Crosswalks are marked across all four intersection legs.

The existing site access intersection at SW Nyberg Street is a three-legged intersection that is stop-controlled for the southbound access approach. The southbound and westbound approaches each have one shared lane for all turning-movements. The eastbound approach has one left-turn lane and one through lane. A sidewalk is provided across the northern intersection leg.

The intersection of SW 65th Avenue at SW Borland Road is a four-legged intersection that is controlled by a traffic signal. The northbound approach has one left-turn lane served with permitted/protected phasing, one shared through/right-turn lane, and a bicycle lane to the right of the outermost standard travel lane. The southbound approach has one left-turn lane served with permitted/protected phasing and one shared through/right-turn lane. The eastbound approach has one shared lane for all turning-movements. The westbound approach has one shared left-turn/through lane and one right-turn lane served with permitted/overlap phasing.

The intersection of SW 65th Avenue at SW Sagert Street is a four-legged intersection that is all-way stop-controlled. The northbound and westbound approaches each have one shared lane for all turning movements. The southbound approach has one left-turn lane, one through lane, one right-turn lane, and a bicycle lane situated in between the through and right-turn lanes. The eastbound approach has one shared left-turn/through lane and one right-turn lane. Crosswalks are marked across the southern and western intersection legs and a sidewalk is provided across the eastern leg.

The intersection of SW 65th Avenue at SW Sagert Street is currently undergoing reconstruction and will likely operate under signal control by the projected 2019 build-out year of the proposed development. The future intersection lane configuration will include one left-turn lane, one shared through/right-turn lane, and a bicycle lane to the right of the outermost standard travel lane for the northbound, eastbound, and westbound approaches. The southbound approach will maintain its existing lane configuration. The eastbound and westbound left-turns will be served by permitted phasing while the northbound and southbound left-turn lanes will be served by FYA phasing.

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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.

Transit

The project site is located near one transit line that has stops within a quarter-mile to half-mile walking/biking distance south of the site. Complete sidewalks and adequate crossing measures at intersections are available between the project site and each of the transit stop locations allowing for safe and comfortable travel for transit users.

TriMet bus line *#76 – Beaverton/Tualatin* provides service between Beaverton Transit Center and Legacy Meridian Park Hospital in the City of Tualatin, with notable stops near Washington Square Mall/Transit Center, Tigard Transit Center, Tigard High School, and Tualatin Park & Ride. Weekday service is scheduled from approximately 5:45 AM to 11:15 PM and has headways of approximately 30 to 45 minutes. Saturday service is scheduled from approximately 6:30 AM to 10:30 PM and has headways of approximately 30 to 60 minutes. Sunday service is scheduled from approximately 6:30 AM to 10:30 PM and has headways of approximately 30 to 70 minutes.

Traffic Counts

Traffic counts were conducted at the study intersections on Wednesday, August 30th, 2017, from 7:00 AM to 9:00 AM and on Tuesday, August 29th, 2017, from 4:00 PM to 6:00 PM. Data was used from each intersection's respective morning and evening peak hours.

Due to construction occurring at the intersection of SW 65th Avenue at SW Sagert Street, traffic count data obtained on Wednesday, April 6th, 2016, from 7:00 AM to 9:00 AM and on Tuesday, April 5th, 2016, from 4:00 PM and 6:00 PM was used. Comparing traffic count data collected at the study intersections between years 2016 and 2017, traffic volumes within the nearby site vicinity on average decreased by 6.26 percent during the morning peak period and decreased by approximately 0.05 percent during the evening peak period. In order to maintain a conservative analysis, year 2016 traffic volumes at the intersection SW 65th Avenue at SW Sagert Street were used without reflecting the reduction in vehicle traffic between years 2016 to 2017.

Although the site is developed as an RV park, the park has been closed since 2012 with the access currently chained off. Accordingly, it was assumed that a nominal number of trips travel to and from the site under existing conditions, and traffic volumes along SW Nyberg Lane were balanced with the intersection of SW Nyberg Lane at SW Nyberg Street.

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.

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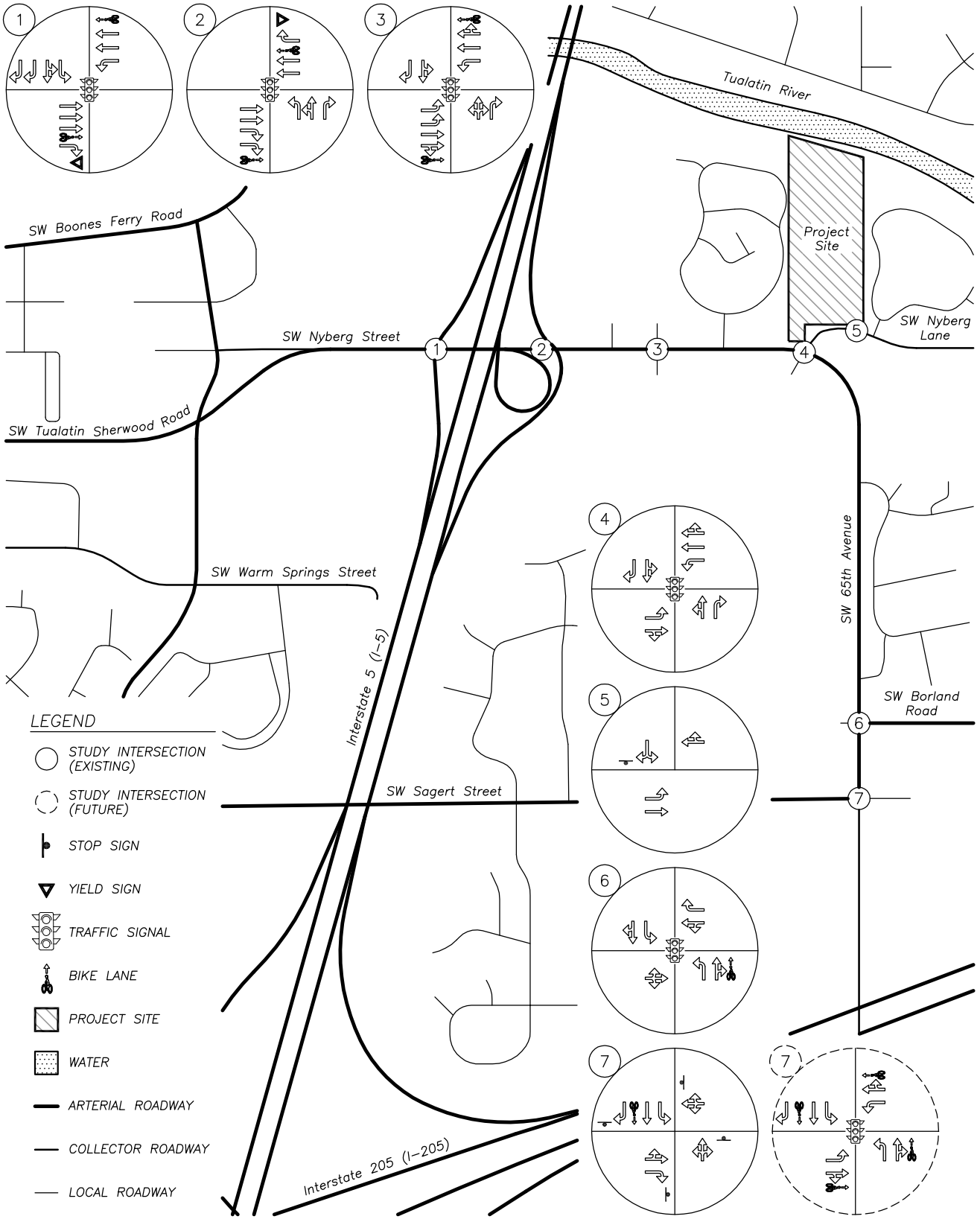


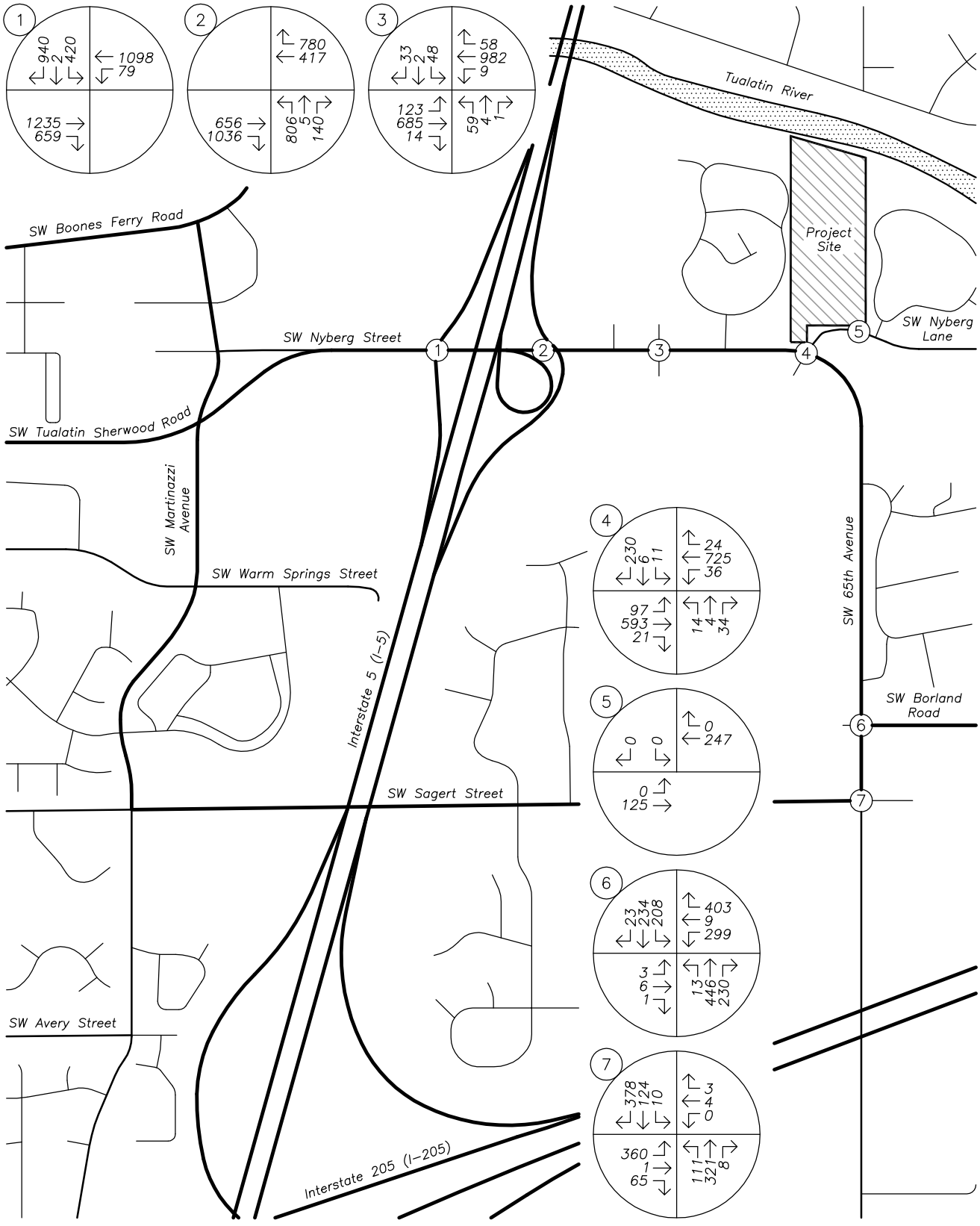
VICINITY MAP

no scale

FIGURE 1

PAGE 6

EXHIBIT N



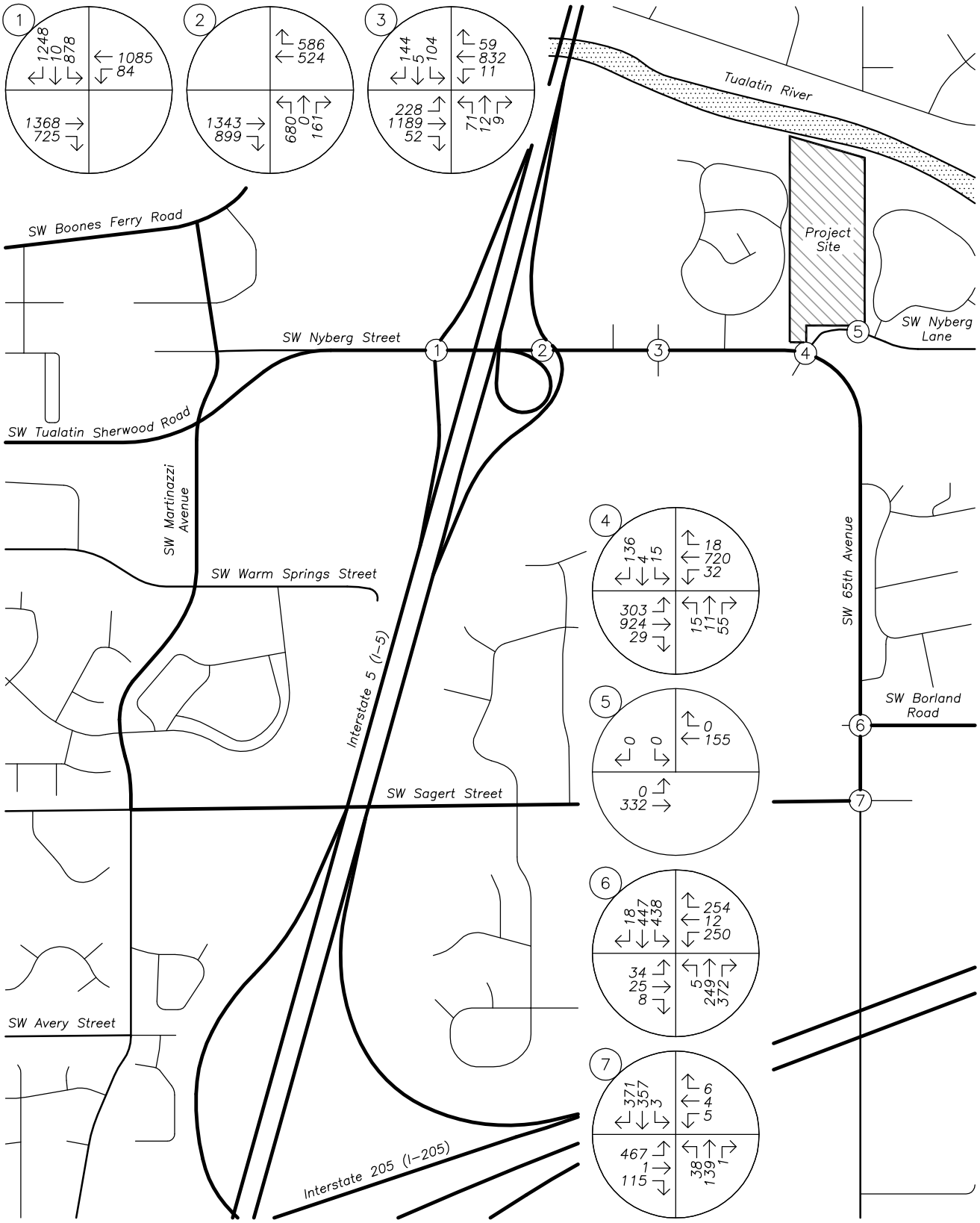
TRAFFIC VOLUMES
Existing Conditions
AM Peak Hour

no scale

FIGURE 2

PAGE 7

EXHIBIT N



TRAFFIC VOLUMES
Existing Conditions
PM Peak Hour

no scale

FIGURE 3

PAGE 8

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Site Trips

Trip Generation

The proposed apartment complex at 6645 SW Nyberg Lane will include the construction of 264 apartment units. To estimate the number of trips that will be generated by the proposed development, trip equations from the *TRIP GENERATION MANUAL*[1] were used. Data from land-use code 220, *Apartment*, was used to estimate the 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 approximately 133 site trips during the morning peak hour and 163 site trips during the evening peak hour. The trip generation estimates of the proposed development are summarized in Table 1 below. Detailed trip generation calculations are included in the technical appendix to this report.

Table 1 – Trip Generation Summary

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Proposed Development	220	264 units	27	106	133	106	57	163	1,724

It should be noted that the following analysis within this study assumes the construction of a 268-unit apartment facility, based on a prior site plan, rather than the above described 264-unit apartment. Since the lot count has decreased, the remainder of this study analyzes the impacts of a larger development. Accordingly, the transportation impacts detailed within this report may be considered conservative.

[1] Institute of Transportation Engineers (ITE), *TRIP GENERATION MANUAL*, 9th Edition, 2012.

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Trip Distribution

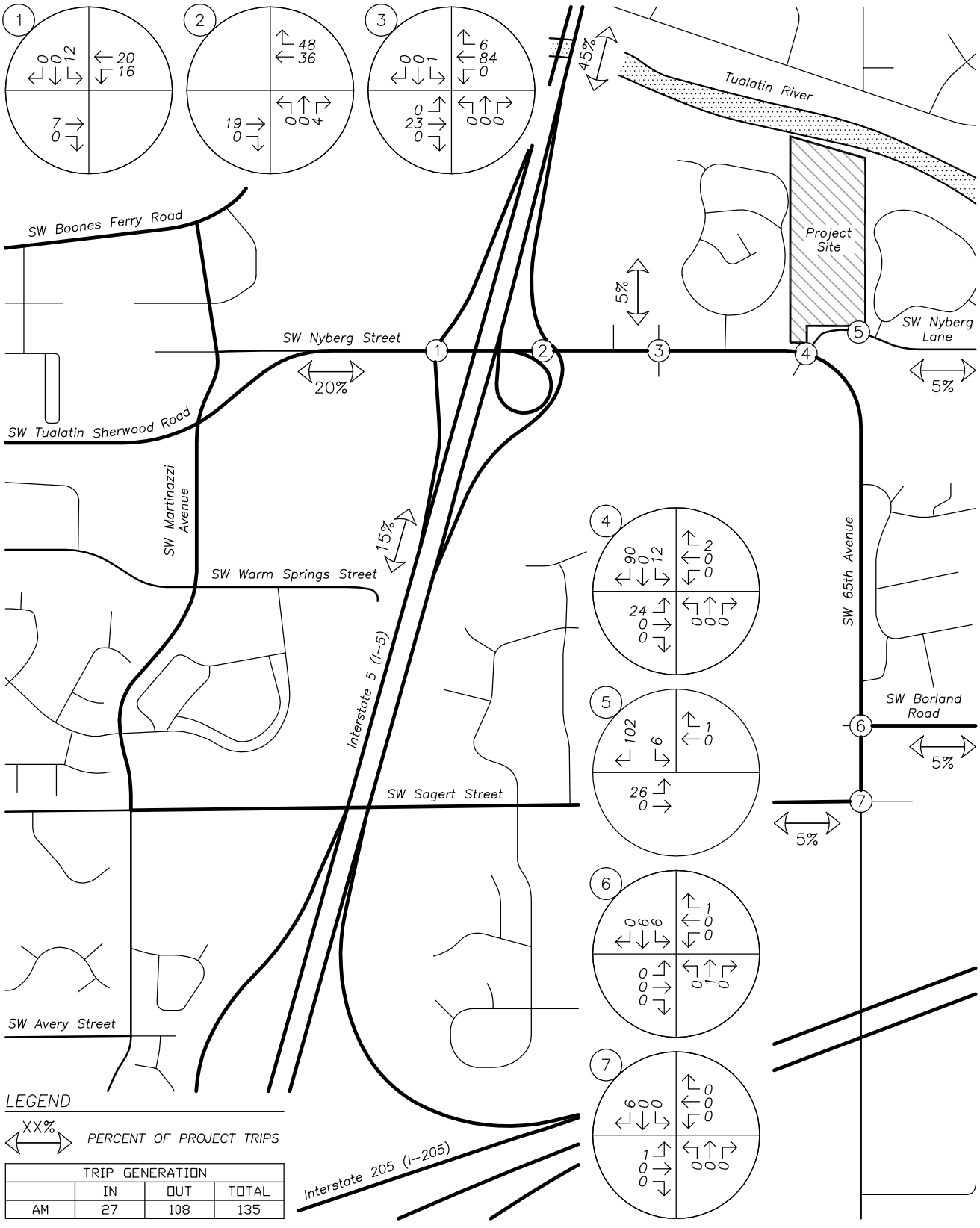
The directional distribution of site trips to/from the project site was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study intersections.

The following trip distribution was estimated and used for analysis:

- Approximately 45 percent of site trips will travel to/from the north along I-5;
- Approximately 20 percent of site trips will travel to/from the west along SW Nyberg Street;
- Approximately 15 percent of site trips will travel to/from the south along I-5;
- Approximately 5 percent of site trips will travel to/from the Nyberg Woods Shopping Mall;
- Approximately 5 percent of site trips will travel to/from the east along SW Nyberg Lane;
- Approximately 5 percent of site trips will travel to/from the east along SW Borland Road; and
- Approximately 5 percent of site trips will travel to/from the west along SW Sagert Street.

The trip assignment for the site trips generated by the proposed development during the morning and evening peak hours are shown in Figure 4 on page 11 and Figure 5 on page 12, respectively.

EXHIBIT N



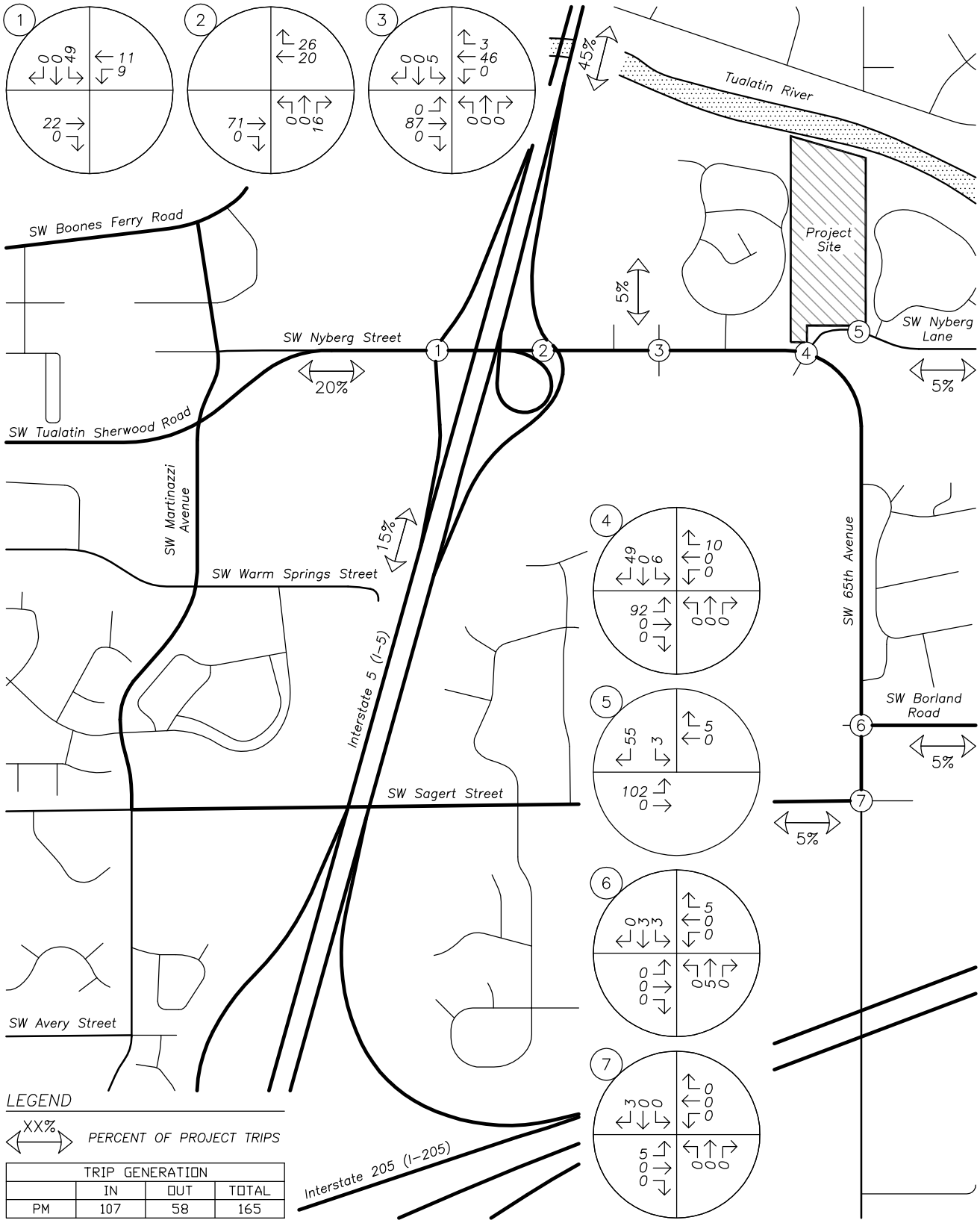
TRIP GENERATION			
	IN	OUT	TOTAL
AM	27	108	135

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

no scale

FIGURE 4

EXHIBIT N



TRIP GENERATION			
	IN	OUT	TOTAL
PM	107	58	165

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

no scale

FIGURE 5

Operational Analysis

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 calculate the future traffic volumes at the study intersections, a compounded growth rate of two percent per year for an assumed build-out condition of two years was applied to the measured existing traffic volumes to approximate year 2019 background conditions.

In addition to the traffic volume growth described above, the Sagert Farms Subdivision, located south of the project site, is currently approved for construction within the site vicinity and is in the process of being developed. Additional in-process trips corresponding to the development were added to the projected year 2019 traffic volumes at each of the study intersections.

Figure 6 on page 14 and Figure 7 on page 15 show the projected year 2019 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 2019 background traffic volumes to obtain the expected 2019 background volumes plus site trips.

Figure 8 on page 16 and Figure 9 on page 17 show the projected year 2019 peak hour background traffic volumes plus proposed development site trips at the study intersections during the morning and evening peak hours, respectively.

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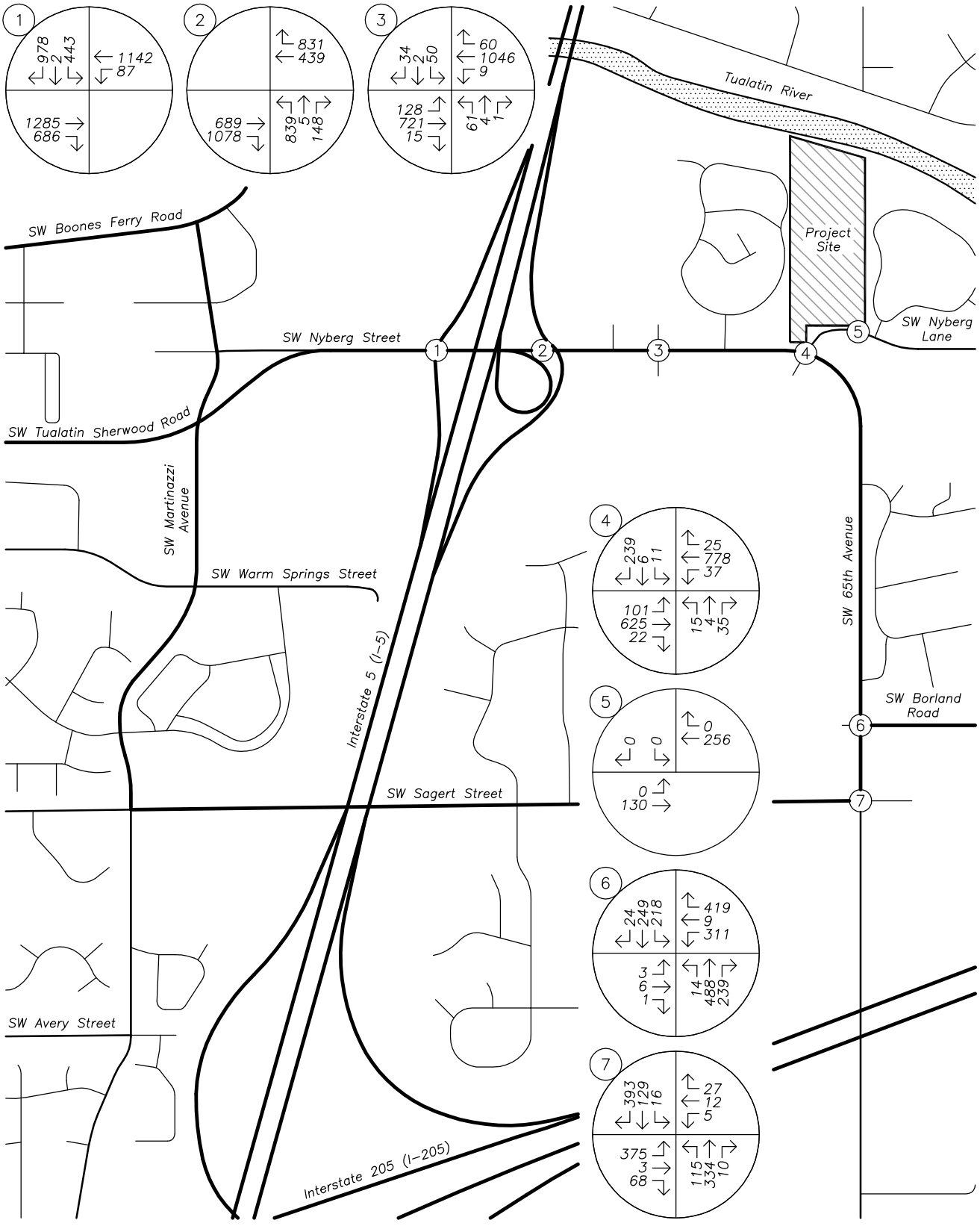
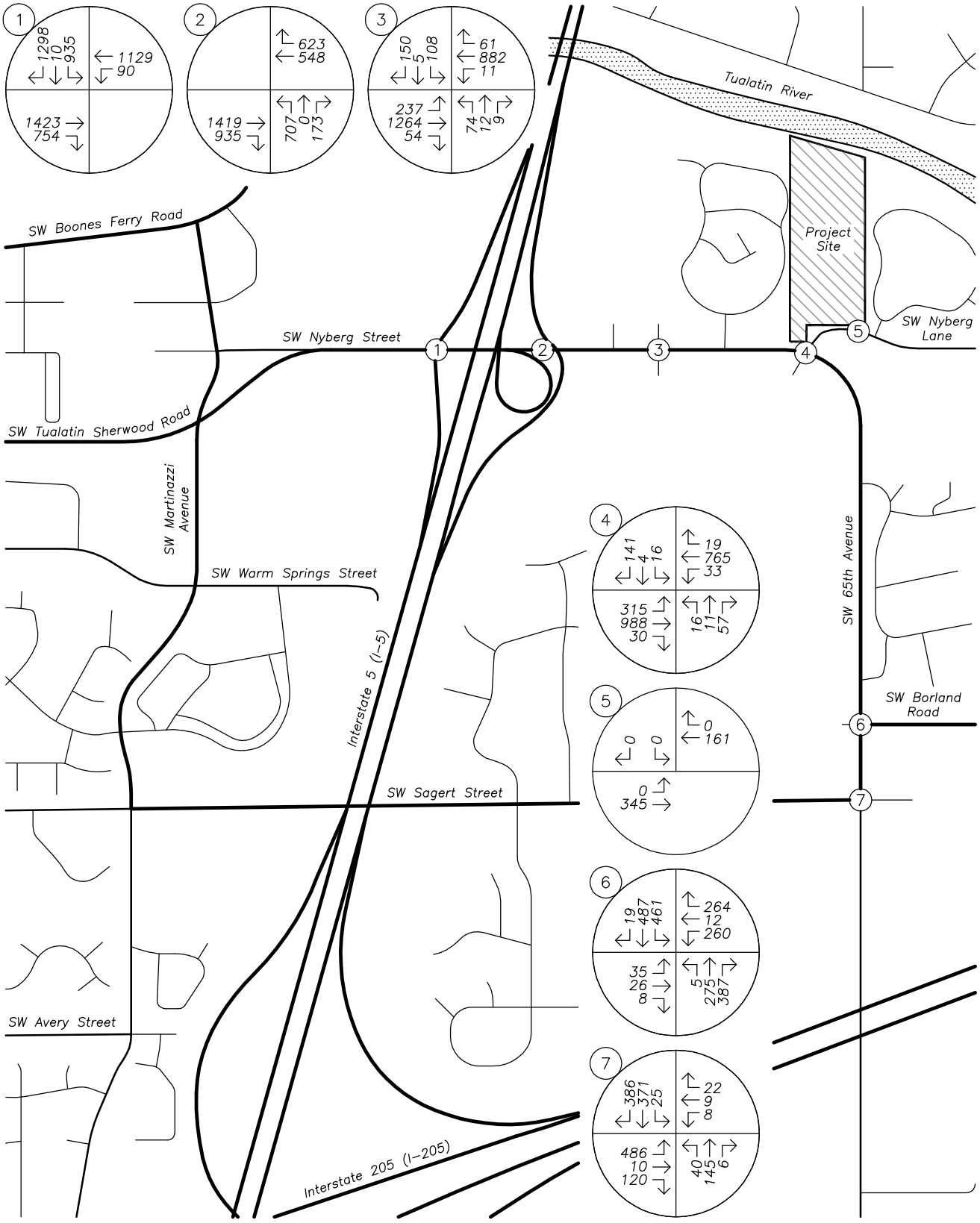


TRAFFIC VOLUMES
Year 2019 Background Conditions
AM Peak Hour

no scale

FIGURE 6

EXHIBIT N

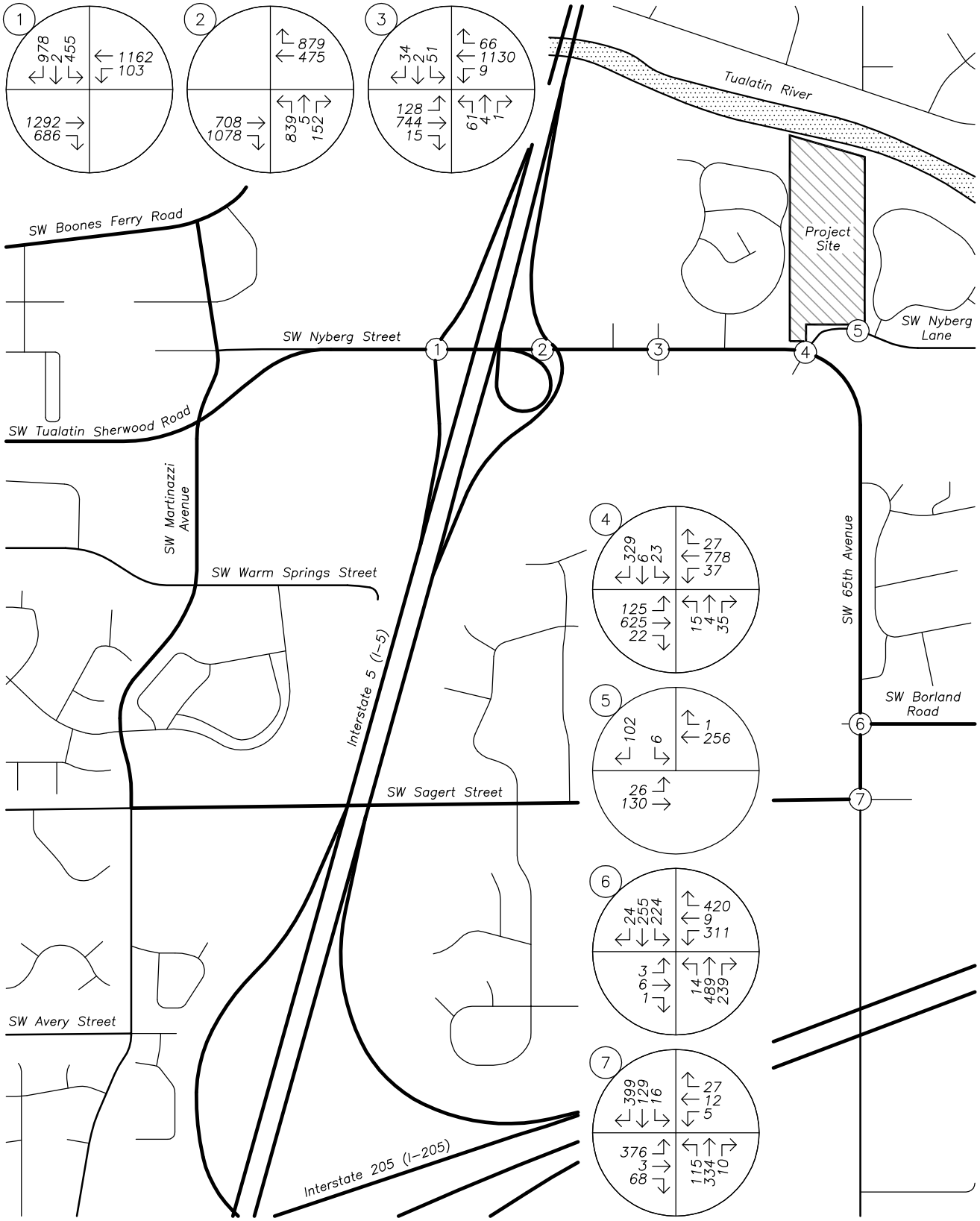


TRAFFIC VOLUMES
Year 2019 Background Conditions
PM Peak Hour

no scale

FIGURE 7

EXHIBIT N

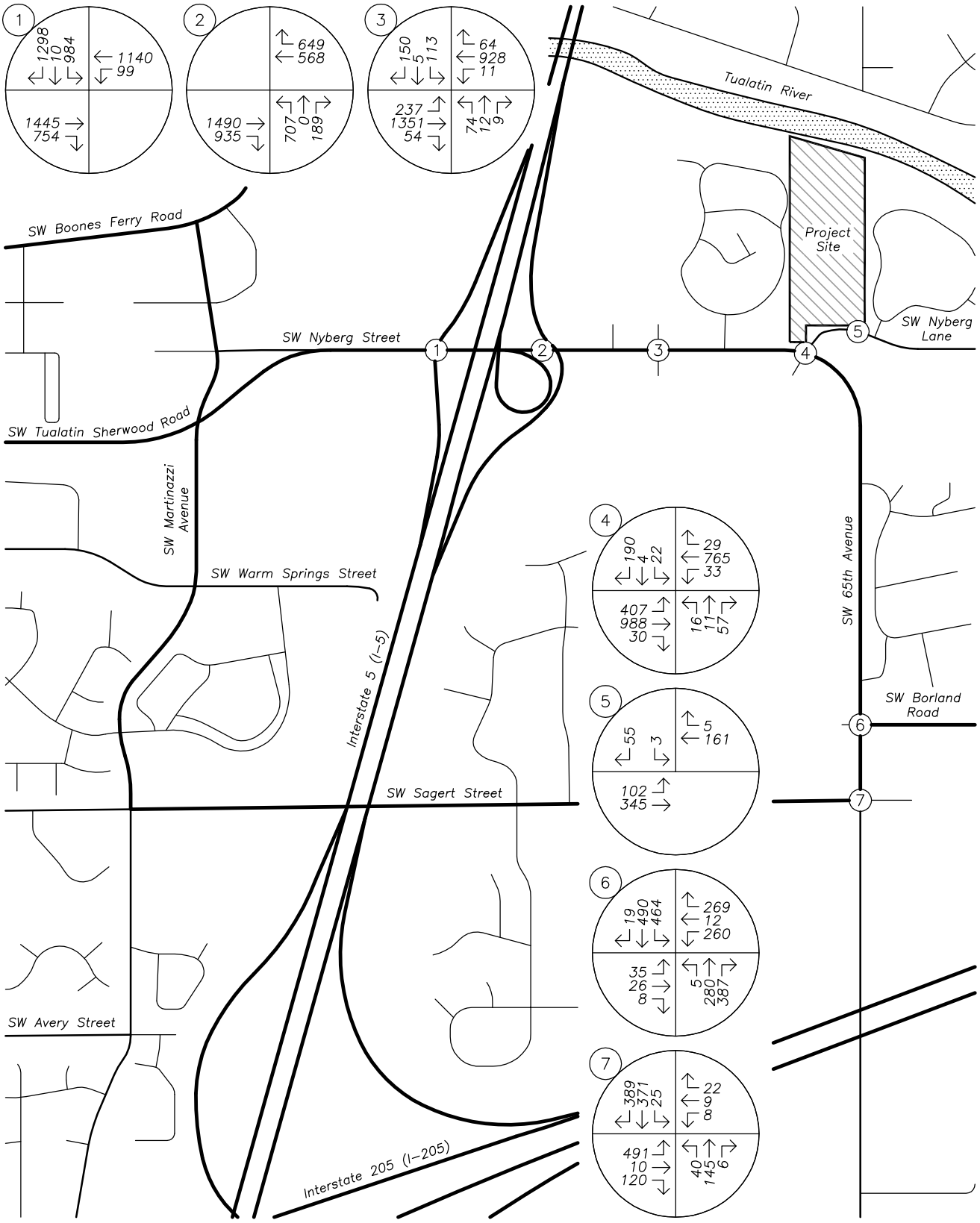


TRAFFIC VOLUMES
Year 2019 Background Conditions plus Site Trips
AM Peak Hour

no scale

FIGURE 8

EXHIBIT N



TRAFFIC VOLUMES
Year 2019 Background Conditions plus Site Trips
PM Peak Hour

no scale

FIGURE 9

Capacity Analysis

A capacity and delay analysis was conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *HIGHWAY CAPACITY MANUAL*[2] (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 Tualatin standards require a minimum LOS E or better. For both LOS and delay related to the analysis of unsignalized intersections, the reported result applies to the worst movement. In addition, Washington County standards require intersections operate with a v/c ratio of 0.99 or less.

The I-5 southbound ramps intersection at SW Nyberg Street operates at LOS C with a v/c ratio of 0.87 or less during the morning peak hour and at LOS D with a v/c ratio of 0.96 or less during the evening peak hour for all analysis scenarios.

The I-5 northbound ramps intersection at SW Nyberg Street operates at LOS C with a v/c ratio of 0.72 or less during the morning peak hour and at LOS D with a v/c ratio of 0.76 or less during the evening peak hour for all analysis scenarios.

The intersection of the Nyberg Woods Shopping Mall access at SW Nyberg Street operates at LOS A with a v/c ratio of 0.60 or less during the morning peak hour and at LOS B with a v/c ratio of 0.66 or less during the evening peak hour through year 2019 without build-out of the proposed development. Upon build-out of the proposed development, the intersection is projected to operate at LOS B with v/c ratios of 0.64 and 0.70 during the morning and evening peak hours, respectively.

The intersection of SW Nyberg Lane at SW Nyberg Street/SW 65th Avenue currently operates at LOS A with v/c ratios of 0.58 and 0.68 during the morning and evening peak hours, respectively. Under year 2019 background conditions, the intersection if projected to operate at LOS A with a v/c ratio of 0.61 during the morning peak hour and at LOS B with a v/c ratio of 0.72 during the evening peak hour. Upon build-out of the proposed development, the intersection is projected to operate at LOS B with v/c ratios of 0.61 and 0.74 during the morning and evening peak hours, respectively.

Upon build-out of the proposed development, the intersection of SW Nyberg Lane at the site access is projected to operate at LOS B with a v/c ratio of 0.16 during the morning peak hour and at LOS A with a v/c ratio of 0.08 during the evening peak hours.

The intersection of SW 65th Avenue at SW Borland Road currently operates at LOS C with a v/c ratio of 0.83 during the morning peak hour and at LOS D with a v/c ratio of 0.94 during the evening peak hour. Under year 2019 background conditions, regardless the addition of site trips, the intersection is projected to operate

[2] Transportation Research Board, *HIGHWAY CAPACITY MANUAL 2000* and *HIGHWAY CAPACITY MANUAL 2010*.

at LOS C with a v/c ratio of 0.90 or less during the morning peak hour and at LOS D with a v/c ratio in excess of 1.00.

The intersection of SW 65th Avenue at SW Sagert Street currently operates at LOS E during both the morning and evening peak hours under all-way stop-control. Under year 2019 background conditions with installation of a traffic signal, regardless the addition of site trips, the intersection is projected to operate at LOS B with a v/c ratio of 0.64 during the morning peak hour and at LOS C with a v/c ratio of 0.73 during the evening peak hour.

The v/c, delay, and LOS results of the capacity analysis are shown in Table 2 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.

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Table 2 – Capacity Analysis Summary

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
I-5 SB Ramps at Nyberg Street						
2017 Existing Conditions	C	25	0.81	D	36	0.91
2019 Background Conditions	C	26	0.85	D	39	0.95
2019 Background plus Site Conditions	C	27	0.87	D	40	0.96
I-5 NB Ramps at Nyberg Street						
2017 Existing Conditions	C	21	0.67	B	16	0.71
2019 Background Conditions	C	23	0.70	B	18	0.74
2019 Background plus Site Conditions	C	24	0.72	B	18	0.76
Nyberg Woods Access at Nyberg Street						
2017 Existing Conditions	A	10	0.57	B	13	0.62
2019 Background Conditions	A	10	0.60	B	13	0.66
2019 Background plus Site Conditions	B	10	0.64	B	14	0.70
Nyberg Lane at Nyberg Street/65th Avenue						
2017 Existing Conditions	A	10	0.58	A	10	0.68
2019 Background Conditions	A	10	0.61	B	11	0.72
2019 Background plus Site Conditions	B	12	0.61	B	12	0.74
Site Access at Nyberg Lane						
2017 Existing Conditions	B	10	< 0.01	A	10	< 0.01
2019 Background Conditions	B	10	< 0.01	A	10	< 0.01
2019 Background plus Site Conditions	B	11	0.16	A	10	0.08
65th Avenue at Borland Road						
2017 Existing Conditions	C	28	0.83	D	41	0.94
2019 Background Conditions	C	33	0.89	D	53	1.03
2019 Background plus Site Conditions	C	33	0.90	D	53	1.03
65th Avenue at Sagert Street						
2017 Existing Conditions	E	47	-	E	45	-
2019 Background Conditions*	B	19	0.64	C	24	0.73
2019 Background plus Site Conditions*	B	19	0.64	C	25	0.73

* Traffic signal installed.

The intersection of SW 65th Avenue at SW Borland Road, a Washington County facility, is projected to operate with a v/c ratio in excess of 1.00 by year 2019 regardless of trips from the proposed development. Further inspection and potential mitigation at the intersection is discussed within the *Mitigation Analysis* section of this report.

All other study intersections are currently operating acceptably per their respective jurisdictional standards and are projected to continue operating acceptably upon build-out of the proposed development through year 2019. No operational mitigation is necessary or recommended at these intersections.

Mitigation Analysis

As determined within the *Capacity Analysis* section, the intersection of SW 65th Avenue at SW Borland Road is projected to operate with a v/c ratio in excess of 1.00 during the evening peak hour by year 2019, with or without proposed development site trips.

One potential mitigation that may reduce the v/c ratio to levels below 1.00 would include restriping the northbound approach to include one shared left-turn/through lane and one right-turn lane. The southbound left-turn approach will maintain FYA phasing while the westbound right-turn will continue to be served by permitted/overlap phasing.

Table 5 on the following page shows the v/c, delay, and LOS results of the mitigation capacity analysis during the morning and evening peak hours.

Table 3 – Mitigation Analysis Summary

	Morning Peak Hour			Evening Peak Hour		
	LOS	**Delay (s)**	**v/c**	**LOS**	**Delay (s)**	**v/c**
65th Avenue at Borland Road						
2019 Background plus Site Conditions	C	33	0.90	D	53	1.03
2019 Mitigated Conditions*	B	19	0.79	C	25	0.86

* Restripe NB approach to shared LT/Th and RT lanes.

Based on the capacity analysis, the potential mitigation described above may improve operation at the intersection at SW 65th Avenue at SW Borland Road to acceptable levels per Washington County standards.

Safety Analysis

Crash Data Analysis

Using data obtained from the Oregon Department of Transportation's (ODOT) Crash Analysis and Reporting Unit, a review of the most recent available five years of crash history (from January 2011 to December 2015) 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.

I-5 Southbound Ramps at SW Nyberg Street

The intersection of the I-5 southbound ramps at SW Nyberg Street had 68 reported crashes during the analysis period. The crashes consisted of 38 rear-end collisions, 16 turning-movement collisions, 6 collisions involving a pedestrian, 5 collisions involving a bicyclist, 2 sideswipe collisions, and 1 angle-type collision. Of the reported crashes, 27 were classified as "Property Damage Only" (*PDO*), 33 were classified as "Possible Injury – Complaint of Pain" (*Injury C*), and 8 were classified as "Non-Incapacitating Injury" (*Injury B*). The crash rate at the intersection was calculated to be 0.69 CMEV.

There were 11 crashes at the intersection which involved either a pedestrian or a bicyclist. The following includes a listed description of each crash:

- The driver of a southbound right-turning passenger car made an improper start from a stopped position and failed to yield right-of-way to an east/west traveling pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with *Injury C*.
- An east/west traveling bicyclist illegally entered the intersection and struck a southbound right-turning passenger car. The bicyclist sustained injuries consistent with *Injury C* classification.
- An east/west traveling bicyclist illegally entered the intersection and collided with a southbound right-turning passenger car that was conducting the turning maneuver on a red from a stopped position. The bicyclist sustained injuries consistent with *Injury B* classification.
- The driver of a southbound right-turning passenger car, turning on a red from a stopped position, collided with an east/west traveling bicyclist who illegally entered the intersection. The bicyclist sustained injuries consistent with *Injury B* classification.
- The driver of a southbound right-turning passenger car, turning on a red from a stopped position, failed to yield right-of-way to an east/west traveling pedestrian who was utilizing the crosswalk at the intersection. The pedestrian sustained injuries consistent with *Injury B* classification.

- The driver of a southbound right-turning passenger car, turning on a red from a stopped position, failed to yield right-of-way to an east/west bicyclist. The bicyclist sustained injuries consistent with *Injury B* classification.
- An east/west traveling pedestrian, who was utilizing an intersection crosswalk, disregarded the traffic signal and was struck by a southbound right-turning passenger car. The pedestrian sustained injuries consistent with *Injury B* classification.
- The driver of a southbound passenger car failed to yield right-of-way to an east/west traveling pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with *Injury C* classification.
- The driver of a southbound right-turning passenger car struck an east/west traveling pedestrian who was utilizing an intersection crosswalk. It is unclear who disregarded the traffic signal. The pedestrian sustained injuries consistent with *Injury C* classification.
- The driver of a southbound right-turning passenger car failed to yield right-of-way to an east/west traveling pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with *Injury C* classification.
- The driver of a southbound right-turning passenger car failed to yield right-of-way to an east/west traveling bicyclist. The bicyclist sustained injuries consistent with *Injury C* classification.

Upon reviewing the crash data, it is notable that a high number of pedestrian and bicycle related crashes occurred at the intersection. Two projects, described within the City of Tualatin's TSP, are planned for implementation and are expected to help mitigate safety issues at the intersection. The two projects are described in Table 5 below.

Table 4 – Planned TSP Projects

Project ID	Project Description	Cost Estimate	Champion	Funding Source	Priority
R44	Move the guardrail directly east of the I-5 southbound off-ramp to the north to improve sight distance for vehicles turning west off of I-5.	$32,000	City, ODOT	TDT, Gas Tax	Short-Term
BP14	Add skip striping for the bicycle lane across the I-5 southbound off-ramp on the west end of the interchange.	$2,000	City, ODOT	Bike/Ped Funds, Travel Options	Short-Term

I-5 Northbound Ramps at SW Nyberg Street

The intersection of the I-5 northbound ramps at SW Nyberg Street had 30 reported crashes during the analysis period. The crashes consisted of 21 rear-end collisions, 6 turning-movement collisions, 2 sideswipe collisions, and 1 collision involving a bicyclist. Of the reported crashes, 13 were classified as *PDO*, 14 were

classified as *Injury C*, and 3 were classified as *Injury B*. The crash rate at the intersection was calculated to be 0.39 CMEV.

One of the crashes at the intersection involved a bicyclist. The crash occurred when the driver of a northbound right-turning passenger car failed to yield right-of-way to an east/west traveling bicyclist. The bicyclist sustained injuries consistent with *Injury B* classification.

Nyberg Woods Shopping Mall Access at SW Nyberg Street

The intersection of the Nyberg Woods Shopping Mall access at SW Nyberg Street had 9 reported crashes during the analysis period. The crashes consisted of 4 turning-movement collisions, 2 angle-type collisions, 1 rear-end collision, 1 collision involving a pedestrian, and 1 collision involving a bicyclist. Of the reported crashes, 2 were classified as *PDO*, 4 were classified as *Injury C*, 1 was classified as *Injury B*, and 2 were classified as "Incapacitating Injury – Bleeding, Broken Bones" (*Injury A*). The crash rate at the intersection was calculated to be 0.18 CMEV.

Two of the crashes at the intersection involved either a pedestrian or a bicyclist. The crash involving a pedestrian occurred when the driver of a southbound right-turning passenger car failed to yield right-of-way to a north/south traveling pedestrian. The pedestrian sustained injuries consistent with *Injury C* classification. The crash involving a bicyclist occurred when the driver of a westbound right-turning passenger car collided with an east/west traveling bicyclist who illegally entered the intersection. The bicyclist sustained injuries consistent with *Injury B* classification.

Two of the crashes at the intersection resulted in injuries classified as an *Injury A* collision. One of the crashes occurred when the driver of a southbound right-turning passenger car made an improper turn by turning from the wrong travel lane and collided with northbound left-turning motorcyclist. The motorcyclist sustained injuries while the driver of the passenger car was uninjured. The second crash occurred when the driver of a westbound passenger car disregarded the traffic signal and collided with a southbound passenger car. The driver of the southbound vehicle sustained injuries while the driver of the westbound vehicle was uninjured.

SW Nyberg Lane at SW Nyberg Street/SW 65th Avenue

The intersection of the SW Nyberg Lane at SW Nyberg Street had 13 reported crashes during the analysis period. The crashes consisted of 9 rear-end collisions, 2 turning-movement collisions, 1 angle-type collision, and 1 collision involving a bicyclist. Of the reported crashes, 3 were classified as *PDO*, 7 were classified as *Injury C*, and 3 was classified as *Injury B*. The crash rate at the intersection was calculated to be 0.32 CMEV.

One of the crashes at the intersection involved a bicyclist. The crash occurred when the driver of an eastbound right-turning passenger car failed to yield right-of-way to an east/west traveling bicyclist who struck the passenger vehicle. The bicyclist sustained injuries consistent with *Injury C* classification.

SW 65th Avenue at SW Borland Road

The intersection of SW 65th Avenue at SW Borland Road had 9 reported crashes during the analysis period. The crashes consisted of 5 turning-movement collisions, 2 rear-end collisions, and 2 angle-type collisions. Of the reported crashes, 6 were classified as *PDO*, 2 were classified as *Injury C*, and 1 was classified as *Injury B*. The crash rate at the intersection was calculated to be 0.23 CMEV.

SW 65th Avenue at SW Sagert Street

The intersection of SW 65th Avenue at SW Sagert Street had 14 reported crashes during the analysis period. The crashes consisted of 7 turning-movement collisions, 5 rear-end collisions, and 2 angle-type collisions. Of the reported crashes, 6 were classified as *PDO* and 8 were classified as *Injury C*. The crash rate at the intersection was calculated to be 0.51 CMEV.

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

Sight Distance Analysis

Sight distance was examined for the site access intersection located along SW Nyberg Lane. Intersection sight distance was measured and evaluated in accordance with the standards established in *A Policy on Geometric Design of Highways and Streets*[3]. According to AASHTO, 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 vehicle driver's eye-height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement.

Based on the posted speed limit of 35 mph along SW Nyberg Lane, the minimum required intersection sight distance for maintaining relatively uninterrupted traffic flow along the roadway is 390 feet, assuming the two-way left-turn lane may be used to conduct a two-stage left-turn. Intersection sight distance at the site access was measured to be 313 feet to the east, limited by a crest curve in the roadway, and measured to be approximately 285 feet to the west, back to the intersection of SW Nyberg Lane at SW Nyberg Street.

Although sight distance to the west was measured to be less than the minimum recommended sight distance for a 35-mph roadway, vehicles at the intersection of SW Nyberg Lane at SW Nyberg Street would be turning onto SW Nyberg Lane at speeds well below the posted speed of 35 mph. Assuming vehicles that turn onto SW Nyberg Lane are traveling at 20 mph, a minimum intersection sight distance of 225 feet is recommended. Therefore, the minimum recommended intersection sight distance is met for eastbound vehicles approaching the site access intersection.

Sight distance to the east of the site access intersection was measured to be is less than the minimum recommended intersection sight distance. According to the AASHTO manual, stopping sight distance is

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

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 operation 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. Based on the measured intersection sight distance, adequate stopping sight distance is available for westbound approaching vehicles traveling up to 41 mph.

Based on the detailed analysis, adequate sight distance is available at the site access to ensure safe operation of the intersection along SW Nyberg Lane. No sight distance mitigation is necessary or recommended.

EXHIBIT N

Conclusions

The intersection of SW 65th Avenue at SW Borland Road, a Washington County facility, is projected to operate with a v/c ratio in excess of 1.00 by year 2019 with or without proposed development site trips. One potential mitigation to reduce the v/c ratio includes restriping the northbound approach to include one shared left-turn/through lane and one right-turn lane. Upon implementation of the suggested mitigation, the intersection is projected to operate acceptably per City of Tualatin and Washington County standards.

All other study intersections are currently operating acceptably per their respective jurisdictional standards and are projected to continue operating acceptably upon build-out of the proposed development through year 2019. No operational mitigation is necessary or recommended at these intersections.

The I-5 southbound ramps intersection at SW Nyberg Street has experience a high number of pedestrian and bicycle related crashes between January 2011 and December 2015. According to the City of Tualatin's *Transportation System Plan*, two safety projects are planned for implementation in the short-term to help improve safety for pedestrians and bicyclists at the intersection. No other significant trends or crash patterns were identified at any of the other study intersection.

Adequate sight distance is available at the site access to ensure safe operation of the intersection along SW Nyberg Lane. No sight distance mitigation is necessary or recommended.

EXHIBIT N

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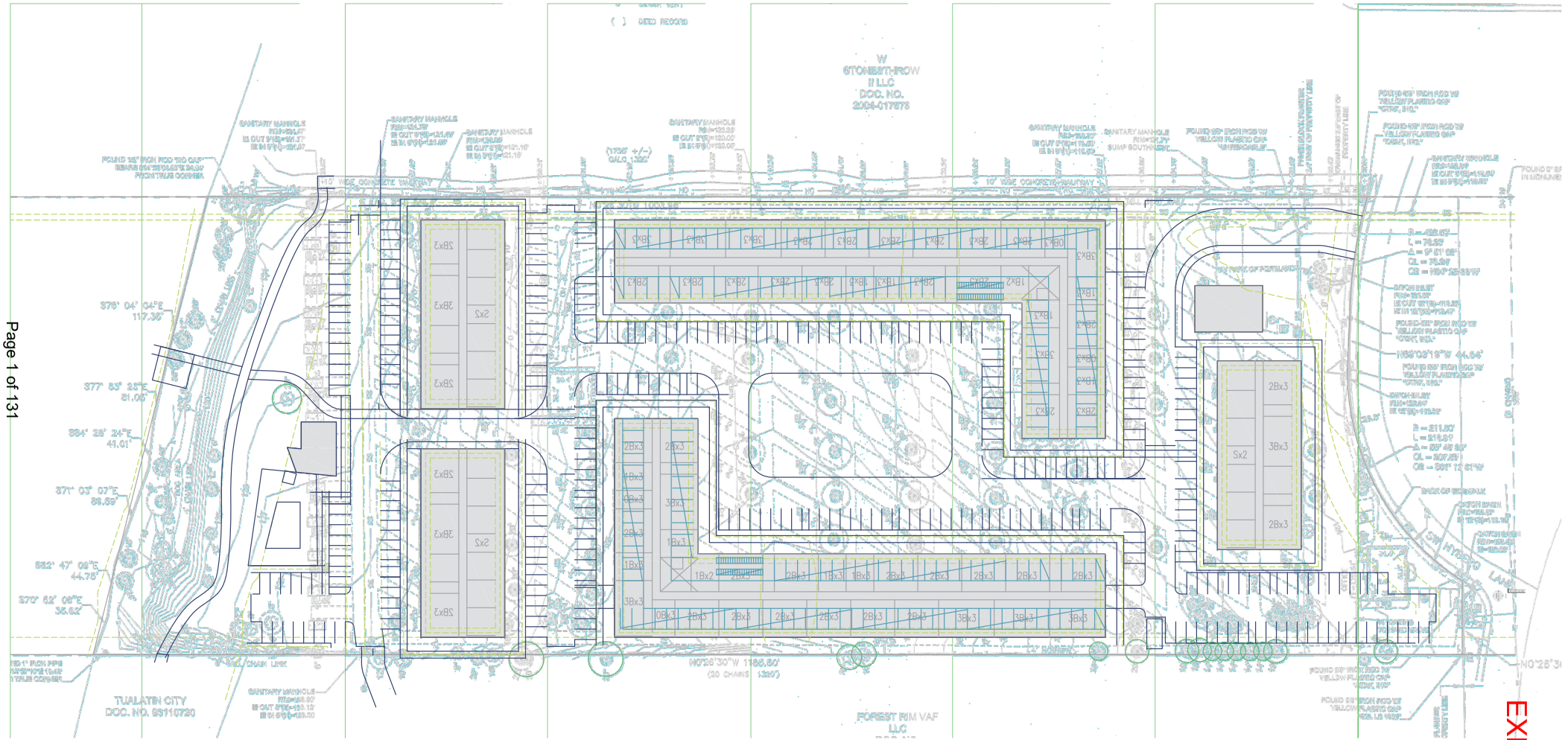
Appendix

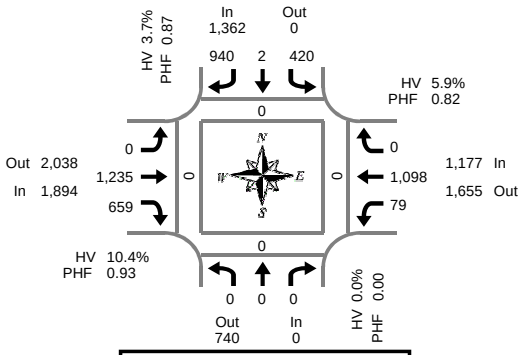


Tualatin Apartments
8.10.2017

williamwilsonarchitectspc

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



I-5 SB Ramp & SW Nyberg Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

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

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	25	1	70	0	0	78	50	0	12	74	0	0	310	0	0	0	0
7:05 AM	0	0	0	0	21	0	82	0	0	89	56	0	5	67	0	0	320	0	0	0	0
7:10 AM	0	0	0	0	12	0	48	0	0	107	53	0	8	88	0	0	316	0	0	0	0
7:15 AM	0	0	0	0	33	0	93	0	0	104	57	0	10	67	0	0	364	0	0	0	0
7:20 AM	0	0	0	0	20	0	77	0	0	105	51	0	5	92	0	0	350	0	0	0	0
7:25 AM	0	0	0	0	39	2	85	0	0	119	64	0	6	87	0	0	402	0	0	0	0
7:30 AM	0	0	0	0	30	0	79	0	0	102	51	0	4	112	0	0	378	0	0	0	0
7:35 AM	0	0	0	0	41	0	98	0	0	79	48	0	13	94	0	0	373	0	0	0	0
7:40 AM	0	0	0	0	28	0	53	0	0	140	63	0	9	129	0	0	422	0	0	0	0
7:45 AM	0	0	0	0	47	0	75	0	0	92	51	0	4	90	0	0	359	0	0	0	0
7:50 AM	0	0	0	0	54	0	83	0	0	114	47	0	7	74	0	0	379	0	0	0	0
7:55 AM	0	0	0	0	51	0	83	0	0	88	59	0	4	92	0	0	377	0	0	0	0
8:00 AM	0	0	0	0	27	0	91	0	0	100	50	0	5	74	0	0	347	0	0	0	0
8:05 AM	0	0	0	0	38	0	75	0	0	85	65	0	4	99	0	0	366	0	0	0	0
8:10 AM	0	0	0	0	29	0	79	1	0	87	44	0	6	61	0	0	306	0	0	0	0
8:15 AM	0	0	0	0	52	0	90	0	0	55	39	0	5	77	0	0	318	0	0	0	0
8:20 AM	0	0	0	0	37	0	84	0	0	107	54	0	4	79	0	0	365	0	0	0	0
8:25 AM	0	0	0	0	27	0	55	0	0	102	52	0	13	80	0	0	329	0	0	0	0
8:30 AM	0	0	0	0	27	1	74	1	0	82	52	0	9	100	0	0	345	0	0	0	0
8:35 AM	0	0	0	0	36	0	77	0	0	82	49	0	14	85	0	0	343	0	0	0	0
8:40 AM	0	0	0	0	24	0	82	0	0	88	41	0	5	105	0	0	345	0	0	0	0
8:45 AM	0	0	0	0	42	1	78	0	0	93	46	0	9	82	0	0	351	0	0	0	0
8:50 AM	0	0	0	0	35	0	75	0	0	66	68	0	4	96	0	0	344	0	0	0	0
8:55 AM	0	0	0	0	31	0	90	0	0	92	54	0	7	100	0	0	374	0	0	0	0
Total Survey	0	0	0	0	806	5	1,876	2	0	2,256	1,264	0	172	2,104	0	0	8,483	0	0	0	0

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	58	1	200	0	0	274	159	0	25	229	0	0	946	0	0	0	0
7:15 AM	0	0	0	0	92	2	255	0	0	328	172	0	21	246	0	0	1,116	0	0	0	0
7:30 AM	0	0	0	0	99	0	230	0	0	321	162	0	26	335	0	0	1,173	0	0	0	0
7:45 AM	0	0	0	0	152	0	241	0	0	294	157	0	15	256	0	0	1,115	0	0	0	0
8:00 AM	0	0	0	0	94	0	245	1	0	272	159	0	15	234	0	0	1,019	0	0	0	0
8:15 AM	0	0	0	0	116	0	229	0	0	264	145	0	22	236	0	0	1,012	0	0	0	0
8:30 AM	0	0	0	0	87	1	233	1	0	252	142	0	28	290	0	0	1,033	0	0	0	0
8:45 AM	0	0	0	0	108	1	243	0	0	251	168	0	20	278	0	0	1,069	0	0	0	0
Total Survey	0	0	0	0	806	5	1,876	2	0	2,256	1,264	0	172	2,104	0	0	8,483	0	0	0	0

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

By Approach	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	740	740	0	1,362	0	1,362	0	1,894	2,038	3,932	0	1,177	1,655	2,832	0	4,433	0	0	0	0
%HV		0.0%				3.7%				10.4%				5.9%			7.2%				
PHF		0.00				0.87				0.93				0.82			0.94				

By Movement	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	420	2	940	1,362	0	1,235	659	1,894	79	1,098	0	1,177	4,433
%HV	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	4.8%	3.7%	0.0%	8.3%	14.3%	10.4%	0.0%	6.4%	0.0%	5.9%	7.2%
PHF	0.00	0.00	0.00	0.00	0.69	0.25	0.90	0.87	0.00	0.89	0.95	0.93	0.76	0.82	0.00	0.82	0.94

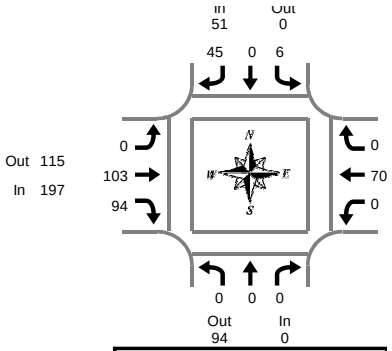
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	401	3	926	0	0	1,217	650	0	87	1,066	0	0	4,350	0	0	0	0
7:15 AM	0	0	0	0	437	2	971	1	0	1,215	650	0	77	1,071	0	0	4,423	0	0	0	0
7:30 AM	0	0	0	0	461	0	945	1	0	1,151	623	0	78	1,061	0	0	4,319	0	0	0	0
7:45 AM	0	0	0	0	449	1	948	2	0	1,082	603	0	80	1,016	0	0	4,179	0	0	0	0
8:00 AM	0	0	0	0	405	2	950	2	0	1,039	614	0	85	1,038	0	0	4,133	0	0	0	0

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



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

I-5 SB Ramp & SW Nyberg Rd

Wednesday, August 30, 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 I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	3	3	0	5	3	8	0	3	0	3	14
7:05 AM	0	0	0	0	1	0	6	7	0	3	6	9	0	4	0	4	20
7:10 AM	0	0	0	0	0	0	3	3	0	11	8	19	0	8	0	8	30
7:15 AM	0	0	0	0	0	0	4	4	0	9	5	14	0	3	0	3	21
7:20 AM	0	0	0	0	0	0	2	2	0	15	7	22	0	2	0	2	26
7:25 AM	0	0	0	0	0	0	9	9	0	7	8	15	0	5	0	5	29
7:30 AM	0	0	0	0	1	0	3	4	0	10	5	15	0	7	0	7	26
7:35 AM	0	0	0	0	0	0	4	4	0	3	7	10	0	3	0	3	17
7:40 AM	0	0	0	0	1	0	3	4	0	7	8	15	0	7	0	7	26
7:45 AM	0	0	0	0	1	0	3	4	0	12	7	19	0	8	0	8	31
7:50 AM	0	0	0	0	0	0	3	3	0	10	6	16	0	7	0	7	26
7:55 AM	0	0	0	0	1	0	3	4	0	5	8	13	0	5	0	5	22
8:00 AM	0	0	0	0	2	0	3	5	0	8	7	15	0	5	0	5	25
8:05 AM	0	0	0	0	0	0	5	5	0	6	18	24	0	10	0	10	39
8:10 AM	0	0	0	0	0	0	7	7	0	3	14	17	0	3	0	3	27
8:15 AM	0	0	0	0	0	0	8	8	0	5	6	11	1	4	0	5	24
8:20 AM	0	0	0	0	4	0	6	10	0	9	8	17	2	8	0	10	37
8:25 AM	0	0	0	0	1	0	6	7	0	6	6	12	0	6	0	6	25
8:30 AM	0	0	0	0	0	0	7	7	0	9	3	12	0	7	0	7	26
8:35 AM	0	0	0	0	1	0	5	6	0	5	9	14	1	5	0	6	26
8:40 AM	0	0	0	0	0	0	7	7	0	7	7	14	0	6	0	6	27
8:45 AM	0	0	0	0	1	0	3	4	0	6	11	17	0	3	0	3	24
8:50 AM	0	0	0	0	1	0	7	8	0	12	14	26	0	11	0	11	45
8:55 AM	0	0	0	0	0	0	5	5	0	9	10	19	1	14	0	15	39
Total Survey	0	0	0	0	15	0	115	130	0	182	191	373	5	144	0	149	652

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	1	0	12	13	0	19	17	36	0	15	0	15	64
7:15 AM	0	0	0	0	0	0	15	15	0	31	20	51	0	10	0	10	76
7:30 AM	0	0	0	0	2	0	10	12	0	20	20	40	0	17	0	17	69
7:45 AM	0	0	0	0	2	0	9	11	0	27	21	48	0	20	0	20	79
8:00 AM	0	0	0	0	2	0	15	17	0	17	39	56	0	18	0	18	91
8:15 AM	0	0	0	0	5	0	20	25	0	20	20	40	3	18	0	21	86
8:30 AM	0	0	0	0	1	0	19	20	0	21	19	40	1	18	0	19	79
8:45 AM	0	0	0	0	2	0	15	17	0	27	35	62	1	28	0	29	108
Total Survey	0	0	0	0	15	0	115	130	0	182	191	373	5	144	0	149	652

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

By Approach	Northbound I-5 SB Ramp			Southbound I-5 SB Ramp			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	94	94	51	0	51	197	115	312	70	109	179	318
PHF	0.00			0.75			0.90			0.80			0.92

By Movement	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	6	0	45	51	0	103	94	197	0	70	0	70	318
PHF	0.00	0.00	0.00	0.00	0.50	0.00	0.70	0.75	0.00	0.74	0.71	0.90	0.00	0.80	0.00	0.80	0.92

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

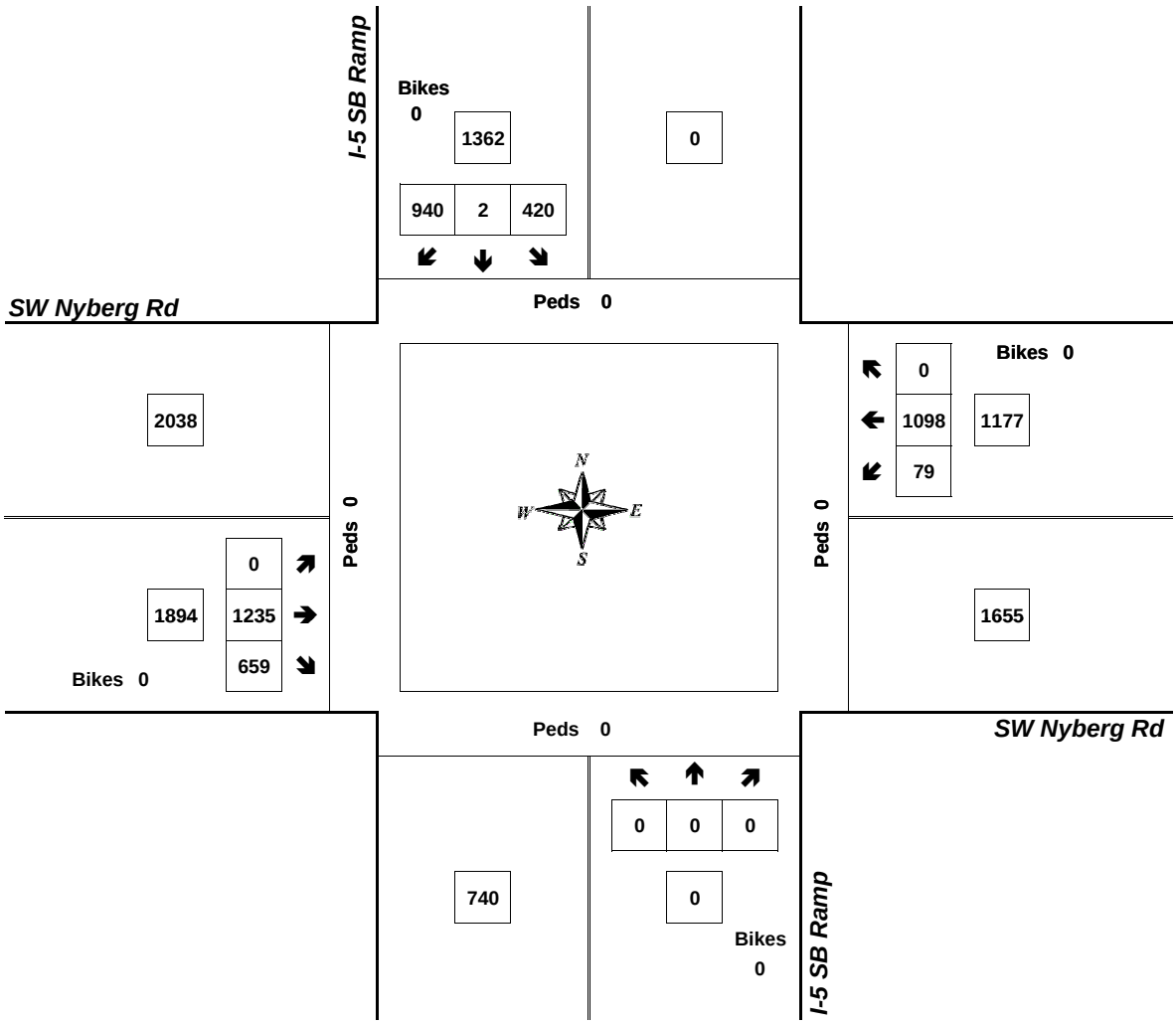
Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	5	0	46	51	0	97	78	175	0	62	0	62	288
7:15 AM	0	0	0	0	6	0	49	55	0	95	100	195	0	65	0	65	315
7:30 AM	0	0	0	0	11	0	54	65	0	84	100	184	3	73	0	76	325
7:45 AM	0	0	0	0	10	0	63	73	0	85	99	184	4	74	0	78	335
8:00 AM	0	0	0	0	10	0	69	79	0	85	113	198	5	82	0	87	364

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

I-5 SB Ramp & SW Nyberg Rd

7:10 AM to 8:10 AM
Wednesday, August 30, 2017

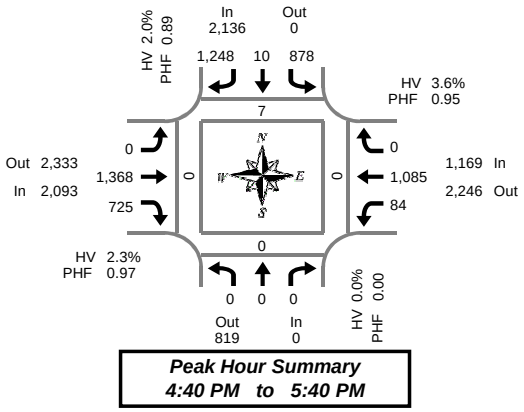


Approach	PHF	HV%	Volume
EB	0.93	10.4%	1,894
WB	0.82	5.9%	1,177
NB	0.00	0.0%	0
SB	0.87	3.7%	1,362
Intersection	0.94	7.2%	4,433

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



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

I-5 SB Ramp & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	0	0	0	54	2	59	0	0	115	61	0	7	97	0	0	395	0	0	0	0
4:05 PM	0	0	0	0	53	3	91	0	0	122	64	0	8	79	0	0	420	0	0	0	0
4:10 PM	0	0	0	0	66	3	77	0	0	94	76	0	10	66	0	0	392	0	0	0	0
4:15 PM	0	0	0	0	53	3	72	0	0	125	78	0	6	88	0	0	425	0	0	0	0
4:20 PM	0	0	0	0	63	2	82	0	0	120	69	0	7	82	0	0	425	0	0	0	0
4:25 PM	0	0	0	0	79	1	88	0	0	121	68	0	6	85	0	0	448	0	0	0	0
4:30 PM	0	0	0	0	68	2	87	0	0	91	61	0	6	94	0	0	409	0	0	0	0
4:35 PM	0	0	0	0	50	2	79	0	0	119	73	0	4	103	0	0	430	1	0	0	0
4:40 PM	0	0	0	0	86	5	87	0	0	106	74	0	7	87	0	0	452	0	0	0	0
4:45 PM	0	0	0	0	76	0	102	0	0	101	73	0	10	73	0	0	435	2	0	0	0
4:50 PM	0	0	0	0	58	4	70	0	0	113	67	0	3	101	0	0	416	5	0	0	0
4:55 PM	0	0	0	0	86	1	111	0	0	93	47	0	8	83	0	0	429	0	0	0	0
5:00 PM	0	0	0	0	55	0	93	0	0	122	56	0	9	100	0	0	435	0	0	0	0
5:05 PM	0	0	0	0	63	0	101	0	0	106	72	0	5	97	0	0	444	0	0	0	0
5:10 PM	0	0	0	0	74	0	119	0	0	119	66	0	8	89	0	0	475	0	0	0	0
5:15 PM	0	0	0	0	74	0	98	0	0	111	51	0	5	94	0	0	433	0	0	0	0
5:20 PM	0	0	0	0	67	0	121	0	0	125	67	0	6	91	0	0	477	0	0	0	0
5:25 PM	0	0	0	0	81	0	112	0	0	133	55	0	7	94	0	0	482	0	0	0	0
5:30 PM	0	0	0	0	86	0	131	0	0	106	48	0	6	80	0	0	457	0	0	0	0
5:35 PM	0	0	0	0	72	0	103	0	0	133	49	0	10	96	0	0	463	0	0	0	0
5:40 PM	0	0	0	0	53	0	92	0	0	110	49	0	3	116	0	0	423	0	0	0	0
5:45 PM	0	0	0	0	67	0	114	0	0	82	49	0	9	62	0	0	383	0	0	0	0
5:50 PM	0	0	0	0	62	0	101	0	0	121	71	0	6	116	0	0	477	0	0	0	0
5:55 PM	0	0	0	0	66	0	113	0	0	76	43	0	6	81	0	0	385	0	0	0	0
Total Survey	0	0	0	0	1,612	28	2,303	0	0	2,664	1,487	0	162	2,154	0	0	10,410	8	0	0	0

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	0	0	0	173	8	227	0	0	331	201	0	25	242	0	0	1,207	0	0	0	0
4:15 PM	0	0	0	0	195	6	242	0	0	366	215	0	19	255	0	0	1,298	0	0	0	0
4:30 PM	0	0	0	0	204	9	253	0	0	316	208	0	17	284	0	0	1,291	1	0	0	0
4:45 PM	0	0	0	0	220	5	283	0	0	307	187	0	21	257	0	0	1,280	7	0	0	0
5:00 PM	0	0	0	0	192	0	313	0	0	347	194	0	22	286	0	0	1,354	0	0	0	0
5:15 PM	0	0	0	0	222	0	331	0	0	369	173	0	18	279	0	0	1,392	0	0	0	0
5:30 PM	0	0	0	0	211	0	326	0	0	349	146	0	19	292	0	0	1,343	0	0	0	0
5:45 PM	0	0	0	0	195	0	328	0	0	279	163	0	21	259	0	0	1,245	0	0	0	0
Total Survey	0	0	0	0	1,612	28	2,303	0	0	2,664	1,487	0	162	2,154	0	0	10,410	8	0	0	0

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

By Approach	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	0	819	819	0	2,136	0	2,136	0	2,093	2,333	4,426	0	1,169	2,246	3,415	0	5,398
%HV		0.0%				2.0%				2.3%				3.6%			2.4%
PHF		0.00				0.89				0.97				0.95			0.95

Pedestrians Crosswalk			
North	South	East	West
7	0	0	0

By Movement	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	878	10	1,248	2,136	0	1,368	725	2,093	84	1,085	0	1,169	5,398
%HV	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	2.7%	2.0%	0.0%	2.3%	2.3%	2.3%	0.0%	3.9%	0.0%	3.6%	2.4%
PHF	0.00	0.00	0.00	0.00	0.92	0.28	0.86	0.89	0.00	0.92	0.85	0.97	0.91	0.95	0.00	0.95	0.95

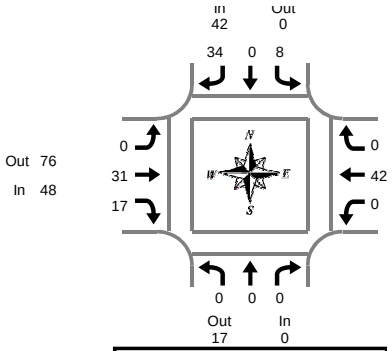
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	0	0	0	792	28	1,005	0	0	1,320	811	0	82	1,038	0	0	5,076	8	0	0	0
4:15 PM	0	0	0	0	811	20	1,091	0	0	1,336	804	0	79	1,082	0	0	5,223	8	0	0	0
4:30 PM	0	0	0	0	838	14	1,180	0	0	1,339	762	0	78	1,106	0	0	5,317	8	0	0	0
4:45 PM	0	0	0	0	845	5	1,253	0	0	1,372	700	0	80	1,114	0	0	5,369	7	0	0	0
5:00 PM	0	0	0	0	820	0	1,298	0	0	1,344	676	0	80	1,116	0	0	5,334	0	0	0	0

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



I-5 SB Ramp & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	1	2	0	2	1	3	1	7	0	8	13
4:05 PM	0	0	0	0	1	0	3	4	0	6	1	7	0	2	0	2	13
4:10 PM	0	0	0	0	0	0	2	2	0	2	3	5	0	0	0	0	7
4:15 PM	0	0	0	0	4	0	3	7	0	4	1	5	0	7	0	7	19
4:20 PM	0	0	0	0	2	0	2	4	0	4	5	9	0	5	0	5	18
4:25 PM	0	0	0	0	1	0	4	5	0	4	4	8	0	8	0	8	21
4:30 PM	0	0	0	0	0	0	3	3	0	2	5	7	0	4	0	4	14
4:35 PM	0	0	0	0	0	0	5	5	0	4	4	8	0	6	0	6	19
4:40 PM	0	0	0	0	0	0	3	3	0	4	4	8	0	2	0	2	13
4:45 PM	0	0	0	0	0	0	5	5	0	3	1	4	0	4	0	4	13
4:50 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	10	0	10	13
4:55 PM	0	0	0	0	1	0	1	2	0	3	1	4	0	3	0	3	9
5:00 PM	0	0	0	0	1	0	4	5	0	2	2	4	0	4	0	4	13
5:05 PM	0	0	0	0	1	0	2	3	0	4	2	6	0	4	0	4	13
5:10 PM	0	0	0	0	1	0	2	3	0	4	2	6	0	2	0	2	11
5:15 PM	0	0	0	0	0	0	4	4	0	1	0	1	0	3	0	3	8
5:20 PM	0	0	0	0	1	0	1	2	0	3	2	5	0	2	0	2	9
5:25 PM	0	0	0	0	2	0	3	5	0	2	1	3	0	3	0	3	11
5:30 PM	0	0	0	0	0	0	5	5	0	1	1	2	0	2	0	2	9
5:35 PM	0	0	0	0	1	0	3	4	0	2	1	3	0	3	0	3	10
5:40 PM	0	0	0	0	1	0	1	2	0	3	1	4	0	2	0	2	8
5:45 PM	0	0	0	0	1	0	5	6	0	1	3	4	0	1	0	1	11
5:50 PM	0	0	0	0	0	0	2	2	0	1	0	1	0	2	0	2	5
5:55 PM	0	0	0	0	0	0	0	0	0	2	6	8	1	2	0	3	11
Total Survey	0	0	0	0	19	0	65	84	0	66	51	117	2	88	0	90	291

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

Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	2	0	6	8	0	10	5	15	1	9	0	10	33
4:15 PM	0	0	0	0	7	0	9	16	0	12	10	22	0	20	0	20	58
4:30 PM	0	0	0	0	0	0	11	11	0	10	13	23	0	12	0	12	46
4:45 PM	0	0	0	0	1	0	7	8	0	8	2	10	0	17	0	17	35
5:00 PM	0	0	0	0	3	0	8	11	0	10	6	16	0	10	0	10	37
5:15 PM	0	0	0	0	3	0	8	11	0	6	3	9	0	8	0	8	28
5:30 PM	0	0	0	0	2	0	9	11	0	6	3	9	0	7	0	7	27
5:45 PM	0	0	0	0	1	0	7	8	0	4	9	13	1	5	0	6	27
Total Survey	0	0	0	0	19	0	65	84	0	66	51	117	2	88	0	90	291

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

By Approach	Northbound I-5 SB Ramp			Southbound I-5 SB Ramp			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	17	17	42	0	42	48	76	124	42	39	81	132
PHF	0.00			0.75			0.75			0.62			0.85

By Movement	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	8	0	34	42	0	31	17	48	0	42	0	42	132
PHF	0.00	0.00	0.00	0.00	0.67	0.00	0.77	0.75	0.00	0.78	0.71	0.75	0.00	0.62	0.00	0.62	0.85

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

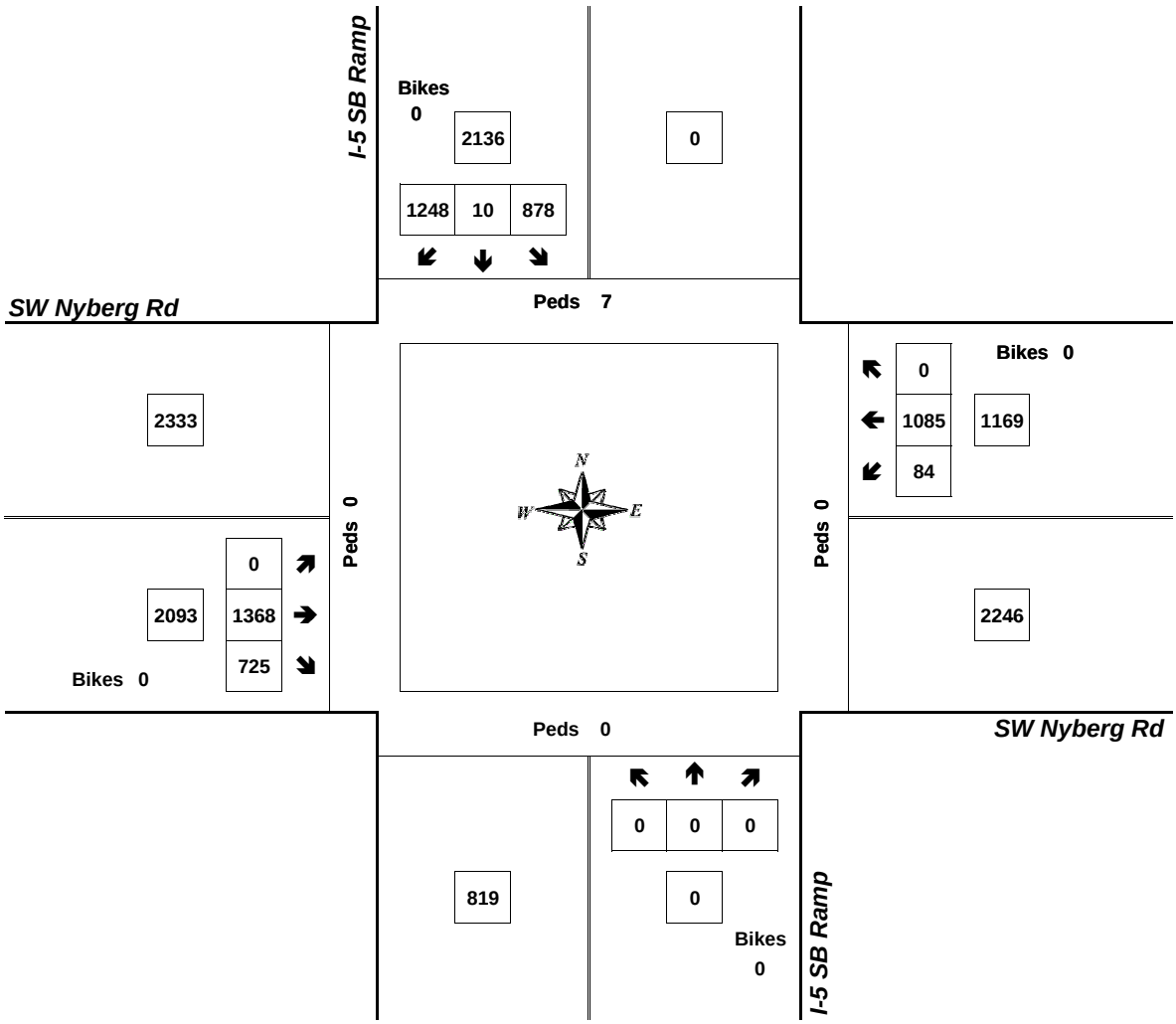
Interval Start Time	Northbound I-5 SB Ramp				Southbound I-5 SB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	10	0	33	43	0	40	30	70	1	58	0	59	172
4:15 PM	0	0	0	0	11	0	35	46	0	40	31	71	0	59	0	59	176
4:30 PM	0	0	0	0	7	0	34	41	0	34	24	58	0	47	0	47	146
4:45 PM	0	0	0	0	9	0	32	41	0	30	14	44	0	42	0	42	127
5:00 PM	0	0	0	0	9	0	32	41	0	26	21	47	1	30	0	31	119

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

I-5 SB Ramp & SW Nyberg Rd

4:40 PM to 5:40 PM
Tuesday, August 29, 2017

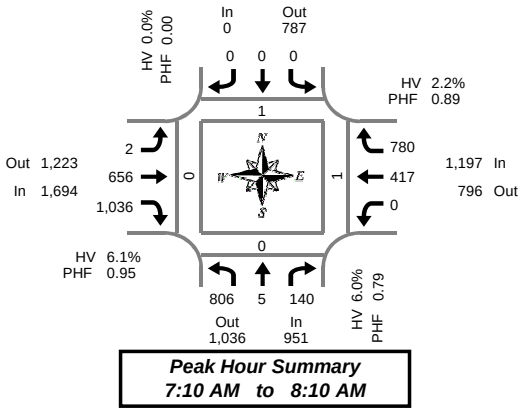


Approach	PHF	HV%	Volume
EB	0.97	2.3%	2,093
WB	0.95	3.6%	1,169
NB	0.00	0.0%	0
SB	0.89	2.0%	2,136
Intersection	0.95	2.4%	5,398

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



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

I-5 NB Ramp & SW Nyberg Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	54	0	14	0	0	0	0	0	0	30	71	0	0	26	54	0	249	0	0	0	0
7:05 AM	60	0	10	0	0	0	0	0	0	31	65	0	0	21	66	0	253	0	0	0	0
7:10 AM	44	0	10	0	0	0	0	0	0	29	75	0	0	43	68	0	269	0	0	0	0
7:15 AM	70	0	6	0	0	0	0	0	1	47	92	0	0	27	73	1	316	0	0	0	0
7:20 AM	52	0	5	0	0	0	0	0	0	48	108	0	0	34	76	0	323	0	0	0	0
7:25 AM	81	1	14	0	0	0	0	0	0	44	101	0	0	24	58	0	323	0	0	0	0
7:30 AM	69	2	13	0	0	0	0	0	1	63	80	0	0	32	59	0	319	0	0	1	0
7:35 AM	95	1	16	0	0	0	0	0	0	35	97	0	0	36	61	0	341	0	0	0	0
7:40 AM	78	0	7	0	0	0	0	0	0	72	88	0	0	45	71	0	361	0	0	0	0
7:45 AM	89	1	13	0	0	0	0	0	0	57	79	0	0	49	73	0	361	0	0	0	0
7:50 AM	64	0	22	0	0	0	0	0	0	73	77	0	0	27	57	0	320	0	0	0	0
7:55 AM	46	0	10	0	0	0	0	0	0	82	76	0	0	41	83	0	338	0	0	0	0
8:00 AM	66	0	10	0	0	0	0	0	0	46	75	0	0	26	58	0	281	0	0	0	0
8:05 AM	52	0	14	0	0	0	0	0	0	60	88	0	0	33	43	0	290	1	0	0	0
8:10 AM	53	3	17	0	0	0	0	0	0	51	66	0	0	26	45	0	261	0	0	0	0
8:15 AM	52	3	17	0	0	0	0	0	0	46	63	0	0	34	62	0	277	0	0	0	0
8:20 AM	38	4	4	0	0	0	0	0	0	66	96	0	0	27	53	0	288	0	0	0	0
8:25 AM	76	8	14	0	0	0	0	0	0	46	71	0	0	28	41	0	284	0	0	0	0
8:30 AM	56	5	5	0	0	0	0	0	0	65	71	1	0	46	44	0	292	0	0	0	0
8:35 AM	61	4	10	0	0	0	0	0	0	45	65	0	0	33	58	0	276	0	0	0	0
8:40 AM	74	8	8	0	0	0	0	0	0	44	69	0	0	36	62	0	301	0	0	0	0
8:45 AM	62	5	11	0	0	0	0	0	0	52	80	0	0	28	47	0	285	0	0	0	0
8:50 AM	55	0	12	0	0	0	0	0	0	52	89	0	0	36	53	0	297	0	0	0	0
8:55 AM	94	0	18	0	0	0	0	0	0	37	76	0	0	25	43	0	293	0	0	0	0
Total Survey	1,541	45	280	0	0	0	0	0	2	1,221	1,918	1	0	783	1,408	1	7,198	1	0	1	0

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	158	0	34	0	0	0	0	0	0	90	211	0	0	90	188	0	771	0	0	0	0
7:15 AM	203	1	25	0	0	0	0	0	1	139	301	0	0	85	207	1	962	0	0	0	0
7:30 AM	242	3	36	0	0	0	0	0	1	170	265	0	0	113	191	0	1,021	0	0	1	0
7:45 AM	199	1	45	0	0	0	0	0	0	212	232	0	0	117	213	0	1,019	0	0	0	0
8:00 AM	171	3	41	0	0	0	0	0	0	157	229	0	0	85	146	0	832	1	0	0	0
8:15 AM	166	15	35	0	0	0	0	0	0	158	230	0	0	89	156	0	849	0	0	0	0
8:30 AM	191	17	23	0	0	0	0	0	0	154	205	1	0	115	164	0	869	0	0	0	0
8:45 AM	211	5	41	0	0	0	0	0	0	141	245	0	0	89	143	0	875	0	0	0	0
Total Survey	1,541	45	280	0	0	0	0	0	2	1,221	1,918	1	0	783	1,408	1	7,198	1	0	1	0

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

By Approach	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	951	1,036	1,987	0	0	787	787	0	1,694	1,223	2,917	0	1,197	796	1,993	1	3,842	1	0	1	0
%HV		6.0%				0.0%				6.1%				2.2%			4.9%				
PHF		0.79				0.00				0.95				0.89			0.90				

By Movement	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	806	5	140	951	0	0	0	0	2	656	1,036	1,694	0	417	780	1,197	3,842
%HV	6.9%	0.0%	0.7%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	8.9%	6.1%	0.0%	3.4%	1.5%	2.2%	4.9%
PHF	0.77	0.31	0.78	0.79	0.00	0.00	0.00	0.00	0.50	0.77	0.86	0.95	0.00	0.80	0.90	0.89	0.90

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

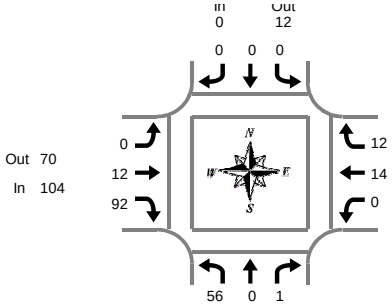
Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	802	5	140	0	0	0	0	0	2	611	1,009	0	0	405	799	1	3,773	0	0	1	0
7:15 AM	815	8	147	0	0	0	0	0	2	678	1,027	0	0	400	757	1	3,834	1	0	1	0
7:30 AM	778	22	157	0	0	0	0	0	1	697	956	0	0	404	706	0	3,721	1	0	1	0
7:45 AM	727	36	144	0	0	0	0	0	0	681	896	1	0	406	679	0	3,569	1	0	0	0
8:00 AM	739	40	140	0	0	0	0	0	0	610	909	1	0	378	609	0	3,425	1	0	0	0

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



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

I-5 NB Ramp & SW Nyberg Rd

Wednesday, August 30, 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 I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	2	0	0	2	0	0	0	0	0	0	4	4	0	0	1	1	7
7:05 AM	3	0	0	3	0	0	0	0	0	1	6	7	0	1	0	1	11
7:10 AM	8	0	0	8	0	0	0	0	0	1	7	8	0	1	0	1	17
7:15 AM	4	0	0	4	0	0	0	0	0	1	8	9	0	0	1	1	14
7:20 AM	2	0	0	2	0	0	0	0	0	1	11	12	0	1	2	3	17
7:25 AM	6	0	0	6	0	0	0	0	0	0	9	9	0	1	0	1	16
7:30 AM	2	0	0	2	0	0	0	0	0	2	6	8	0	4	4	8	18
7:35 AM	5	0	0	5	0	0	0	0	0	0	4	4	0	1	0	1	10
7:40 AM	5	0	0	5	0	0	0	0	0	1	8	9	0	1	0	1	15
7:45 AM	4	0	0	4	0	0	0	0	0	2	7	9	0	2	0	2	15
7:50 AM	9	0	0	9	0	0	0	0	0	0	10	10	0	1	1	2	21
7:55 AM	3	0	0	3	0	0	0	0	0	0	9	9	0	1	2	3	15
8:00 AM	5	0	0	5	0	0	0	0	0	3	4	7	0	0	2	2	14
8:05 AM	3	0	1	4	0	0	0	0	0	1	9	10	0	1	0	1	15
8:10 AM	6	0	0	6	0	0	0	0	0	0	2	2	0	0	0	0	8
8:15 AM	6	0	2	8	0	0	0	0	0	0	7	7	0	2	0	2	17
8:20 AM	4	0	0	4	0	0	0	0	0	1	11	12	0	2	0	2	18
8:25 AM	7	0	0	7	0	0	0	0	0	2	10	12	0	0	0	0	19
8:30 AM	9	1	0	10	0	0	0	0	0	0	6	6	0	0	1	1	17
8:35 AM	5	0	0	5	0	0	0	0	0	3	8	11	0	1	2	3	19
8:40 AM	4	0	1	5	0	0	0	0	0	0	7	7	0	1	2	3	15
8:45 AM	0	0	0	0	0	0	0	0	0	1	9	10	0	0	2	2	12
8:50 AM	9	0	0	9	0	0	0	0	0	2	6	8	0	1	2	3	20
8:55 AM	19	0	1	20	0	0	0	0	0	0	12	12	0	3	0	3	35
Total Survey	130	1	5	136	0	0	0	0	0	22	180	202	0	25	22	47	385

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	13	0	0	13	0	0	0	0	0	2	17	19	0	2	1	3	35
7:15 AM	12	0	0	12	0	0	0	0	0	2	28	30	0	2	3	5	47
7:30 AM	12	0	0	12	0	0	0	0	0	3	18	21	0	6	4	10	43
7:45 AM	16	0	0	16	0	0	0	0	0	2	26	28	0	4	3	7	51
8:00 AM	14	0	1	15	0	0	0	0	0	4	15	19	0	1	2	3	37
8:15 AM	17	0	2	19	0	0	0	0	0	3	28	31	0	4	0	4	54
8:30 AM	18	1	1	20	0	0	0	0	0	3	21	24	0	2	5	7	51
8:45 AM	28	0	1	29	0	0	0	0	0	3	27	30	0	4	4	8	67
Total Survey	130	1	5	136	0	0	0	0	0	22	180	202	0	25	22	47	385

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

By Approach	Northbound I-5 NB Ramp			Southbound I-5 NB Ramp			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	57	92	149	0	12	12	104	70	174	26	13	39	187
PHF	0.79			0.00			0.87			0.54			0.92

By Movement	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	56	0	1	57	0	0	0	0	0	12	92	104	0	14	12	26	187
PHF	0.78	0.00	0.25	0.79	0.00	0.00	0.00	0.00	0.00	0.75	0.82	0.87	0.00	0.58	0.50	0.54	0.92

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

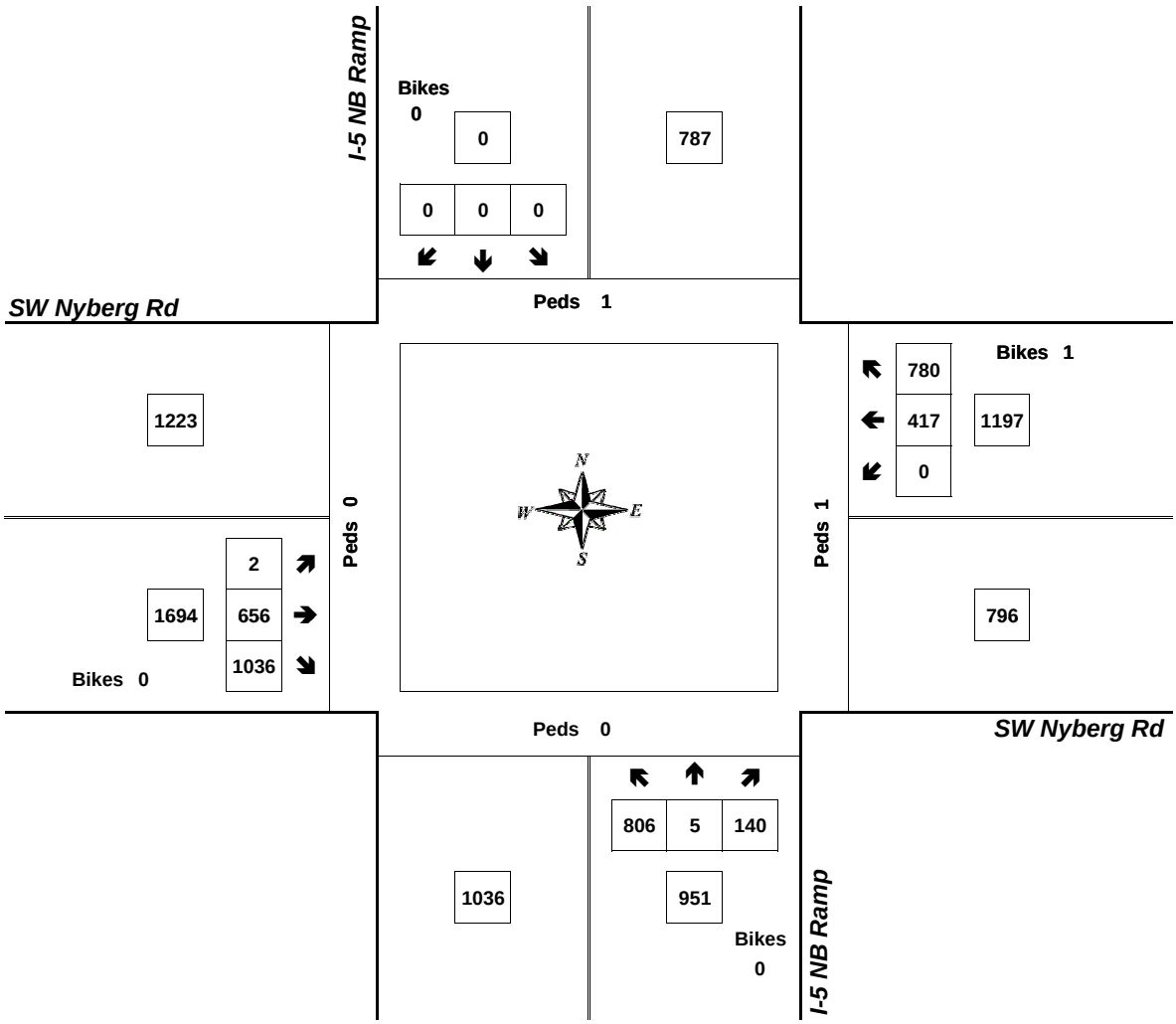
Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	53	0	0	53	0	0	0	0	0	9	89	98	0	14	11	25	176
7:15 AM	54	0	1	55	0	0	0	0	0	11	87	98	0	13	12	25	178
7:30 AM	59	0	3	62	0	0	0	0	0	12	87	99	0	15	9	24	185
7:45 AM	65	1	4	70	0	0	0	0	0	12	90	102	0	11	10	21	193
8:00 AM	77	1	5	83	0	0	0	0	0	13	91	104	0	11	11	22	209

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

I-5 NB Ramp & SW Nyberg Rd

7:10 AM to 8:10 AM
Wednesday, August 30, 2017

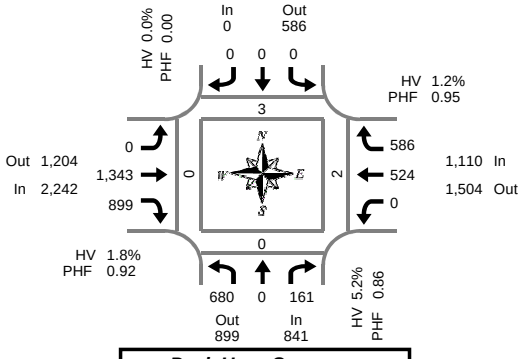


Approach	PHF	HV%	Volume
EB	0.95	6.1%	1,694
WB	0.89	2.2%	1,197
NB	0.79	6.0%	951
SB	0.00	0.0%	0
Intersection	0.90	4.9%	3,842

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



I-5 NB Ramp & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

Peak Hour Summary
4:30 PM to 5:30 PM

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	57	0	5	0	0	0	0	0	0	101	71	0	0	34	49	0	317	0	0	0	0
4:05 PM	44	0	12	0	0	0	0	0	0	94	76	0	0	43	62	0	331	0	0	2	0
4:10 PM	61	0	16	0	0	0	0	0	0	95	66	0	0	39	50	0	327	0	1	0	0
4:15 PM	49	0	14	0	0	0	0	0	0	95	79	0	0	39	45	0	321	0	1	0	0
4:20 PM	44	0	9	0	0	0	0	0	0	105	83	0	0	46	37	0	324	0	0	0	0
4:25 PM	73	0	11	0	0	0	0	0	0	118	67	0	0	35	44	0	348	0	0	2	0
4:30 PM	71	0	9	0	0	0	0	0	0	106	77	0	0	48	42	0	353	0	0	0	0
4:35 PM	55	0	14	0	0	0	0	0	0	135	64	0	0	29	56	0	353	0	0	0	0
4:40 PM	74	0	22	0	0	0	0	0	0	83	77	0	0	40	48	0	344	0	0	1	0
4:45 PM	65	0	14	0	0	0	0	0	0	122	85	0	0	45	52	0	383	0	0	0	0
4:50 PM	42	0	14	0	0	0	0	0	0	124	71	0	0	55	46	0	352	0	0	0	0
4:55 PM	64	0	16	0	0	0	0	0	0	94	65	0	0	40	48	0	327	0	0	1	0
5:00 PM	52	0	9	0	0	0	0	0	0	113	84	0	0	39	42	0	339	0	0	0	0
5:05 PM	41	0	9	0	0	0	0	0	0	97	66	0	0	45	52	0	310	0	0	0	0
5:10 PM	62	0	16	0	0	0	0	0	0	98	74	0	0	51	45	0	346	3	0	0	0
5:15 PM	51	0	10	0	0	0	0	0	0	111	84	0	0	42	58	0	356	0	0	0	0
5:20 PM	43	0	13	0	0	0	0	0	0	141	67	0	0	53	41	0	358	0	0	0	0
5:25 PM	60	0	15	0	0	0	0	0	0	119	85	0	0	37	56	0	372	0	0	0	0
5:30 PM	73	0	16	0	0	0	0	0	0	111	69	0	0	31	39	0	339	0	0	0	0
5:35 PM	40	0	9	0	0	0	0	0	0	126	74	0	0	45	46	0	340	4	0	0	0
5:40 PM	56	0	14	0	0	0	0	0	0	98	63	0	0	37	35	0	303	0	0	0	0
5:45 PM	83	0	16	0	0	0	0	0	0	92	78	0	0	38	43	0	350	2	0	0	0
5:50 PM	38	0	9	0	0	0	0	0	0	121	70	0	0	44	39	0	321	2	0	0	0
5:55 PM	81	0	16	0	0	0	0	0	0	84	71	0	0	28	50	0	330	2	0	1	0
Total Survey	1,379	0	308	0	0	0	0	0	0	2,583	1,766	0	0	983	1,125	0	8,144	13	2	7	0

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	162	0	33	0	0	0	0	0	0	290	213	0	0	116	161	0	975	0	1	2	0
4:15 PM	166	0	34	0	0	0	0	0	0	318	229	0	0	120	126	0	993	0	1	2	0
4:30 PM	200	0	45	0	0	0	0	0	0	324	218	0	0	117	146	0	1,050	0	0	1	0
4:45 PM	171	0	44	0	0	0	0	0	0	340	221	0	0	140	146	0	1,062	0	0	1	0
5:00 PM	155	0	34	0	0	0	0	0	0	308	224	0	0	135	139	0	995	3	0	0	0
5:15 PM	154	0	38	0	0	0	0	0	0	371	236	0	0	132	155	0	1,086	0	0	0	0
5:30 PM	169	0	39	0	0	0	0	0	0	335	206	0	0	113	120	0	982	4	0	0	0
5:45 PM	202	0	41	0	0	0	0	0	0	297	219	0	0	110	132	0	1,001	6	0	1	0
Total Survey	1,379	0	308	0	0	0	0	0	0	2,583	1,766	0	0	983	1,125	0	8,144	13	2	7	0

Peak Hour Summary
4:30 PM to 5:30 PM

By Approach	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	841	899	1,740	0	0	586	586	0	2,242	1,204	3,446	0	1,110	1,504	2,614	0	4,193	3	0	2	0
%HV	5.2%				0.0%				1.8%				1.2%				2.3%				
PHF	0.86				0.00				0.92				0.95				0.97				

By Movement	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	680	0	161	841	0	0	0	0	0	1,343	899	2,242	0	524	586	1,110	4,193
%HV	6.2%	0.0%	1.2%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	3.8%	1.8%	0.0%	1.3%	1.0%	1.2%	2.3%
PHF	0.85	0.00	0.81	0.86	0.00	0.00	0.00	0.00	0.00	0.90	0.95	0.92	0.00	0.90	0.94	0.95	0.97

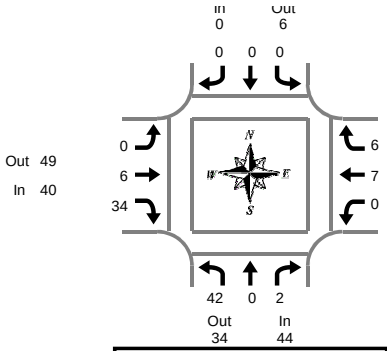
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	699	0	156	0	0	0	0	0	0	1,272	881	0	0	493	579	0	4,080	0	2	6	0
4:15 PM	692	0	157	0	0	0	0	0	0	1,290	892	0	0	512	557	0	4,100	3	1	4	0
4:30 PM	680	0	161	0	0	0	0	0	0	1,343	899	0	0	524	586	0	4,193	3	0	2	0
4:45 PM	649	0	155	0	0	0	0	0	0	1,354	887	0	0	520	560	0	4,125	7	0	1	0
5:00 PM	680	0	152	0	0	0	0	0	0	1,311	885	0	0	490	546	0	4,064	13	0	1	0

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



I-5 NB Ramp & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

Peak Hour Summary
4:30 PM to 5:30 PM

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	6	0	0	6	0	0	0	0	0	1	4	5	0	1	2	3	14
4:05 PM	2	0	0	2	0	0	0	0	0	0	5	5	0	1	0	1	8
4:10 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	1	1	3
4:15 PM	7	0	0	7	0	0	0	0	0	4	6	10	0	0	0	0	17
4:20 PM	4	0	0	4	0	0	0	0	0	1	2	3	0	0	0	0	7
4:25 PM	8	0	0	8	0	0	0	0	0	3	3	6	0	1	0	1	15
4:30 PM	4	0	1	5	0	0	0	0	0	0	4	4	0	0	0	0	9
4:35 PM	5	0	1	6	0	0	0	0	0	0	3	3	0	0	0	0	9
4:40 PM	3	0	0	3	0	0	0	0	0	2	1	3	0	0	0	0	6
4:45 PM	5	0	0	5	0	0	0	0	0	0	3	3	0	2	0	2	10
4:50 PM	6	0	0	6	0	0	0	0	0	0	4	4	0	2	1	3	13
4:55 PM	5	0	0	5	0	0	0	0	0	0	2	2	0	1	3	4	11
5:00 PM	2	0	0	2	0	0	0	0	0	0	5	5	0	0	0	0	7
5:05 PM	2	0	0	2	0	0	0	0	0	0	4	4	0	0	0	0	6
5:10 PM	3	0	0	3	0	0	0	0	0	2	2	4	0	1	0	1	8
5:15 PM	4	0	0	4	0	0	0	0	0	1	3	4	0	0	1	1	9
5:20 PM	1	0	0	1	0	0	0	0	0	1	1	2	0	1	0	1	4
5:25 PM	2	0	0	2	0	0	0	0	0	0	2	2	0	0	1	1	5
5:30 PM	2	0	1	3	0	0	0	0	0	1	2	3	0	0	2	2	8
5:35 PM	2	0	0	2	0	0	0	0	0	1	1	2	0	1	0	1	5
5:40 PM	4	0	0	4	0	0	0	0	0	1	2	3	0	0	1	1	8
5:45 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
5:50 PM	1	0	0	1	0	0	0	0	0	2	1	3	0	1	0	1	5
5:55 PM	2	0	1	3	0	0	0	0	0	0	1	1	0	1	2	3	7
Total Survey	81	0	4	85	0	0	0	0	0	21	63	84	0	13	14	27	196

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

Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	8	0	0	8	0	0	0	0	0	2	10	12	0	2	3	5	25
4:15 PM	19	0	0	19	0	0	0	0	0	8	11	19	0	1	0	1	39
4:30 PM	12	0	2	14	0	0	0	0	0	2	8	10	0	0	0	0	24
4:45 PM	16	0	0	16	0	0	0	0	0	0	9	9	0	5	4	9	34
5:00 PM	7	0	0	7	0	0	0	0	0	2	11	13	0	1	0	1	21
5:15 PM	7	0	0	7	0	0	0	0	0	2	6	8	0	1	2	3	18
5:30 PM	8	0	1	9	0	0	0	0	0	3	5	8	0	1	3	4	21
5:45 PM	4	0	1	5	0	0	0	0	0	2	3	5	0	2	2	4	14
Total Survey	81	0	4	85	0	0	0	0	0	21	63	84	0	13	14	27	196

Heavy Vehicle Peak Hour Summary
4:30 PM to 5:30 PM

By Approach	Northbound I-5 NB Ramp			Southbound I-5 NB Ramp			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	44	34	78	0	6	6	40	49	89	13	8	21	97
PHF	0.69			0.00			0.77			0.36			0.71

By Movement	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	42	0	2	44	0	0	0	0	0	6	34	40	0	7	6	13	97
PHF	0.66	0.00	0.25	0.69	0.00	0.00	0.00	0.00	0.00	0.38	0.77	0.77	0.00	0.35	0.38	0.36	0.71

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

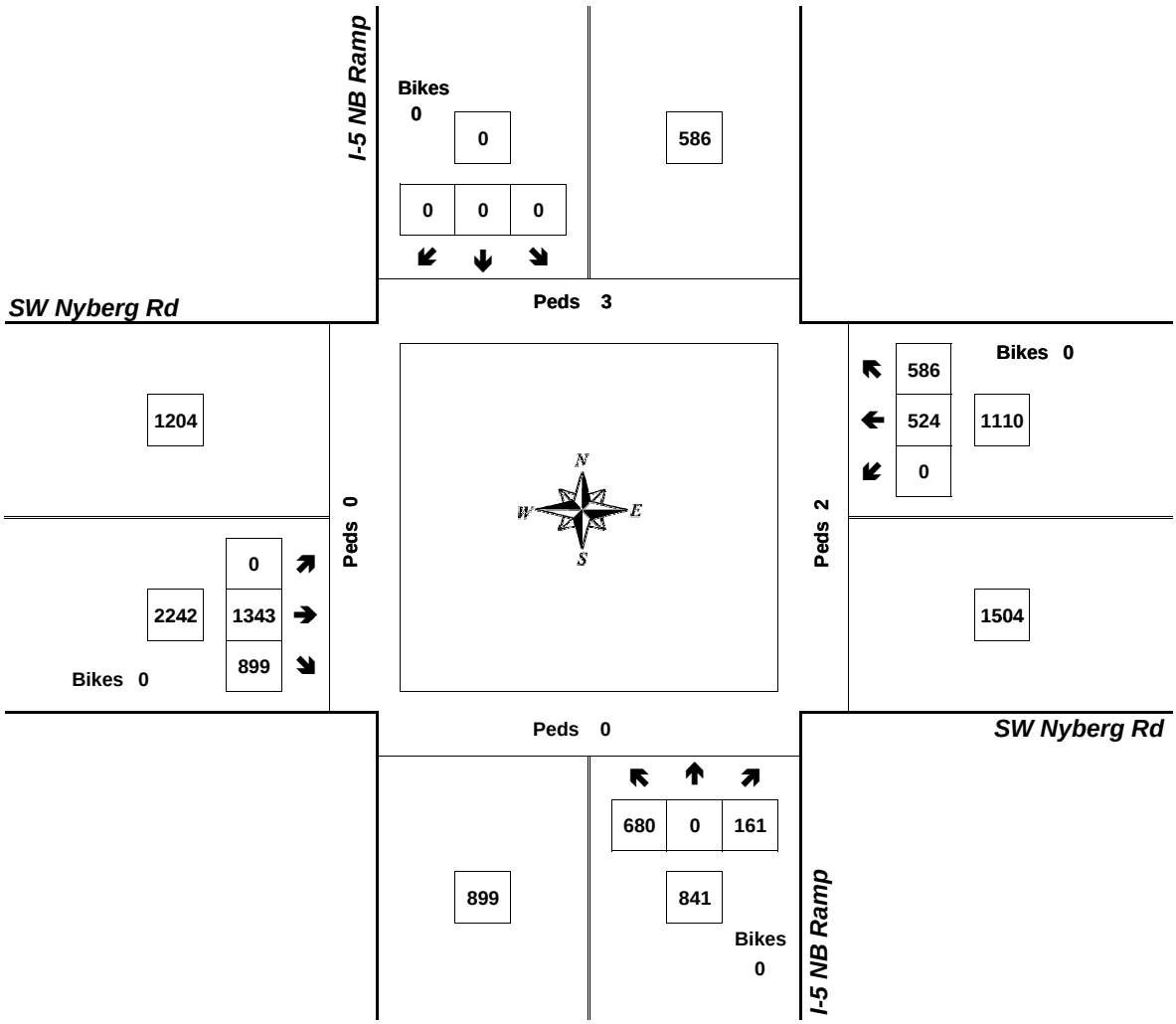
Interval Start Time	Northbound I-5 NB Ramp				Southbound I-5 NB Ramp				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	55	0	2	57	0	0	0	0	0	12	38	50	0	8	7	15	122
4:15 PM	54	0	2	56	0	0	0	0	0	12	39	51	0	7	4	11	118
4:30 PM	42	0	2	44	0	0	0	0	0	6	34	40	0	7	6	13	97
4:45 PM	38	0	1	39	0	0	0	0	0	7	31	38	0	8	9	17	94
5:00 PM	26	0	2	28	0	0	0	0	0	9	25	34	0	5	7	12	74

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

I-5 NB Ramp & SW Nyberg Rd

4:30 PM to 5:30 PM
Tuesday, August 29, 2017

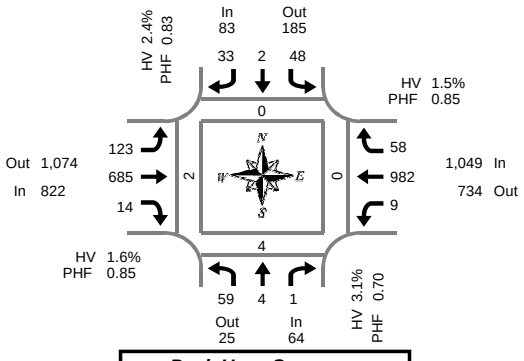


Approach	PHF	HV%	Volume
EB	0.92	1.8%	2,242
WB	0.95	1.2%	1,110
NB	0.86	5.2%	841
SB	0.00	0.0%	0
Intersection	0.97	2.3%	4,193

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:25 AM to 8:25 AM

Nyberg Woods & SW Nyberg Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	1	0	2	0	4	29	1	0	1	78	6	0	124	0	0	0	0
7:05 AM	5	0	0	0	2	0	4	0	12	35	2	0	2	80	9	0	151	0	0	0	0
7:10 AM	6	0	0	0	2	0	4	0	7	26	0	0	0	82	3	1	130	0	0	0	0
7:15 AM	8	0	0	0	3	0	2	0	13	52	0	0	0	87	6	0	171	0	0	0	0
7:20 AM	2	0	0	0	0	0	3	0	4	30	0	0	0	81	4	1	124	0	0	0	0
7:25 AM	2	0	0	0	2	0	3	0	9	56	1	0	1	79	5	0	158	0	0	0	0
7:30 AM	9	2	0	0	4	0	3	0	15	40	2	0	2	63	3	0	143	0	0	0	0
7:35 AM	6	0	0	0	2	0	4	0	14	61	0	0	1	113	8	0	209	0	0	0	0
7:40 AM	6	0	0	0	4	1	3	0	8	47	2	0	0	71	6	0	148	0	0	0	0
7:45 AM	8	0	0	1	5	0	3	0	7	63	2	0	1	105	5	0	199	0	1	0	0
7:50 AM	3	1	0	0	2	0	3	0	13	84	4	0	1	81	6	0	198	0	0	0	0
7:55 AM	10	0	0	0	4	0	4	0	14	54	0	0	1	77	3	0	167	0	1	0	0
8:00 AM	3	0	1	0	1	1	3	0	7	58	0	0	0	92	3	0	169	0	0	0	0
8:05 AM	2	0	0	0	9	0	1	0	18	52	0	0	0	71	4	0	157	0	0	0	0
8:10 AM	3	0	0	0	4	0	2	0	7	59	2	0	0	89	6	0	172	0	1	0	1
8:15 AM	5	1	0	0	6	0	3	0	7	51	1	0	2	72	4	0	152	0	1	0	1
8:20 AM	2	0	0	0	5	0	1	0	4	60	0	0	0	69	5	0	146	0	0	0	0
8:25 AM	3	1	0	0	4	0	1	0	7	58	3	0	1	69	2	0	149	0	0	0	0
8:30 AM	6	1	0	0	4	0	3	0	8	35	1	0	0	80	6	0	144	0	0	0	0
8:35 AM	3	0	0	0	2	0	2	0	5	57	0	0	0	88	1	0	158	0	0	0	0
8:40 AM	3	1	1	0	2	0	1	0	3	43	2	0	0	83	4	0	143	0	0	0	0
8:45 AM	6	1	0	0	1	0	2	0	5	51	1	0	0	74	6	0	147	0	0	0	1
8:50 AM	7	0	0	0	1	0	3	0	14	42	1	0	0	66	4	0	138	0	0	0	0
8:55 AM	2	0	0	0	3	0	6	0	11	50	4	0	3	79	9	0	167	1	0	0	0
Total Survey	112	8	2	1	73	2	66	0	216	1,193	29	0	16	1,929	118	2	3,764	1	4	0	3

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	13	0	0	0	5	0	10	0	23	90	3	0	3	240	18	1	405	0	0	0	0
7:15 AM	12	0	0	0	5	0	8	0	26	138	1	0	1	247	15	1	453	0	0	0	0
7:30 AM	21	2	0	0	10	1	10	0	37	148	4	0	3	247	17	0	500	0	0	0	0
7:45 AM	21	1	0	1	11	0	10	0	34	201	6	0	3	263	14	0	564	0	2	0	0
8:00 AM	8	0	1	0	14	1	6	0	32	169	2	0	0	252	13	0	498	0	1	0	1
8:15 AM	10	2	0	0	15	0	5	0	18	169	4	0	3	210	11	0	447	0	1	0	1
8:30 AM	12	2	1	0	8	0	6	0	16	135	3	0	0	251	11	0	445	0	0	0	0
8:45 AM	15	1	0	0	5	0	11	0	30	143	6	0	3	219	19	0	452	1	0	0	1
Total Survey	112	8	2	1	73	2	66	0	216	1,193	29	0	16	1,929	118	2	3,764	1	4	0	3

Peak Hour Summary
7:25 AM to 8:25 AM

By Approach	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	64	25	89	1	83	185	268	0	822	1,074	1,896	0	1,049	734	1,783	0	2,018	0	4	0	2
%HV	3.1%				2.4%				1.6%				1.5%				1.6%				
PHF	0.70				0.83				0.85				0.85				0.89				

By Movement	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	59	4	1	64	48	2	33	83	123	685	14	822	9	982	58	1,049	2,018
%HV	3.4%	0.0%	0.0%	3.1%	0.0%	0.0%	6.1%	2.4%	0.0%	1.9%	0.0%	1.6%	0.0%	1.5%	1.7%	1.5%	1.6%
PHF	0.70	0.50	0.25	0.70	0.63	0.50	0.83	0.83	0.79	0.85	0.44	0.85	0.56	0.85	0.76	0.85	0.89

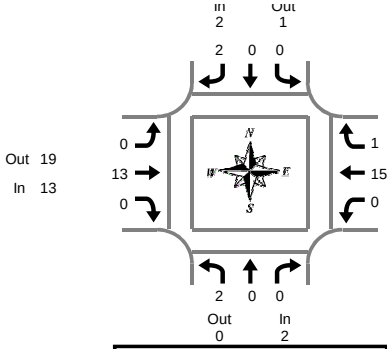
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	67	3	0	1	31	1	38	0	120	577	14	0	10	997	64	2	1,922	0	2	0	0
7:15 AM	62	3	1	1	40	2	34	0	129	656	13	0	7	1,009	59	1	2,015	0	3	0	1
7:30 AM	60	5	1	1	50	2	31	0	121	687	16	0	9	972	55	0	2,009	0	4	0	2
7:45 AM	51	5	2	1	48	1	27	0	100	674	15	0	6	976	49	0	1,954	0	4	0	2
8:00 AM	45	5	2	0	42	1	28	0	96	616	15	0	6	932	54	0	1,842	1	2	0	3

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Nyberg Woods & SW Nyberg Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

Peak Hour Summary
7:25 AM to 8:25 AM

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	2	0	2	2
7:05 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	1	3
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	1	0	0	1	1	2	0	0	2	0	0	0	0	4
7:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:25 AM	0	0	0	0	0	0	1	1	0	2	0	2	0	4	0	4	7
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	1	0	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
7:55 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
8:05 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
8:10 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	3	0	3	5
8:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:25 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
8:35 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
8:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
8:50 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
8:55 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
Total Survey	3	0	0	3	0	0	3	3	4	26	0	30	0	27	2	29	65

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	1	1	0	2	0	2	1	3	5
7:15 AM	1	0	0	1	0	0	2	2	2	3	0	5	0	5	0	5	13
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	4	0	4	5
7:45 AM	1	0	0	1	0	0	0	0	0	3	0	3	0	2	1	3	7
8:00 AM	1	0	0	1	0	0	0	0	0	5	0	5	0	1	0	1	7
8:15 AM	0	0	0	0	0	0	1	1	0	5	0	5	0	4	0	4	10
8:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	6	0	6	9
8:45 AM	0	0	0	0	0	0	0	0	1	5	0	6	0	3	0	3	9
Total Survey	3	0	0	3	0	0	3	3	4	26	0	30	0	27	2	29	65

Heavy Vehicle Peak Hour Summary
7:25 AM to 8:25 AM

By Approach	Northbound Nyberg Woods			Southbound Nyberg Woods			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	0	2	2	1	3	13	19	32	16	13	29	33
PHF	0.50			0.50			0.54			0.50			0.75

By Movement	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	0	0	2	0	0	2	2	0	13	0	13	0	15	1	16	33
PHF	0.50	0.00	0.00	0.50	0.00	0.00	0.50	0.50	0.00	0.54	0.00	0.54	0.00	0.47	0.25	0.50	0.75

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

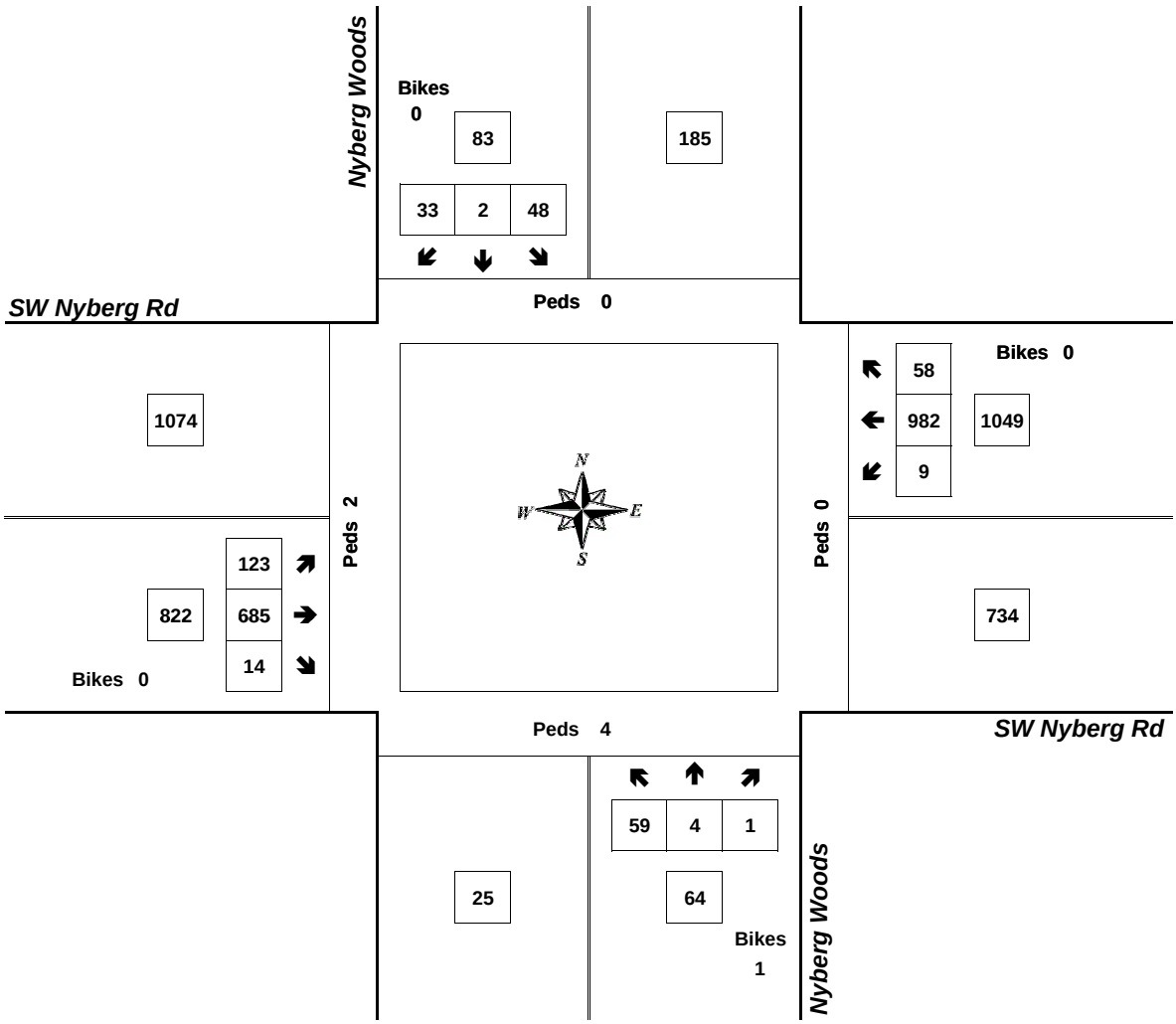
Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	2	0	0	2	0	0	2	2	3	8	0	11	0	13	2	15	30
7:15 AM	3	0	0	3	0	0	2	2	2	12	0	14	0	12	1	13	32
7:30 AM	2	0	0	2	0	0	1	1	0	14	0	14	0	11	1	12	29
7:45 AM	2	0	0	2	0	0	1	1	0	16	0	16	0	13	1	14	33
8:00 AM	1	0	0	1	0	0	1	1	1	18	0	19	0	14	0	14	35

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

Nyberg Woods & SW Nyberg Rd

7:25 AM to 8:25 AM
Wednesday, August 30, 2017

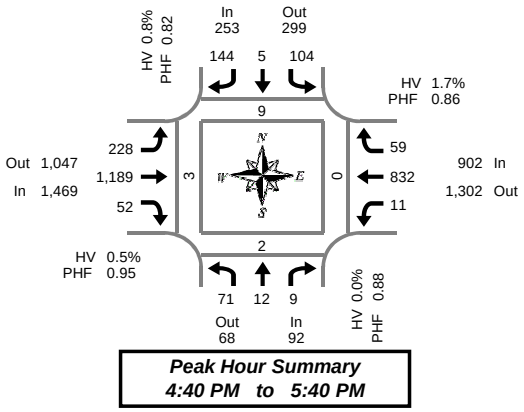


Approach	PHF	HV%	Volume
EB	0.85	1.6%	822
WB	0.85	1.5%	1,049
NB	0.70	3.1%	64
SB	0.83	2.4%	83
Intersection	0.89	1.6%	2,018

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Nyberg Woods & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	12	0	0	0	11	0	20	0	16	88	2	0	2	65	7	0	223	0	0	0	0
4:05 PM	5	0	1	0	3	2	18	0	21	88	0	0	1	56	3	0	198	0	0	0	0
4:10 PM	5	0	0	0	4	0	12	0	12	102	2	0	0	77	6	0	220	0	0	0	0
4:15 PM	4	1	1	0	9	0	9	0	17	88	1	0	0	62	6	0	198	0	0	0	0
4:20 PM	8	3	2	0	6	1	13	0	10	81	3	0	0	57	3	0	187	0	0	0	0
4:25 PM	2	1	0	0	6	0	19	0	25	115	2	0	0	65	9	0	244	1	0	0	0
4:30 PM	4	1	1	0	10	0	12	0	7	104	2	0	2	61	6	1	210	1	0	0	0
4:35 PM	6	0	0	0	4	2	17	0	33	93	0	0	2	51	1	0	209	0	0	0	0
4:40 PM	7	2	0	0	8	0	11	0	16	99	5	0	2	76	10	0	236	0	0	0	0
4:45 PM	5	0	1	0	9	0	16	0	19	111	5	0	0	66	2	0	234	1	0	0	0
4:50 PM	8	1	0	0	6	1	12	0	26	85	5	0	0	61	3	0	208	0	0	0	0
4:55 PM	4	0	3	0	3	2	13	0	13	112	3	0	0	76	5	0	234	3	2	0	1
5:00 PM	6	1	0	0	9	0	11	0	11	97	2	0	0	60	4	0	201	0	0	0	1
5:05 PM	7	1	0	0	8	1	10	0	19	78	6	1	2	81	3	0	216	0	0	0	1
5:10 PM	2	2	0	0	9	0	7	0	17	103	4	0	2	94	6	0	246	5	0	0	0
5:15 PM	5	0	0	0	12	0	11	0	22	98	3	0	0	70	4	1	225	0	0	0	0
5:20 PM	9	0	2	0	18	0	12	0	16	107	3	0	1	78	5	1	251	0	0	0	0
5:25 PM	5	2	0	0	6	0	18	0	32	100	3	0	1	50	3	0	220	0	0	0	0
5:30 PM	4	2	1	0	9	1	10	0	16	104	7	0	1	70	9	0	234	0	0	0	0
5:35 PM	9	1	2	0	7	0	13	0	21	95	6	0	2	50	5	0	211	0	0	0	0
5:40 PM	9	0	1	0	13	0	13	0	19	88	3	0	0	39	6	0	191	0	0	0	0
5:45 PM	6	1	0	0	8	0	14	0	20	96	2	0	0	72	5	0	224	1	0	0	0
5:50 PM	7	1	2	0	5	1	11	0	24	82	4	0	1	59	7	0	204	1	0	0	0
5:55 PM	3	0	1	0	3	0	12	0	15	109	0	0	0	73	6	0	222	0	1	0	0
Total Survey	142	20	18	0	186	11	314	0	447	2,323	73	1	19	1,569	124	3	5,246	13	3	0	3

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	22	0	1	0	18	2	50	0	49	278	4	0	3	198	16	0	641	0	0	0	0
4:15 PM	14	5	3	0	21	1	41	0	52	284	6	0	0	184	18	0	629	1	0	0	0
4:30 PM	17	3	1	0	22	2	40	0	56	296	7	0	6	188	17	1	655	1	0	0	0
4:45 PM	17	1	4	0	18	3	41	0	58	308	13	0	0	203	10	0	676	4	2	0	1
5:00 PM	15	4	0	0	26	1	28	0	47	278	12	1	4	235	13	0	663	5	0	0	2
5:15 PM	19	2	2	0	36	0	41	0	70	305	9	0	2	198	12	2	696	0	0	0	0
5:30 PM	22	3	4	0	29	1	36	0	56	287	16	0	3	159	20	0	636	0	0	0	0
5:45 PM	16	2	3	0	16	1	37	0	59	287	6	0	1	204	18	0	650	2	1	0	0
Total Survey	142	20	18	0	186	11	314	0	447	2,323	73	1	19	1,569	124	3	5,246	13	3	0	3

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

By Approach	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	92	68	160	0	253	299	552	0	1,469	1,047	2,516	1	902	1,302	2,204	2	2,716	9	2	0	3
%HV	0.0%				0.8%				0.5%				1.7%				0.9%				
PHF	0.88				0.82				0.95				0.86				0.94				

By Movement	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	71	12	9	92	104	5	144	253	228	1,189	52	1,469	11	832	59	902	2,716
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.8%	0.4%	0.6%	0.0%	0.5%	0.0%	1.8%	0.0%	1.7%	0.9%
PHF	0.89	0.60	0.56	0.88	0.67	0.42	0.88	0.82	0.81	0.96	0.81	0.95	0.69	0.85	0.87	0.86	0.94

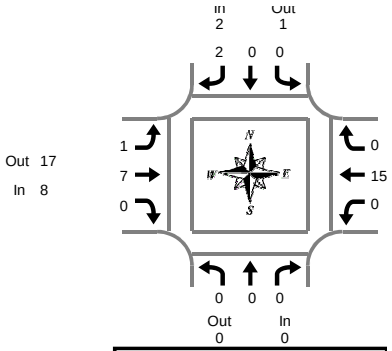
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	70	9	9	0	79	8	172	0	215	1,166	30	0	9	773	61	1	2,601	6	2	0	1
4:15 PM	63	13	8	0	87	7	150	0	213	1,166	38	1	10	810	58	1	2,623	11	2	0	3
4:30 PM	68	10	7	0	102	6	150	0	231	1,187	41	1	12	824	52	3	2,690	10	2	0	3
4:45 PM	73	10	10	0	109	5	146	0	231	1,178	50	1	9	795	55	2	2,671	9	2	0	3
5:00 PM	72	11	9	0	107	3	142	0	232	1,157	43	1	10	796	63	2	2,645	7	1	0	2

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Nyberg Woods & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	0	1	1	1	0	2	0	1	0	1	4
4:05 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
4:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:25 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
4:30 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
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	0	2	0	2	0	1	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
4:50 PM	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	5	0	5	5
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	1	0	1	0	1	0	1	2
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	1	0	1	0	0	0	0	1
5:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:25 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
5:35 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	1	3
5:40 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
5:50 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	7	7
Total Survey	0	0	0	0	1	0	2	3	4	22	0	26	0	25	1	26	55

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

Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	0	1	2	2	0	4	0	1	0	1	6
4:15 PM	0	0	0	0	0	0	0	0	0	7	0	7	0	1	0	1	8
4:30 PM	0	0	0	0	0	0	0	0	1	3	0	4	0	1	0	1	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	9
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
5:15 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	1	0	1	4
5:30 PM	0	0	0	0	0	0	1	1	1	2	0	3	0	4	0	4	8
5:45 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	7	1	8	12
Total Survey	0	0	0	0	1	0	2	3	4	22	0	26	0	25	1	26	55

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

By Approach	Northbound Nyberg Woods			Southbound Nyberg Woods			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	2	1	3	8	17	25	15	7	22	25
PHF	0.00			0.25			0.67			0.42			0.69

By Movement	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	2	2	1	7	0	8	0	15	0	15	25
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.58	0.00	0.67	0.00	0.42	0.00	0.42	0.69

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

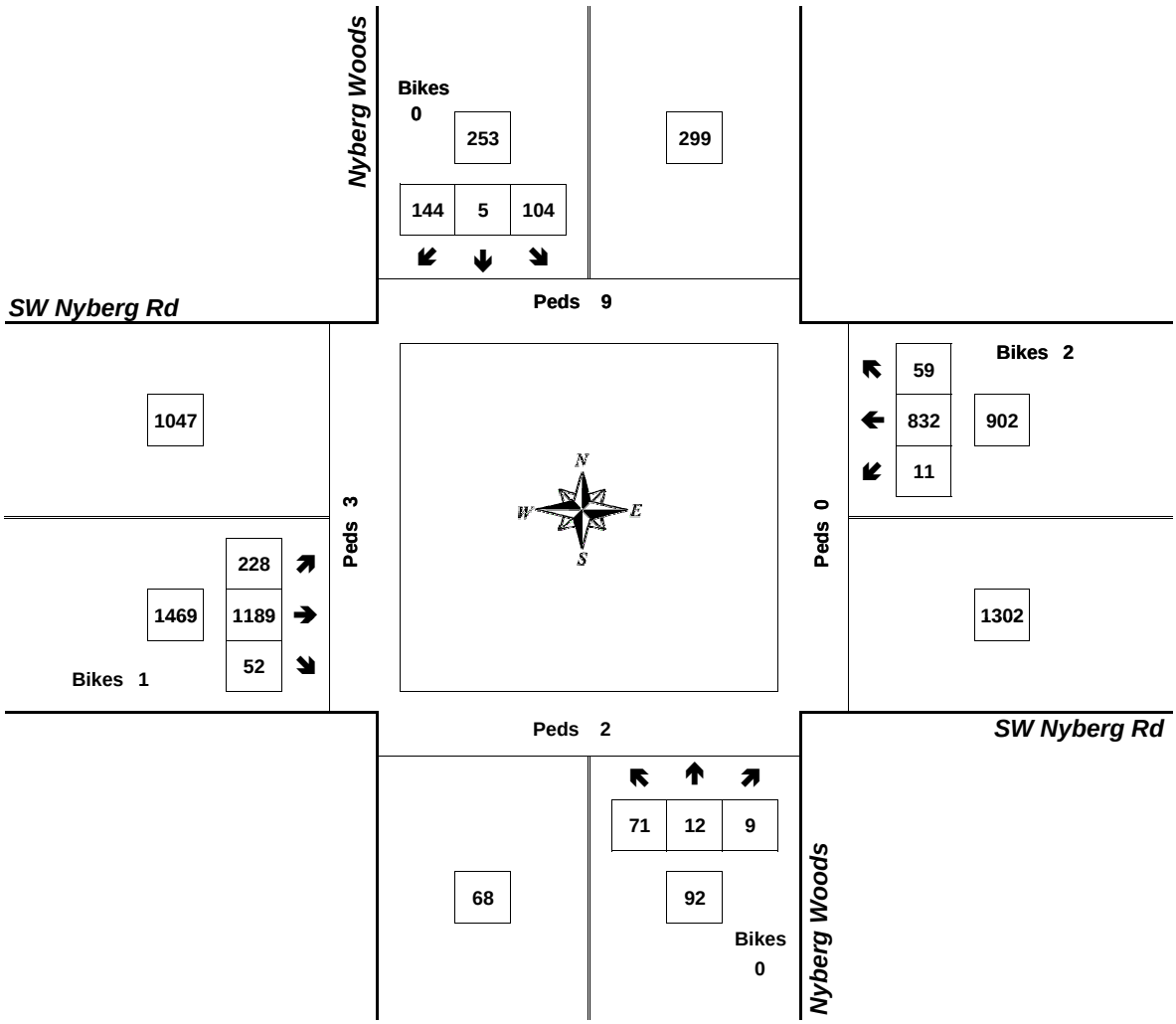
Interval Start Time	Northbound Nyberg Woods				Southbound Nyberg Woods				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	1	0	0	1	3	12	0	15	0	12	0	12	28
4:15 PM	0	0	0	0	0	0	0	0	1	12	0	13	0	12	0	12	25
4:30 PM	0	0	0	0	0	0	1	1	1	7	0	8	0	12	0	12	21
4:45 PM	0	0	0	0	0	0	2	2	1	6	0	7	0	15	0	15	24
5:00 PM	0	0	0	0	0	0	2	2	1	10	0	11	0	13	1	14	27

Peak Hour Summary

All Traffic Data
Services Inc.
Clay Carney
(503) 833-2740

Nyberg Woods & SW Nyberg Rd

4:40 PM to 5:40 PM
Tuesday, August 29, 2017

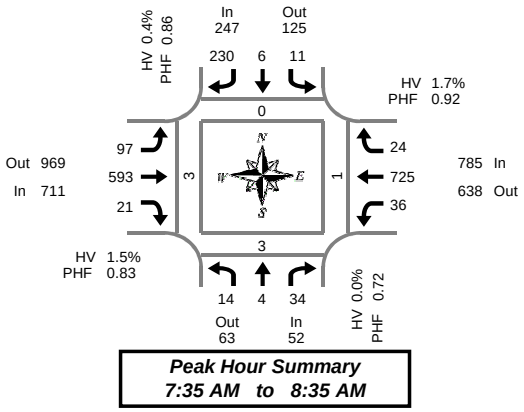


Approach	PHF	HV%	Volume
EB	0.95	0.5%	1,469
WB	0.86	1.7%	902
NB	0.88	0.0%	92
SB	0.82	0.8%	253
Intersection	0.94	0.9%	2,716

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:35 AM to 8:35 AM

SW Nyberg Ln & SW Nyberg Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	4	1	4	0	2	0	14	0	5	20	2	0	2	72	0	0	126	1	0	0	0
7:05 AM	2	0	1	0	0	0	20	0	3	22	3	0	4	53	1	0	109	0	0	0	0
7:10 AM	3	0	1	0	2	0	28	0	4	24	1	0	4	53	0	1	120	0	0	0	0
7:15 AM	4	1	1	0	2	1	27	0	3	42	2	0	1	60	1	0	145	0	2	0	0
7:20 AM	1	0	3	0	1	0	22	0	5	33	1	0	5	65	1	0	137	0	0	0	0
7:25 AM	1	0	4	0	0	0	22	0	8	46	1	0	2	56	0	0	140	0	0	0	0
7:30 AM	1	0	3	0	1	1	15	0	8	33	2	0	2	62	1	0	129	0	0	0	0
7:35 AM	1	0	3	0	1	0	20	0	8	38	3	0	4	63	0	0	141	0	0	0	0
7:40 AM	1	0	4	0	0	0	22	0	5	56	1	0	1	67	2	0	159	0	0	0	0
7:45 AM	0	0	2	0	0	0	27	0	8	45	0	0	2	72	2	0	158	0	0	0	1
7:50 AM	0	0	1	0	4	0	19	0	10	80	3	0	6	56	2	0	181	0	1	0	0
7:55 AM	2	1	5	0	0	0	16	0	10	49	0	0	2	65	3	0	153	0	0	0	1
8:00 AM	2	0	0	0	1	1	18	0	8	52	3	0	2	54	0	0	141	0	0	0	0
8:05 AM	1	0	4	0	1	0	18	0	7	46	2	0	4	56	1	0	140	0	0	0	0
8:10 AM	3	0	3	0	0	0	21	0	8	52	3	0	2	64	2	0	158	0	0	0	0
8:15 AM	1	1	5	0	0	2	20	0	7	38	1	0	2	57	3	0	137	0	2	0	0
8:20 AM	0	1	4	0	0	1	13	0	9	51	2	0	2	56	4	0	143	0	0	0	0
8:25 AM	2	0	1	0	1	0	14	0	10	57	1	0	4	49	3	0	142	0	0	0	0
8:30 AM	1	1	2	0	3	2	22	0	7	29	2	1	5	66	2	0	142	0	0	1	1
8:35 AM	0	2	1	0	2	0	20	0	13	38	0	0	4	55	1	0	136	0	0	0	1
8:40 AM	2	0	0	0	1	0	21	0	10	40	3	0	0	62	1	0	140	0	0	0	0
8:45 AM	2	0	6	0	0	0	15	0	11	34	0	0	6	58	2	0	134	0	0	0	0
8:50 AM	1	0	1	0	0	1	11	0	8	42	0	0	5	71	2	0	142	0	0	0	0
8:55 AM	2	1	1	0	1	0	15	0	5	45	1	0	5	68	2	0	146	0	0	0	0
Total Survey	37	9	60	0	23	9	460	0	180	1,012	37	1	76	1,460	36	1	3,399	1	5	1	4

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	9	1	6	0	4	0	62	0	12	66	6	0	10	178	1	1	355	1	0	0	0
7:15 AM	6	1	8	0	3	1	71	0	16	121	4	0	8	181	2	0	422	0	2	0	0
7:30 AM	3	0	10	0	2	1	57	0	21	127	6	0	7	192	3	0	429	0	0	0	0
7:45 AM	2	1	8	0	4	0	62	0	28	174	3	0	10	193	7	0	492	0	1	0	2
8:00 AM	6	0	7	0	2	1	57	0	23	150	8	0	8	174	3	0	439	0	0	0	0
8:15 AM	3	2	10	0	1	3	47	0	26	146	4	0	8	162	10	0	422	0	2	0	0
8:30 AM	3	3	3	0	6	2	63	0	30	107	5	1	9	183	4	0	418	0	0	1	2
8:45 AM	5	1	8	0	1	1	41	0	24	121	1	0	16	197	6	0	422	0	0	0	0
Total Survey	37	9	60	0	23	9	460	0	180	1,012	37	1	76	1,460	36	1	3,399	1	5	1	4

Peak Hour Summary
7:35 AM to 8:35 AM

By Approach	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	52	63	115	0	247	125	372	0	711	969	1,680	1	785	638	1,423	0	1,795	0	3	1	3
%HV	0.0%				0.4%				1.5%				1.7%				1.4%				
PHF	0.72				0.86				0.83				0.92				0.90				

By Movement	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	14	4	34	52	11	6	230	247	97	593	21	711	36	725	24	785	1,795
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	3.1%	1.3%	0.0%	1.5%	0.0%	1.7%	4.2%	1.7%	1.4%
PHF	0.58	0.50	0.71	0.72	0.55	0.50	0.83	0.86	0.87	0.82	0.66	0.83	0.82	0.90	0.60	0.92	0.90

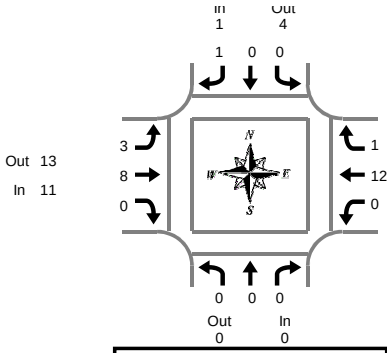
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	20	3	32	0	13	2	252	0	77	488	19	0	35	744	13	1	1,698	1	3	0	2
7:15 AM	17	2	33	0	11	3	247	0	88	572	21	0	33	740	15	0	1,782	0	3	0	2
7:30 AM	14	3	35	0	9	5	223	0	98	597	21	0	33	721	23	0	1,782	0	3	0	2
7:45 AM	14	6	28	0	13	6	229	0	107	577	20	1	35	712	24	0	1,771	0	3	1	4
8:00 AM	17	6	28	0	10	7	208	0	103	524	18	1	41	716	23	0	1,701	0	2	1	2

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW Nyberg Ln & SW Nyberg Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

Peak Hour Summary
7:35 AM to 8:35 AM

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	3	0	3	3
7:05 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:25 AM	1	0	0	1	0	0	0	0	0	2	0	2	0	2	0	2	5
7:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	3	0	3	4
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
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	1	0	1	0	0	0	0	1
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
7:55 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
8:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	1	0	1	4
8:05 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	1	0	2	0	2	0	2	0	2	5
8:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:25 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
8:35 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:40 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
8:50 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
8:55 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
Total Survey	3	0	0	3	0	0	1	1	4	16	0	20	0	31	1	32	56

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	4	0	4	6
7:15 AM	1	0	0	1	0	0	0	0	0	3	0	3	0	5	0	5	9
7:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	4	0	4	5
7:45 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	3	1	4	6
8:00 AM	0	0	0	0	0	0	0	0	1	3	0	4	0	2	0	2	6
8:15 AM	0	0	0	0	0	0	1	1	1	4	0	5	0	3	0	3	9
8:30 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	6	0	6	8
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7
Total Survey	3	0	0	3	0	0	1	1	4	16	0	20	0	31	1	32	56

Heavy Vehicle Peak Hour Summary
7:35 AM to 8:35 AM

By Approach	Northbound SW Nyberg Ln			Southbound SW Nyberg Ln			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	4	5	11	13	24	13	8	21	25
PHF	0.00			0.25			0.55			0.65			0.69

By Movement	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	1	1	3	8	0	11	0	12	1	13	25
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.38	0.50	0.00	0.55	0.00	0.75	0.25	0.65	0.69

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

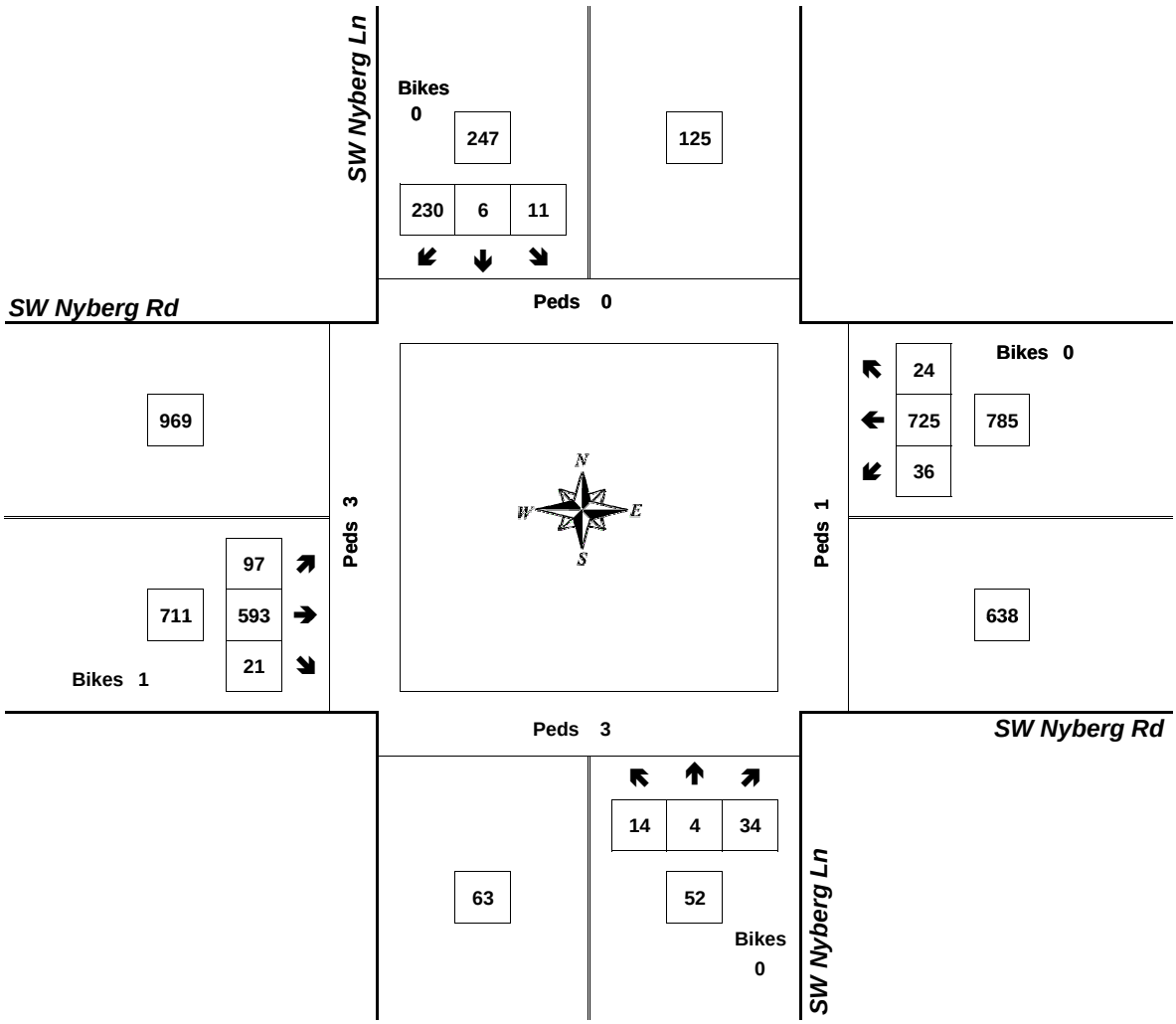
Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	3	0	0	3	0	0	0	0	1	5	0	6	0	16	1	17	26
7:15 AM	2	0	0	2	0	0	0	0	2	7	0	9	0	14	1	15	26
7:30 AM	1	0	0	1	0	0	1	1	3	8	0	11	0	12	1	13	26
7:45 AM	0	0	0	0	0	0	1	1	4	9	0	13	0	14	1	15	29
8:00 AM	0	0	0	0	0	0	1	1	3	11	0	14	0	15	0	15	30

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

SW Nyberg Ln & SW Nyberg Rd

7:35 AM to 8:35 AM
Wednesday, August 30, 2017

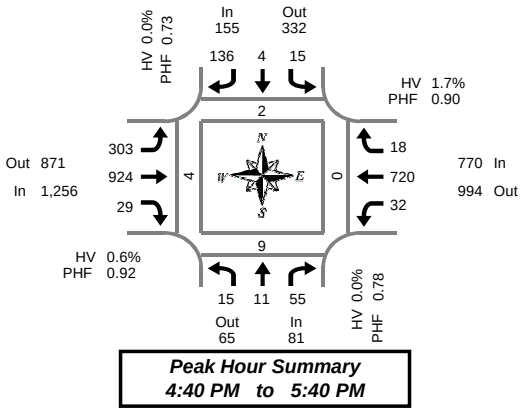


Approach	PHF	HV%	Volume
EB	0.83	1.5%	711
WB	0.92	1.7%	785
NB	0.72	0.0%	52
SB	0.86	0.4%	247
Intersection	0.90	1.4%	1,795

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW Nyberg Ln & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	0	5	0	1	0	12	0	24	73	1	0	0	61	1	0	182	0	0	0	0
4:05 PM	1	0	2	0	1	1	7	0	14	74	0	0	4	63	0	0	167	0	1	0	0
4:10 PM	2	1	1	0	1	0	14	0	11	85	2	0	4	53	1	0	175	0	2	0	0
4:15 PM	4	0	7	0	2	0	9	0	13	89	2	0	5	55	1	0	187	0	0	0	0
4:20 PM	5	0	3	0	2	0	10	0	15	75	1	0	2	57	1	0	171	0	2	0	0
4:25 PM	2	0	4	0	1	0	5	0	22	92	1	0	2	54	1	0	184	0	4	0	0
4:30 PM	0	0	2	0	3	1	9	0	19	79	4	0	3	64	4	1	188	0	2	0	0
4:35 PM	2	0	1	0	1	0	13	0	31	71	4	0	1	43	0	0	167	0	1	0	1
4:40 PM	1	1	2	1	0	1	13	0	20	68	2	0	3	67	2	0	180	2	0	0	0
4:45 PM	4	1	4	0	2	0	12	0	32	95	0	0	0	65	0	0	215	0	0	0	0
4:50 PM	0	0	4	0	1	0	11	0	27	71	3	0	6	49	0	0	172	0	0	0	0
4:55 PM	1	1	4	0	3	0	13	0	24	77	3	0	4	62	2	0	194	0	2	0	1
5:00 PM	2	0	7	0	2	0	4	0	26	67	5	0	3	52	2	0	170	0	3	0	0
5:05 PM	1	1	4	0	0	0	10	0	24	66	2	0	3	83	2	0	196	0	0	0	0
5:10 PM	0	2	6	0	0	1	22	0	22	89	2	0	4	52	3	0	203	0	0	0	0
5:15 PM	2	0	7	0	2	1	14	0	22	62	2	0	3	54	2	0	171	0	4	0	0
5:20 PM	2	3	4	0	1	0	12	1	25	78	1	0	1	66	2	0	195	0	0	0	2
5:25 PM	0	1	2	0	2	0	8	0	35	84	2	0	1	50	0	0	185	0	0	0	0
5:30 PM	1	0	7	0	1	1	8	0	23	83	4	0	3	71	3	0	205	0	0	0	1
5:35 PM	1	1	4	0	1	0	9	0	23	84	3	0	1	49	0	0	176	0	0	0	0
5:40 PM	2	1	4	0	0	0	13	0	13	75	3	0	0	43	1	0	155	0	0	0	0
5:45 PM	1	2	1	0	2	1	14	0	11	83	1	0	3	62	4	0	185	1	0	1	0
5:50 PM	2	0	6	0	3	0	13	0	23	81	1	0	1	59	2	0	191	1	1	0	0
5:55 PM	1	1	5	0	1	0	12	0	22	63	5	0	2	59	6	0	177	0	0	0	0
Total Survey	41	16	96	1	33	7	267	1	521	1,864	54	0	59	1,393	40	1	4,391	4	22	1	5

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	1	8	0	3	1	33	0	49	232	3	0	8	177	2	0	524	0	3	0	0
4:15 PM	11	0	14	0	5	0	24	0	50	256	4	0	9	166	3	0	542	0	6	0	0
4:30 PM	3	1	5	1	4	2	35	0	70	218	10	0	7	174	6	1	535	2	3	0	1
4:45 PM	5	2	12	0	6	0	36	0	83	243	6	0	10	176	2	0	581	0	2	0	1
5:00 PM	3	3	17	0	2	1	36	0	72	222	9	0	10	187	7	0	569	0	3	0	0
5:15 PM	4	4	13	0	5	1	34	1	82	224	5	0	5	170	4	0	551	0	4	0	2
5:30 PM	4	2	15	0	2	1	30	0	59	242	10	0	4	163	4	0	536	0	0	0	1
5:45 PM	4	3	12	0	6	1	39	0	56	227	7	0	6	180	12	0	553	2	1	1	0
Total Survey	41	16	96	1	33	7	267	1	521	1,864	54	0	59	1,393	40	1	4,391	4	22	1	5

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

By Approach	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	81	65	146	1	155	332	487	1	1,256	871	2,127	0	770	994	1,764	0	2,262	2	9	0	4
%HV	0.0%				0.0%				0.6%				1.7%				0.9%				
PHF	0.78				0.73				0.92				0.90				0.97				

By Movement	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	15	11	55	81	15	4	136	155	303	924	29	1,256	32	720	18	770	2,262
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.6%	0.0%	1.7%	5.6%	1.7%	0.9%
PHF	0.75	0.55	0.81	0.78	0.63	0.50	0.71	0.73	0.91	0.92	0.66	0.92	0.62	0.91	0.64	0.90	0.97

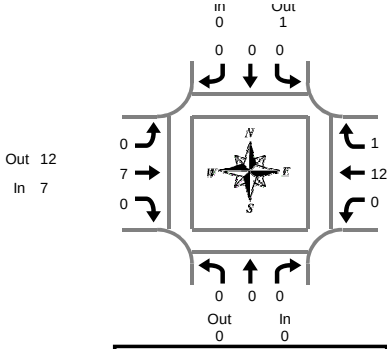
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	4	39	1	18	3	128	0	252	949	23	0	34	693	13	1	2,182	2	14	0	2
4:15 PM	22	6	48	1	17	3	131	0	275	939	29	0	36	703	18	1	2,227	2	14	0	2
4:30 PM	15	10	47	1	17	4	141	1	307	907	30	0	32	707	19	1	2,236	2	12	0	4
4:45 PM	16	11	57	0	15	3	136	1	296	931	30	0	29	696	17	0	2,237	0	9	0	4
5:00 PM	15	12	57	0	15	4	139	1	269	915	31	0	25	700	27	0	2,209	2	8	1	3

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW Nyberg Ln & SW Nyberg Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	3	0	3	0	0	0	0	3
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
4:25 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
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	0	2	0	2	0	1	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
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	0	1	0	1	1
5:10 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
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	0	0	0	0	0	0	0	0	0	2	1	3	3
5:35 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:40 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	1	3
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	2	2	0	3	0	3	0	1	0	1	6
5:55 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	3	0	3	4
Total Survey	0	0	0	0	0	0	4	4	1	23	0	24	0	19	1	20	48

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

Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				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	4	0	4	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	0	7	0	7	0	1	0	1	8
4:30 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	2	0	2	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	6
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
5:30 PM	0	0	0	0	0	0	1	1	1	1	0	2	0	4	1	5	8
5:45 PM	0	0	0	0	0	0	3	3	0	3	0	3	0	4	0	4	10
Total Survey	0	0	0	0	0	0	4	4	1	23	0	24	0	19	1	20	48

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

By Approach	Northbound SW Nyberg Ln			Southbound SW Nyberg Ln			Eastbound SW Nyberg Rd			Westbound SW Nyberg Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	1	1	7	12	19	13	7	20	20
PHF	0.00			0.00			0.44			0.54			0.71

By Movement	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	7	0	7	0	12	1	13	20
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.44	0.00	0.50	0.25	0.54	0.71

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

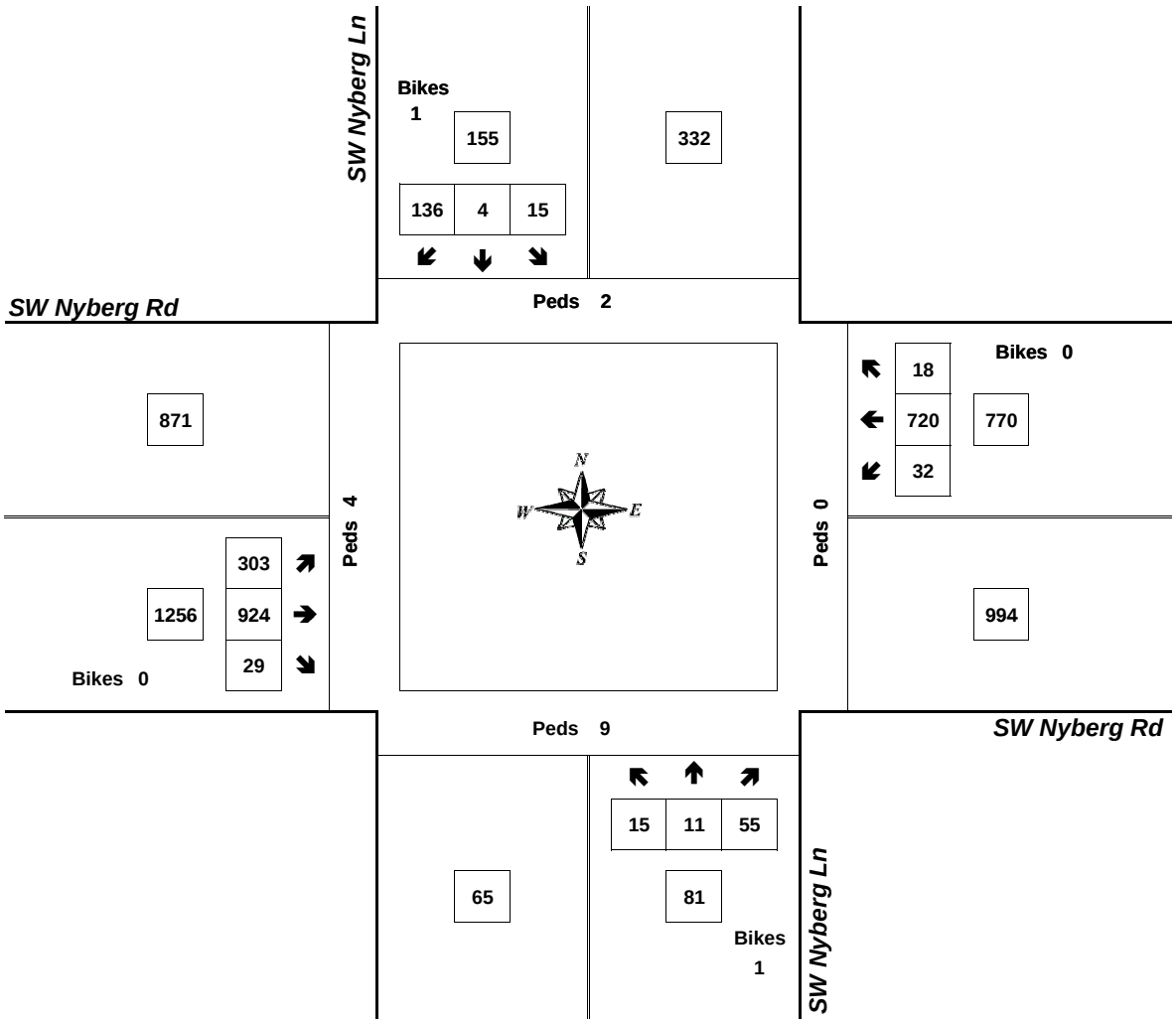
Interval Start Time	Northbound SW Nyberg Ln				Southbound SW Nyberg Ln				Eastbound SW Nyberg Rd				Westbound SW Nyberg Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	15	0	15	0	9	0	9	24
4:15 PM	0	0	0	0	0	0	0	0	0	13	0	13	0	10	0	10	23
4:30 PM	0	0	0	0	0	0	0	0	0	8	0	8	0	10	0	10	18
4:45 PM	0	0	0	0	0	0	1	1	1	5	0	6	0	12	1	13	20
5:00 PM	0	0	0	0	0	0	4	4	1	8	0	9	0	10	1	11	24

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

SW Nyberg Ln & SW Nyberg Rd

4:40 PM to 5:40 PM
Tuesday, August 29, 2017



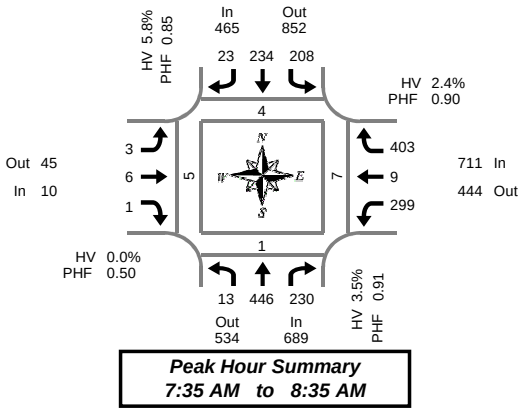
Approach	PHF	HV%	Volume
EB	0.92	0.6%	1,256
WB	0.90	1.7%	770
NB	0.78	0.0%	81
SB	0.73	0.0%	155
Intersection	0.97	0.9%	2,262

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

EXHIBIT N

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:35 AM to 8:35 AM

SW 65th Ave & SW Borland Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				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	39	7	0	10	9	1	0	0	0	0	0	19	2	19	0	107	0	0	0	0
7:05 AM	0	42	10	0	7	12	2	0	0	0	0	0	17	0	24	0	114	2	0	0	1
7:10 AM	1	40	13	0	9	8	1	0	0	1	0	0	25	0	22	0	120	0	0	1	2
7:15 AM	0	43	17	0	9	13	0	0	1	0	0	0	24	1	26	0	134	0	1	0	0
7:20 AM	0	47	17	0	10	11	2	0	0	0	0	0	27	0	30	0	144	1	0	0	0
7:25 AM	0	49	15	0	9	9	1	0	1	0	1	0	28	0	26	0	139	0	0	0	2
7:30 AM	0	43	17	0	17	11	0	0	0	0	1	0	21	0	27	0	137	2	0	0	0
7:35 AM	2	49	20	0	6	18	2	1	0	0	0	0	30	2	34	0	163	0	0	0	0
7:40 AM	1	42	22	0	11	14	1	0	0	0	0	0	25	1	29	0	146	0	0	2	0
7:45 AM	0	38	15	0	20	12	3	0	1	2	0	0	26	0	42	0	159	0	0	0	0
7:50 AM	1	46	18	0	15	21	2	0	0	0	0	0	24	1	41	0	169	1	0	1	0
7:55 AM	2	29	18	0	15	20	4	0	0	2	0	0	32	0	31	0	153	1	0	0	0
8:00 AM	2	38	21	0	21	16	1	0	0	0	0	0	27	2	24	0	152	0	0	1	2
8:05 AM	1	43	17	0	20	27	2	0	0	0	0	0	29	0	30	0	169	0	1	0	0
8:10 AM	0	31	19	0	25	24	1	1	0	0	1	0	24	1	32	0	158	1	0	0	1
8:15 AM	0	29	22	0	16	22	0	0	1	0	0	0	23	0	42	0	155	0	0	0	0
8:20 AM	1	33	20	0	18	18	2	0	1	1	0	0	19	0	34	0	147	1	0	1	0
8:25 AM	1	29	18	0	24	24	3	0	0	0	0	0	16	2	28	0	145	0	0	0	2
8:30 AM	2	39	20	0	17	18	2	0	0	1	0	0	24	0	36	0	159	0	0	2	0
8:35 AM	2	33	18	0	22	11	0	0	0	0	1	0	19	1	39	1	146	1	0	0	0
8:40 AM	1	24	20	0	16	10	1	0	0	0	0	0	20	1	22	0	115	2	0	0	0
8:45 AM	1	26	17	0	20	18	2	0	0	0	0	0	16	0	25	0	125	0	0	0	0
8:50 AM	1	30	17	0	21	16	1	0	1	0	0	0	20	0	33	0	140	0	0	1	0
8:55 AM	0	35	17	0	14	15	0	0	0	2	0	0	16	1	22	0	122	0	0	0	1
Total Survey	20	897	415	0	372	377	34	2	6	9	4	0	551	15	718	1	3,418	12	2	9	11

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				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	121	30	0	26	29	4	0	0	1	0	0	61	2	65	0	341	2	0	1	3
7:15 AM	0	139	49	0	28	33	3	0	2	0	1	0	79	1	82	0	417	1	1	0	2
7:30 AM	3	134	59	0	34	43	3	1	0	0	1	0	76	3	90	0	446	2	0	2	0
7:45 AM	3	113	51	0	50	53	9	0	1	4	0	0	82	1	114	0	481	2	0	1	0
8:00 AM	3	112	57	0	66	67	4	1	0	0	1	0	80	3	86	0	479	1	1	1	3
8:15 AM	2	91	60	0	58	64	5	0	2	1	0	0	58	2	104	0	447	1	0	1	2
8:30 AM	5	96	58	0	55	39	3	0	0	1	1	0	63	2	97	1	420	3	0	2	0
8:45 AM	2	91	51	0	55	49	3	0	1	2	0	0	52	1	80	0	387	0	0	1	1
Total Survey	20	897	415	0	372	377	34	2	6	9	4	0	551	15	718	1	3,418	12	2	9	11

Peak Hour Summary
7:35 AM to 8:35 AM

By Approach	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	689	534	1,223	0	465	852	1,317	2	10	45	55	0	711	444	1,155	0	1,875	4	1	7	5
%HV	3.5%				5.8%				0.0%				2.4%				3.6%				
PHF	0.91				0.85				0.50				0.90				0.97				

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	13	446	230	689	208	234	23	465	3	6	1	10	299	9	403	711	1,875
%HV	0.0%	2.2%	6.1%	3.5%	4.8%	7.3%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	2.0%	2.4%	3.6%
PHF	0.65	0.86	0.94	0.91	0.79	0.80	0.64	0.85	0.38	0.38	0.25	0.50	0.85	0.75	0.88	0.90	0.97

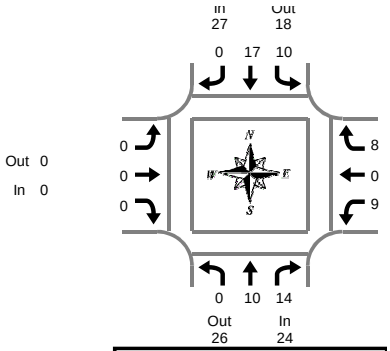
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				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	507	189	0	138	158	19	1	3	5	2	0	298	7	351	0	1,685	7	1	4	5
7:15 AM	9	498	216	0	178	196	19	2	3	4	3	0	317	8	372	0	1,823	6	2	4	5
7:30 AM	11	450	227	0	208	227	21	2	3	5	2	0	296	9	394	0	1,853	6	1	5	5
7:45 AM	13	412	226	0	229	223	21	1	3	6	2	0	283	8	401	1	1,827	7	1	5	5
8:00 AM	12	390	226	0	234	219	15	1	3	4	2	0	253	8	367	1	1,733	5	1	5	6

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW 65th Ave & SW Borland Rd

Wednesday, August 30, 2017
7:00 AM to 9:00 AM

Peak Hour Summary
7:35 AM to 8:35 AM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	1	0	1	2	4
7:05 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
7:10 AM	0	1	1	2	0	0	0	0	0	0	0	0	1	0	1	2	4
7:15 AM	0	2	1	3	1	1	0	2	0	0	0	0	0	0	0	0	5
7:20 AM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
7:25 AM	0	2	0	2	2	0	0	2	0	0	0	0	1	0	2	3	7
7:30 AM	0	0	1	1	1	1	0	2	0	0	0	0	0	0	0	0	3
7:35 AM	0	0	2	2	1	2	0	3	0	0	0	0	0	0	1	1	6
7:40 AM	0	0	2	2	3	0	0	3	0	0	0	0	1	0	2	3	8
7:45 AM	0	1	1	2	0	1	0	1	0	0	0	0	0	0	0	0	3
7:50 AM	0	1	2	3	0	3	0	3	0	0	0	0	0	0	1	1	7
7:55 AM	0	1	1	2	1	0	0	1	0	0	0	0	1	0	0	1	4
8:00 AM	0	1	0	1	0	2	0	2	0	0	0	0	2	0	0	2	5
8:05 AM	0	1	1	2	2	1	0	3	0	0	0	0	1	0	2	3	8
8:10 AM	0	0	2	2	1	0	0	1	0	0	0	0	0	0	1	1	4
8:15 AM	0	2	1	3	0	1	0	1	0	0	0	0	2	0	0	2	6
8:20 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	3
8:25 AM	0	1	2	3	2	4	0	6	0	0	0	0	0	0	0	0	9
8:30 AM	0	2	0	2	0	1	0	1	0	0	0	0	2	0	0	2	5
8:35 AM	0	2	1	3	1	0	0	1	0	0	0	0	1	0	2	3	7
8:40 AM	0	0	2	2	1	0	0	1	0	0	0	0	0	0	1	1	4
8:45 AM	0	1	0	1	1	2	0	3	0	0	0	0	2	0	0	2	6
8:50 AM	0	0	1	1	1	1	0	2	0	0	0	0	1	0	2	3	6
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	21	21	42	18	24	0	42	0	0	0	0	17	0	17	34	118

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	3	1	4	0	2	0	2	0	0	0	0	2	0	2	4	10
7:15 AM	0	5	1	6	3	1	0	4	0	0	0	0	2	0	2	4	14
7:30 AM	0	0	5	5	5	3	0	8	0	0	0	0	1	0	3	4	17
7:45 AM	0	3	4	7	1	4	0	5	0	0	0	0	1	0	1	2	14
8:00 AM	0	2	3	5	3	3	0	6	0	0	0	0	3	0	3	6	17
8:15 AM	0	3	3	6	2	7	0	9	0	0	0	0	2	0	1	3	18
8:30 AM	0	4	3	7	2	1	0	3	0	0	0	0	3	0	3	6	16
8:45 AM	0	1	1	2	2	3	0	5	0	0	0	0	3	0	2	5	12
Total Survey	0	21	21	42	18	24	0	42	0	0	0	0	17	0	17	34	118

Heavy Vehicle Peak Hour Summary
7:35 AM to 8:35 AM

By Approach	Northbound SW 65th Ave			Southbound SW 65th Ave			Eastbound SW Borland Rd			Westbound SW Borland Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	24	26	50	27	18	45	0	0	0	17	24	41	68
PHF	0.86			0.75			0.00			0.71			0.94

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	10	14	24	10	17	0	27	0	0	0	0	9	0	8	17	68
PHF	0.00	0.83	0.70	0.86	0.63	0.61	0.00	0.75	0.00	0.00	0.00	0.00	0.56	0.00	0.67	0.71	0.94

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

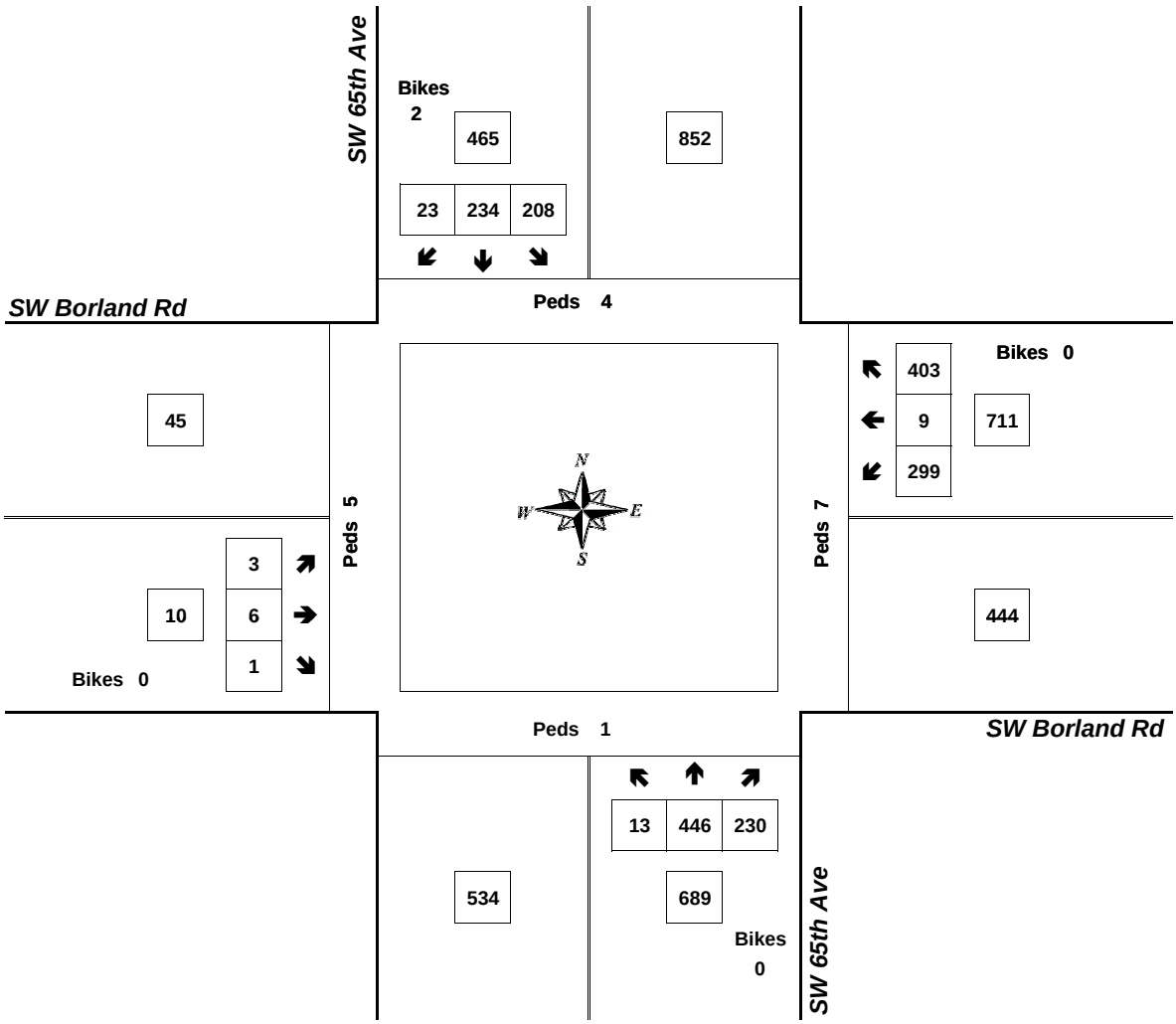
Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	11	11	22	9	10	0	19	0	0	0	0	6	0	8	14	55
7:15 AM	0	10	13	23	12	11	0	23	0	0	0	0	7	0	9	16	62
7:30 AM	0	8	15	23	11	17	0	28	0	0	0	0	7	0	8	15	66
7:45 AM	0	12	13	25	8	15	0	23	0	0	0	0	9	0	8	17	65
8:00 AM	0	10	10	20	9	14	0	23	0	0	0	0	11	0	9	20	63

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

SW 65th Ave & SW Borland Rd

7:35 AM to 8:35 AM
Wednesday, August 30, 2017



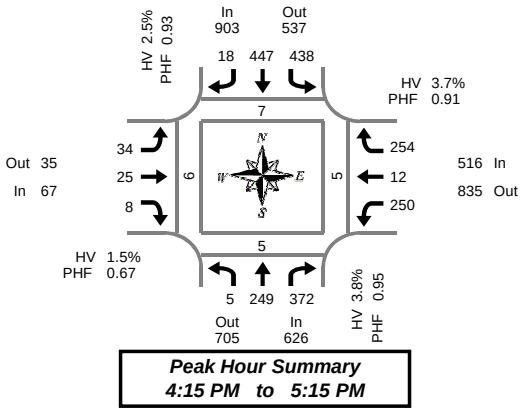
Approach	PHF	HV%	Volume
EB	0.50	0.0%	10
WB	0.90	2.4%	711
NB	0.91	3.5%	689
SB	0.85	5.8%	465
Intersection	0.97	3.6%	1,875

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

EXHIBIT N

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:15 PM to 5:15 PM

SW 65th Ave & SW Borland Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				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	20	20	0	29	35	4	0	2	0	1	0	21	0	19	0	151	0	0	0	1
4:05 PM	0	20	26	0	34	31	2	0	4	2	0	0	19	0	17	0	155	0	0	1	0
4:10 PM	0	17	32	0	34	40	3	0	3	1	0	0	18	1	22	0	171	1	0	0	0
4:15 PM	1	25	26	0	44	42	0	2	2	4	2	0	22	2	26	0	196	0	1	0	0
4:20 PM	0	25	36	0	36	41	2	0	0	1	1	0	26	2	16	0	186	1	0	1	0
4:25 PM	0	18	31	0	37	37	5	0	2	2	1	0	20	2	19	0	174	0	0	0	1
4:30 PM	0	19	29	1	31	39	1	0	5	3	0	0	19	0	24	0	170	0	0	0	1
4:35 PM	1	23	34	0	36	42	0	0	1	2	0	0	18	1	21	0	179	3	1	0	0
4:40 PM	0	26	32	0	42	29	2	0	2	0	1	0	15	2	16	0	167	0	1	2	1
4:45 PM	2	18	23	0	41	42	3	0	3	1	0	0	25	0	18	0	176	0	0	1	0
4:50 PM	0	19	29	0	40	36	0	0	2	4	2	0	26	0	22	0	180	1	0	0	0
4:55 PM	0	20	28	0	41	36	2	0	5	2	0	0	16	0	17	0	167	0	0	0	2
5:00 PM	0	15	39	0	27	32	1	0	6	3	1	0	21	2	26	0	173	2	0	0	1
5:05 PM	0	19	29	0	34	28	0	0	2	2	0	0	19	1	23	0	157	0	2	1	0
5:10 PM	1	22	36	1	29	43	2	0	4	1	0	0	23	0	26	0	187	0	0	0	0
5:15 PM	1	17	24	0	35	41	4	0	1	4	1	0	27	0	21	0	176	1	1	0	0
5:20 PM	0	24	37	0	26	40	0	0	2	2	0	0	21	0	16	0	168	0	0	0	1
5:25 PM	1	30	33	0	41	37	2	0	3	3	2	0	26	0	12	0	190	0	0	0	0
5:30 PM	0	17	38	0	34	43	1	0	2	2	0	0	18	2	17	0	174	0	0	1	2
5:35 PM	0	27	30	0	28	36	4	0	1	1	1	0	16	0	23	0	167	1	0	0	0
5:40 PM	2	23	39	0	33	29	2	0	4	2	0	0	28	0	25	0	187	0	0	1	1
5:45 PM	1	18	20	0	29	27	3	0	2	0	0	0	21	1	18	0	140	0	0	0	0
5:50 PM	0	18	26	0	34	33	2	0	1	2	0	0	16	0	27	0	159	0	1	0	0
5:55 PM	1	16	28	0	36	26	1	0	2	1	1	0	26	0	15	0	153	1	0	0	0
Total Survey	11	496	725	2	831	865	46	2	61	45	14	0	507	16	486	0	4,103	11	7	8	11

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				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	57	78	0	97	106	9	0	9	3	1	0	58	1	58	0	477	1	0	1	1
4:15 PM	1	68	93	0	117	120	7	2	4	7	4	0	68	6	61	0	556	1	1	1	1
4:30 PM	1	68	95	1	109	110	3	0	8	5	1	0	52	3	61	0	516	3	2	2	2
4:45 PM	2	57	80	0	122	114	5	0	10	7	2	0	67	0	57	0	523	1	0	1	2
5:00 PM	1	56	104	1	90	103	3	0	12	6	1	0	63	3	75	0	517	2	2	1	1
5:15 PM	2	71	94	0	102	118	6	0	6	9	3	0	74	0	49	0	534	1	1	0	1
5:30 PM	2	67	107	0	95	108	7	0	7	5	1	0	62	2	65	0	528	1	0	2	3
5:45 PM	2	52	74	0	99	86	6	0	5	3	1	0	63	1	60	0	452	1	1	0	0
Total Survey	11	496	725	2	831	865	46	2	61	45	14	0	507	16	486	0	4,103	11	7	8	11

Peak Hour Summary
4:15 PM to 5:15 PM

By Approach	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	626	705	1,331	2	903	537	1,440	2	67	35	102	0	516	835	1,351	0	2,112	7	5	5	6
%HV	3.8%				2.5%				1.5%				3.7%				3.2%				
PHF	0.95				0.93				0.67				0.91				0.95				

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	5	249	372	626	438	447	18	903	34	25	8	67	250	12	254	516	2,112
%HV	0.0%	5.6%	2.7%	3.8%	1.6%	3.1%	11.1%	2.5%	2.9%	0.0%	0.0%	1.5%	4.0%	0.0%	3.5%	3.7%	3.2%
PHF	0.42	0.92	0.89	0.95	0.89	0.93	0.56	0.93	0.65	0.69	0.50	0.67	0.92	0.50	0.85	0.91	0.95

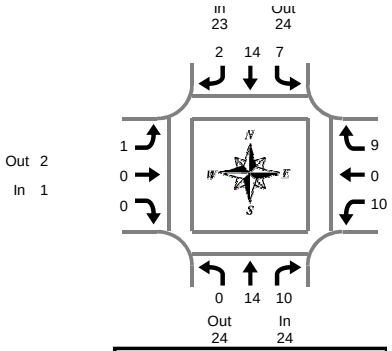
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				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	250	346	1	445	450	24	2	31	22	8	0	245	10	237	0	2,072	6	3	5	6
4:15 PM	5	249	372	2	438	447	18	2	34	25	8	0	250	12	254	0	2,112	7	5	5	6
4:30 PM	6	252	373	2	423	445	17	0	36	27	7	0	256	6	242	0	2,090	7	5	4	6
4:45 PM	7	251	385	1	409	443	21	0	35	27	7	0	266	5	246	0	2,102	5	3	4	7
5:00 PM	7	246	379	1	386	415	22	0	30	23	6	0	262	6	249	0	2,031	5	4	3	5

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW 65th Ave & SW Borland Rd

Tuesday, August 29, 2017
4:00 PM to 6:00 PM

Peak Hour Summary
4:15 PM to 5:15 PM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	1	1	4
4:05 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	3
4:10 PM	0	0	2	2	1	3	0	4	0	0	0	0	1	0	1	2	8
4:15 PM	0	1	0	1	2	0	0	2	0	0	0	0	0	0	2	2	5
4:20 PM	0	2	1	3	0	1	0	1	0	0	0	0	2	0	0	2	6
4:25 PM	0	2	2	4	0	2	1	3	0	0	0	0	0	0	1	1	8
4:30 PM	0	1	2	3	0	2	0	2	1	0	0	1	1	0	0	1	7
4:35 PM	0	1	1	2	1	2	0	3	0	0	0	0	1	0	0	1	6
4:40 PM	0	2	0	2	0	0	0	0	0	0	0	0	2	0	1	3	5
4:45 PM	0	2	1	3	0	1	0	1	0	0	0	0	1	0	0	1	5
4:50 PM	0	1	1	2	2	1	0	3	0	0	0	0	0	0	2	2	7
4:55 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	1	0	2	0	2	0	0	0	0	1	0	2	3	6
5:05 PM	0	1	2	3	0	1	0	1	0	0	0	0	1	0	0	1	5
5:10 PM	0	0	0	0	1	2	1	4	0	0	0	0	1	0	1	2	6
5:15 PM	0	1	1	2	2	1	0	3	0	0	0	0	0	0	0	0	5
5:20 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	3
5:25 PM	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
5:35 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
5:40 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	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	21	18	39	11	24	2	37	1	0	0	1	12	0	13	25	102

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	2	3	5	1	6	0	7	0	0	0	0	1	0	2	3	15
4:15 PM	0	5	3	8	2	3	1	6	0	0	0	0	2	0	3	5	19
4:30 PM	0	4	3	7	1	4	0	5	1	0	0	1	4	0	1	5	18
4:45 PM	0	3	2	5	3	2	0	5	0	0	0	0	1	0	2	3	13
5:00 PM	0	2	2	4	1	5	1	7	0	0	0	0	3	0	3	6	17
5:15 PM	0	3	4	7	2	3	0	5	0	0	0	0	0	0	0	0	12
5:30 PM	0	1	1	2	1	1	0	2	0	0	0	0	1	0	1	2	6
5:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Total Survey	0	21	18	39	11	24	2	37	1	0	0	1	12	0	13	25	102

Heavy Vehicle Peak Hour Summary
4:15 PM to 5:15 PM

By Approach	Northbound SW 65th Ave			Southbound SW 65th Ave			Eastbound SW Borland Rd			Westbound SW Borland Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	24	24	48	23	24	47	1	2	3	19	17	36	67
PHF	0.60			0.72			0.25			0.79			0.80

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	14	10	24	7	14	2	23	1	0	0	1	10	0	9	19	67
PHF	0.00	0.70	0.50	0.60	0.58	0.58	0.50	0.72	0.25	0.00	0.00	0.25	0.63	0.00	0.56	0.79	0.80

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

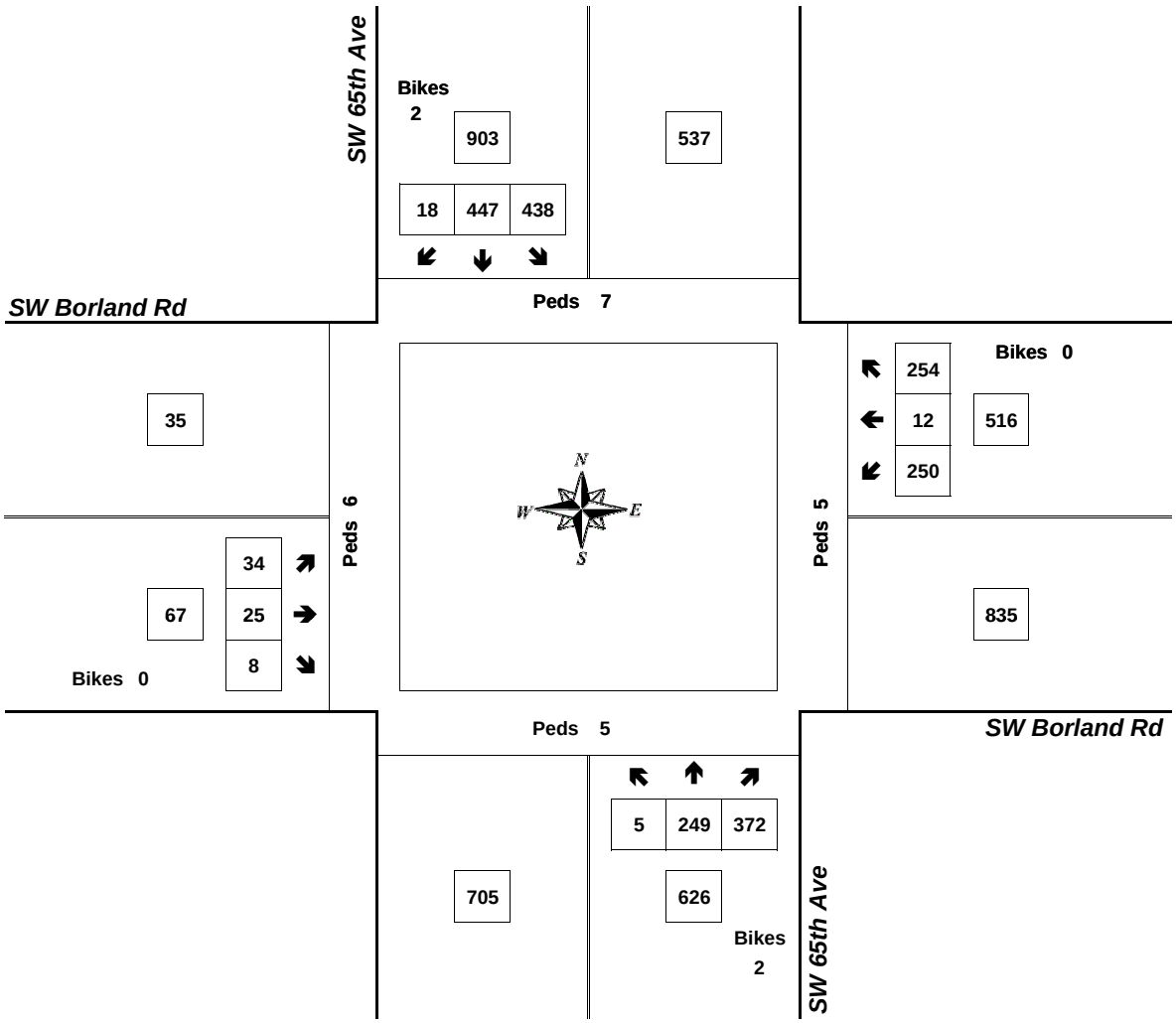
Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Borland Rd				Westbound SW Borland Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	14	11	25	7	15	1	23	1	0	0	1	8	0	8	16	65
4:15 PM	0	14	10	24	7	14	2	23	1	0	0	1	10	0	9	19	67
4:30 PM	0	12	11	23	7	14	1	22	1	0	0	1	8	0	6	14	60
4:45 PM	0	9	9	18	7	11	1	19	0	0	0	0	5	0	6	11	48
5:00 PM	0	7	7	14	4	9	1	14	0	0	0	0	4	0	5	9	37

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

SW 65th Ave & SW Borland Rd

4:15 PM to 5:15 PM
Tuesday, August 29, 2017

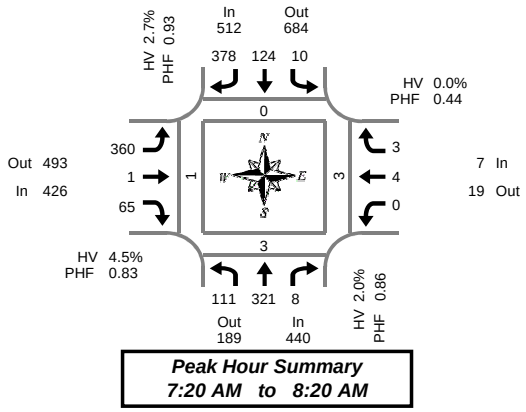


Approach	PHF	HV%	Volume
EB	0.67	1.5%	67
WB	0.91	3.7%	516
NB	0.95	3.8%	626
SB	0.93	2.5%	903
Intersection	0.95	3.2%	2,112

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:20 AM to 8:20 AM

SW 65th Ave & SW Sagert St

Wednesday, April 06, 2016
7:00 AM to 9:00 AM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	6	24	0	0	1	6	24	0	22	0	1	0	0	1	0	0	85	0	0	0	0
7:05 AM	3	34	0	0	0	0	23	0	13	0	3	0	1	0	0	0	77	0	0	0	0
7:10 AM	5	32	0	0	0	11	25	0	28	0	2	0	0	0	0	0	103	0	0	0	0
7:15 AM	6	37	0	0	0	8	21	0	31	0	2	0	0	0	0	0	105	0	0	0	0
7:20 AM	11	34	1	0	0	10	20	0	29	0	2	0	0	0	0	0	107	0	0	0	0
7:25 AM	6	30	1	0	0	5	34	0	26	0	4	0	0	0	0	0	106	0	0	0	0
7:30 AM	9	27	1	0	1	5	35	0	36	0	6	0	0	0	0	0	120	0	0	0	0
7:35 AM	7	37	1	0	0	15	31	0	26	0	2	0	0	1	0	0	120	0	0	0	0
7:40 AM	11	34	0	0	1	14	32	0	20	1	2	0	0	0	0	0	115	0	0	0	0
7:45 AM	8	30	0	0	0	17	28	0	34	0	2	0	0	0	0	0	119	0	0	0	0
7:50 AM	9	29	0	0	2	10	33	0	30	0	6	1	0	0	1	0	120	0	0	0	0
7:55 AM	11	21	1	0	2	10	33	0	38	0	3	0	0	0	0	0	119	0	0	0	0
8:00 AM	11	30	2	0	1	7	33	0	23	0	7	0	0	0	1	0	115	0	0	0	0
8:05 AM	13	15	0	0	1	8	33	0	33	0	12	0	0	1	0	0	116	0	1	1	0
8:10 AM	9	13	0	0	2	16	33	0	34	0	9	0	0	0	1	0	117	0	1	1	0
8:15 AM	6	21	1	0	0	7	33	0	31	0	10	0	0	2	0	0	111	0	1	1	1
8:20 AM	6	14	0	0	0	9	37	0	30	0	7	0	0	0	1	0	104	0	0	0	0
8:25 AM	9	16	0	0	1	6	34	0	16	1	5	0	0	0	1	0	89	0	0	0	0
8:30 AM	3	25	0	0	0	4	24	0	21	0	3	0	0	0	0	0	80	0	0	0	0
8:35 AM	6	22	0	0	0	5	23	0	25	0	3	0	0	0	0	0	84	0	0	0	0
8:40 AM	3	12	1	0	0	8	25	0	31	0	3	0	0	1	1	0	85	0	0	0	1
8:45 AM	3	36	0	0	2	13	21	0	18	0	5	0	0	0	1	0	99	0	0	0	1
8:50 AM	9	22	0	0	0	10	17	0	28	1	5	0	0	0	1	0	93	0	0	0	0
8:55 AM	4	10	1	0	0	7	21	0	24	0	6	0	0	0	0	0	73	0	0	0	0
Total Survey	174	605	10	0	14	211	673	0	647	3	110	1	1	6	8	0	2,462	0	3	3	3

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	14	90	0	0	1	17	72	0	63	0	6	0	1	1	0	0	265	0	0	0	0
7:15 AM	23	101	2	0	0	23	75	0	86	0	8	0	0	0	0	0	318	0	0	0	0
7:30 AM	27	98	2	0	2	34	98	0	82	1	10	0	0	1	0	0	355	0	0	0	0
7:45 AM	28	80	1	0	4	37	94	0	102	0	11	1	0	0	1	0	358	0	0	0	0
8:00 AM	33	58	2	0	4	31	99	0	90	0	28	0	0	1	2	0	348	0	2	2	0
8:15 AM	21	51	1	0	1	22	104	0	77	1	22	0	0	2	2	0	304	0	1	1	1
8:30 AM	12	59	1	0	0	17	72	0	77	0	9	0	0	1	1	0	249	0	0	0	1
8:45 AM	16	68	1	0	2	30	59	0	70	1	16	0	0	0	2	0	265	0	0	0	1
Total Survey	174	605	10	0	14	211	673	0	647	3	110	1	1	6	8	0	2,462	0	3	3	3

Peak Hour Summary
7:20 AM to 8:20 AM

By Approach	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	440	189	629	0	512	684	1,196	0	426	493	919	1	7	19	26	0	1,385	0	3	3	1
%HV	2.0%				2.7%				4.5%				0.0%				3.0%				
PHF	0.86				0.93				0.83				0.44				0.97				

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	111	321	8	440	10	124	378	512	360	1	65	426	0	4	3	7	1,385
%HV	0.9%	2.5%	0.0%	2.0%	0.0%	2.4%	2.9%	2.7%	4.7%	#####	1.5%	4.5%	0.0%	0.0%	0.0%	0.0%	3.0%
PHF	0.79	0.79	0.67	0.86	0.50	0.67	0.95	0.93	0.88	0.25	0.52	0.83	0.00	0.33	0.38	0.44	0.97

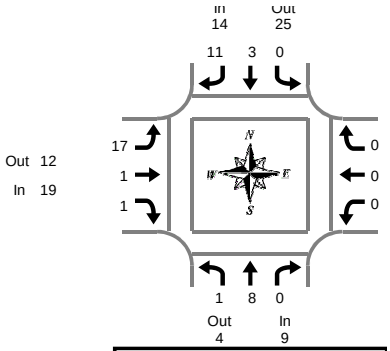
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	92	369	5	0	7	111	339	0	333	1	35	1	1	2	1	0	1,296	0	0	0	0
7:15 AM	111	337	7	0	10	125	366	0	360	1	57	1	0	2	3	0	1,379	0	2	2	0
7:30 AM	109	287	6	0	11	124	395	0	351	2	71	1	0	4	5	0	1,365	0	3	3	1
7:45 AM	94	248	5	0	9	107	369	0	346	1	70	1	0	4	6	0	1,259	0	3	3	2
8:00 AM	82	236	5	0	7	100	334	0	314	2	75	0	0	4	7	0	1,166	0	3	3	3

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW 65th Ave & SW Sagert St

Wednesday, April 06, 2016
7:00 AM to 9:00 AM

Peak Hour Summary
7:20 AM to 8:20 AM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	1	0	0	1	0	1	0	1	3
7:05 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
7:10 AM	0	0	0	0	0	1	1	2	2	0	0	2	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
7:20 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
7:25 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
7:35 AM	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
7:40 AM	0	1	0	1	0	0	1	1	2	1	0	3	0	0	0	0	5
7:45 AM	0	0	0	0	0	1	2	3	1	0	0	1	0	0	0	0	4
7:50 AM	0	1	0	1	0	0	1	1	3	0	0	3	0	0	0	0	5
7:55 AM	0	0	0	0	0	0	1	1	5	0	0	5	0	0	0	0	6
8:00 AM	0	1	0	1	0	0	1	1	1	0	0	1	0	0	0	0	3
8:05 AM	1	0	0	1	0	0	2	2	2	0	0	2	0	0	0	0	5
8:10 AM	0	0	0	0	0	1	1	2	0	0	1	1	0	0	0	0	3
8:15 AM	0	0	0	0	0	1	1	2	1	0	0	1	0	0	0	0	3
8:20 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	2	2	1	0	0	1	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
8:35 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	2
8:40 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	2	0	2	0	0	1	1	1	0	0	1	0	0	0	0	4
8:50 AM	1	2	0	3	0	1	0	1	0	0	0	0	0	0	0	0	4
8:55 AM	0	0	0	0	0	1	2	3	2	0	0	2	0	0	0	0	5
Total Survey	2	13	0	15	0	7	20	27	27	1	2	30	0	1	0	1	73

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	1	2	3	4	0	0	4	0	1	0	1	9
7:15 AM	0	2	0	2	0	0	1	1	1	0	0	1	0	0	0	0	4
7:30 AM	0	4	0	4	0	0	2	2	3	1	0	4	0	0	0	0	10
7:45 AM	0	1	0	1	0	1	4	5	9	0	0	9	0	0	0	0	15
8:00 AM	1	1	0	2	0	1	4	5	3	0	1	4	0	0	0	0	11
8:15 AM	0	0	0	0	0	1	3	4	3	0	0	3	0	0	0	0	7
8:30 AM	0	0	0	0	0	1	1	2	1	0	1	2	0	0	0	0	4
8:45 AM	1	4	0	5	0	2	3	5	3	0	0	3	0	0	0	0	13
Total Survey	2	13	0	15	0	7	20	27	27	1	2	30	0	1	0	1	73

Heavy Vehicle Peak Hour Summary
7:20 AM to 8:20 AM

By Approach	Northbound SW 65th Ave			Southbound SW 65th Ave			Eastbound SW Sagert St			Westbound SW Sagert St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	9	4	13	14	25	39	19	12	31	0	1	1	42
PHF	0.56			0.58			0.53			0.00			0.70

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	8	0	9	0	3	11	14	17	1	1	19	0	0	0	0	42
PHF	0.25	0.50	0.00	0.56	0.00	0.38	0.69	0.58	0.47	0.25	0.25	0.53	0.00	0.00	0.00	0.00	0.70

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

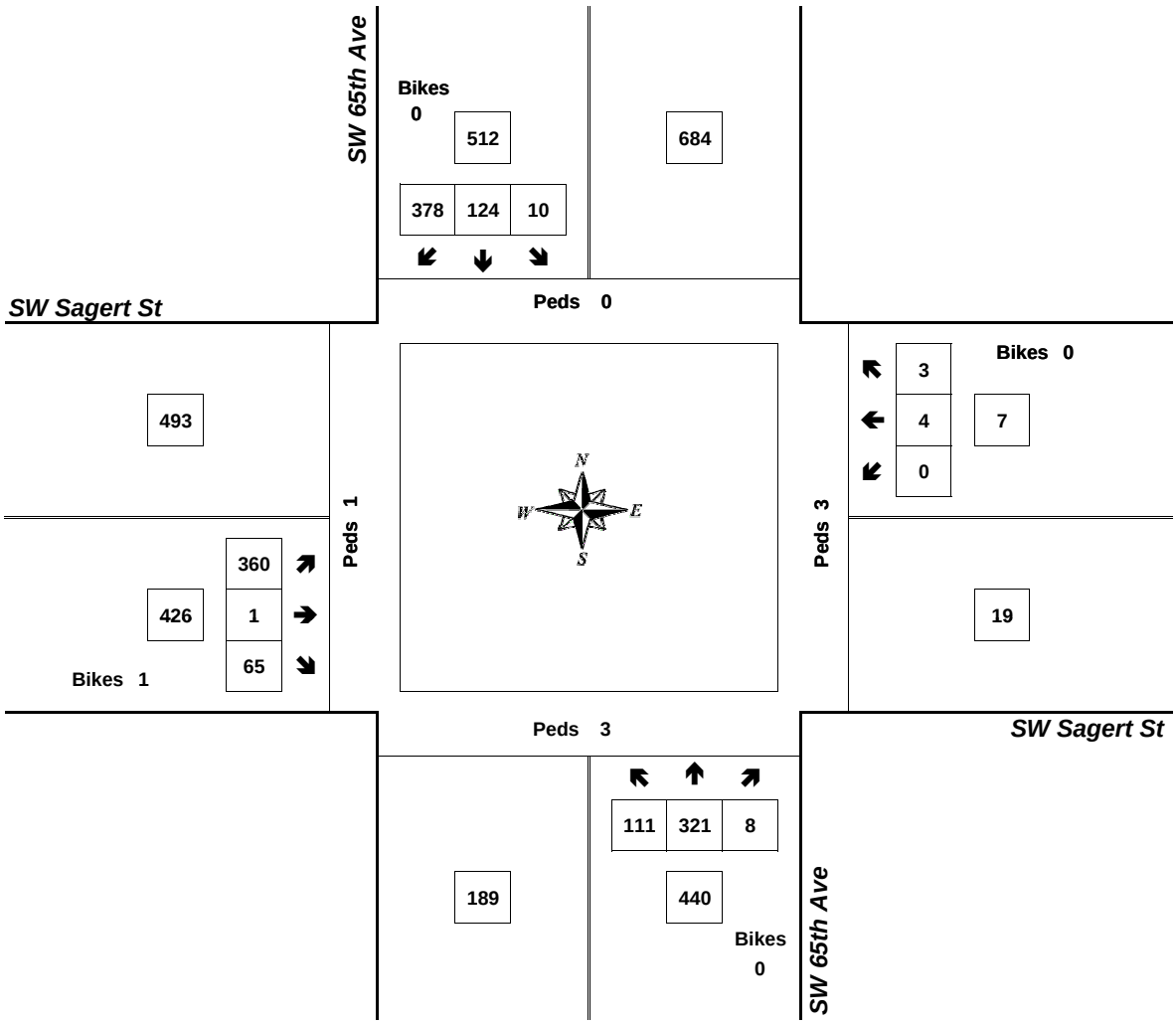
Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	8	0	8	0	2	9	11	17	1	0	18	0	1	0	1	38
7:15 AM	1	8	0	9	0	2	11	13	16	1	1	18	0	0	0	0	40
7:30 AM	1	6	0	7	0	3	13	16	18	1	1	20	0	0	0	0	43
7:45 AM	1	2	0	3	0	4	12	16	16	0	2	18	0	0	0	0	37
8:00 AM	2	5	0	7	0	5	11	16	10	0	2	12	0	0	0	0	35

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

SW 65th Ave & SW Sagert St

7:20 AM to 8:20 AM
Wednesday, April 06, 2016

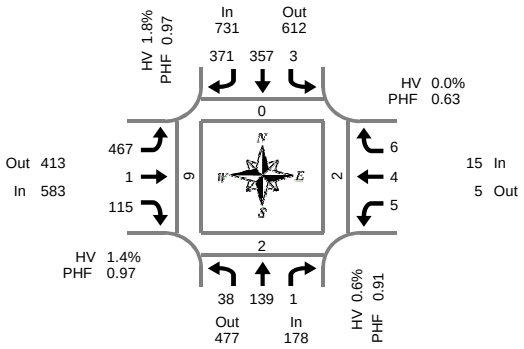


Approach	PHF	HV%	Volume
EB	0.83	4.5%	426
WB	0.44	0.0%	7
NB	0.86	2.0%	440
SB	0.93	2.7%	512
Intersection	0.97	3.0%	1,385

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

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



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

SW 65th Ave & SW Sagert St

Tuesday, April 05, 2016
4:00 PM to 6:00 PM

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	6	8	0	0	0	17	39	0	28	1	6	0	0	0	0	0	105	0	0	0	0
4:05 PM	2	6	0	0	0	24	36	0	36	2	14	0	1	0	0	0	121	0	0	0	1
4:10 PM	6	7	0	0	0	19	23	1	41	0	9	0	0	0	1	0	106	0	0	0	0
4:15 PM	7	6	0	0	1	21	33	0	40	0	10	0	0	0	0	0	118	0	0	0	0
4:20 PM	4	12	0	0	0	16	24	0	41	0	13	0	0	0	0	0	110	0	0	0	0
4:25 PM	5	12	0	0	1	33	27	0	33	0	9	0	0	0	0	0	120	0	1	1	0
4:30 PM	2	17	0	0	0	23	31	0	40	0	13	0	0	0	1	0	127	0	1	1	0
4:35 PM	4	10	0	0	0	28	29	0	40	0	7	0	0	1	2	0	121	0	0	0	0
4:40 PM	2	12	1	0	0	28	26	0	39	0	13	1	0	0	0	0	121	0	0	0	0
4:45 PM	4	9	0	0	0	35	27	0	40	0	9	0	0	1	0	0	125	0	0	0	0
4:50 PM	5	16	0	0	0	28	34	0	37	0	11	0	0	2	0	0	133	0	0	0	0
4:55 PM	4	9	0	0	1	33	28	0	43	0	11	1	0	0	0	2	129	0	0	0	0
5:00 PM	1	13	0	0	1	26	36	0	40	0	9	0	1	0	2	0	129	0	1	1	3
5:05 PM	2	15	0	0	0	25	30	0	35	1	5	0	3	0	0	0	116	0	0	0	0
5:10 PM	2	11	0	0	0	28	35	0	39	0	7	0	0	0	0	0	122	0	0	0	0
5:15 PM	3	13	0	0	0	27	35	0	40	0	12	0	0	1	0	0	131	0	0	0	0
5:20 PM	1	7	0	0	0	29	34	0	39	0	11	0	0	0	4	0	125	0	1	1	1
5:25 PM	7	15	0	0	0	28	32	0	34	0	9	1	0	0	0	0	125	0	0	0	5
5:30 PM	4	8	0	0	1	36	28	0	39	0	9	0	0	0	0	0	125	0	0	0	0
5:35 PM	3	11	0	0	0	34	26	2	42	0	9	0	1	0	0	0	126	0	0	0	0
5:40 PM	4	12	0	0	2	26	29	0	37	0	5	2	0	0	0	0	115	0	0	0	0
5:45 PM	7	14	0	0	0	20	28	0	34	0	2	0	0	0	2	0	107	0	0	0	0
5:50 PM	3	17	0	0	1	15	27	0	32	0	3	0	0	0	0	0	98	0	0	0	0
5:55 PM	0	16	0	0	0	19	25	0	37	0	5	0	0	1	0	0	103	0	0	0	0
Total Survey	88	276	1	0	8	618	722	3	906	4	211	5	6	6	12	2	2,858	0	4	4	10

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	14	21	0	0	0	60	98	1	105	3	29	0	1	0	1	0	332	0	0	0	1
4:15 PM	16	30	0	0	2	70	84	0	114	0	32	0	0	0	0	0	348	0	1	1	0
4:30 PM	8	39	1	0	0	79	86	0	119	0	33	1	0	1	3	0	369	0	1	1	0
4:45 PM	13	34	0	0	1	96	89	0	120	0	31	1	0	3	0	2	387	0	0	0	0
5:00 PM	5	39	0	0	1	79	101	0	114	1	21	0	4	0	2	0	367	0	1	1	3
5:15 PM	11	35	0	0	0	84	101	0	113	0	32	1	0	1	4	0	381	0	1	1	6
5:30 PM	11	31	0	0	3	96	83	2	118	0	23	2	1	0	0	0	366	0	0	0	0
5:45 PM	10	47	0	0	1	54	80	0	103	0	10	0	0	1	2	0	308	0	0	0	0
Total Survey	88	276	1	0	8	618	722	3	906	4	211	5	6	6	12	2	2,858	0	4	4	10

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

By Approach	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	178	477	655	0	731	612	1,343	2	583	413	996	3	15	5	20	2	1,507	0	2	2	9
%HV	0.6%				1.8%				1.4%				0.0%				1.5%				
PHF	0.91				0.97				0.97				0.63				0.96				

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	38	139	1	178	3	357	371	731	467	1	115	583	5	4	6	15	1,507
%HV	0.0%	0.7%	0.0%	0.6%	0.0%	0.8%	2.7%	1.8%	1.7%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	1.5%
PHF	0.68	0.89	0.25	0.91	0.38	0.91	0.89	0.97	0.97	0.25	0.87	0.97	0.31	0.33	0.38	0.63	0.96

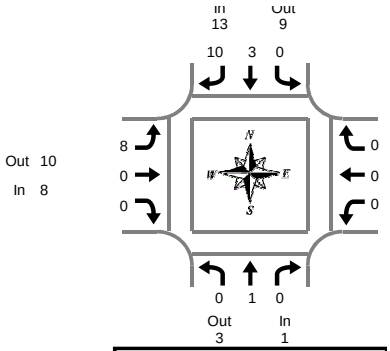
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	51	124	1	0	3	305	357	1	458	3	125	2	1	4	4	2	1,436	0	2	2	1
4:15 PM	42	142	1	0	4	324	360	0	467	1	117	2	4	4	5	2	1,471	0	3	3	3
4:30 PM	37	147	1	0	2	338	377	0	466	1	117	3	4	5	9	2	1,504	0	3	3	9
4:45 PM	40	139	0	0	5	355	374	2	465	1	107	4	5	4	6	2	1,501	0	2	2	9
5:00 PM	37	152	0	0	5	313	365	2	448	1	86	3	5	2	8	0	1,422	0	2	2	9

EXHIBIT N

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



SW 65th Ave & SW Sagert St

Tuesday, April 05, 2016
4:00 PM to 6:00 PM

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

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	2	2	2	0	0	2	0	0	0	0	4
4:05 PM	0	0	0	0	0	0	1	1	2	0	1	3	0	0	0	0	4
4:10 PM	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	3
4:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	2
4:20 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
4:25 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	2
4:35 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
4:40 PM	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	1	0	1	1	0	0	1	0	0	0	0	2
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	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	3	3	1	0	0	1	0	0	0	0	4
5:05 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
5:10 PM	0	0	0	0	0	0	1	1	2	0	0	2	0	0	0	0	3
5:15 PM	0	1	0	1	0	0	0	0	2	0	0	2	0	0	0	0	3
5:20 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
5:25 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	2	2	1	0	0	1	0	0	0	0	3
5:35 PM	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	1
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
5:50 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
5:55 PM	0	0	0	0	0	0	2	2	1	0	0	1	0	0	0	0	3
Total Survey	0	2	0	2	0	4	20	24	18	0	2	20	0	0	0	0	46

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

Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert 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	5	5	4	0	2	6	0	0	0	0	11
4:15 PM	0	0	0	0	0	1	1	2	2	0	0	2	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	2	2	1	0	0	1	0	0	0	0	3
4:45 PM	0	0	0	0	0	2	1	3	1	0	0	1	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	6	6	3	0	0	3	0	0	0	0	9
5:15 PM	0	1	0	1	0	1	1	2	3	0	0	3	0	0	0	0	6
5:30 PM	0	1	0	1	0	0	2	2	1	0	0	1	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	2	2	3	0	0	3	0	0	0	0	5
Total Survey	0	2	0	2	0	4	20	24	18	0	2	20	0	0	0	0	46

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

By Approach	Northbound SW 65th Ave			Southbound SW 65th Ave			Eastbound SW Sagert St			Westbound SW Sagert St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	3	4	13	9	22	8	10	18	0	0	0	22
PHF	0.25			0.54			0.40			0.00			0.61

By Movement	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	1	0	1	0	3	10	13	8	0	0	8	0	0	0	0	22
PHF	0.00	0.25	0.00	0.25	0.00	0.38	0.42	0.54	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.61

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

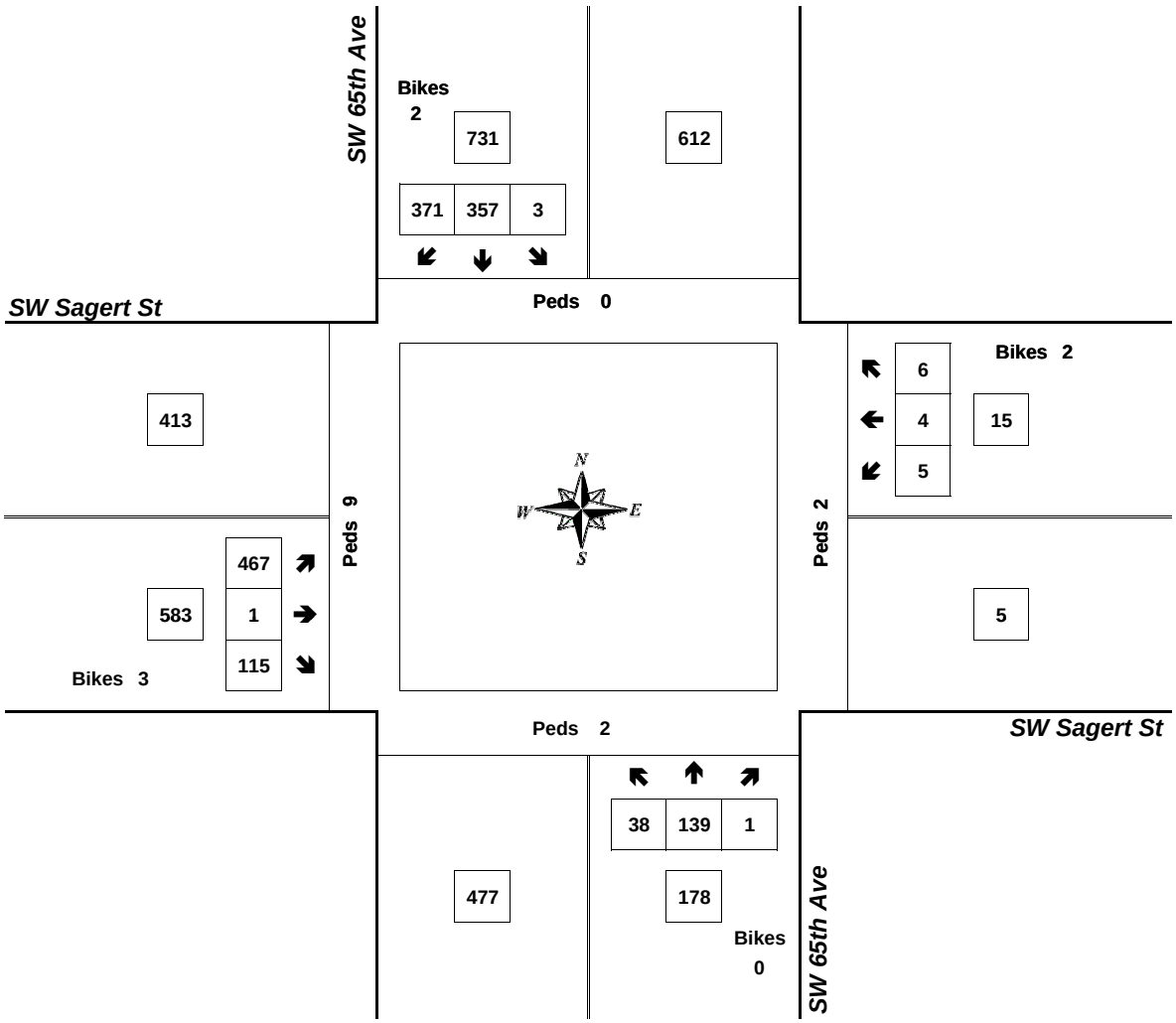
Interval Start Time	Northbound SW 65th Ave				Southbound SW 65th Ave				Eastbound SW Sagert St				Westbound SW Sagert St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	3	9	12	8	0	2	10	0	0	0	0	22
4:15 PM	0	0	0	0	0	3	10	13	7	0	0	7	0	0	0	0	20
4:30 PM	0	1	0	1	0	3	10	13	8	0	0	8	0	0	0	0	22
4:45 PM	0	2	0	2	0	3	10	13	8	0	0	8	0	0	0	0	23
5:00 PM	0	2	0	2	0	1	11	12	10	0	0	10	0	0	0	0	24

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

SW 65th Ave & SW Sagert St

4:40 PM to 5:40 PM
Tuesday, April 05, 2016



Approach	PHF	HV%	Volume
EB	0.97	1.4%	583
WB	0.63	0.0%	15
NB	0.91	0.6%	178
SB	0.97	1.8%	731
Intersection	0.96	1.5%	1,507

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

EXHIBIT N

TRIP GENERATION CALCULATIONS

Land Use: Apartment
Land Use Code: 220
Variable: Dwelling Units
Variable Value: 264

AM PEAK HOUR

Trip Equation: T = 0.49(X) + 3.73

	Enter	Exit	Total
Directional Distribution	20%	80%	
Trip Ends	**27**	**106**	**133**

PM PEAK HOUR

Trip Equation: T = 0.55(X) + 17.65

	Enter	Exit	Total
Directional Distribution	65%	35%	
Trip Ends	**106**	**57**	**163**

WEEKDAY

Trip Equation: T = 6.06(X) + 123.56

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**862**	**862**	**1,724**

SATURDAY

Trip Equation: T = 7.85(X) - 256.19

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**908**	**908**	**1,816**

Source: TRIP GENERATION, Ninth Edition

EXHIBIT N

1e

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.

EXHIBIT N

LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

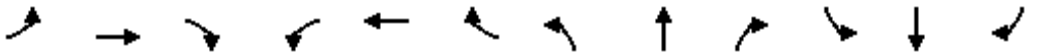
LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

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

HCM Signalized Intersection Capacity Analysis
1: I-5 SB Ramps & SW Nyberg Street

09/20/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1235	659	79	1098	0	0	0	0	420	2	940
Future Volume (vph)	0	1235	659	79	1098	0	0	0	0	420	2	940
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1468	1703	3406					1649	1654	2733
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1468	1703	3406					1649	1654	2733
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1314	701	84	1168	0	0	0	0	447	2	1000
RTOR Reduction (vph)	0	0	422	0	0	0	0	0	0	0	0	53
Lane Group Flow (vph)	0	1314	279	84	1168	0	0	0	0	223	226	947
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	0%	0%	0%	4%	4%	4%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		35.8	35.8	6.0	46.3					34.7	34.7	34.7
Effective Green, g (s)		35.8	35.8	6.0	46.3					34.7	34.7	34.7
Actuated g/C Ratio		0.40	0.40	0.07	0.51					0.39	0.39	0.39
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1875	583	113	1752					635	637	1053
v/s Ratio Prot		0.28		0.05	c0.34							
v/s Ratio Perm			0.19							0.14	0.14	c0.35
v/c Ratio		0.70	0.48	0.74	0.67					0.35	0.35	0.90
Uniform Delay, d1		22.6	20.2	41.2	16.1					19.6	19.7	26.0
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		1.2	0.6	22.9	2.0					0.3	0.3	10.3
Delay (s)		23.8	20.8	64.2	18.2					20.0	20.0	36.3
Level of Service		C	C	E	B					B	C	D
Approach Delay (s)		22.8			21.3			0.0			31.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: I-5 NB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations											
Traffic Volume (vph)	0	656	1036	0	417	780	806	5	140	0	0
Future Volume (vph)	0	656	1036	0	417	780	806	5	140	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00		
Frpb, ped/bikes		1.00	1.00		1.00	0.98	1.00	1.00	0.99		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00		
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85		
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (prot)		3406	2682		3539	1548	1618	1618	1504		
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (perm)		3406	2682		3539	1548	1618	1618	1504		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	729	1151	0	463	867	896	6	156	0	0
RTOR Reduction (vph)	0	0	566	0	0	426	0	0	95	0	0
Lane Group Flow (vph)	0	729	585	0	463	441	448	454	61	0	0
Confl. Peds. (#/hr)	1					1			1	1	
Confl. Bikes (#/hr)						1					
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	6%	6%	6%	0%	0%
Turn Type		NA	Perm		NA	Perm	Perm	Prot	Perm		
Protected Phases		2			6			8			
Permitted Phases			2			6	8		8		
Actuated Green, G (s)		30.5	30.5		30.5	30.5	20.5	20.5	20.5		
Effective Green, g (s)		30.5	30.5		30.5	30.5	20.5	20.5	20.5		
Actuated g/C Ratio		0.51	0.51		0.51	0.51	0.34	0.34	0.34		
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		1731	1363		1798	786	552	552	513		
v/s Ratio Prot		0.21			0.13						
v/s Ratio Perm			0.22			c0.28	0.28	0.28	0.04		
v/c Ratio		0.42	0.43		0.26	0.56	0.81	0.82	0.12		
Uniform Delay, d1		9.2	9.3		8.3	10.1	18.0	18.1	13.6		
Progression Factor		1.00	1.00		0.48	4.52	1.00	1.00	1.00		
Incremental Delay, d2		0.8	1.0		0.3	2.7	8.9	9.6	0.1		
Delay (s)		10.0	10.3		4.4	48.5	26.8	27.7	13.7		
Level of Service		A	B		A	D	C	C	B		
Approach Delay (s)		10.2			33.1			25.3		0.0	
Approach LOS		B			C			C		A	

Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Nyberg Woods Access & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	685	14	9	982	58	59	4	1	48	2	33
Future Volume (vph)	123	685	14	9	982	58	59	4	1	48	2	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	3433	3527		1770	3510			1759	1546		1777	1573
Flt Permitted	0.95	1.00		0.95	1.00			0.70	1.00		0.68	1.00
Satd. Flow (perm)	3433	3527		1770	3510			1284	1546		1272	1573
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	138	770	16	10	1103	65	66	4	1	54	2	37
RTOR Reduction (vph)	0	1	0	0	5	0	0	0	1	0	0	29
Lane Group Flow (vph)	138	785	0	10	1163	0	0	70	0	0	56	8
Confl. Peds. (#/hr)			4	4			2					2
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases							4		4	8		8
Actuated Green, G (s)	7.2	39.2		1.4	33.4			5.9	5.9		5.9	13.1
Effective Green, g (s)	7.2	39.2		1.4	33.4			5.9	5.9		5.9	13.1
Actuated g/C Ratio	0.12	0.65		0.02	0.56			0.10	0.10		0.10	0.22
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	411	2304		41	1953			126	152		125	461
v/s Ratio Prot	0.04	c0.22		0.01	c0.33							0.00
v/s Ratio Perm								c0.05	0.00		0.04	0.00
v/c Ratio	0.34	0.34		0.24	0.60			0.56	0.00		0.45	0.02
Uniform Delay, d1	24.2	4.6		28.8	8.8			25.8	24.4		25.5	18.4
Progression Factor	0.73	0.85		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.4		3.1	0.5			5.2	0.0		2.5	0.0
Delay (s)	18.2	4.3		31.9	9.3			31.0	24.4		28.1	18.4
Level of Service	B	A		C	A			C	C		C	B
Approach Delay (s)		6.4			9.5			30.9			24.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: SW Nyberg Lane & SW Nyberg Street/SW 65th Avenue

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	593	21	36	725	24	14	4	34	11	6	230
Future Volume (vph)	97	593	21	36	725	24	14	4	34	11	6	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1852		1768	3522			1822	1580		1840	1607
Flt Permitted	0.27	1.00		0.39	1.00			0.86	1.00		0.80	1.00
Satd. Flow (perm)	503	1852		729	3522			1624	1580		1511	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	108	659	23	40	806	27	16	4	38	12	7	256
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	36	0	0	58
Lane Group Flow (vph)	108	681	0	40	831	0	0	20	2	0	19	198
Confl. Peds. (#/hr)			3	3			3		1	1		3
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases	2			6			4		4	8		8
Actuated Green, G (s)	51.8	44.8		40.8	38.3			4.2	4.2		4.2	13.2
Effective Green, g (s)	51.8	44.8		40.8	38.3			4.2	4.2		4.2	13.2
Actuated g/C Ratio	0.80	0.69		0.63	0.59			0.06	0.06		0.06	0.20
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	576	1276		497	2075			104	102		97	437
v/s Ratio Prot	0.03	c0.37		0.00	0.24							c0.06
v/s Ratio Perm	0.12			0.05				0.01	0.00		0.01	0.06
v/c Ratio	0.19	0.53		0.08	0.40			0.19	0.02		0.20	0.45
Uniform Delay, d1	2.1	5.0		4.6	7.2			28.8	28.5		28.8	22.7
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2	1.6		0.1	0.1			0.9	0.1		1.0	0.7
Delay (s)	2.3	6.6		4.7	7.3			29.7	28.6		29.8	23.5
Level of Service	A	A		A	A			C	C		C	C
Approach Delay (s)		6.0			7.2			29.0			23.9	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	125	247	1	1	1
Future Vol, veh/h	1	125	247	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	139	274	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	276	0	-	0	416	275
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	141	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1287	-	-	-	593	764
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1287	-	-	-	593	764
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1287	-	-	-	698
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	7.8	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	6	1	299	9	403	13	446	230	208	234	23
Future Volume (vph)	3	6	1	299	9	403	13	446	230	208	234	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.95		1.00	0.99	
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1840			1772	1550	1727	1712		1703	1763	
Flt Permitted		0.93			0.73	1.00	0.60	1.00		0.16	1.00	
Satd. Flow (perm)		1728			1348	1550	1083	1712		278	1763	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	3	6	1	308	9	415	13	460	237	214	241	24
RTOR Reduction (vph)	0	1	0	0	0	182	0	20	0	0	3	0
Lane Group Flow (vph)	0	9	0	0	317	233	13	677	0	214	262	0
Confl. Peds. (#/hr)	4		1	1		4	5		7	7		5
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	4%	4%	4%	6%	6%	6%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		23.4			23.4	33.0	44.5	43.5		57.6	52.1	
Effective Green, g (s)		23.4			23.4	33.0	44.5	43.5		57.6	52.1	
Actuated g/C Ratio		0.26			0.26	0.37	0.49	0.48		0.64	0.58	
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		449			350	645	542	827		329	1020	
v/s Ratio Prot						c0.04	0.00	c0.40		c0.07	0.15	
v/s Ratio Perm		0.01			c0.24	0.11	0.01			0.35		
v/c Ratio		0.02			0.91	0.36	0.02	0.82		0.65	0.26	
Uniform Delay, d1		24.8			32.2	20.8	11.6	19.9		13.5	9.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			25.8	0.3	0.0	8.9		4.6	0.6	
Delay (s)		24.8			58.0	21.2	11.6	28.8		18.1	10.0	
Level of Service		C			E	C	B	C		B	A	
Approach Delay (s)		24.8			37.1			28.5			13.6	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	46.7
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	360	1	65	0	1	4	3	0	111	321	8	0	10	124	378
Future Vol, veh/h	0	360	1	65	0	1	4	3	0	111	321	8	0	10	124	378
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	5	5	5	2	0	0	0	2	2	2	2	2	3	3	3
Mvmt Flow	0	371	1	67	0	1	4	3	0	114	331	8	0	10	128	390
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0	0	1	1	1

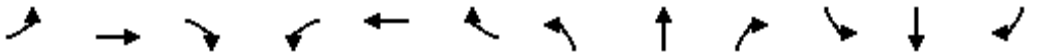
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	1	2
HCM Control Delay	44.1	12.8	77.3	23.2
HCM LOS	E	B	F	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	25%	100%	0%	12%	100%	0%	0%
Vol Thru, %	73%	0%	0%	50%	0%	100%	0%
Vol Right, %	2%	0%	100%	38%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	440	361	65	8	10	124	378
LT Vol	111	360	0	1	10	0	0
Through Vol	321	1	0	4	0	124	0
RT Vol	8	0	65	3	0	0	378
Lane Flow Rate	454	372	67	8	10	128	390
Geometry Grp	8	8	8	8	7	7	7
Degree of Util (X)	1.022	0.885	0.138	0.022	0.023	0.265	0.741
Departure Headway (Hd)	8.113	8.745	7.432	9.872	8.145	7.629	6.848
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	417	480	365	442	474	526
Service Time	5.873	6.445	5.212	7.572	5.845	5.329	4.608
HCM Lane V/C Ratio	1.011	0.892	0.14	0.022	0.023	0.27	0.741
HCM Control Delay	77.3	50	11.4	12.8	11	13.1	26.8
HCM Lane LOS	F	E	B	B	B	B	D
HCM 95th-tile Q	13.6	9.1	0.5	0.1	0.1	1.1	6.3

EXHIBIT N

HCM Signalized Intersection Capacity Analysis
1: I-5 SB Ramps & SW Nyberg Street

09/20/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1368	725	84	1085	0	0	0	0	878	10	1248
Future Volume (vph)	0	1368	725	84	1085	0	0	0	0	878	10	1248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1583	1736	3471					1681	1687	2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1583	1736	3471					1681	1687	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1440	763	88	1142	0	0	0	0	924	11	1314
RTOR Reduction (vph)	0	0	511	0	0	0	0	0	0	0	0	28
Lane Group Flow (vph)	0	1440	252	88	1142	0	0	0	0	471	464	1286
Confl. Peds. (#/hr)	7					7						
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	0%	0%	0%	2%	2%	2%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		39.7	39.7	8.3	52.5					58.5	58.5	58.5
Effective Green, g (s)		39.7	39.7	8.3	52.5					58.5	58.5	58.5
Actuated g/C Ratio		0.33	0.33	0.07	0.44					0.49	0.49	0.49
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1682	523	120	1518					819	822	1358
v/s Ratio Prot		c0.28		0.05	c0.33							
v/s Ratio Perm			0.16							0.28	0.28	c0.46
v/c Ratio		0.86	0.48	0.73	0.75					0.58	0.56	0.95
Uniform Delay, d1		37.5	32.0	54.8	28.3					21.9	21.7	29.3
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		4.5	0.7	20.5	3.5					1.0	0.9	13.6
Delay (s)		42.0	32.7	75.3	31.8					22.9	22.6	42.9
Level of Service		D	C	E	C					C	C	D
Approach Delay (s)		38.8			34.9			0.0			34.5	
Approach LOS		D			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	36.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
2: I-5 NB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations											
Traffic Volume (vph)	0	1343	899	0	524	586	680	0	161	0	0
Future Volume (vph)	0	1343	899	0	524	586	680	0	161	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00		
Frpb, ped/bikes		1.00	1.00		1.00	0.97	1.00	1.00	0.99		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00		
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85		
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (prot)		3539	2787		3574	1559	1633	1633	1516		
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (perm)		3539	2787		3574	1559	1633	1633	1516		
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1385	927	0	540	604	701	0	166	0	0
RTOR Reduction (vph)	0	0	388	0	0	253	0	0	23	0	0
Lane Group Flow (vph)	0	1385	539	0	540	351	350	351	143	0	0
Confl. Peds. (#/hr)	3					3			2	2	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	5%	5%	5%	0%	0%
Turn Type		NA	Perm		NA	Perm	Perm	Prot	Perm		
Protected Phases		2			6			8			
Permitted Phases			2			6	8		8		
Actuated Green, G (s)		37.8	37.8		37.8	37.8	18.2	18.2	18.2		
Effective Green, g (s)		37.8	37.8		37.8	37.8	18.2	18.2	18.2		
Actuated g/C Ratio		0.58	0.58		0.58	0.58	0.28	0.28	0.28		
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		2058	1620		2078	906	457	457	424		
v/s Ratio Prot		c0.39			0.15						
v/s Ratio Perm			0.19			0.23	0.21	0.21	0.09		
v/c Ratio		0.67	0.33		0.26	0.39	0.77	0.77	0.34		
Uniform Delay, d1		9.4	7.1		6.7	7.3	21.4	21.5	18.6		
Progression Factor		1.00	1.00		1.09	4.43	1.00	1.00	1.00		
Incremental Delay, d2		1.8	0.6		0.3	1.1	7.5	7.6	0.5		
Delay (s)		11.1	7.6		7.6	33.7	29.0	29.1	19.1		
Level of Service		B	A		A	C	C	C	B		
Approach Delay (s)		9.7			21.3			27.1		0.0	
Approach LOS		A			C			C		A	

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: Nyberg Woods Access & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	1189	52	11	832	59	71	12	9	104	5	144
Future Volume (vph)	228	1189	52	11	832	59	71	12	9	104	5	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.95	1.00
Satd. Flow (prot)	3467	3548		1770	3499			1818	1615		1795	1586
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.67	1.00
Satd. Flow (perm)	3467	3548		1770	3499			1285	1615		1262	1586
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	243	1265	55	12	885	63	76	13	10	111	5	153
RTOR Reduction (vph)	0	3	0	0	7	0	0	0	8	0	0	71
Lane Group Flow (vph)	243	1317	0	12	941	0	0	89	2	0	116	82
Confl. Peds. (#/hr)	9		2	2		9	3					3
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases							4		4	8		8
Actuated Green, G (s)	9.1	40.5		1.0	32.4			10.0	10.0		10.0	19.1
Effective Green, g (s)	9.1	40.5		1.0	32.4			10.0	10.0		10.0	19.1
Actuated g/C Ratio	0.14	0.62		0.02	0.50			0.15	0.15		0.15	0.29
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	485	2210		27	1744			197	248		194	575
v/s Ratio Prot	0.07	c0.37		0.01	c0.27							0.02
v/s Ratio Perm								0.07	0.00		c0.09	0.03
v/c Ratio	0.50	0.60		0.44	0.54			0.45	0.01		0.60	0.14
Uniform Delay, d1	25.9	7.3		31.7	11.2			25.0	23.3		25.6	16.9
Progression Factor	1.22	0.83		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.9		11.2	0.3			1.6	0.0		4.9	0.1
Delay (s)	32.2	7.0		43.0	11.5			26.7	23.3		30.5	17.0
Level of Service	C	A		D	B			C	C		C	B
Approach Delay (s)		11.0			11.9			26.3			22.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: SW Nyberg Lane & SW Nyberg Street/SW 65th Avenue

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	303	924	29	32	720	18	15	11	55	15	4	136
Future Volume (vph)	303	924	29	32	720	18	15	11	55	15	4	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.96	1.00
Satd. Flow (prot)	1786	1870		1770	3524			1841	1574		1828	1602
Flt Permitted	0.32	1.00		0.22	1.00			0.81	1.00		0.75	1.00
Satd. Flow (perm)	600	1870		404	3524			1536	1574		1432	1602
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	312	953	30	33	742	19	15	11	57	15	4	140
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	53	0	0	100
Lane Group Flow (vph)	312	982	0	33	760	0	0	26	4	0	19	40
Confl. Peds. (#/hr)	2		9	9		2	4					4
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases	2			6			4		4	8		8
Actuated Green, G (s)	75.1	67.0		65.5	61.9			5.9	5.9		5.9	14.6
Effective Green, g (s)	75.1	67.0		65.5	61.9			5.9	5.9		5.9	14.6
Actuated g/C Ratio	0.83	0.74		0.73	0.69			0.07	0.07		0.07	0.16
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	615	1392		348	2423			100	103		93	339
v/s Ratio Prot	c0.05	c0.53		0.00	0.22							0.01
v/s Ratio Perm	0.37			0.07				c0.02	0.00		0.01	0.01
v/c Ratio	0.51	0.71		0.09	0.31			0.26	0.04		0.20	0.12
Uniform Delay, d1	2.2	6.2		5.3	5.6			40.0	39.4		39.8	32.2
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	3.0		0.1	0.1			1.4	0.1		1.1	0.2
Delay (s)	2.8	9.2		5.4	5.7			41.4	39.5		40.9	32.4
Level of Service	A	A		A	A			D	D		D	C
Approach Delay (s)		7.7			5.7			40.1			33.4	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	332	155	1	1	1
Future Vol, veh/h	1	332	155	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	342	160	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	504	160
Stage 1	-	-	-	-	160	-
Stage 2	-	-	-	-	344	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1418	-	-	-	528	885
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	718	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1418	-	-	-	528	885
Mov Cap-2 Maneuver	-	-	-	-	593	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	717	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1418	-	-	-	710
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	7.5	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	25	8	250	12	254	5	249	372	438	447	18
Future Volume (vph)	34	25	8	250	12	254	5	249	372	438	447	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	0.98		1.00	1.00	
Flpb, ped/bikes		0.99			0.99	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			1.00	0.85	1.00	0.91		1.00	0.99	
Flt Protected		0.97			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1771			1721	1519	1728	1625		1752	1831	
Flt Permitted		0.62			0.70	1.00	0.48	1.00		0.12	1.00	
Satd. Flow (perm)		1119			1263	1519	881	1625		221	1831	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	36	26	8	263	13	267	5	262	392	461	471	19
RTOR Reduction (vph)	0	4	0	0	0	143	0	44	0	0	1	0
Lane Group Flow (vph)	0	66	0	0	276	124	5	610	0	461	489	0
Confl. Peds. (#/hr)	7		5	5		7	6		5	5		6
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		28.0			28.0	55.6	51.9	50.9		83.0	77.5	
Effective Green, g (s)		28.0			28.0	55.6	51.9	50.9		83.0	77.5	
Actuated g/C Ratio		0.23			0.23	0.46	0.43	0.42		0.69	0.65	
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		261			294	760	388	689		504	1182	
v/s Ratio Prot						0.04	0.00	0.38		c0.21	0.27	
v/s Ratio Perm		0.06			c0.22	0.04	0.01			c0.42		
v/c Ratio		0.25			0.94	0.16	0.01	0.89		0.91	0.41	
Uniform Delay, d1		37.5			45.2	18.7	19.4	31.9		32.0	10.3	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			36.1	0.1	0.0	15.5		21.1	1.1	
Delay (s)		38.0			81.2	18.8	19.4	47.4		53.2	11.3	
Level of Service		D			F	B	B	D		D	B	
Approach Delay (s)		38.0			50.5			47.2			31.6	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	45
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	467	1	115	0	5	4	6	0	38	139	1	0	3	357	371
Future Vol, veh/h	0	467	1	115	0	5	4	6	0	38	139	1	0	3	357	371
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	1	1	1	2	0	0	0	2	1	1	1	2	2	2	2
Mvmt Flow	0	486	1	120	0	5	4	6	0	40	145	1	0	3	372	386
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0	0	1	1	1

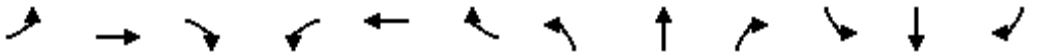
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	1	2
HCM Control Delay	78.8	12.6	18.6	25.2
HCM LOS	F	B	C	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	21%	100%	0%	33%	100%	0%	0%
Vol Thru, %	78%	0%	0%	27%	0%	100%	0%
Vol Right, %	1%	0%	100%	40%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	468	115	15	3	357	371
LT Vol	38	467	0	5	3	0	0
Through Vol	139	1	0	4	0	357	0
RT Vol	1	0	115	6	0	0	371
Lane Flow Rate	185	488	120	16	3	372	386
Geometry Grp	8	8	8	8	7	7	7
Degree of Util (X)	0.44	1.084	0.226	0.04	0.007	0.733	0.687
Departure Headway (Hd)	8.996	8.006	6.788	9.551	7.903	7.391	6.675
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	402	453	526	377	456	491	545
Service Time	6.696	5.787	4.568	7.251	5.603	5.091	4.375
HCM Lane V/C Ratio	0.46	1.077	0.228	0.042	0.007	0.758	0.708
HCM Control Delay	18.6	95.3	11.6	12.6	10.7	27.8	22.8
HCM Lane LOS	C	F	B	B	B	D	C
HCM 95th-tile Q	2.2	16	0.9	0.1	0	6	5.3

EXHIBIT N

HCM Signalized Intersection Capacity Analysis
1: I-5 SB Ramps & SW Nyberg Street

09/20/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1285	686	87	1142	0	0	0	0	443	2	978
Future Volume (vph)	0	1285	686	87	1142	0	0	0	0	443	2	978
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1468	1703	3406					1649	1654	2733
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1468	1703	3406					1649	1654	2733
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1367	730	93	1215	0	0	0	0	471	2	1040
RTOR Reduction (vph)	0	0	454	0	0	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	1367	276	93	1215	0	0	0	0	235	238	996
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	0%	0%	0%	4%	4%	4%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		34.0	34.0	6.3	44.8					36.2	36.2	36.2
Effective Green, g (s)		34.0	34.0	6.3	44.8					36.2	36.2	36.2
Actuated g/C Ratio		0.38	0.38	0.07	0.50					0.40	0.40	0.40
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1781	554	119	1695					663	665	1099
v/s Ratio Prot		c0.29		0.05	c0.36							
v/s Ratio Perm			0.19							0.14	0.14	c0.36
v/c Ratio		0.77	0.50	0.78	0.72					0.35	0.36	0.91
Uniform Delay, d1		24.5	21.5	41.2	17.6					18.8	18.8	25.3
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		2.0	0.7	27.6	2.6					0.3	0.3	10.7
Delay (s)		26.6	22.2	68.7	20.3					19.1	19.1	36.0
Level of Service		C	C	E	C					B	B	D
Approach Delay (s)		25.0			23.7			0.0			30.7	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: I-5 NB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations											
Traffic Volume (vph)	0	689	1078	0	439	831	839	5	148	0	0
Future Volume (vph)	0	689	1078	0	439	831	839	5	148	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00		
Frpb, ped/bikes		1.00	1.00		1.00	0.98	1.00	1.00	0.99		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00		
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85		
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (prot)		3406	2682		3539	1548	1618	1618	1504		
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (perm)		3406	2682		3539	1548	1618	1618	1504		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	766	1198	0	488	923	932	6	164	0	0
RTOR Reduction (vph)	0	0	593	0	0	457	0	0	85	0	0
Lane Group Flow (vph)	0	766	605	0	488	466	466	472	79	0	0
Confl. Peds. (#/hr)	1					1			1	1	
Confl. Bikes (#/hr)						1					
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	6%	6%	6%	0%	0%
Turn Type		NA	Perm		NA	Perm	Perm	Prot	Perm		
Protected Phases		2			6			8			
Permitted Phases			2			6	8		8		
Actuated Green, G (s)		30.3	30.3		30.3	30.3	20.7	20.7	20.7		
Effective Green, g (s)		30.3	30.3		30.3	30.3	20.7	20.7	20.7		
Actuated g/C Ratio		0.51	0.51		0.51	0.51	0.34	0.34	0.34		
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		1720	1354		1787	781	558	558	518		
v/s Ratio Prot		0.22			0.14						
v/s Ratio Perm			0.23			c0.30	0.29	0.29	0.05		
v/c Ratio		0.45	0.45		0.27	0.60	0.84	0.85	0.15		
Uniform Delay, d1		9.5	9.5		8.5	10.5	18.1	18.2	13.6		
Progression Factor		1.00	1.00		0.47	4.74	1.00	1.00	1.00		
Incremental Delay, d2		0.8	1.1		0.3	3.0	10.4	11.3	0.1		
Delay (s)		10.3	10.6		4.4	53.0	28.5	29.5	13.7		
Level of Service		B	B		A	D	C	C	B		
Approach Delay (s)		10.5			36.2			26.7		0.0	
Approach LOS		B			D			C		A	

Intersection Summary			
HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Nyberg Woods Access & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	721	15	9	1046	60	61	4	1	50	2	34
Future Volume (vph)	128	721	15	9	1046	60	61	4	1	50	2	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	3433	3526		1770	3511			1758	1546		1777	1573
Flt Permitted	0.95	1.00		0.95	1.00			0.70	1.00		0.68	1.00
Satd. Flow (perm)	3433	3526		1770	3511			1281	1546		1267	1573
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	144	810	17	10	1175	67	69	4	1	56	2	38
RTOR Reduction (vph)	0	1	0	0	5	0	0	0	1	0	0	30
Lane Group Flow (vph)	144	826	0	10	1237	0	0	73	0	0	58	8
Confl. Peds. (#/hr)			4	4			2					2
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases							4		4	8		8
Actuated Green, G (s)	7.2	39.1		1.4	33.3			6.0	6.0		6.0	13.2
Effective Green, g (s)	7.2	39.1		1.4	33.3			6.0	6.0		6.0	13.2
Actuated g/C Ratio	0.12	0.65		0.02	0.55			0.10	0.10		0.10	0.22
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	411	2297		41	1948			128	154		126	464
v/s Ratio Prot	0.04	c0.23		0.01	c0.35							0.00
v/s Ratio Perm								c0.06	0.00		0.05	0.00
v/c Ratio	0.35	0.36		0.24	0.64			0.57	0.00		0.46	0.02
Uniform Delay, d1	24.3	4.8		28.8	9.2			25.8	24.3		25.5	18.3
Progression Factor	0.75	0.87		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.4		3.1	0.7			6.0	0.0		2.7	0.0
Delay (s)	18.6	4.6		31.9	9.9			31.8	24.3		28.1	18.3
Level of Service	B	A		C	A			C	C		C	B
Approach Delay (s)		6.6			10.0			31.7			24.3	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: SW Nyberg Lane & SW Nyberg Street/SW 65th Avenue

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	625	22	37	778	25	15	4	35	11	6	239
Future Volume (vph)	101	625	22	37	778	25	15	4	35	11	6	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1852		1768	3523			1821	1580		1840	1608
Flt Permitted	0.24	1.00		0.38	1.00			0.86	1.00		0.80	1.00
Satd. Flow (perm)	455	1852		703	3523			1633	1580		1510	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	112	694	24	41	864	28	17	4	39	12	7	266
RTOR Reduction (vph)	0	1	0	0	3	0	0	0	36	0	0	45
Lane Group Flow (vph)	112	717	0	41	889	0	0	21	3	0	19	221
Confl. Peds. (#/hr)			3	3			3		1	1		3
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases	2			6			4		4	8		8
Actuated Green, G (s)	51.8	44.8		39.8	37.3			4.2	4.2		4.2	14.2
Effective Green, g (s)	51.8	44.8		39.8	37.3			4.2	4.2		4.2	14.2
Actuated g/C Ratio	0.80	0.69		0.61	0.57			0.06	0.06		0.06	0.22
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	564	1276		471	2021			105	102		97	462
v/s Ratio Prot	0.03	c0.39		0.00	0.25							c0.07
v/s Ratio Perm	0.13			0.05				0.01	0.00		0.01	0.06
v/c Ratio	0.20	0.56		0.09	0.44			0.20	0.02		0.20	0.48
Uniform Delay, d1	2.3	5.1		5.0	7.9			28.8	28.5		28.8	22.2
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2	1.8		0.1	0.2			0.9	0.1		1.0	0.8
Delay (s)	2.5	6.9		5.1	8.1			29.7	28.6		29.8	22.9
Level of Service	A	A		A	A			C	C		C	C
Approach Delay (s)		6.3			7.9			29.0			23.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	130	256	1	1	1
Future Vol, veh/h	1	130	256	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	144	284	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	286	0	-	0	432	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1276	-	-	-	581	754
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1276	-	-	-	581	754
Mov Cap-2 Maneuver	-	-	-	-	633	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	879	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1276	-	-	-	688
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	7.8	-	-	-	10.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	6	1	311	9	419	14	488	239	218	249	24
Future Volume (vph)	3	6	1	311	9	419	14	488	239	218	249	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.95		1.00	0.99	
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1840			1772	1550	1727	1716		1703	1763	
Flt Permitted		0.92			0.73	1.00	0.59	1.00		0.11	1.00	
Satd. Flow (perm)		1725			1347	1550	1067	1716		201	1763	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	3	6	1	321	9	432	14	503	246	225	257	25
RTOR Reduction (vph)	0	1	0	0	0	163	0	19	0	0	3	0
Lane Group Flow (vph)	0	9	0	0	330	269	14	730	0	225	279	0
Confl. Peds. (#/hr)	4		1	1		4	5		7	7		5
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	4%	4%	4%	6%	6%	6%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		23.5			23.5	33.5	44.0	43.0		57.5	52.0	
Effective Green, g (s)		23.5			23.5	33.5	44.0	43.0		57.5	52.0	
Actuated g/C Ratio		0.26			0.26	0.37	0.49	0.48		0.64	0.58	
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		450			351	654	528	819		295	1018	
v/s Ratio Prot						0.05	0.00	c0.43		c0.08	0.16	
v/s Ratio Perm		0.01			c0.24	0.13	0.01			0.40		
v/c Ratio		0.02			0.94	0.41	0.03	0.89		0.76	0.27	
Uniform Delay, d1		24.7			32.6	20.9	11.9	21.4		18.1	9.5	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			32.8	0.4	0.0	14.0		11.1	0.7	
Delay (s)		24.7			65.4	21.4	11.9	35.3		29.2	10.2	
Level of Service		C			E	C	B	D		C	B	
Approach Delay (s)		24.7			40.4			34.9			18.6	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
7: SW 65th Avenue & SW Sagert Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	375	3	68	5	12	27	115	334	10	16	129	393
Future Volume (vph)	375	3	68	5	12	27	115	334	10	16	129	393
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.90		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	1511		1797	1700		1768	1854		1751	1845	1534
Flt Permitted	0.73	1.00		0.71	1.00		0.67	1.00		0.42	1.00	1.00
Satd. Flow (perm)	1323	1511		1342	1700		1250	1854		783	1845	1534
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	387	3	70	5	12	28	119	344	10	16	133	405
RTOR Reduction (vph)	0	46	0	0	18	0	0	2	0	0	0	281
Lane Group Flow (vph)	387	27	0	5	22	0	119	352	0	16	133	124
Confl. Peds. (#/hr)			3	3			1		3	3		1
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	2%	2%	2%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	20.9	20.9		20.9	20.9		30.1	24.6		19.4	18.4	18.4
Effective Green, g (s)	20.9	20.9		20.9	20.9		30.1	24.6		19.4	18.4	18.4
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.50	0.41		0.32	0.31	0.31
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	460	526		467	592		689	760		269	565	470
v/s Ratio Prot		0.02			0.01		c0.02	c0.19		0.00	0.07	
v/s Ratio Perm	c0.29			0.00			0.07			0.02		0.08
v/c Ratio	0.84	0.05		0.01	0.04		0.17	0.46		0.06	0.24	0.26
Uniform Delay, d1	18.0	13.0		12.8	12.9		8.2	12.9		17.0	15.5	15.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.0	0.0		0.0	0.0		0.1	2.0		0.1	1.0	1.4
Delay (s)	31.1	13.0		12.8	12.9		8.4	14.9		17.1	16.5	17.1
Level of Service	C	B		B	B		A	B		B	B	B
Approach Delay (s)		28.2			12.9			13.3			16.9	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

EXHIBIT N

HCM Signalized Intersection Capacity Analysis
1: I-5 SB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1423	754	90	1129	0	0	0	0	935	10	1298
Future Volume (vph)	0	1423	754	90	1129	0	0	0	0	935	10	1298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1583	1736	3471					1681	1687	2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1583	1736	3471					1681	1687	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1498	794	95	1188	0	0	0	0	984	11	1366
RTOR Reduction (vph)	0	0	537	0	0	0	0	0	0	0	0	28
Lane Group Flow (vph)	0	1498	257	95	1188	0	0	0	0	502	493	1338
Confl. Peds. (#/hr)	7					7						
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	0%	0%	0%	2%	2%	2%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		38.9	38.9	8.1	51.5					59.5	59.5	59.5
Effective Green, g (s)		38.9	38.9	8.1	51.5					59.5	59.5	59.5
Actuated g/C Ratio		0.32	0.32	0.07	0.43					0.50	0.50	0.50
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1648	513	117	1489					833	836	1381
v/s Ratio Prot		c0.29		0.05	c0.34							
v/s Ratio Perm			0.16							0.30	0.29	c0.48
v/c Ratio		0.91	0.50	0.81	0.80					0.60	0.59	0.97
Uniform Delay, d1		38.9	32.7	55.2	29.7					21.8	21.6	29.4
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		7.7	0.8	33.2	4.5					1.2	1.1	17.1
Delay (s)		46.6	33.5	88.4	34.3					23.0	22.6	46.5
Level of Service		D	C	F	C					C	C	D
Approach Delay (s)		42.0			38.3			0.0			36.5	
Approach LOS		D			D			A			D	

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
2: I-5 NB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations											
Traffic Volume (vph)	0	1419	935	0	548	623	707	0	173	0	0
Future Volume (vph)	0	1419	935	0	548	623	707	0	173	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00		
Frpb, ped/bikes		1.00	1.00		1.00	0.97	1.00	1.00	0.99		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00		
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85		
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (prot)		3539	2787		3574	1559	1633	1633	1516		
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (perm)		3539	2787		3574	1559	1633	1633	1516		
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1463	964	0	565	642	729	0	178	0	0
RTOR Reduction (vph)	0	0	408	0	0	272	0	0	19	0	0
Lane Group Flow (vph)	0	1463	556	0	565	370	364	365	159	0	0
Confl. Peds. (#/hr)	3					3			2	2	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	5%	5%	5%	0%	0%
Turn Type		NA	Perm		NA	Perm	Perm	Prot	Perm		
Protected Phases		2			6			8			
Permitted Phases			2			6	8		8		
Actuated Green, G (s)		37.5	37.5		37.5	37.5	18.5	18.5	18.5		
Effective Green, g (s)		37.5	37.5		37.5	37.5	18.5	18.5	18.5		
Actuated g/C Ratio		0.58	0.58		0.58	0.58	0.28	0.28	0.28		
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		2041	1607		2061	899	464	464	431		
v/s Ratio Prot		c0.41			0.16						
v/s Ratio Perm			0.20			0.24	0.22	0.22	0.11		
v/c Ratio		0.72	0.35		0.27	0.41	0.78	0.79	0.37		
Uniform Delay, d1		9.9	7.3		6.9	7.6	21.4	21.4	18.6		
Progression Factor		1.00	1.00		1.15	4.89	1.00	1.00	1.00		
Incremental Delay, d2		2.2	0.6		0.3	1.2	8.5	8.6	0.5		
Delay (s)		12.1	7.9		8.2	38.6	29.9	30.0	19.1		
Level of Service		B	A		A	D	C	C	B		
Approach Delay (s)		10.4			24.4			27.8		0.0	
Approach LOS		B			C			C		A	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: Nyberg Woods Access & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	1264	54	11	882	61	74	12	9	108	5	150
Future Volume (vph)	237	1264	54	11	882	61	74	12	9	108	5	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.95	1.00
Satd. Flow (prot)	3467	3549		1770	3500			1817	1615		1795	1586
Flt Permitted	0.95	1.00		0.95	1.00			0.67	1.00		0.67	1.00
Satd. Flow (perm)	3467	3549		1770	3500			1278	1615		1258	1586
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	252	1345	57	12	938	65	79	13	10	115	5	160
RTOR Reduction (vph)	0	3	0	0	7	0	0	0	8	0	0	71
Lane Group Flow (vph)	252	1399	0	12	996	0	0	92	2	0	120	89
Confl. Peds. (#/hr)	9		2	2		9	3					3
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases							4		4	8		8
Actuated Green, G (s)	9.2	40.3		1.0	32.1			10.2	10.2		10.2	19.4
Effective Green, g (s)	9.2	40.3		1.0	32.1			10.2	10.2		10.2	19.4
Actuated g/C Ratio	0.14	0.62		0.02	0.49			0.16	0.16		0.16	0.30
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	490	2200		27	1728			200	253		197	583
v/s Ratio Prot	0.07	c0.39		0.01	c0.28							0.02
v/s Ratio Perm								0.07	0.00		c0.10	0.03
v/c Ratio	0.51	0.64		0.44	0.58			0.46	0.01		0.61	0.15
Uniform Delay, d1	25.8	7.7		31.7	11.6			24.9	23.1		25.5	16.8
Progression Factor	1.23	0.83		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	1.0		11.2	0.5			1.7	0.0		5.3	0.1
Delay (s)	32.5	7.4		43.0	12.1			26.6	23.1		30.8	16.9
Level of Service	C	A		D	B			C	C		C	B
Approach Delay (s)		11.3			12.5			26.2			22.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: SW Nyberg Lane & SW Nyberg Street/SW 65th Avenue

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	315	988	30	33	765	19	16	11	57	16	4	141
Future Volume (vph)	315	988	30	33	765	19	16	11	57	16	4	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.96	1.00
Satd. Flow (prot)	1787	1871		1770	3524			1839	1574		1827	1603
Flt Permitted	0.30	1.00		0.18	1.00			0.81	1.00		0.75	1.00
Satd. Flow (perm)	563	1871		343	3524			1527	1574		1426	1603
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	325	1019	31	34	789	20	16	11	59	16	4	145
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	55	0	0	81
Lane Group Flow (vph)	325	1049	0	34	808	0	0	27	4	0	20	64
Confl. Peds. (#/hr)	2		9	9		2	4					4
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases	2			6			4		4	8		8
Actuated Green, G (s)	75.1	67.0		64.9	61.3			5.9	5.9		5.9	15.2
Effective Green, g (s)	75.1	67.0		64.9	61.3			5.9	5.9		5.9	15.2
Actuated g/C Ratio	0.83	0.74		0.72	0.68			0.07	0.07		0.07	0.17
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	596	1392		304	2400			100	103		93	350
v/s Ratio Prot	c0.06	c0.56		0.00	0.23							0.02
v/s Ratio Perm	0.40			0.08				c0.02	0.00		0.01	0.02
v/c Ratio	0.55	0.75		0.11	0.34			0.27	0.04		0.22	0.18
Uniform Delay, d1	2.4	6.7		6.4	5.9			40.0	39.4		39.9	32.1
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	1.0	3.8		0.2	0.1			1.5	0.1		1.2	0.3
Delay (s)	3.4	10.5		6.6	6.0			41.5	39.5		41.0	32.3
Level of Service	A	B		A	A			D	D		D	C
Approach Delay (s)		8.8			6.0			40.1			33.4	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	345	161	1	1	1
Future Vol, veh/h	1	345	161	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	356	166	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	167	0	-	0	524	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	358	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1411	-	-	-	514	878
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1411	-	-	-	514	878
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	706	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1411	-	-	-	700
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	7.6	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	26	8	260	12	264	5	275	387	461	487	19
Future Volume (vph)	35	26	8	260	12	264	5	275	387	461	487	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	0.98		1.00	1.00	
Flpb, ped/bikes		0.99			0.99	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			1.00	0.85	1.00	0.91		1.00	0.99	
Flt Protected		0.97			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1720	1520	1728	1630		1752	1831	
Flt Permitted		0.60			0.70	1.00	0.47	1.00		0.07	1.00	
Satd. Flow (perm)		1087			1257	1520	847	1630		137	1831	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	27	8	274	13	278	5	289	407	485	513	20
RTOR Reduction (vph)	0	4	0	0	0	146	0	43	0	0	1	0
Lane Group Flow (vph)	0	68	0	0	287	132	5	653	0	485	532	0
Confl. Peds. (#/hr)	7		5	5		7	6		5	5		6
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		28.5			28.5	57.0	50.5	49.5		82.5	77.0	
Effective Green, g (s)		28.5			28.5	57.0	50.5	49.5		82.5	77.0	
Actuated g/C Ratio		0.24			0.24	0.48	0.42	0.41		0.69	0.64	
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		258			298	779	363	672		477	1174	
v/s Ratio Prot						0.04	0.00	0.40		c0.24	0.29	
v/s Ratio Perm		0.06			c0.23	0.05	0.01			c0.46		
v/c Ratio		0.26			0.96	0.17	0.01	0.97		1.02	0.45	
Uniform Delay, d1		37.2			45.2	18.0	20.2	34.6		38.4	10.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6			41.9	0.1	0.0	28.5		45.5	1.3	
Delay (s)		37.8			87.1	18.1	20.2	63.1		83.9	12.1	
Level of Service		D			F	B	C	E		F	B	
Approach Delay (s)		37.8			53.2			62.7			46.3	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	52.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
7: SW 65th Avenue & SW Sagert Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	486	10	120	8	9	22	40	145	6	25	371	386
Future Volume (vph)	486	10	120	8	9	22	40	145	6	25	371	386
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	0.98		1.00	1.00		1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	1580		1800	1669		1783	1869		1766	1863	1523
Flt Permitted	0.74	1.00		0.67	1.00		0.35	1.00		0.66	1.00	1.00
Satd. Flow (perm)	1385	1580		1270	1669		658	1869		1222	1863	1523
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	506	10	125	8	9	23	42	151	6	26	386	402
RTOR Reduction (vph)	0	75	0	0	14	0	0	2	0	0	0	138
Lane Group Flow (vph)	506	60	0	8	18	0	42	155	0	26	386	264
Confl. Peds. (#/hr)			2	2			9		2	2		9
Confl. Bikes (#/hr)			3			2						2
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	25.9	25.9		25.9	25.9		26.6	23.6		24.6	22.6	22.6
Effective Green, g (s)	25.9	25.9		25.9	25.9		26.6	23.6		24.6	22.6	22.6
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.41	0.36		0.38	0.35	0.35
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	551	629		506	665		321	678		479	647	529
v/s Ratio Prot		0.04			0.01		c0.01	0.08		0.00	c0.21	
v/s Ratio Perm	c0.37			0.01			0.05			0.02		0.17
v/c Ratio	0.92	0.10		0.02	0.03		0.13	0.23		0.05	0.60	0.50
Uniform Delay, d1	18.5	12.2		11.8	11.9		12.1	14.4		12.7	17.4	16.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	20.3	0.1		0.0	0.0		0.2	0.8		0.0	4.0	3.3
Delay (s)	38.8	12.3		11.8	11.9		12.3	15.2		12.8	21.5	20.1
Level of Service	D	B		B	B		B	B		B	C	C
Approach Delay (s)		33.2			11.9			14.6			20.5	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
1: I-5 SB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1292	686	103	1162	0	0	0	0	455	2	978
Future Volume (vph)	0	1292	686	103	1162	0	0	0	0	455	2	978
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1468	1703	3406					1649	1654	2733
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1468	1703	3406					1649	1654	2733
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1374	730	110	1236	0	0	0	0	484	2	1040
RTOR Reduction (vph)	0	0	462	0	0	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	1374	268	110	1236	0	0	0	0	242	244	996
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	0%	0%	0%	4%	4%	4%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		33.0	33.0	8.2	45.7					35.3	35.3	35.3
Effective Green, g (s)		33.0	33.0	8.2	45.7					35.3	35.3	35.3
Actuated g/C Ratio		0.37	0.37	0.09	0.51					0.39	0.39	0.39
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1728	538	155	1729					646	648	1071
v/s Ratio Prot		c0.29		0.06	c0.36							
v/s Ratio Perm			0.18							0.15	0.15	c0.36
v/c Ratio		0.80	0.50	0.71	0.71					0.37	0.38	0.93
Uniform Delay, d1		25.5	22.1	39.7	17.1					19.5	19.5	26.2
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		2.6	0.7	13.9	2.6					0.4	0.4	13.6
Delay (s)		28.1	22.8	53.6	19.7					19.9	19.9	39.7
Level of Service		C	C	D	B					B	B	D
Approach Delay (s)		26.3			22.4			0.0			33.4	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: I-5 NB Ramps & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations											
Traffic Volume (vph)	0	708	1078	0	475	879	839	5	152	0	0
Future Volume (vph)	0	708	1078	0	475	879	839	5	152	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00		
Frpb, ped/bikes		1.00	1.00		1.00	0.98	1.00	1.00	0.99		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00		
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85		
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (prot)		3406	2682		3539	1548	1618	1618	1504		
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (perm)		3406	2682		3539	1548	1618	1618	1504		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	787	1198	0	528	977	932	6	169	0	0
RTOR Reduction (vph)	0	0	593	0	0	484	0	0	80	0	0
Lane Group Flow (vph)	0	787	605	0	528	493	466	472	89	0	0
Confl. Peds. (#/hr)	1					1			1	1	
Confl. Bikes (#/hr)						1					
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	6%	6%	6%	0%	0%
Turn Type		NA	Perm		NA	Perm	Perm	Prot	Perm		
Protected Phases		2			6			8			
Permitted Phases			2			6	8		8		
Actuated Green, G (s)		30.3	30.3		30.3	30.3	20.7	20.7	20.7		
Effective Green, g (s)		30.3	30.3		30.3	30.3	20.7	20.7	20.7		
Actuated g/C Ratio		0.51	0.51		0.51	0.51	0.34	0.34	0.34		
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		1720	1354		1787	781	558	558	518		
v/s Ratio Prot		0.23			0.15						
v/s Ratio Perm			0.23			c0.32	0.29	0.29	0.06		
v/c Ratio		0.46	0.45		0.30	0.63	0.84	0.85	0.17		
Uniform Delay, d1		9.6	9.5		8.6	10.8	18.1	18.2	13.7		
Progression Factor		1.00	1.00		0.44	5.28	1.00	1.00	1.00		
Incremental Delay, d2		0.9	1.1		0.4	3.4	10.4	11.3	0.2		
Delay (s)		10.4	10.6		4.1	60.4	28.5	29.5	13.8		
Level of Service		B	B		A	E	C	C	B		
Approach Delay (s)		10.5			40.7			26.7		0.0	
Approach LOS		B			D			C		A	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Nyberg Woods Access & SW Nyberg Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	744	15	9	1130	66	61	4	1	51	2	34
Future Volume (vph)	128	744	15	9	1130	66	61	4	1	51	2	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	3433	3527		1770	3510			1758	1546		1777	1573
Flt Permitted	0.95	1.00		0.95	1.00			0.69	1.00		0.68	1.00
Satd. Flow (perm)	3433	3527		1770	3510			1279	1546		1267	1573
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	144	836	17	10	1270	74	69	4	1	57	2	38
RTOR Reduction (vph)	0	1	0	0	5	0	0	0	1	0	0	30
Lane Group Flow (vph)	144	852	0	10	1339	0	0	73	0	0	59	8
Confl. Peds. (#/hr)			4	4			2					2
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases							4		4	8		8
Actuated Green, G (s)	6.8	39.1		1.4	33.7			6.0	6.0		6.0	12.8
Effective Green, g (s)	6.8	39.1		1.4	33.7			6.0	6.0		6.0	12.8
Actuated g/C Ratio	0.11	0.65		0.02	0.56			0.10	0.10		0.10	0.21
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	389	2298		41	1971			127	154		126	453
v/s Ratio Prot	0.04	c0.24		0.01	c0.38							0.00
v/s Ratio Perm								c0.06	0.00		0.05	0.00
v/c Ratio	0.37	0.37		0.24	0.68			0.57	0.00		0.47	0.02
Uniform Delay, d1	24.6	4.8		28.8	9.3			25.8	24.3		25.5	18.6
Progression Factor	0.76	0.89		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.4		3.1	0.9			6.2	0.0		2.7	0.0
Delay (s)	19.2	4.7		31.9	10.3			31.9	24.3		28.2	18.7
Level of Service	B	A		C	B			C	C		C	B
Approach Delay (s)		6.8			10.4			31.8			24.5	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: SW Nyberg Lane & SW Nyberg Street/SW 65th Avenue

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	625	22	37	778	27	15	4	35	23	6	329
Future Volume (vph)	125	625	22	37	778	27	15	4	35	23	6	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1770	1852		1769	3521			1821	1580		1825	1609
Flt Permitted	0.32	1.00		0.21	1.00			0.79	1.00		0.78	1.00
Satd. Flow (perm)	593	1852		396	3521			1491	1580		1475	1609
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	139	694	24	41	864	30	17	4	39	26	7	366
RTOR Reduction (vph)	0	1	0	0	3	0	0	0	36	0	0	72
Lane Group Flow (vph)	139	717	0	41	891	0	0	21	3	0	33	294
Confl. Peds. (#/hr)			3	3			3		1	1		3
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases	2			6			4		4	8		8
Actuated Green, G (s)	44.1	44.1		33.1	33.1			4.6	4.6		4.6	18.4
Effective Green, g (s)	44.1	44.1		33.1	33.1			4.6	4.6		4.6	18.4
Actuated g/C Ratio	0.68	0.68		0.51	0.51			0.07	0.07		0.07	0.28
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	652	1256		260	1793			105	111		104	566
v/s Ratio Prot	0.05	c0.39		0.01	c0.25							c0.11
v/s Ratio Perm	0.10			0.07				0.01	0.00		0.02	0.07
v/c Ratio	0.21	0.57		0.16	0.50			0.20	0.02		0.32	0.52
Uniform Delay, d1	4.4	5.5		9.6	10.5			28.5	28.1		28.7	19.6
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2	1.9		0.3	0.2			0.9	0.1		1.8	0.8
Delay (s)	4.6	7.4		9.9	10.7			29.4	28.2		30.5	20.4
Level of Service	A	A		A	B			C	C		C	C
Approach Delay (s)		6.9			10.7			28.6			21.2	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	130	256	1	6	102
Future Vol, veh/h	26	130	256	1	6	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	144	284	1	7	113

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	286	0	-	0	487	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	202	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1276	-	-	-	540	754
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1276	-	-	-	528	754
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	813	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1276	-	-	-	743
HCM Lane V/C Ratio	0.023	-	-	-	0.162
HCM Control Delay (s)	7.9	-	-	-	10.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	6	1	311	9	420	14	489	239	224	255	24
Future Volume (vph)	3	6	1	311	9	420	14	489	239	224	255	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.95		1.00	0.99	
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1840			1772	1551	1727	1716		1703	1764	
Flt Permitted		0.92			0.73	1.00	0.58	1.00		0.11	1.00	
Satd. Flow (perm)		1725			1347	1551	1061	1716		196	1764	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	3	6	1	321	9	433	14	504	246	231	263	25
RTOR Reduction (vph)	0	1	0	0	0	161	0	19	0	0	3	0
Lane Group Flow (vph)	0	9	0	0	330	272	14	731	0	231	285	0
Confl. Peds. (#/hr)	4		1	1		4	5		7	7		5
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	4%	4%	4%	6%	6%	6%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		23.4			23.4	33.7	43.8	42.8		57.6	52.1	
Effective Green, g (s)		23.4			23.4	33.7	43.8	42.8		57.6	52.1	
Actuated g/C Ratio		0.26			0.26	0.37	0.49	0.48		0.64	0.58	
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		448			350	658	523	816		297	1021	
v/s Ratio Prot						0.05	0.00	c0.43		c0.09	0.16	
v/s Ratio Perm		0.01			c0.24	0.13	0.01			0.41		
v/c Ratio		0.02			0.94	0.41	0.03	0.90		0.78	0.28	
Uniform Delay, d1		24.8			32.6	20.8	12.0	21.6		19.2	9.5	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			33.4	0.4	0.0	14.4		12.1	0.7	
Delay (s)		24.8			66.0	21.3	12.0	36.0		31.2	10.2	
Level of Service		C			E	C	B	D		C	B	
Approach Delay (s)		24.8			40.6			35.6			19.6	
Approach LOS		C			D			D			B	

Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
7: SW 65th Avenue & SW Sagert Street

09/20/2017

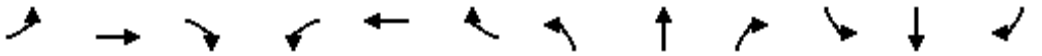
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	376	3	68	5	12	27	115	334	10	16	129	399
Future Volume (vph)	376	3	68	5	12	27	115	334	10	16	129	399
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.90		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	1511		1797	1700		1768	1854		1751	1845	1534
Flt Permitted	0.73	1.00		0.71	1.00		0.67	1.00		0.42	1.00	1.00
Satd. Flow (perm)	1323	1511		1342	1700		1250	1854		783	1845	1534
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	388	3	70	5	12	28	119	344	10	16	133	411
RTOR Reduction (vph)	0	46	0	0	18	0	0	2	0	0	0	285
Lane Group Flow (vph)	388	27	0	5	22	0	119	352	0	16	133	126
Confl. Peds. (#/hr)			3	3			1		3	3		1
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	2%	2%	2%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	20.9	20.9		20.9	20.9		30.1	24.6		19.4	18.4	18.4
Effective Green, g (s)	20.9	20.9		20.9	20.9		30.1	24.6		19.4	18.4	18.4
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.50	0.41		0.32	0.31	0.31
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	460	526		467	592		689	760		269	565	470
v/s Ratio Prot		0.02			0.01		c0.02	c0.19		0.00	0.07	
v/s Ratio Perm	c0.29			0.00			0.07			0.02		0.08
v/c Ratio	0.84	0.05		0.01	0.04		0.17	0.46		0.06	0.24	0.27
Uniform Delay, d1	18.0	13.0		12.8	12.9		8.2	12.9		17.0	15.5	15.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.2	0.0		0.0	0.0		0.1	2.0		0.1	1.0	1.4
Delay (s)	31.3	13.0		12.8	12.9		8.4	14.9		17.1	16.5	17.1
Level of Service	C	B		B	B		A	B		B	B	B
Approach Delay (s)		28.4			12.9			13.3			17.0	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

EXHIBIT N

HCM Signalized Intersection Capacity Analysis
1: I-5 SB Ramps & SW Nyberg Street

09/20/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↲	↱↱
Traffic Volume (vph)	0	1445	754	99	1140	0	0	0	0	984	10	1298
Future Volume (vph)	0	1445	754	99	1140	0	0	0	0	984	10	1298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1583	1736	3471					1681	1687	2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1583	1736	3471					1681	1687	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1521	794	104	1200	0	0	0	0	1036	11	1366
RTOR Reduction (vph)	0	0	533	0	0	0	0	0	0	0	0	28
Lane Group Flow (vph)	0	1521	261	104	1200	0	0	0	0	528	519	1338
Confl. Peds. (#/hr)	7					7						
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	0%	0%	0%	2%	2%	2%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		39.5	39.5	8.5	52.5					58.5	58.5	58.5
Effective Green, g (s)		39.5	39.5	8.5	52.5					58.5	58.5	58.5
Actuated g/C Ratio		0.33	0.33	0.07	0.44					0.49	0.49	0.49
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1673	521	122	1518					819	822	1358
v/s Ratio Prot		c0.30		0.06	c0.35							
v/s Ratio Perm			0.17							0.31	0.31	c0.48
v/c Ratio		0.91	0.50	0.85	0.79					0.64	0.63	0.99
Uniform Delay, d1		38.5	32.3	55.1	29.0					23.0	22.8	30.3
Progression Factor		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		7.6	0.8	40.3	4.3					1.8	1.6	20.7
Delay (s)		46.2	33.1	95.4	33.3					24.7	24.4	51.1
Level of Service		D	C	F	C					C	C	D
Approach Delay (s)		41.7			38.3			0.0			39.6	
Approach LOS		D			D			A			D	

Intersection Summary			
HCM 2000 Control Delay	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations											
Traffic Volume (vph)	0	1490	935	0	568	649	707	0	189	0	0
Future Volume (vph)	0	1490	935	0	568	649	707	0	189	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00		
Frpb, ped/bikes		1.00	1.00		1.00	0.97	1.00	1.00	0.99		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00		
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85		
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (prot)		3539	2787		3574	1559	1633	1633	1516		
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00		
Satd. Flow (perm)		3539	2787		3574	1559	1633	1633	1516		
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1536	964	0	586	669	729	0	195	0	0
RTOR Reduction (vph)	0	0	406	0	0	282	0	0	18	0	0
Lane Group Flow (vph)	0	1536	558	0	586	387	364	365	177	0	0
Confl. Peds. (#/hr)	3					3			2	2	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	5%	5%	5%	0%	0%
Turn Type		NA	Perm		NA	Perm	Perm	Prot	Perm		
Protected Phases		2			6			8			
Permitted Phases			2			6	8		8		
Actuated Green, G (s)		37.6	37.6		37.6	37.6	18.4	18.4	18.4		
Effective Green, g (s)		37.6	37.6		37.6	37.6	18.4	18.4	18.4		
Actuated g/C Ratio		0.58	0.58		0.58	0.58	0.28	0.28	0.28		
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		2047	1612		2067	901	462	462	429		
v/s Ratio Prot		c0.43			0.16						
v/s Ratio Perm			0.20			0.25	0.22	0.22	0.12		
v/c Ratio		0.75	0.35		0.28	0.43	0.79	0.79	0.41		
Uniform Delay, d1		10.2	7.2		6.9	7.7	21.5	21.5	18.9		
Progression Factor		1.00	1.00		1.13	5.37	1.00	1.00	1.00		
Incremental Delay, d2		2.6	0.6		0.3	1.3	8.7	8.9	0.6		
Delay (s)		12.8	7.8		8.1	42.5	30.2	30.4	19.6		
Level of Service		B	A		A	D	C	C	B		
Approach Delay (s)		10.9			26.4			28.0		0.0	
Approach LOS		B			C			C		A	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	1351	54	11	928	64	74	12	9	113	5	150
Future Volume (vph)	237	1351	54	11	928	64	74	12	9	113	5	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.95	1.00
Satd. Flow (prot)	3467	3551		1770	3500			1818	1615		1795	1586
Flt Permitted	0.95	1.00		0.95	1.00			0.67	1.00		0.67	1.00
Satd. Flow (perm)	3467	3551		1770	3500			1272	1615		1257	1586
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	252	1437	57	12	987	68	79	13	10	120	5	160
RTOR Reduction (vph)	0	3	0	0	7	0	0	0	8	0	0	71
Lane Group Flow (vph)	252	1491	0	12	1048	0	0	92	2	0	125	89
Confl. Peds. (#/hr)	9		2	2		9	3					3
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases							4		4	8		8
Actuated Green, G (s)	9.1	40.1		1.0	32.0			10.4	10.4		10.4	19.5
Effective Green, g (s)	9.1	40.1		1.0	32.0			10.4	10.4		10.4	19.5
Actuated g/C Ratio	0.14	0.62		0.02	0.49			0.16	0.16		0.16	0.30
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	485	2190		27	1723			203	258		201	585
v/s Ratio Prot	0.07	c0.42		0.01	c0.30							0.02
v/s Ratio Perm								0.07	0.00		c0.10	0.03
v/c Ratio	0.52	0.68		0.44	0.61			0.45	0.01		0.62	0.15
Uniform Delay, d1	25.9	8.2		31.7	12.0			24.7	23.0		25.5	16.7
Progression Factor	1.21	0.83		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	1.2		11.2	0.6			1.6	0.0		5.9	0.1
Delay (s)	32.0	8.0		43.0	12.6			26.3	23.0		31.3	16.8
Level of Service	C	A		D	B			C	C		C	B
Approach Delay (s)		11.5			12.9			26.0			23.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: SW Nyberg Lane & SW Nyberg Street/SW 65th Avenue

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	407	988	30	33	765	29	16	11	57	22	4	190
Future Volume (vph)	407	988	30	33	765	29	16	11	57	22	4	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.96	1.00
Satd. Flow (prot)	1787	1871		1769	3517			1839	1574		1822	1606
Flt Permitted	0.28	1.00		0.20	1.00			0.80	1.00		0.74	1.00
Satd. Flow (perm)	529	1871		375	3517			1519	1574		1403	1606
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	420	1019	31	34	789	30	16	11	59	23	4	196
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	55	0	0	41
Lane Group Flow (vph)	420	1049	0	34	817	0	0	27	4	0	27	155
Confl. Peds. (#/hr)	2		9	9		2	4					4
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			4			8	5
Permitted Phases	2			6			4		4	8		8
Actuated Green, G (s)	75.0	66.9		59.3	55.7			6.0	6.0		6.0	20.8
Effective Green, g (s)	75.0	66.9		59.3	55.7			6.0	6.0		6.0	20.8
Actuated g/C Ratio	0.83	0.74		0.66	0.62			0.07	0.07		0.07	0.23
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	647	1390		302	2176			101	104		93	451
v/s Ratio Prot	c0.11	c0.56		0.00	0.23							c0.06
v/s Ratio Perm	0.43			0.07				0.02	0.00		0.02	0.04
v/c Ratio	0.65	0.75		0.11	0.38			0.27	0.04		0.29	0.34
Uniform Delay, d1	3.5	6.8		13.3	8.5			39.9	39.3		40.0	28.9
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	2.3	3.9		0.2	0.1			1.4	0.1		1.7	0.5
Delay (s)	5.7	10.6		13.5	8.6			41.3	39.4		41.7	29.4
Level of Service	A	B		B	A			D	D		D	C
Approach Delay (s)		9.2			8.8			40.0			30.9	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	102	345	161	5	3	55
Future Vol, veh/h	102	345	161	5	3	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	110	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	356	166	5	3	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	171	0	-	0	735	169
Stage 1	-	-	-	-	169	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1406	-	-	-	387	875
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1406	-	-	-	358	875
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1406	-	-	-	833
HCM Lane V/C Ratio	0.075	-	-	-	0.072
HCM Control Delay (s)	7.8	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	26	8	260	12	269	5	280	387	464	490	19
Future Volume (vph)	35	26	8	260	12	269	5	280	387	464	490	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	0.98		1.00	1.00	
Flpb, ped/bikes		0.99			0.99	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			1.00	0.85	1.00	0.91		1.00	0.99	
Flt Protected		0.97			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1721	1520	1728	1631		1752	1832	
Flt Permitted		0.59			0.70	1.00	0.46	1.00		0.07	1.00	
Satd. Flow (perm)		1068			1257	1520	845	1631		136	1832	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	27	8	274	13	283	5	295	407	488	516	20
RTOR Reduction (vph)	0	4	0	0	0	149	0	42	0	0	1	0
Lane Group Flow (vph)	0	68	0	0	287	134	5	660	0	488	535	0
Confl. Peds. (#/hr)	7		5	5		7	6		5	5		6
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		28.0			28.0	56.7	50.8	49.8		83.0	77.5	
Effective Green, g (s)		28.0			28.0	56.7	50.8	49.8		83.0	77.5	
Actuated g/C Ratio		0.23			0.23	0.47	0.42	0.41		0.69	0.65	
Clearance Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		249			293	775	365	676		480	1183	
v/s Ratio Prot						0.04	0.00	0.40		c0.24	0.29	
v/s Ratio Perm		0.06			c0.23	0.05	0.01			c0.46		
v/c Ratio		0.27			0.98	0.17	0.01	0.98		1.02	0.45	
Uniform Delay, d1		37.7			45.7	18.2	20.0	34.5		38.5	10.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6			46.4	0.1	0.0	29.4		45.3	1.2	
Delay (s)		38.3			92.1	18.3	20.0	64.0		83.8	11.9	
Level of Service		D			F	B	C	E		F	B	
Approach Delay (s)		38.3			55.4			63.7			46.1	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	53.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
7: SW 65th Avenue & SW Sagert Street

09/20/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	491	10	120	8	9	22	40	145	6	25	371	389
Future Volume (vph)	491	10	120	8	9	22	40	145	6	25	371	389
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	0.98		1.00	1.00		1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.86		1.00	0.89		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	1580		1800	1669		1783	1869		1766	1863	1523
Flt Permitted	0.74	1.00		0.67	1.00		0.35	1.00		0.66	1.00	1.00
Satd. Flow (perm)	1385	1580		1270	1669		653	1869		1222	1863	1523
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	511	10	125	8	9	23	42	151	6	26	386	405
RTOR Reduction (vph)	0	75	0	0	14	0	0	2	0	0	0	140
Lane Group Flow (vph)	511	60	0	8	18	0	42	155	0	26	386	265
Confl. Peds. (#/hr)			2	2			9		2	2		9
Confl. Bikes (#/hr)			3			2						2
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	26.1	26.1		26.1	26.1		26.4	23.4		24.4	22.4	22.4
Effective Green, g (s)	26.1	26.1		26.1	26.1		26.4	23.4		24.4	22.4	22.4
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.41	0.36		0.38	0.34	0.34
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	556	634		509	670		317	672		475	642	524
v/s Ratio Prot		0.04			0.01		c0.01	0.08		0.00	c0.21	
v/s Ratio Perm	c0.37			0.01			0.05			0.02		0.17
v/c Ratio	0.92	0.09		0.02	0.03		0.13	0.23		0.05	0.60	0.51
Uniform Delay, d1	18.4	12.1		11.7	11.8		12.3	14.5		12.9	17.6	16.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	20.2	0.1		0.0	0.0		0.2	0.8		0.0	4.1	3.5
Delay (s)	38.7	12.2		11.7	11.8		12.5	15.3		12.9	21.7	20.4
Level of Service	D	B		B	B		B	B		B	C	C
Approach Delay (s)		33.1			11.8			14.7			20.8	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/13/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	6	1	311	9	420	14	489	239	224	255	24
Future Volume (vph)	3	6	1	311	9	420	14	489	239	224	255	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98		1.00	0.97	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Frt		0.99			1.00	0.85		1.00	0.85	1.00	0.99	
Flt Protected		0.99			0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1841			1774	1553		1824	1504	1702	1765	
Flt Permitted		0.92			0.73	1.00		0.99	1.00	0.20	1.00	
Satd. Flow (perm)		1710			1348	1553		1806	1504	365	1765	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	3	6	1	321	9	433	14	504	246	231	263	25
RTOR Reduction (vph)	0	1	0	0	0	97	0	0	155	0	5	0
Lane Group Flow (vph)	0	9	0	0	330	336	0	518	91	231	283	0
Confl. Peds. (#/hr)	4		1	1		4	5		7	7		5
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	4%	4%	4%	6%	6%	6%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1		2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		17.2			17.2	24.2		22.3	22.3	33.8	33.8	
Effective Green, g (s)		17.2			17.2	24.2		22.3	22.3	33.8	33.8	
Actuated g/C Ratio		0.29			0.29	0.40		0.37	0.37	0.56	0.56	
Clearance Time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		490			386	742		671	558	361	994	
v/s Ratio Prot						0.05				c0.07	0.16	
v/s Ratio Perm		0.01			c0.24	0.16		c0.29	0.06	0.29		
v/c Ratio		0.02			0.85	0.45		0.77	0.16	0.64	0.28	
Uniform Delay, d1		15.3			20.2	13.1		16.6	12.6	9.3	6.8	
Progression Factor		1.00			1.00	1.00		0.95	1.35	1.00	1.00	
Incremental Delay, d2		0.0			16.6	0.4		7.0	0.5	3.7	0.7	
Delay (s)		15.4			36.9	13.5		22.7	17.6	13.0	7.5	
Level of Service		B			D	B		C	B	B	A	
Approach Delay (s)		15.4			23.6			21.1			10.0	
Approach LOS		B			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
6: SW 65th Avenue & SW Borland Road

09/13/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	26	8	260	12	269	5	280	387	464	490	19
Future Volume (vph)	35	26	8	260	12	269	5	280	387	464	490	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98		1.00	0.97	1.00	1.00	
Flpb, ped/bikes		1.00			0.99	1.00		1.00	1.00	1.00	1.00	
Frt		0.98			1.00	0.85		1.00	0.85	1.00	0.99	
Flt Protected		0.97			0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1776			1730	1524		1825	1504	1750	1832	
Flt Permitted		0.78			0.68	1.00		0.99	1.00	0.37	1.00	
Satd. Flow (perm)		1412			1239	1524		1811	1504	684	1832	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	27	8	274	13	283	5	295	407	488	516	20
RTOR Reduction (vph)	0	6	0	0	0	148	0	0	279	0	2	0
Lane Group Flow (vph)	0	66	0	0	287	135	0	300	128	488	534	0
Confl. Peds. (#/hr)	7		5	5		7	6		5	5		6
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1		2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		18.1			18.1	31.0		20.5	20.5	37.9	37.9	
Effective Green, g (s)		18.1			18.1	31.0		20.5	20.5	37.9	37.9	
Actuated g/C Ratio		0.28			0.28	0.48		0.32	0.32	0.58	0.58	
Clearance Time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		393			345	832		571	474	610	1068	
v/s Ratio Prot						0.03				c0.16	0.29	
v/s Ratio Perm		0.05			c0.23	0.06		0.17	0.09	c0.31		
v/c Ratio		0.17			0.83	0.16		0.53	0.27	0.80	0.50	
Uniform Delay, d1		17.8			22.0	9.6		18.3	16.7	9.0	8.0	
Progression Factor		1.00			1.00	1.00		1.06	3.54	1.00	1.00	
Incremental Delay, d2		0.2			15.6	0.1		2.5	1.0	7.4	1.7	
Delay (s)		18.0			37.6	9.7		21.9	60.0	16.4	9.6	
Level of Service		B			D	A		C	E	B	A	
Approach Delay (s)		18.0			23.8			43.9			12.9	
Approach LOS		B			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	24.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at SB EF NYBERG ST C5, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2015 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**2**	**0**	**0**
YEAR: 2014														
REAR-END	0	0	2	2	0	0	0	1	1	1	1	2	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	1	1	2	0	0
YEAR 2014 TOTAL	**0**	**1**	**3**	**4**	**0**	**1**	**0**	**3**	**1**	**2**	**2**	**4**	**0**	**0**
YEAR: 2013														
REAR-END	0	2	1	3	0	3	1	3	0	2	1	3	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**2**	**2**	**4**	**0**	**3**	**1**	**3**	**1**	**2**	**2**	**4**	**0**	**0**
YEAR: 2012														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2012 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**1**	**1**	**2**	**0**	**0**
YEAR: 2011														
REAR-END	0	2	1	3	0	4	0	2	1	3	0	3	0	0

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at SB EF NYBERG ST C5, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	2	0	2	0	2	0	2	0	2	0	2	0	0
YEAR 2011 TOTAL	**0**	**4**	**1**	**5**	**0**	**6**	**0**	**4**	**1**	**5**	**0**	**5**	**0**	**0**
FINAL TOTAL	**0**	**7**	**10**	**17**	**0**	**10**	**1**	**13**	**4**	**11**	**6**	**17**	**0**	**0**

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EF NYBERG ST C5, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 17

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
06236	N	N	N	N	N	10/29/2013	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 1	STRGHT										07
CITY						TU		SB EF NYBERG ST C5	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000	00
						10A			06	0		N	DAY	INJ		SEMI TOW		01	DRVR	NONE	58	M	OR-Y OR<25		026	000	07
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	INJC	26	M	OR-Y OR<25		000	000	00
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		02	PSNG	INJC	13	M			000	000	00
07665	N	N	N			12/13/2015	11	SW NYBERG ST	INTER	CROSS	N	N	RAIN	S-OTHER	01	NONE 0	TURN-L										08
NONE						SU		SB EF NYBERG ST C5	E		TRF SIGNAL	N	WET	TURN		PRVTE	NW-E									000	00
						5P			05	1		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y OR<25		001	000	08
															02	NONE 0	TURN-L										
																PRVTE	NW-E									000	00
																PSNGR CAR		01	DRVR	NONE	32	F	OR-Y OR<25		000	000	00
07485	N	N	N			12/28/2012	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	O-OTHER	01	NONE 0	TURN-R										02
NONE						FR		SB EF NYBERG ST C5	SE		YIELD	N	DRY	TURN		PRVTE	W -SE									000	00
						8P			05	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR>25		028	000	02
															02	NONE 0	TURN-L										
																PRVTE	E -SE									000	00
																PSNGR CAR		01	DRVR	NONE	57	M	OR-Y OR<25		000	000	00
00955	N	N	N			02/15/2014	11	SW NYBERG ST	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NONE						SA		SB EF NYBERG ST C5	S		TRF SIGNAL	N	WET	REAR		PRVTE	N -S									000	00
						3P			09	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK OR>25		026	000	07
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		01	DRVR	NONE	48	F	OR-Y OR<25		000	000	00
03479	N	N	N			07/03/2011	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-R										07
NONE						SU		SB EF NYBERG ST C5	SW		YIELD	N	DRY	TURN		PRVTE	W -SE									000	00
						4P			09	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y OR<25		026	000	07
															02	NONE 0	TURN-R										
																PRVTE	W -SE									013	00
																PSNGR CAR		01	DRVR	INJC	24	M	OR-Y OR<25		000	000	00
05575	N	N	N			10/10/2011	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-R										07
NONE						MO		SB EF NYBERG ST C5	SW		YIELD	N	DRY	TURN		PRVTE	W -SE									000	00
						5P			09	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	F	OR-Y OR<25		026	000	07
															02	NONE 0	TURN-R										
																PRVTE	W -SE									013	00
																PSNGR CAR		01	DRVR	INJC	50	F	OR-Y		000	000	00

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EF NYBERG ST C5, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 17

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04458	N	N	N			08/22/2011	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT						OR<25					07
NONE						MO		SB EF NYBERG ST C5	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						3P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	58	M	OR-Y		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	26	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		02	PSNG	INJC	00	M			000	000		00
05086	Y	Y	N	N	N	09/20/2011	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07,01
CITY						TU		SB EF NYBERG ST C5	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						4P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	42	M	OR-Y		043,047,026	000		07,01
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	50	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		02	PSNG	INJC	32	M			000	000		00
07734	N	N	N			11/15/2012	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		SB EF NYBERG ST C5	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						3P			06	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	58	M	OR-Y		026	000		07
																							OR<25					
															02	UNKN 0	STOP											
																UNKN	W -E									011		00
																UNKNOWN		01	DRVR	NONE	00	Unk	UNK		000	000		00
																							UNK					
04049	N	N	N			07/25/2013	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		SB EF NYBERG ST C5	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						7A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		043	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	NONE	57	F	OR-Y		000	000		00
																							OR<25					
07060	N	N	N	N	N	12/04/2013	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										093,013	27,07
CITY						WE		SB EF NYBERG ST C5	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						5P			06	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		016,026	038	093	27,07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011	013	00
																PSNGR CAR		01	DRVR	INJB	40	F	OR-Y		000	000		00
																							OR<25					
															03	NONE 0	STOP											
																PRVTE	W -E									011	013	00

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EF NYBERG ST C5, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 17

SER# / INVEST	S P E D	A L C	D R S L	S W C K	O R	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PSNGR CAR		01	DRVR	NONE	54	F	OR-Y OR<25		000	000	00
															04	NONE 0 / PRVTE	STOP W -E									011	00
																PSNGR CAR		01	DRVR	NONE	52	M	OR-Y OR<25		000	000	00
01782 NONE	N	N	N			03/30/2014 SU 8A	16	SW NYBERG ST SB EF NYBERG ST C5	INTER W 06	CROSS 1	N TRF SIGNAL	N N N	CLD DRY DAWN	S-1STOP REAR PDO	01	NONE 0 / PRVTE	STRGHT W -E									000	07 00 07
																PSNGR CAR		01	DRVR	NONE	39	M	OR-Y OR<25		026	000	
															02	NONE 0 / PRVTE	STOP W -E									011	00
																PSNGR CAR		01	DRVR	NONE	64	F	OR-Y OR<25		000	000	00
06730 NONE	N	N	N			11/12/2011 SA 2P	16	SW NYBERG ST SB EF NYBERG ST C5	INTER CN 02	CROSS 1	N TRF SIGNAL	N N N	RAIN WET DAY	S-1STOP REAR PDO	01	NONE 0 / PRVTE	TURN-L E -SE									001	07 00 07
																PSNGR CAR		01	DRVR	NONE	47	M	OR-Y OR>25		026	000	
															02	NONE 0 / UNKN	TURN-L E -SE									013	00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y UNK		000	000	00
06550 NO RPT	N	N	N			11/12/2013 TU 8P	16	SW NYBERG ST SB EF NYBERG ST C5	INTER CN 03	CROSS 1	N TRF SIGNAL	N N N	RAIN WET DLIT	O-1 L-TURN TURN PDO	01	NONE 0 / PRVTE	STRGHT W -E									000	04 00 04
																PSNGR CAR		01	DRVR	NONE	27	F	OR-Y OR<25		020	000	
															02	NONE 0 / PRVTE	TURN-L E -S									000	00
																PSNGR CAR		01	DRVR	NONE	21	M	OR-Y OR<25		000	000	00
01647 CITY	N	N	N	N	N	03/23/2014 SU 1A	16	SW NYBERG ST SB EF NYBERG ST C5	INTER CN 03	CROSS 1	N TRF SIGNAL	N N N	CLR DRY DLIT	O-1 L-TURN TURN INJ	01	NONE 0 / PRVTE	STRGHT W -E									000	04 00 04
																PSNGR CAR		01	DRVR	NONE	25	M	OR-Y OR<25		020	000	
															02	NONE 0 / PRVTE	TURN-L E -S									000	00
																PSNGR CAR		01	DRVR	INJC	21	F	OR-Y OR<25		000	000	00
03111 STATE	N	N	N	N	N	06/04/2014 WE 6P	16	SW NYBERG ST SB EF NYBERG ST C5	INTER CN 03	CROSS 1	N TRF SIGNAL	N N N	CLR DRY DAY	O-1 L-TURN TURN PDO	01	NONE 0 / PRVTE	STRGHT W -E									000	04 00 04
																PSNGR CAR		01	DRVR	NONE	00	M	UNK UNK		020	000	
															02	NONE 0 / PRVTE	TURN-L E -S									000	00
																PSNGR CAR		01	DRVR	NONE	37	F	OR-Y OR>25		000	000	00
															02	NONE 0 / PRVTE	TURN-L E -S									000	00
																PSNGR CAR		02	PSNG	NO<5	04	F			000	000	00
04908	N	N	N	N	N	08/27/2015	14	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	TURN-R										07

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EF NYBERG ST C5, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 17

SER# / INVEST	S P E	A L D	U G C	C H S	O R L	W K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
STATE							TH		SB EF NYBERG ST C5	CN		YIELD	N	DRY	REAR		PRVTE	W -SE									000	00
							6P			09	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	38	F	OR-Y OR<25		043	000	07
																02	NONE 0	STOP										
																	PRVTE	W -SE									013	00
																	PSNGR CAR		01	DRVR	NONE	43	F	OTH-Y N-RES		000	000	00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	3	2	5	0	5	1	4	1	3	2	5	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2015 TOTAL	**0**	**6**	**3**	**9**	**0**	**8**	**1**	**8**	**1**	**6**	**3**	**9**	**0**	**0**
YEAR: 2014														
PEDESTRIAN	0	3	0	3	0	3	0	3	0	2	1	3	0	0
REAR-END	0	3	1	4	0	3	0	3	1	3	1	4	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	0	2	1	1	2	0	0
YEAR 2014 TOTAL	**0**	**7**	**2**	**9**	**0**	**7**	**0**	**6**	**3**	**6**	**3**	**9**	**0**	**0**
YEAR: 2013														
REAR-END	0	5	3	8	0	10	1	7	1	6	2	8	0	0
TURNING MOVEMENTS	0	1	4	5	0	1	0	3	2	5	0	5	0	0
YEAR 2013 TOTAL	**0**	**6**	**7**	**13**	**0**	**11**	**1**	**10**	**3**	**11**	**2**	**13**	**0**	**0**
YEAR: 2012														
PEDESTRIAN	0	1	0	1	0	1	0	0	1	1	0	1	0	0
REAR-END	0	2	2	4	0	2	0	4	0	3	1	4	0	0
TURNING MOVEMENTS	0	4	1	5	0	4	0	2	2	1	4	5	0	0
YEAR 2012 TOTAL	**0**	**7**	**3**	**10**	**0**	**7**	**0**	**6**	**3**	**5**	**5**	**10**	**0**	**0**

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2011														
BACKING	0	0	1	1	0	0	0	0	0	1	0	1	0	0
PEDESTRIAN	0	1	0	1	0	1	0	0	1	1	0	1	0	0
REAR-END	0	3	0	3	0	3	0	3	0	3	0	3	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	1	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	3	1	4	0	3	1	3	1	3	1	4	0	0
YEAR 2011 TOTAL	**0**	**8**	**2**	**10**	**0**	**8**	**1**	**7**	**2**	**8**	**2**	**10**	**0**	**0**
FINAL TOTAL	**0**	**34**	**17**	**51**	**0**	**41**	**3**	**37**	**12**	**36**	**15**	**51**	**0**	**0**

EXHIBIT N

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03088	N	N	N	N	N	06/11/2013	11	SW NYBERG ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											27
CITY						TU		SB EX NYBERG ST C4	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
						2P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	34	F	OR-Y OR<25		000	038		27
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	INJB	36	M	OR-Y OR<25		000	000		00
00121	N	N	N	N	N	01/09/2011	19	SW NYBERG ST	INTER	CROSS	N	N	RAIN	PED	01	NONE 0	TURN-R											02
CITY						SU		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	WET	PED		PRVTE	NE-W									000		00
						9A			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y OR<25		014,029	000		02
																	- STRGHT W E	01	PED	INJC	27	M		I	XWLK 000	000		00
00998	N	N	N	N	N	02/21/2011	19	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	10
CITY						MO		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	SS-O		PRVTE	NE-SW								000		00
						6P			05	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	53	F	OR-Y OR<25		080,026	028		10
															02	NONE 0	STOP											
																PRVTE	NE-SW									011	013	00
																PSNGR CAR		01	DRVR	NONE	20	F	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	NE-SW									022		00
																PSNGR CAR		01	DRVR	INJC	22	F	OR-Y OR<25		000	000		00
01684	N	N	N	N	N	03/31/2011	19	SW NYBERG ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY						TH		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						6P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y OR<25		043,026	000		07
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	NONE	40	M	OR-Y OR<25		000	000		00
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		02	PSNG	INJC	30	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		03	PSNG	NO<5	04	F			000	000		00
04062	N	N	N			08/03/2011	19	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						WE		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						5P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	43	F	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	35	F	OR-Y		000	000		00

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04380	N	N	N	N	N	08/19/2011	19	SW NYBERG ST	INTER	CROSS	N	N	CLR	BIKE									OR<25				110	18
CITY						FR		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	TURN			-											
						8P			06	1		N	DUSK	INJ			STRGHT	01	BIKE	INJC	41	M		I XWLK	055	088	110	18
																	W E											
															01	NONE 0	TURN-R											
																PRVTE	NE-W									000		00
																PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		000	000		00
																							OR<25					
04800	N	N	N	N	N	09/06/2011	19	SW NYBERG ST	INTER	CROSS	N	N	CLR	BIKE	01	NONE 0	TURN-R											18
CITY						TU		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-W									016		00
						6A			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	39	F	OTH-Y		000	000		00
																							N-RES					
																	-											
																	STRGHT	01	BIKE	INJB	31	M		I XWLK	055	035		18
																	W E											
00902	N	N	N	N	N	02/22/2012	19	SW NYBERG ST	INTER	CROSS	N	N	UNK	BIKE	01	NONE 0	TURN-R											02,18,19
CITY						WE		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	UNK	TURN		PRVTE	NE-W									016		00
						4A			06	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	36	M	OR-Y		027	000		02
																							OR<25					
																	-											
																	STRGHT	01	BIKE	INJB	19	M		I XWLK	015	000		18,19
																	W E											
02616	N	N	N	N	N	05/21/2012	11	SW NYBERG ST	INTER	CROSS	N	N	CLD	PED	01	NONE 0	TURN-R											02
CITY						MO		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	WET	PED		PRVTE	NE-W									016		00
						5P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		029	000		02
																							OR<25					
																	-											
																	STRGHT	01	PED	INJB	12	M		I XWLK	000	000		00
																	W E											
03082	N	N	N			06/15/2012	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						6P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	34	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	43	F	OR-Y		000	000		00
																							OR<25					
04865	N	N	N			09/14/2012	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						6P			06	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		000	000		00
																							OR<25					
07555	N	N	N			11/26/2012	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	SPEC	ALC	DRUG	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
NONE						MO 1P		SB EX NYBERG ST C4	NE 06	 1	TRF SIGNAL	N N	DRY DAY	REAR INJ		PRVTE PSNGR CAR	NE-SW	01	DRVR	NONE	28	M	OTH-Y N-RES		026	000 000	00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	55	F	OR-Y OR<25		000	011 000	00 00
01702 NO RPT	N	N	N			04/06/2013 SA 2P	11	SW NYBERG ST SB EX NYBERG ST C4	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	RAIN WET DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	19	M	OR-Y OR<25		026	000 000	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	39	M	OR-Y OR>25		000	011 000	00 00
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	02	PSNG	INJC	36	F			000	011 000	00 00
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	03	PSNG	INJC	03	F			000	011 000	00 00
02227 NONE	N	N	N			04/16/2013 TU 6A	11	SB EX NYBERG ST C4 SW NYBERG ST	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00	M	UNK UNK		026	000 000	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	37	M	OR-Y OR<25		000	011 000	00 00
03411 CITY	N	N	N	N	N	06/23/2013 SU 8A	11	SW NYBERG ST SB EX NYBERG ST C4	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLD DRY DAY	BIKE TURN INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-R NE-W	01	DRVR	NONE	56	M	OR-Y OR<25		027	016 000	02 00 02
																	- STRGHT W E	01	BIKE	INJB	18	F		I	XWLK 060	035	00
03499 NONE	N	N	N			07/01/2013 MO 5P	11	SW NYBERG ST SB EX NYBERG ST C4	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	42	F	OR-Y OR<25		043	000 000	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	60	F	OR-Y OR<25		000	011 000	00 00
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	02	PSNG	INJC	30	F			000	011 000	00 00

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
06067	N	N	N			10/23/2013	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						WE		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						8A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y OR>25		026	000		07
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	NONE	43	F	OR-Y OR<25		000	000		00
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		02	PSNG	NO<5	04	F			000	000		00
07337	Y	Y	N	N	N	12/15/2013	11	SW NYBERG ST	INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											013	01,07
CITY						SU		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						12A			06	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25		047,043,026	000		01,07
															02	NONE 0	STOP											
																PRVTE	NE-SW									011	013	00
																PSNGR CAR		01	DRVR	INJC	20	F	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	39	F	OR-Y OR<25		000	000		00
02053	N	N	N			04/10/2014	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						7A			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	60	M	OR-Y OR>25		026	000		07
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	58	F	OR-Y OR<25		000	000		00
81579	N	N	N			04/24/2014	11	SB EX NYBERG ST C4	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		SW NYBERG ST	NE		TRF SIGNAL	N	WET	REAR		PRVTE	N -S									000		00
						7A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25		043	000		07
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	INJC	62	M	OR-Y OR<25		000	000		00
03143	N	N	N	N	N	06/06/2014	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	PED	01	NONE 0	TURN-R											04
CITY						FR		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	PED		PRVTE	NE-W									000		00
						6A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	58	M	OR-Y OR<25		000	000		00
																	- STRGHT W E	01	PED	INJB	41	F		I	XWLK 020	035		04
04034	N	N	N		Y	07/17/2014	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											16
CITY						TH		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						9P			06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		026	025		16

EXHIBIT N

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# INVEST	S P E E D	A L C	D R U G S	S C H L	W O R K	DATE DAY TIME	CLASS DIST FROM	CITY STREET FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT-TYPE (MEDIAN) LEGS (#LANES)	INT-REL TRAF- CONTL	OFFRD RNDBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	SPCL USE TRLR QTY OWNER V# TYPE	MOVE FROM TO	PRTC P# TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																					OR<25					
															02 NONE 0	STOP										
															PRVTE	NE-SW								012		00
															PSNGR CAR		01 DRVR	INJB	60	F	OTH-Y		000	000		00
																					OR<25					
05917	N	N	N		Y	10/09/2014	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	PED	01 NONE 0	STRGHT										02
CITY						TH		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	PED	PRVTE	NE-SW								000		00
						8P			06	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	28	M	OR-Y		029	000		02
																					OR<25					
																-										
																STRGHT	01 PED	INJC	61	M		I XWLK	000	035		00
																W E										
04407	N	N	N	N	N	08/02/2014	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE 0	STRGHT										07
COUNTY						SA		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW								000		00
						6P			06	1		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	32	M	OR-Y		026	000		07
																					OR<25					
															01 NONE 0	STRGHT										
															PRVTE	NE-SW								000		00
															PSNGR CAR		02 PSNG	NO<5	01	F			000	000		00
															02 NONE 0	STOP										
															PRVTE	NE-SW								011		00
															PSNGR CAR		01 DRVR	NONE	54	M	OR-Y		000	000		00
																					OR<25					
06886	N	N	N	N	N	11/15/2014	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	PED	01 NONE 0	TURN-R										04
CITY						SA		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	PED	PRVTE	NE-W								000		00
						10A			06	1		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	58	M	OR-Y		097	000		00
																					OR<25					
																-										
																STRGHT	01 PED	INJC	50	F		I XWLK	097	035		00
																W E										
01444	N	N	N	N	N	03/18/2015	11	SB EX NYBERG ST C4	INTER	CROSS	N	N	CLR	PED	01 NONE 0	TURN-R										02
CITY						WE		SW NYBERG ST	NE		TRF SIGNAL	N	DRY	PED	PRVTE	NE-W								000		00
						5P			06	1		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	37	M	OR-Y		029	000		02
																					OR<25					
																-										
																STRGHT	01 PED	INJC	38	M		I XWLK	000	035		00
																W E										
03435	N	N	N			06/19/2015	14	SW NYBERG ST	INTER	CROSS	N	N	CLR	BIKE	01 NONE 0	TURN-R										02
CITY						FR		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	TURN	PRVTE	NE-W								000		00
						3A			06	1		N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	58	M	OR-Y		027	000		02
																					OR<25					
																-										
																STRGHT	01 BIKE	INJC	24	M		I XWLK	000	035		00
																W E										
04977	Y	N	N	N	N	08/31/2015	14	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE 0	STRGHT									013	01
CITY						MO		SB EX NYBERG ST C4	NE		TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW								000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	S P E D	A L C	R G S	S H L	W C K	O R	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
							3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	67	M	OR-Y OR<25		047,026	000		01
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	52	F	OR-Y OR<25		000	011 000	013	00 00
																03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	60	F	OR-Y OR<25		000	022 000		00 00
05943 CITY	Y	Y	N	N	N	N	10/11/2015 SU 8P	11	SW NYBERG ST SB EX NYBERG ST C4	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DLIT	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	INJC	24	M	OR-Y OR>25		051,050,026	000	013	33,30,29 00 33,30,29
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	21	M	OR-Y OR<25		000	011 000	013	00 00
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	02	PSNG	INJC	21	M			000	011 000	013	00 00
																03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	47	M	OR-Y OR<25		000	011 000	013	00 00
																04	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	64	F	OR-Y OR<25		000	011 000		00 00
01418 NONE	N	N	N				03/16/2015 MO 8A	11	SW NYBERG ST SB EX NYBERG ST C4	INTER NE 06	CROSS 1	N TRF SIGNAL	N N N	CLR DRY DAWN	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00	M	UNK UNK		026	000		29 00 29
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	53	F	OR-Y OR<25		000	011 000		00 00
84234 NONE	N	N	N				10/13/2015 TU 7A	11	SW NYBERG ST SB EX NYBERG ST C4	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE TRUCK	STRGHT NE-SW	01	DRVR	NONE	00	M	OTH-Y N-RES		026	000		29 00 29
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	71	F	OR-Y OR<25		000	012 000		00 00
00323 CITY	N	N	N	N	N	N	01/19/2011 WE 11A	16	SW NYBERG ST SB EX NYBERG ST C4	INTER E 06	CROSS 1	N TRF SIGNAL	N N N	CLD DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	17	F	OR-Y OR<25		043,026	000		07 00 07
																01	NONE 0	STRGHT										

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PRVTE	E -W								000	00
																PSNGR CAR		02	PSNG	INJC	16	F		000	000	00
															02	NONE 0	STOP									
																PRVTE	E -W								011	00
																PSNGR CAR		01	DRVR	NONE	75	F	OR-Y OR<25	000	000	00
05899	N	N	N			10/25/2011	16	SW NYBERG ST	INTER	CROSS	N	N	UNK	O-OTHER	01	NONE 0	BACK										10
NONE						TU		SB EX NYBERG ST C4	E		TRF SIGNAL	N	UNK	BACK		PRVTE	W -E								000	00
						5P			06	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	28	M	OR-Y OR<25	011	000	10
															02	NONE 0	STRGHT									
																PRVTE	E -W								000	00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25	000	000	00
02991	N	N	N	N	N	06/11/2012	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-L										08
CITY						MO		SB EX NYBERG ST C4	E		L-GRN-SIG	N	DRY	TURN		PRVTE	NE-E								000	00
						9P			05	1		N	DLIT	INJ		MTRCYCLE		01	DRVR	INJC	41	M	OR-Y OR<25	007,080	088	08
															02	NONE 0	TURN-L									
																PRVTE	NE-E								000	00
																PSNGR CAR		01	DRVR	NONE	62	F	OR-Y OR<25	000	000	00
05321	N	N	N			09/21/2013	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-L										08
NONE						SA		SB EX NYBERG ST C4	E		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-E								000	00
						1P			05	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK UNK	002	000	08
															02	NONE 0	TURN-L									
																PRVTE	NE-E								000	00
																PSNGR CAR		01	DRVR	NONE	51	M	OR-Y OR<25	000	000	00
07409	N	N	N			12/05/2015	14	SW NYBERG ST	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										29
NONE						SA		SB EX NYBERG ST C4	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W								000	00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y OR<25	026	000	29
															02	NONE 0	STOP									
																PRVTE	E -W								011	00
																PSNGR CAR		01	DRVR	NONE	35	M	OR-Y OR<25	000	000	00
06249	N	N	N	N	N	10/29/2013	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 1	STRGHT										07,10
CITY						TU		SB EX NYBERG ST C4	W		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W								000	00
						11A			06	0		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	48	M	OTH-Y N-RES	026	000	07
															02	NONE 0	STOP									
																PRVTE	E -W								011	00
																PSNGR CAR		01	DRVR	NONE	73	F	OR-Y OR<25	009	000	10
07184	N	N	N			12/16/2011	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-R										08
NONE						FR		SB EX NYBERG ST C4	CN		R-GRN-SIG	N	DRY	TURN		PRVTE	NE-W								000	00
						9A			01	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y OR<25	003,006	000	08,14

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
															02	NONE 1 PRVTE SEMI TOW	TURN-R NE-W	01	DRVR	NONE	44	M	OTH-Y N-RES		000 000	000 000	00 00
07398 CITY	N	N	N	N	N	12/28/2011 WE 1P	16	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 02	CROSS 1	N ONE-WAY	N N N	RAIN WET DAY	ANGL-OTH TURN INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	25	M	OTH-Y OR<25		020,016	038	02,27
															02	NONE 0 PRVTE PSNGR CAR	TURN-L NE-E	01	DRVR	INJC	30	M	OR-Y OR<25		000	000 000	00 00
00418 NONE	Y	N	N			01/20/2012 FR 6A	16	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 01	CROSS 1	N TRF SIGNAL	N N N	RAIN WET DLIT	S-OTHER TURN PDO	01	UNKN 0 UNKN UNKNOWN	TURN-R NE-W	01	DRVR	NONE	00	M	UNK OR<25		047,042	000	01
															02	NONE 0 PRVTE PSNGR CAR	TURN-R NE-W	01	DRVR	NONE	65	M	OR-Y OR<25		000	000 000	00 00
00697 STATE	N	N	N	N	N	02/08/2012 WE 3P	16	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 01	CROSS 1	N TRF SIGNAL	N N N	CLD WET DAY	S-1TURN TURN INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	41	M	OR-Y OR<25		043,026	000	07
															02	NONE 0 PRVTE PSNGR CAR	TURN-R NE-W	01	DRVR	INJC	40	M	OR-Y OR>25		000	013 000	00 00
04267 NONE	N	N	N			08/15/2012 WE 10P	16	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 01	CROSS 1	N TRF SIGNAL	N N N	CLR DRY DLIT	S-OTHER REAR PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-R NE-W	01	DRVR	NONE	57	M	OR-Y OR<25		026	000	07
															02	UNKN 0 PRVTE UNKNOWN	TURN-R NE-W	01	DRVR	NONE	29	F	OR-Y UNK		000	013 000	00 00
05374 CITY	N	Y	N	N	N	10/09/2012 TU 10P	16	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 02	CROSS 1	N TRF SIGNAL	N N N	CLR DRY DLIT	ANGL-OTH TURN INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	20	M	OR-Y OR>25		020	000	04
															02	NONE 0 PRVTE PSNGR CAR	TURN-L NE-E	01	DRVR	INJC	20	F	SUSP OR<25		000	000 000	00 00
07443 NONE	N	N	N			09/21/2013 SA 1P	11	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 04	CROSS 1	N TRF SIGNAL	N N N	CLR WET DAY	S-OTHER TURN PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-L NE-E	01	DRVR	NONE	00	M	UNK UNK		002	000 000	08 08
															02	NONE 0 PRVTE PSNGR CAR	TURN-L NE-E	01	DRVR	NONE	39	F	OR-Y		000	000 000	00 00

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
00147	N	N	N			01/09/2013	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	TURN-R						OR>25				07
NONE						WE		SB EX NYBERG ST C4	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-W									000	00
						6P			01	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	27	M	OTH-Y N-RES		026	000	07
															01	NONE 0	TURN-R										
																PRVTE	NE-W									000	00
																PSNGR CAR		02	PSNG	INJC	19	F			000	000	00
															02	NONE 0	STOP										
																PRVTE	NE-W									011	00
																PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR<25		000	000	00
01653	N	N	N	N	N	04/04/2013	11	SW NYBERG ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT										04
CITY						TH		SB EX NYBERG ST C4	CN		TRF SIGNAL	N	WET	TURN		PRVTE	E -W									000	00
						11A			02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	72	F	OR-Y OR<25		020	000	04
															02	NONE 0	TURN-L										
																PRVTE	NE-E									000	00
																PSNGR CAR		01	DRVR	NONE	52	M	OR-Y OR<25		000	000	00
01931	N	N	N			04/18/2013	11	SB EX NYBERG ST C4	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										04
NONE						TH		SW NYBERG ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E -W									000	00
						2P			01	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y OR<25		097	000	00
															02	NONE 0	TURN-L										
																PRVTE	NE-E									000	00
																PSNGR CAR		01	DRVR	NONE	44	F	OR-Y OR<25		097	000	00
01705	N	N	N	N	N	03/26/2014	11	SW NYBERG ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-L										08
CITY						WE		SB EX NYBERG ST C4	CN		TRF SIGNAL	N	WET	TURN		PRVTE	NE-E									000	00
						7A			02	1		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	62	F	OR-Y OR<25		002	000	08
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	25	M	OR-Y OR<25		000	000	00
07640	N	N	N	N	N	12/17/2014	11	SW NYBERG ST	INTER	CROSS	N	N	RAIN	S-OTHER	01	NONE 0	TURN-L										08
CITY						WE		SB EX NYBERG ST C4	CN		TRF SIGNAL	N	WET	TURN		PRVTE	NE-E									000	00
						5P			04	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	56	M	OTH-Y N-RES		002,080	000	08
															02	NONE 0	TURN-L										
																PRVTE	NE-E									000	00
																PSNGR CAR		01	DRVR	NONE	46	M	OR-Y OR<25		000	000	00
06397	N	N	N	N	N	10/29/2015	14	SW NYBERG ST	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										04
CITY						TH		SB EX NYBERG ST C4	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	NE-SW									000	00
						1P			03	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	M	OTH-Y N-RES		000	000	00
															02	NONE 0	STRGHT										
																PRVTE	W -E									000	00

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
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CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at SB EX NYBERG ST C4, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 51

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	W S	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																01	PSNGR CAR		01	DRVR	INJC	39	F	OR-Y OR<25		020	000	04
04280 CITY	N	N	N	N	N		07/29/2015 WE 12P	14	SW NYBERG ST SB EX NYBERG ST C4	INTER CN 04	CROSS 1	N TRF SIGNAL	N N	CLR DRY DAY	S-STRGHT SS-O PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-L NE-E	01	DRVR	NONE	57	M	OTH-Y N-RES		007	000 000	08 00 08
																02	NONE 0 PRVTE PSNGR CAR	TURN-L NE-E	01	DRVR	NONE	19	F	OR-Y OR<25		000	000 000	00 00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at NB EF L BOONES F C3, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
FINAL TOTAL														

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at NB EF NYBERG #2 C6, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
FINAL TOTAL														

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at NB EF NYBERG ST C3, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	2	3	0	2	1	3	0	3	0	3	0	0
YEAR 2015 TOTAL	**0**	**1**	**2**	**3**	**0**	**2**	**1**	**3**	**0**	**3**	**0**	**3**	**0**	**0**
YEAR: 2014														
REAR-END	0	1	1	2	0	1	0	1	1	1	1	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**2**	**1**	**1**	**2**	**3**	**0**	**0**
YEAR: 2012														
REAR-END	0	1	0	1	0	2	0	1	0	1	0	1	0	0
YEAR 2012 TOTAL	**0**	**1**	**0**	**1**	**0**	**2**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**4**	**3**	**7**	**0**	**6**	**1**	**6**	**1**	**5**	**2**	**7**	**0**	**0**

EXHIBIT N

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EF NYBERG ST C3, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 7

SER# / INVEST	SPEED	ALCOHOL	DRUGS	SCHL BUS	WORK ZONE	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
81833	N	N	N			05/13/2014	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						TU		NB EF NYBERG ST C3	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000	00
						3P			09	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	43	F	OR-Y UNK		026	000	07
															02	NONE 0	STOP										
																PRVTE	SE-NW									011	00
																PSNGR CAR		01	DRVR	NONE	66	M	OR-Y OR<25		000	000	00
															02	NONE 0	STOP										
																PRVTE	SE-NW									011	00
																PSNGR CAR		02	PSNG	INJC	69	F			000	000	00
00327	N	N	N			01/19/2015	11	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	TURN-R										29
NONE						MO		NB EF NYBERG ST C3	NE		YIELD	N	DRY	REAR		PRVTE	S -E									000	00
						7A			09	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		026	000	29
															02	NONE 0	STOP										
																PRVTE	S -E									013	00
																PSNGR CAR		01	DRVR	NONE	00	M	UNK UNK		000	000	00
00796	N	N	N			02/12/2015	14	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	TURN-R										29
NONE						TH		NB EF NYBERG ST C3	NE		YIELD	N	DRY	REAR		PRVTE	E -N									000	00
						4P			09	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK OR<25		042	000	29
															02	NONE 0	TURN-R										
																PRVTE	E -N									000	00
																PSNGR CAR		01	DRVR	NONE	18	M	OR-Y OR<25		000	000	00
05705	N	N	N			09/30/2015	14	SW NYBERG ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 1	STRGHT										29
NONE						WE		NB EF NYBERG ST C3	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000	00
						9A			06	1		N	DAY	INJ		SEMI TOW		01	DRVR	NONE	56	M	OR-Y OR<25		026	000	29
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	INJC	45	F	OR-Y OR<25		000	000	00
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		02	PSNG	INJC	00	F			000	000	00
05749	N	N	N			10/23/2012	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						TU		NB EF NYBERG ST C3	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000	00
						1P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	60	M	OR-Y OR<25		026	000	07
															02	NONE 1	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		01	DRVR	INJC	37	M	OR-Y OR<25		000	000	00
															02	NONE 1	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		02	PSNG	INJC	35	M			000	000	00

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EF NYBERG ST C3, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 7

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY/TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
06173	N	N	N			10/20/2014	16	SW NYBERG ST	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										29
NONE						MO		NB EF NYBERG ST C3	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000	00
						5P			06	1		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25		026	000	29
															02	NONE 0	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		01	DRVR	NONE	64	F	OR-Y OR<25		000	000	00
04893	N	N	N			07/09/2014	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-1TURN	01	NONE 0	STRGHT										10
NONE						WE		NB EF NYBERG ST C3	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -N									000	00
						4A			01	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	78	M	OTH-Y N-RES		003	000	10
															02	NONE 0	TURN-L										
																PRVTE	S -W									000	00
																PSNGR CAR		01	DRVR	INJC	40	M	OR-Y OR<25		000	000	00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2015 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2014														
REAR-END	0	2	4	6	0	2	0	5	1	4	2	6	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	1	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**3**	**4**	**7**	**0**	**3**	**0**	**5**	**2**	**4**	**3**	**7**	**0**	**0**
YEAR: 2013														
BACKING	0	0	1	1	0	0	1	1	0	1	0	1	0	0
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	1	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	2	1	3	0	4	0	3	0	1	2	3	0	0
YEAR 2013 TOTAL	**0**	**3**	**3**	**6**	**0**	**5**	**2**	**6**	**0**	**4**	**2**	**6**	**0**	**0**
YEAR: 2012														
TURNING MOVEMENTS	0	2	2	4	0	6	0	3	1	2	2	4	0	0
YEAR 2012 TOTAL	**0**	**2**	**2**	**4**	**0**	**6**	**0**	**3**	**1**	**2**	**2**	**4**	**0**	**0**
YEAR: 2011														
REAR-END	0	2	1	3	0	2	0	3	0	3	0	3	0	0

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	2	0	2	0	3	1	1	1	1	1	2	0	0
YEAR 2011 TOTAL	**0**	**4**	**1**	**5**	**0**	**5**	**1**	**4**	**1**	**4**	**1**	**5**	**0**	**0**
FINAL TOTAL	**0**	**13**	**10**	**23**	**0**	**20**	**3**	**19**	**4**	**15**	**8**	**23**	**0**	**0**

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 23

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
00006	N	N	N			01/01/2011	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	UNKN 9	STRGHT										10
NONE						SA		NB EX NYBERG ST C1	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000	00
						2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y OR<25		026	000	10
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	43	M	OR-Y OR<25		000	000	00
01293	N	N	N			03/13/2013	16	SW NYBERG ST	INTER		N	N	CLD	ANGL-OTH	01	NONE 0	TURN-R										08
NONE						WE		NB EX NYBERG ST C1	E		TRF SIGNAL	N	DRY	TURN		PRVTE	SW-E									000	00
						11A			05	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	F	OR-Y OR<25		001,007	000	08
															02	NONE 0	STRGHT										
																PRVTE	W -E									000	00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25		000	000	00
82723	N	N	N			07/16/2014	16	SW NYBERG ST	INTER	4-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						WE		NB EX NYBERG ST C1	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000	00
						1P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25		026	000	07
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	44	M	OR-Y OR<25		000	000	00
07482	N	N	N			12/11/2014	16	SW NYBERG ST	INTER	4-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						TH		NB EX NYBERG ST C1	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000	00
						6P			06	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y OR<25		026	000	07
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	32	M	OR-Y OR<25		000	000	00
03064	N	N	N			06/12/2011	19	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT										07
NO RPT						SU		NB EX NYBERG ST C1	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						10A			09	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	50	F	OR-Y OR<25		042	000	07
															02	NONE 0	STRGHT										
																PRVTE	SW-NE									006	00
																MTRCYCLE		01	DRVR	INJB	41	M	OR-Y OR<25		000	000	00
01444	N	N	N	N	N	03/20/2012	16	SW NYBERG ST	INTER	3-LEG	N	N	RAIN	S-OTHER	01	NONE 0	TURN-R										07
CITY						TU		NB EX NYBERG ST C1	SE		TRF SIGNAL	N	WET	TURN		PRVTE	S -NE									000	00
						7P			09	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y OR<25		026	000	07
															02	NONE 0	TURN-R										
																PRVTE	S -NE									013	00
																PSNGR CAR		01	DRVR	INJC	39	F	OR-Y OR>25		000	000	00
															02	NONE 0	TURN-R										
																PRVTE	S -NE									013	00
																PSNGR CAR		02	PSNG	INJC	15	F			000	000	00

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 23

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
80865	N	N	N			03/06/2012	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-R									07
NONE						TU		NB EX NYBERG ST C1	SE		TRF SIGNAL	N	DRY	TURN		PRVTE	SW-E									000	00
						9A			09	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK OR<25		026	000	07
															02	NONE 0	TURN-R									
																PRVTE	SW-E									013	00
																PSNGR CAR		01	DRVR	NONE	58	M	OR-Y OR<25		000	000	00
07716	N	N	N			11/24/2012	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-OTHER	01	NONE 0	TURN-R										07
NONE						SA		NB EX NYBERG ST C1	SE		TRF SIGNAL	N	DRY	TURN		PRVTE	S -E									013	00
						11A			09	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		026	000	07
															02	NONE 0	TURN-R									
																PRVTE	S -E									013	00
																PSNGR CAR		01	DRVR	INJC	42	M	OTH-Y N-RES		000	000	00
															02	NONE 0	TURN-R									
																PRVTE	S -E									013	00
																PSNGR CAR		02	PSNG	INJC	41	F			000	000	00
															02	NONE 0	TURN-R									
																PRVTE	S -E									013	00
																PSNGR CAR		03	PSNG	INJC	12	M			000	000	00
															02	NONE 0	TURN-R									
																PRVTE	S -E									013	00
																PSNGR CAR		04	PSNG	INJC	09	F			000	000	00
02221	N	N	N	N	N	05/02/2013	11	SW NYBERG ST	INTER	4-LEG	N	N	CLR	S-OTHER	01	NONE 0	TURN-R										07
STATE						TH		NB EX NYBERG ST C1	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-E									000	00
						3P			09	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	M	OR-Y OR<25		043,026	000	07
															02	POLCE 0	STOP									
																PRVTE	SW-E									013	00
																MTRCYCLE		01	DRVR	INJC	67	M	OR-Y OR<25		000	000	00
00288	N	N	N			01/17/2013	11	NB EX NYBERG ST C1	INTER	3-LEG	N	N	CLR	O-1STOP	01	NONE 0	BACK										10
NONE						TH		SW NYBERG ST	SE		TRF SIGNAL	N	DRY	BACK		PRVTE	NE-SW									000	00
						11A			00	2		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	48	M	OTH-Y N-RES		011,014	000	10
															02	NONE 0	STOP									
																PRVTE	SW-NE									011	00
																PSNGR CAR		01	DRVR	NONE	36	F	OR-Y OR<25		000	000	00
02845	N	N	N			05/31/2013	11	SW NYBERG ST	INTER	3-LEG	N	N	CLR	BIKE	01	NONE 0	TURN-R										02
NONE						FR		NB EX NYBERG ST C1	SE		TRF SIGNAL	N	DRY	TURN		PRVTE	SW-E									000	00
						5A			09	2		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	28	F	OR-Y OR<25		027	000	02

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 23

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
															01		STRGHT E W	01	BIKE	INJB	18	M		I INRD	000	000	00
03593 NONE	N	N	N			06/27/2014 FR 7A	11	SW NYBERG ST NB EX NYBERG ST C1	INTER SE 09	4-LEG 2	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	01	DRVR	NONE	42	M	OTH-Y N-RES		026	000	29 00 29
															02	NONE 0 PRVTE PSNGR CAR	STOP SW-NE	01	DRVR	INJC	31	F	OR-Y OR<25		000	011 000	00 00
															02	NONE 0 PRVTE PSNGR CAR	STOP SW-NE	02	PSNG	NO<5	03	M			000	011 000	00 00
04381 NONE	N	N	N			08/19/2011 FR 6A	19	SW NYBERG ST NB EX NYBERG ST C1	INTER S 05	3-LEG 1	N ONE-WAY	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	18	M	OR-Y OR>25		026	000	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP S -N	01	DRVR	INJC	26	M	OR-Y OR<25		000	011 000	00 00
07352 CITY	N	N	N	N	N	12/16/2013 MO 12P	16	SW NYBERG ST NB EX NYBERG ST C1	INTER S 06	4-LEG 2	N TRF SIGNAL	N N	CLR DRY DAY	S-STRGHT SS-O PDO	01	NONE 1 PRVTE SEMI TOW	STRGHT S -N	01	DRVR	NONE	45	M	OTH-Y N-RES		000	000	13 00 00
															02	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	47	F	OR-Y OR<25		045	000	00 13
01264 NONE	N	N	N			03/03/2014 MO 3P	16	SW NYBERG ST NB EX NYBERG ST C1	INTER S 06	3-LEG 1	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	24	M	OR-Y OR<25		043	000	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP S -N	01	DRVR	NONE	24	M	OR-Y OR<25		000	011 000	00 00
06075 NONE	N	N	N			10/16/2014 TH 5A	11	SW NYBERG ST NB EX NYBERG ST C1	INTER S 06	4-LEG 2	N TRF SIGNAL	N N	CLD WET DLIT	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	24	M	OR-Y OR<25		026	000	29 00 29
															02	NONE 0 PRVTE PSNGR CAR	STOP S -N	01	DRVR	NONE	36	M	OR-Y OR>25		000	012 000	00 00
07432 NONE	N	N	N			12/10/2014 WE 5P	11	SW NYBERG ST NB EX NYBERG ST C1	INTER S 06	4-LEG 1	N TRF SIGNAL	N N	RAIN WET DLIT	S-1STOP SS-O INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	00	M	OTH-Y N-RES		080	000	10 00 10
															02	NONE 0	STOP										

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 23

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PRVTE	S -N									012	00
																PSNGR CAR		01	DRVR	INJC	58	F	OR-Y OR<25		000	000	00
02081	N	N	N			04/12/2014	11	SW NYBERG ST	INTER	4-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											10
NONE						SA		NB EX NYBERG ST C1	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000	00
						8A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	54	F	OR-Y OR<25		014,026	000	10
															02	NONE 0	STOP										
																PRVTE	S -N									011	00
																PSNGR CAR		01	DRVR	INJC	40	F	OR-Y OR<25		000	000	00
07864	N	N	N	N	N	12/19/2015	11	SW NYBERG ST	INTER	4-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						SA		NB EX NYBERG ST C1	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000	00
						12P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	41	M	SUSP OR<25		043	000	07
															02	NONE 0	STOP										
																PRVTE	S -N									011	00
																PSNGR CAR		01	DRVR	NONE	57	F	OR-Y OR<25		000	000	00
															02	NONE 0	STOP										
																PRVTE	S -N									011	00
																PSNGR CAR		02	PSNG	INJC	61	M			000	000	00
01575	N	N	N	N	N	03/27/2011	16	SW NYBERG ST	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-L											16
CITY						SU		NB EX NYBERG ST C1	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -W									000	00
						2A			01	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJB	49	M	OR-Y OR<25		042	025	16
															02	NONE 0	STRGHT										
																PRVTE	E -W									000	00
																PSNGR CAR		01	DRVR	INJC	58	M	OR-Y OR>25		000	000	00
05893	N	N	N	N	N	10/25/2011	16	SW NYBERG ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01	NONE 1	TURN-L											04
CITY						TU		NB EX NYBERG ST C1	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -W									000	00
						8A			02	1		N	DAY	INJ		SEMI TOW		01	DRVR	NONE	58	M	OR-Y OR<25		000	000	00
															02	NONE 0	STRGHT										
																PRVTE	E -W									000	00
																PSNGR CAR		01	DRVR	INJC	27	F	OR-Y OR<25		020	000	04
06534	N	N	N			11/22/2012	16	SW NYBERG ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01	NONE 0	TURN-L											04
CITY						TH		NB EX NYBERG ST C1	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -W									000	00
						10P			04	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y OR>25		000	000	00
															01	NONE 0	TURN-L										
																PRVTE	S -W									000	00
																PSNGR CAR		02	PSNG	NO<5	01	M			000	000	00
															02	NONE 0	STRGHT										
																PRVTE	W -E									000	00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y OR<25		020	000	04

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NB EX NYBERG ST C1, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 23

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	W	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
02598	N	N	N	N	N	N	05/18/2013	16	SW NYBERG ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										04
CITY							SA		NB EX NYBERG ST C1	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W -E									000	00
							1A			04	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y OR<25		020	000	04
																02	NONE 0	TURN-L										
																	PRVTE	S -W									000	00
																	PSNGR CAR		01	DRVR	INJC	20	F	OR-Y N-RES		000	000	00
																02	NONE 0	TURN-L										
																	PRVTE	S -W									000	00
																	PSNGR CAR		02	PSNG	INJC	20	M			000	000	00
																02	NONE 0	TURN-L										
																	PRVTE	S -W									000	00
																	PSNGR CAR		03	PSNG	INJC	20	M			000	000	00

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST and Intersectional Crashes at NYBERG ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 261

SER# INVEST	S P E D / D R A C / R U G S / S C H L / W O R K	DATE DAY TIME	CLASS DIST FROM	CITY STREET FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT-TYPE (MEDIAN) LEGS (#LANES)	INT-REL TRAF- CONTL	OFFRD RNDBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	SPCL USE TRLR QTY OWNER V# TYPE	MOVE FROM TO	PRTC P# TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
											PSNGR CAR		01 DRVR	INJC	20	F	OR-Y		000	000	00
																	N-RES				
											02 NONE 0	TURN-L									
											PRVTE	S -W								000	00
											PSNGR CAR		02 PSNG	INJC	20	M			000	000	00
											02 NONE 0	TURN-L									
											PRVTE	S -W								000	00
											PSNGR CAR		03 PSNG	INJC	20	M			000	000	00
04434	N N N N N	08/04/2014	16	SW NYBERG ST	ALLEY		N	N	CLR	PED	01 NONE 0	TURN-R									02
CITY		MO	498	NB EX NYBERG ST C1	E	(NONE)	TRF SIGNAL	N	DRY	PED	PRVTE	N -W								018	00
		10A			08			N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	73	M	OR-Y		029	000	02
						(04)											OR<25				
												-									
												STRGHT	01 PED	INJC	17	F		MDBLK	000	000	00
																		XWK			
												N S									
01865	N N N	04/10/2011	16	SW NYBERG ST	ALLEY		N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT									04
CITY		SU	530	NB EX NYBERG ST C1	E	(NONE)	TRF SIGNAL	N	DRY	TURN	PRVTE	W -E								000	00
		3P			07			N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	77	F	OR-Y		000	000	00
						(04)											OR<25				
											01 NONE 0	STRGHT									
											PRVTE	W -E								000	00
											PSNGR CAR		02 PSNG	INJC	76	M			000	000	00
											02 NONE 0	TURN-L									
											PRVTE	S -W								000	00
											PSNGR CAR		01 DRVR	INJC	25	F	OR-Y		020	000	04
																	OR<25				
04309	N N N N N	08/15/2011	16	SW NYBERG ST	ALLEY		N	N	CLR	O-OTHER	01 NONE 0	TURN-R									08
CITY		MO	530	NB EX NYBERG ST C1	E	(NONE)	TRF SIGNAL	N	DRY	TURN	PRVTE	N -W								018	00
		7P			08			N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	40	M	OR-Y		007	088	08
						(04)											OR<25				
											02 NONE 0	TURN-L									
											PRVTE	S -W								018	00
											MTRCYCLE		01 DRVR	INJA	42	M	OR-Y		000	000	00
																	OR<25				
05034	N N N N N	09/19/2011	16	SW NYBERG ST	ALLEY		N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT									04
CITY		MO	530	NB EX NYBERG ST C1	E	(NONE)	TRF SIGNAL	N	DRY	ANGL	PRVTE	E -W								000	00
		3P			08			N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	50	M	OR-Y		020	000	04
						(04)											OR<25				
											02 NONE 0	STRGHT									
											PRVTE	S -N								019	00
											PSNGR CAR		01 DRVR	NONE	35	F	SUSP		000	000	00
																	OR<25				
04004	N N N N N	08/03/2012	16	SW NYBERG ST	ALLEY		N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT									04
CITY		FR	550	NB EX NYBERG ST C1	E	(NONE)	TRF SIGNAL	N	DRY	ANGL	PRVTE	E -W								000	00
		11A			08			N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	29	F	OR-Y		020	000	04
						(04)											OR<25				

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST and Intersectional Crashes at NYBERG ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 261

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / LIGHT	SURF	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	02	PSNG	NO<5	03	M			000	000 000	00 00
																02	NONE 0 PRVTE PSNGR CAR	STRGHT N -S	01	DRVR	INJA	20	F	OR-Y OR<25		000	018 000	00 00
00585 NONE	N	N	N			01/25/2015 SU 5P	16 560	SW NYBERG ST NB EX NYBERG ST C1	ALLEY E 07	(NONE) (05)	N TRF SIGNAL	N N	CLR DRY DUSK	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-R S -E	01	DRVR	NONE	47	M	OR-Y OR<25		026	000 000	07 00 07
																02	NONE 0 PRVTE PSNGR CAR	STOP S -E	01	DRVR	INJC	50	M	OR-Y OR<25		000	011 000	00 00
06012 NONE	N	N	N			10/14/2015 WE 9A	16 584	SW NYBERG ST NB EX NYBERG ST C1	ALLEY E 08	(NONE) (04)	N TRF SIGNAL	N N	CLR DRY DAY	ANGL-OTH TURN PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	31	M	OR-Y OR<25		000	000 000	08 00 00
																02	NONE 0 PRVTE PSNGR CAR	TURN-R N -W	01	DRVR	NONE	26	F	OR-Y OR<25		007	018 000	00 08
04859 CITY	N	N	N	N	N	09/02/2013 MO 12P	16 620	SW NYBERG ST NB EX NYBERG ST C1	ALLEY E 02	(NONE) (04)	N TRF SIGNAL	N N	CLR DRY DAY	BIKE TURN INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-R E -N	01	DRVR	NONE	43	F	OR-Y OR<25		027	019 000	02,18 00 02
																	- STRGHT W E	01	BIKE	INJB	41	M	I XWK?		060	035	18
00670 CITY	N	N	N	N	N	02/05/2014 WE 2P	16 624	SW NYBERG ST NB EX NYBERG ST C1	ALLEY E 07	(NONE) (04)	N TRF SIGNAL	N N	CLR DRY DAY	O-1 L-TURN TURN INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-R S -E	01	DRVR	NONE	66	M	OR-Y OR>25		001	018 000	08 00 08
																02	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	01	DRVR	INJC	27	F	OR-Y OR>25		000	018 000	00 00
07048 CITY	N	N	N	N	N	12/04/2013 WE 8A	16	SW NYBERG ST NB EX NYBERG ST C1	STRGHT E 06	(DIVMD) (04)	N NONE	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	01	DRVR	NONE	44	F	OR-Y OR<25		026	000 000	07 00 07
																02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR	INJC	47	M	OR-Y OR<25		000	011 000	00 00
																02	NONE 0 PRVTE PSNGR CAR	STOP W -E	02	PSNG	INJC	14	F			000	011 000	00 00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG ST at NYBERG LN, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
ANGLE	0	1	0	1	0	1	0	1	0	0	1	1	0	0
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2015 TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**2**	**1**	**1**	**2**	**3**	**0**	**0**
YEAR: 2014														
REAR-END	0	2	0	2	0	2	0	2	0	2	0	2	0	0
YEAR 2014 TOTAL	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**0**
YEAR: 2013														
REAR-END	0	1	0	1	0	2	0	1	0	1	0	1	0	0
YEAR 2013 TOTAL	**0**	**1**	**0**	**1**	**0**	**2**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**5**	**1**	**6**	**0**	**6**	**0**	**5**	**1**	**4**	**2**	**6**	**0**	**0**

EXHIBIT N

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NYBERG LN, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 6

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
82844	N	N	N	N	N	07/24/2014	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						TH	0	SW NYBERG LN	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
						12P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	F	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	INJC	49	F	OR-Y OR<25		000	000		00
03391	N	N	N			06/26/2013	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						WE	0	SW NYBERG LN	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	M	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	32	F	OR-Y OR<25		000	000		00
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		02	PSNG	INJC	87	F			000	000		00
07220	N	N	N			12/02/2014	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	UNKN 0	STRGHT											07
NONE						TU	0	SW NYBERG LN	W		TRF SIGNAL	N	DRY	REAR		UNKN	W -E									000		00
						3P			06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	Unk	UNK UNK		026	000		07
															02	NONE 0	STOP											
																PRVTE	W -E									011	013	00
																PSNGR CAR		01	DRVR	INJC	45	F	OR-Y OR<25		000	022		00
															03	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	NONE	32	M	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		02	PSNG	NO<5	04	F			000	000		00
															03	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		03	PSNG	NO<5	04	F			000	000		00
05956	N	N	N	N	N	10/11/2015	16	SW NYBERG ST	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											29
CITY						SU	0	SW NYBERG LN	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	28	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	W -E									012		00
																PSNGR CAR		01	DRVR	INJC	71	M	OR-Y OR<25		000	000		00
00135	N	N	N			01/09/2015	16	SW NYBERG ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										128	04
CITY						FR	0	SW NYBERG LN	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									000	128	00
						4P			03	0		Y	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	73	M	OR-Y		000	000		00

EXHIBIT N

09/08/2017 TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG ST at NYBERG LN, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 6

SER# / INVEST	S P E A U C O / D R S W / E L G H R / D C S L K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
																			OR<25					
											02	NONE 0	STRGHT											
												PRVTE	NE-SW									019		00
												PSNGR CAR		01	DRVR	INJB	54	F	OR-Y		020	000		04
																			OR<25					
01607	N N N N N	03/27/2015	16	SW NYBERG ST	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		FR	0	SW NYBERG LN	CN		TRF SIGNAL	N	WET	TURN		PRVTE	W -E									000		00
		7P			03	0		Y	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	E -SW									019		00
												PSNGR CAR		01	DRVR	NONE	29	M	OR-Y		004,028	000		02
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	E -SW									019		00
												PSNGR CAR		02	PSNG	NO<5	01	F			000	000		00
											02	NONE 0	TURN-L											
												PRVTE	E -SW									019		00
												PSNGR CAR		03	PSNG	NO<5	03	F			000	000		00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

NYBERG LN at 65TH AVE, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**

EXHIBIT N

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

NYBERG LN at 65TH AVE, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 1

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
04780	N	N	N	N	N	09/05/2011	16	SW NYBERG LN	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
CITY						MO	0	SW 65TH AVE	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000	00
						1P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	16	F	OR-Y OR<25		043,026	000	07
															02	NONE 0	STOP										
																PRVTE	S -N									011	00
																PSNGR CAR		01	DRVR	INJC	18	F	OR-Y OR<25		000	000	00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

65TH AVE at NYBERG ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2015 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**1**	**1**	**2**	**0**	**2**	**0**	**2**	**0**	**1**	**1**	**2**	**0**	**0**
YEAR: 2012														
BACKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	1
YEAR 2012 TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**3**	**0**	**3**	**0**	**3**	**0**	**1**
FINAL TOTAL	**0**	**4**	**2**	**6**	**0**	**5**	**0**	**6**	**0**	**5**	**1**	**6**	**0**	**1**

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

65TH AVE at NYBERG ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 6

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
07740	N	N	N	N	N	12/13/2012	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	O-1STOP	01	NONE 0	BACK											27
NONE						TH	0	SW 65TH AVE	N		TRF SIGNAL	N	DRY	BACK		PRVTE	S -N									000		00
						1P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	29	F	OR-Y OR>25		016,011	000		27
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	NONE	43	M	OR-Y OR<25		000	000		00
06010	N	N	N			10/19/2013	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												27,07
NONE						SA	0	SW 65TH AVE	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	44	F	OR-Y OR<25		016,026	038		27,07
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25		000	000		00
03376	N	N	N	N	N	07/02/2012	16	SW NYBERG ST	INTER	3-LEG	N	Y	UNK	BIKE													001,110	02
CITY						MO	0	SW 65TH AVE	S		TRF SIGNAL	N	DRY	TURN			-											
						5P			05	0		Y	DAY	INJ			STRGHT W E	01	BIKE	INJC	22	M		I XWLK	000	000	001,110	00
															01	NONE 0	TURN-R											
																PRVTE	W -S									019	110	00
																PSNGR CAR		01	DRVR	NONE	41	M	OR-Y OR<25		027	000		02
06315	N	N	N	N	N	11/13/2012	16	SW NYBERG ST	INTER	3-LEG	N	N	CLD	S-1STOP	01	UNKN 0	STRGHT												07
CITY						TU	0	SW 65TH AVE	W		TRF SIGNAL	N	DRY	REAR		UNKN	W -E									000		00
						9A			06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	M	UNK UNK		026	000		07
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	43	F	OR-Y OR<25		000	000		00
01248	N	N	N	N	N	03/08/2015	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												29
CITY						SU	0	SW 65TH AVE	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						6P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																MTRCYCLE		01	DRVR	INJB	51	M	OR-Y OR<25		000	000		00
00843	N	N	N	N	N	02/17/2013	16	SW NYBERG ST	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L												02
CITY						SU	0	SW 65TH AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E -S									019		00
						5P			03	0		Y	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	37	M	EXP OR<25		028,004	000		02
															02	NONE 0	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		01	DRVR	INJB	29	M	OR-Y OR<25		000	000		00

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

65TH AVE at BORLAND RD, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
ANGLE	0	1	0	1	0	2	0	0	1	0	1	1	0	0
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	2	3	0	2	0	2	1	1	2	3	0	0
YEAR 2014 TOTAL	**0**	**2**	**3**	**5**	**0**	**4**	**0**	**3**	**2**	**2**	**3**	**5**	**0**	**0**
YEAR: 2013														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	2	2	0	0	0	0	2	2	0	2	0	0
YEAR 2013 TOTAL	**0**	**1**	**3**	**4**	**0**	**1**	**0**	**2**	**2**	**4**	**0**	**4**	**0**	**0**
FINAL TOTAL	**0**	**3**	**6**	**9**	**0**	**5**	**0**	**5**	**4**	**6**	**3**	**9**	**0**	**0**

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

65TH AVE at BORLAND RD, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 9

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03617	N	N	N	N	N	07/07/2013	16	SW BORLAND RD	INTER	3-LEG	N	N	CLR	S-STRGHT	01	UNKN 0	STRGHT											07
CITY						SU	0	SW 65TH AVE	S		TRF SIGNAL	N	DRY	REAR		UNKN	S -N										000		00
						3P			06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	Unk	UNK UNK		042	000		07
															02	NONE 0	STRGHT											
																PRVTE	S -N									006		00
																PSNGR CAR		01	DRVR	INJC	18	M	OR-Y OR<25		000	000		00
02510	N	N	N			05/03/2014	16	SW BORLAND RD	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-R												08
CITY						SA	0	SW 65TH AVE	S		TRF SIGNAL	N	WET	TURN		PRVTE	W -S									000		00
						8P			06	0		Y	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		080,001	017		08
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	NONE	67	M	OR-Y OR<25		000	000		00
04113	N	N	N	N	N	07/21/2014	16	SW BORLAND RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											004	07
CITY						MO	0	SW 65TH AVE	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						7A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OTH-Y OR<25		043,026	000		07
															02	NONE 0	STOP											
																PRVTE	S -N									011	004	00
																PSNGR CAR		01	DRVR	NONE	40	F	OR-Y OR<25		000	000		00
00603	N	N	N			02/01/2013	16	SW BORLAND RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT												04
NONE						FR	0	SW 65TH AVE	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									018		00
						10A			04	0		Y	DAY	PDO		PSNGR CAR		01	DRVR	NONE	44	F	OR-Y OR<25		097	000		00
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	NONE	37	M	OR-Y OR<25		097	000		00
81166	N	N	N	N	N	04/06/2013	16	SW BORLAND RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT												02
CITY						SA	0	SW 65TH AVE	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N									000		00
						8A			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y OR<25		000	000		00
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	NONE	42	M	OR-Y OR<25		028,004	000		02
06017	N	N	N	N	N	04/06/2013	16	SW BORLAND RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT												02
CITY						SA	0	SW 65TH AVE	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N									000		00
						8A			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y OR<25		000	000		00
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	NONE	42	M	OTH-Y OR<25		028,004	000		02
81113	N	N	N	N	N	03/20/2014	16	SW BORLAND RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT												02
CITY						TH	0	SW 65TH AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -N									000		00

EXHIBIT N

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

65TH AVE at BORLAND RD, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 9

SER# / INVEST	S P E E D	A L C	D R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	SPCL USE / TRLR QTY / OWNER / V# TYPE	MOVE / FROM / TO	PRTC / P# TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT EVENT	CAUSE
						7A			04	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	55	M	NONE		000	000	00
																					OR<25				
															02 NONE 0	TURN-L									
															PRVTE	N -E								000	00
															PSNGR CAR		01 DRVR	NONE	29	F	OR-Y		028,004	000	02
																					OR<25				
06422	N	N	N	N	N	10/28/2014	16	SW BORLAND RD	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01 NONE 0	STRGHT									04
CITY						TU	0	SW 65TH AVE	CN		TRF SIGNAL	N	WET	ANGL	PRVTE	W -E								018	00
						7A			04	0		Y	DLIT	INJ	PSNGR CAR		01 DRVR	INJB	90	F	OR-Y		020	000	04
																					OR<25				
															02 NONE 0	STRGHT									
															PRVTE	S -N								000	00
															PSNGR CAR		01 DRVR	INJC	55	M	OR-Y		000	000	00
																					OR<25				
05295	N	N	N	N	N	09/11/2014	16	SW BORLAND RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 0	TURN-R									02
CITY						TH	0	SW 65TH AVE	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	W -S								018	00
						5P			03	0		Y	DAY	INJ	PSNGR CAR		01 DRVR	INJC	23	F	OR-Y		028	000	02
																					OR>25				
															02 NONE 0	STRGHT									
															PRVTE	N -S								000	00
															PSNGR CAR		01 DRVR	INJC	61	M	OR-Y		000	000	00
																					OR<25				

EXHIBIT N

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

65TH AVE at SAGERT ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
ANGLE	0	2	0	2	0	2	0	2	0	2	0	2	0	0
REAR-END	0	1	0	1	0	2	0	1	0	1	0	1	0	0
YEAR 2015 TOTAL	**0**	**3**	**0**	**3**	**0**	**4**	**0**	**3**	**0**	**3**	**0**	**3**	**0**	**0**
YEAR: 2014														
REAR-END	0	1	2	3	0	2	0	1	1	3	0	3	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	1	1	2	0	2	0	0
YEAR 2014 TOTAL	**0**	**2**	**3**	**5**	**0**	**3**	**0**	**2**	**2**	**5**	**0**	**5**	**0**	**0**
YEAR: 2013														
TURNING MOVEMENTS	0	1	1	2	0	1	0	1	1	2	0	2	0	0
YEAR 2013 TOTAL	**0**	**1**	**1**	**2**	**0**	**1**	**0**	**1**	**1**	**2**	**0**	**2**	**0**	**0**
YEAR: 2012														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	0	0	1	1	0	1	0	0
YEAR 2012 TOTAL	**0**	**1**	**1**	**2**	**0**	**2**	**0**	**0**	**2**	**1**	**1**	**2**	**0**	**0**
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**1**	**1**	**2**	**0**	**1**	**0**	**1**	**1**	**2**	**0**	**2**	**0**	**0**

EXHIBIT N

65TH AVE at SAGERT ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

FINAL TOTAL	**0**	**8**	**6**	**14**	**0**	**11**	**0**	**7**	**6**	**13**	**1**	**14**	**0**	**0**

EXHIBIT N

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

65TH AVE at SAGERT ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 14

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
01328	N	N	N			09/07/2014	16	SW SAGERT ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										29
NONE						SU	0	SW 65TH AVE	N		FLASHBCN-R	N	DRY	REAR		PRVTE	N -S									000	00
						8A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		026	000	29
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		01	DRVR	NONE	30	F	OR-Y OR<25		000	000	00
05203	N	N	N			09/08/2014	16	SW SAGERT ST	INTER	3-LEG	N	N	UNK	S-1STOP	01	NONE 0	STRGHT										07
NONE						MO	0	SW 65TH AVE	N		STOP SIGN	N	UNK	REAR		PRVTE	N -S									000	00
						5P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y OR<25		026	000	07
															02	UNKN 0	STOP										
																UNKN	N -S									011	00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK UNK		000	000	00
07168	N	N	N			11/29/2014	16	SW SAGERT ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										10
NO RPT						SA	0	SW 65TH AVE	N		FLASHBCN-R	N	WET	REAR		PRVTE	N -S									000	00
						1P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	71	M	OR-Y OR<25		014,026	000	10
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		01	DRVR	INJC	58	F	OTH-Y N-RES		000	000	00
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		02	PSNG	INJC	74	M			000	000	00
03905	N	Y	N	N	N	07/12/2015	17	SW SAGERT ST	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										07
CITY						SU	0	SW 65TH AVE	N		STOP SIGN	N	DRY	REAR		PRVTE	N -S									000	00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	M	OR-Y OR<25		043	000	07
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		01	DRVR	INJC	28	F	OR-Y OR<25		000	000	00
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		02	PSNG	INJC	46	F			000	000	00
01953	N	N	N			04/15/2011	17	SW SAGERT ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NONE						FR	0	SW 65TH AVE	W		FLASHBCN-R	N	WET	REAR		PRVTE	W -E									000	00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	15	F	OR-Y OR<25		026	000	07
															02	NONE 0	STOP										
																PRVTE	W -E									012	00
																PSNGR CAR		01	DRVR	INJC	22	M	OR-Y OR<25		000	000	00
00414	N	N	N			01/22/2011	16	SW SAGERT ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	UNKN 0	TURN-L										02
NONE						SA	0	SW 65TH AVE	CN		FLASHBCN-R	N	DRY	TURN		PRVTE	W -N									015	00
						1P			03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		028	000	02

EXHIBIT N

CITY OF TUALATIN, WASHINGTON COUNTY

65TH AVE at SAGERT ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 14

SER# / INVEST	SPEED	ALCOHOL	DRUGS	SCHOOL	WORK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	S -W									000	00
																PSNGR CAR		01	DRVR	NONE	41	M	OR-Y		000	000	00
																							OR<25				
80055	N	N	N			01/06/2012		16	SW SAGERT ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT										02
NO RPT						FR	0		SW 65TH AVE	CN		FLASHBCN-R	N	WET	ANGL		PRVTE	N -S								015	00
						5P				01	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	60	F	OR-Y		028	000	02
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	E -W									015	00
																PSNGR CAR		01	DRVR	NONE	41	M	OR-Y		000	000	00
																							OR<25				
03948	N	N	N	N	N	07/31/2012		16	SW SAGERT ST	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										02
CITY						TU	0		SW 65TH AVE	CN		FLASHBCN-R	N	WET	TURN		PRVTE	N -S								015	00
						11A				01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	54	M	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	S -W									015	00
																PSNGR CAR		01	DRVR	INJC	40	F	OR-Y		004,028	000	02
																							OR<25				
04939	N	N	N	N	N	09/05/2013		16	SW SAGERT ST	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT										03
CITY						TH	0		SW 65TH AVE	CN		STOP SIGN	N	WET	TURN		PRVTE	N -S								000	00
						12P				03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y		021	000	03
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	W -N									015	00
																PSNGR CAR		01	DRVR	INJC	25	F	OR-Y		000	000	00
																							OR<25				
05893	N	N	N			10/15/2013		16	SW SAGERT ST	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										02
NONE						TU	0		SW 65TH AVE	CN		FLASHBCN-R	N	DRY	TURN		PRVTE	N -S								000	00
						5P				01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	S -W									000	00
																PSNGR CAR		01	DRVR	NONE	27	M	OR-Y		028	000	02
																							OR<25				
01373	N	N	N	N	N	03/10/2014		16	SW SAGERT ST	INTER	3-LEG	N	N	CLD	O-1 L-TURN	01	NONE 0	TURN-L										03
CITY						MO	0		SW 65TH AVE	CN		FLASHBCN-R	N	WET	TURN		PRVTE	S -W								015	00
						7A				01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	N -S									000	00
																PSNGR CAR		01	DRVR	NONE	51	F	OR-Y		021	000	03
																							OR>25				
04033	N	N	N	N	N	07/17/2014		16	SW SAGERT ST	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										03
CITY						TH	0		SW 65TH AVE	CN		FLASHBCN-R	N	DRY	TURN		PRVTE	N -S								000	00
						1P				01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	58	F	OR-Y		021	000	03
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	S -W									015	00

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
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CITY OF TUALATIN, WASHINGTON COUNTY

65TH AVE at SAGERT ST, City of Tualatin, Washington County, 01/01/2011 to 12/31/2015

Total crash records: 14

SER# / INVEST	S P E D	A L C	D R S L	S U G S	W C H L	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	INJC	34	M	OR-Y OR<25		000	000	00
04378 CITY	N	N	N	N	N		08/03/2015 MO 5P	17 0	SW SAGERT ST SW 65TH AVE	INTER CN 01	3-LEG 0	N STOP SIGN	N N	CLR DRY DAY	ANGL-OTH ANGL INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	22	M	OR-Y OR<25		021	000 000	03 00 03
																02	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	01	DRVR	INJC	44	M	OTH-Y OR<25		000	000 000	00 00
02239 CITY	N	N	N	N	N		04/27/2015 MO 5P	17 0	SW SAGERT ST SW 65TH AVE	INTER CN 03	3-LEG 0	N STOP SIGN	N N	CLR DRY DAY	ANGL-OTH ANGL INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT N -S	01	DRVR	NONE	20	F	OR-Y OR<25		028	015 000	02 00 02
																02	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	INJC	49	M	OR-Y OR<25		000	000 000	00 00

EXHIBIT N