Transportation Impact Analysis

PARK LANE APARTMENTS

Prepared for:
Continental Properties LLC

April 2016

Prepared by:

transpogroup
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11730 118th Avenue NE, Suite 600
Kirkland, WA 98034-7120
Phone: 425-821-3665
Fax: 425-825-8434
www.transpogroup.com

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Appendix

Figures

Tables

Introduction

This transportation impact analysis (TIA) identifies potential transportation-related impacts associated with the development of a mixed-use building located at the southeast corner of the Main Street and Parking Lane intersection in Kirkland. As necessary, mitigation measures are identified that would offset or reduce significant transportation related impacts that the project may have on the surrounding transportation system.

Project Description

The proposed project is located at the southeast corner of the Main Street and Parking Lane intersection, in Kirkland as shown on Figure 1. The proposed project would develop up to 128 residential apartment units and approximately 12,500 square feet of retail.

The proposed project would provide a total of approximately 221 parking spaces. Access to the parking garages would be provided via Main Street. Figure 2 illustrates the preliminary site plan. It is anticipated that the development would be constructed and occupied by 2018.

The existing building and associated parking on the site would be removed as part of the project.

Study Scope

The scope of this analysis was coordinated with City of Kirkland staff and is consistent with previous traffic studies conducted in the study area and the intersection proportional share impact calculations described below.

Intersection Proportional Share Calculations

Intersection proportional share impact calculations were conducted to determine if the project would result in any “significant intersections”. These calculations were based on new daily project trips and assumed the weekday PM peak hour trip distribution. Table 1 provides a summary of the proportional share for the nearby intersections and detailed calculations are provided in Appendix A**.** The intersection proportional share would be less than one percent at all intersections except the following intersections:

- Main Street/Central Way
- Main Street/Park Lane
- Main Street/Kirkland Avenue
- 3rd Street/Central Way
- 3rd Street/Kirkland Avenue
- 6th Street/Central Way
- 114th Avenue NE/NE 85th Street

Table 1. Summary of Intersection Proportional Share Calculations

Intersection	Proportional Share[1]	Significant Intersection?
Main Street/Kirkland Way	1.86%	Yes
Main Street/Central Way	6.52%	Yes
State Street/NE 68th Street	0.47%	No
108th Avenue NE/NE 68th Street	0.57%	No
6th Street/Central Way	1.97%	Yes
3rd Street/Central Way	2.51%	Yes
Lake Street/Central Way	0.18%	No
Lake Street/Kirkland Avenue	0.78%	No
114th Avenue NE/NE 85th Street	1.86%	Yes
6th Street/4th Avenue	0.07%	No
3rd Avenue/Kirkland Avenue	1.65%	Yes
6th Street/Kirkland Way	0.29%	No
98th Avenue NE/Juanita Drive	0.61%	No
100th Avenue NE/NE 124th Street	0.36%	No
100th Avenue NE/NE 132nd Street	0.29%	No
Market Street/Forbes Creek	0.71%	No
98th Avenue NE/NE 120th Place	0.34%	No
93rd Avenue NE/Juanita Drive	0.17%	No
97th Avenue NE/Juanita Drive	0.15%	No
132nd Avenue NE/NE 85th Street	0.47%	No
124th Avenue NE/NE 85th Street	0.57%	No
120th Avenue NE/NE 85th Street	0.70%	No
124th Avenue NE/NE 100th Street	0.06%	No
132nd Avenue NE/NE 70th Street	0.07%	No
116th Avenue NE/NE 70th Street	0.13%	No
124th Avenue NE/NE 90th Street	0.11%	No
124th Avenue NE/NE 90th Street	0.11%	No
122nd Avenue NE/NE 85th Street	0.56%	No
116th Avenue NE/I-405 NB Off Ramp	0.11%	No
128th Avenue NE/NE 85th Street	0.48%	No
132nd Avenue NE/NE 80th Street	0.08%	No
Main Street/Park Lane	3.28%	Yes

1. Calculations based on the City of Kirkland proportional share impact worksheets, see **Attachment A**.

Additionally, the site access location on Main Street was analyzed under future (2018) with-project conditions. This traffic analysis focuses on a review of the proposed project driveway and the significant intersections consistent with the City's *Traffic Impact Analysis Guidelines*, August 2014. The report first describes existing (2015) and future (2018) without-project conditions in the vicinity of the project site. This includes the street system, existing and future without-project weekday PM peak hour traffic volumes, traffic operations, traffic safety, non-motorized facilities, and transit service. Future (2018) with-project conditions are then described. The project's impacts on the surrounding transportation system were identified by comparing the future with-project conditions to the future without-project conditions.

Site Vicinity & Study Intersections

Park Lane Apartments

FIGURE
1

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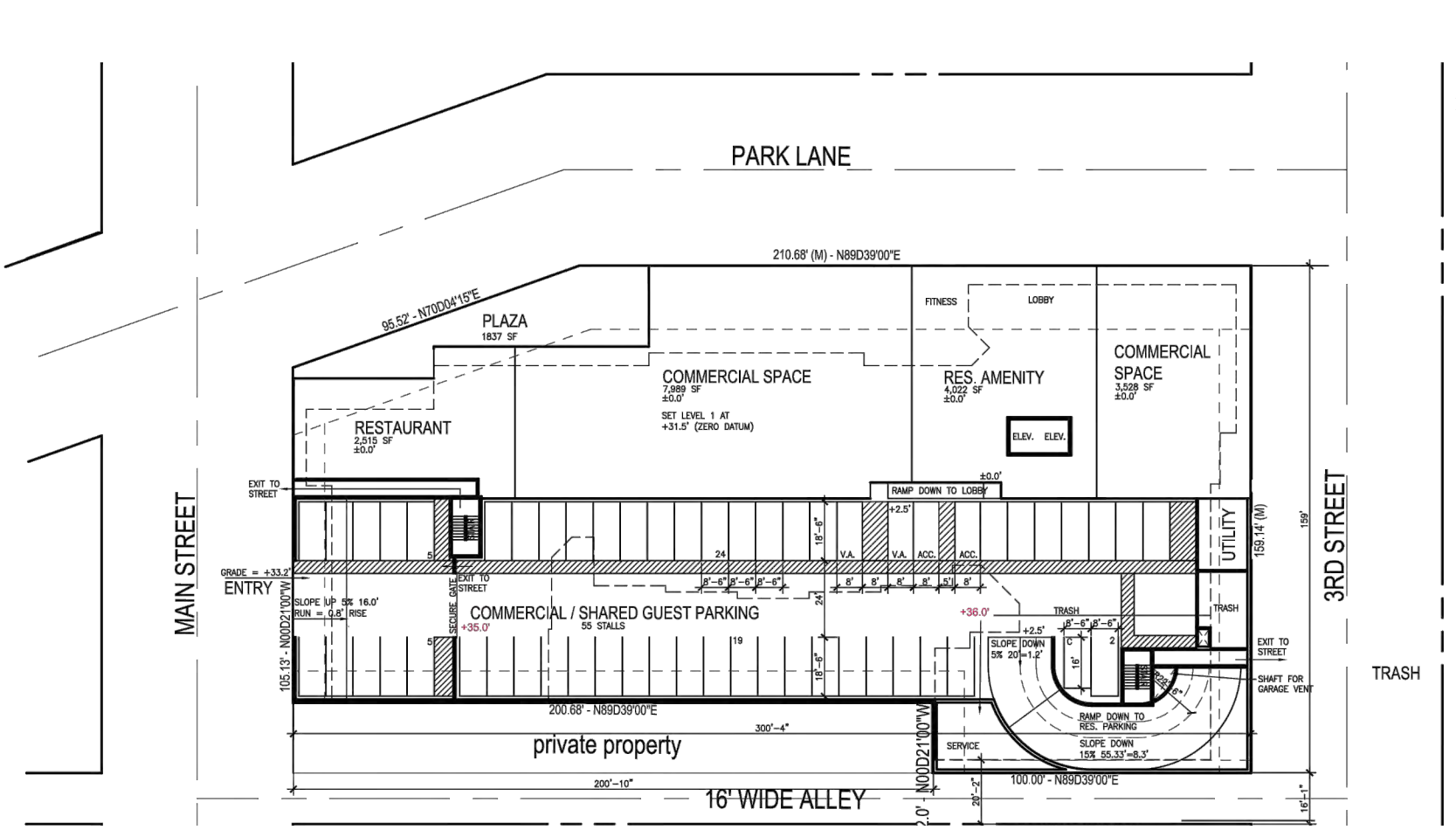

Preliminary Site Plan

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FIGURE
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Existing & Future Without-Project Conditions

This section describes existing (2015) and future (2018) without-project conditions within the study area. Study area characteristics are provided for the street system, planned improvements, existing and future forecasted without-project traffic volumes, traffic operations, traffic safety, non-motorized facilities, and transit service.

Street System

The following describes the existing street network within the vicinity of the proposed project and anticipated changes resulting from planned improvements.

Existing

Characteristics of the existing street system in the proposed project vicinity are shown in Table 2.

Table 2. Study Area Existing Street System Summary

Roadway	Arterial Classification	Posted Speed Limit	Number of Travel Lanes	Parking	Sidewalks	Bicycle Facilities
Central Way	Principal Arterial	30 mph	3	Yes	Yes	No
6th Street	Collector/Minor Arterial[1]	30 mph	2	No	Yes	No
3rd Street	Collector/Minor Arterial[1]	25 mph	2	No	Yes	No
NE 85th Street	Principal Arterial	35 mph	4	No	No	No
114th Avenue NE	Collector/Minor Arterial[1]	25 mph	2	No	Yes	Yes[2]
Kirkland Avenue	Minor Arterial	30 mph	2	Yes	Yes	Yes[3]
Kirkland Way	Minor Arterial	30 mph	2	Yes	Yes	No
Main Street	Local Road	25 mph	2	Yes	Yes	No
Park Lane	Local Road	25 mph	2	Yes	Yes	No

1. Collector north of Central Way, Minor Arterial south of Kirkland Way
2. Along the west side of the street.
3. Bike lane provided between 3rd Street and 6th Street.

Future

Based on a review of the City of Kirkland *Preliminary 2015 – 2020 Capital Improvement Program* (CIP), no transportation projects that may impact the street system and travel patterns in the study area were identified that would be completed by 2018. Although anticipated to be completed after completion of the proposed project, improvements are planned at the 6th Street/Central Way and 114th Avenue NE/NE 85th Street intersections. These improvements include upgrades to signal timing and channelization.

Traffic Volumes

The following sections summarize the traffic volumes for existing and future without-project conditions.

Existing

Traffic counts were collected at each study intersection in September 2015. Figure 3 illustrates the existing weekday PM peak hour traffic volumes at the study intersections, rounded to the nearest 5 vehicles. Detail traffic counts are provided in Appendix B.

Future

The City of Kirkland provided future (2018) without and with-project weekday PM Peak hour traffic volumes for the concurrency study intersections. At non-concurrency study

intersections, future volumes were developed by applying an 8.4 percent growth rate to the existing counts based on the average growth between the existing 2015 counts and future 2018 concurrency volumes provided by the City. The project traffic was added to the future without project traffic volumes to establish future (2018) with-project conditions at non-concurrency study intersections. Figure 3 shows the existing traffic volumes at the study intersections.

Traffic Operations

The operational characteristics of an intersection are determined by calculating the intersection level of service (LOS). For signalized locations, LOS is measured in average delay per vehicle and is reported for the intersections as a whole. At side-street stop-controlled intersections, LOS is measured in average delay per vehicle during the peak hour of traffic and is reported for the worst operating movement of the intersection. Traffic operations for an intersection can be described alphabetically with a range of levels of service (LOS A through F), with LOS A indicating free-flowing traffic and LOS F indicating extreme congestion and long vehicle delays. Appendix C contains a detailed explanation of LOS criteria and definitions.

Weekday PM peak hour traffic operations for existing and future without-project conditions were evaluated at the study intersections based on the procedures identified in the *Highway Capacity Manual (HCM)* (2010), with the exception of two intersections, and were evaluated using the *Synchro 9* software program. The 6th Street/Central Way and 114th Avenue NE/NE 85th Street were evaluated using HCM 2000 due to the custom phasing at those intersections. Pedestrian and bicycle volumes were taken into account when evaluating the operations of the intersections.

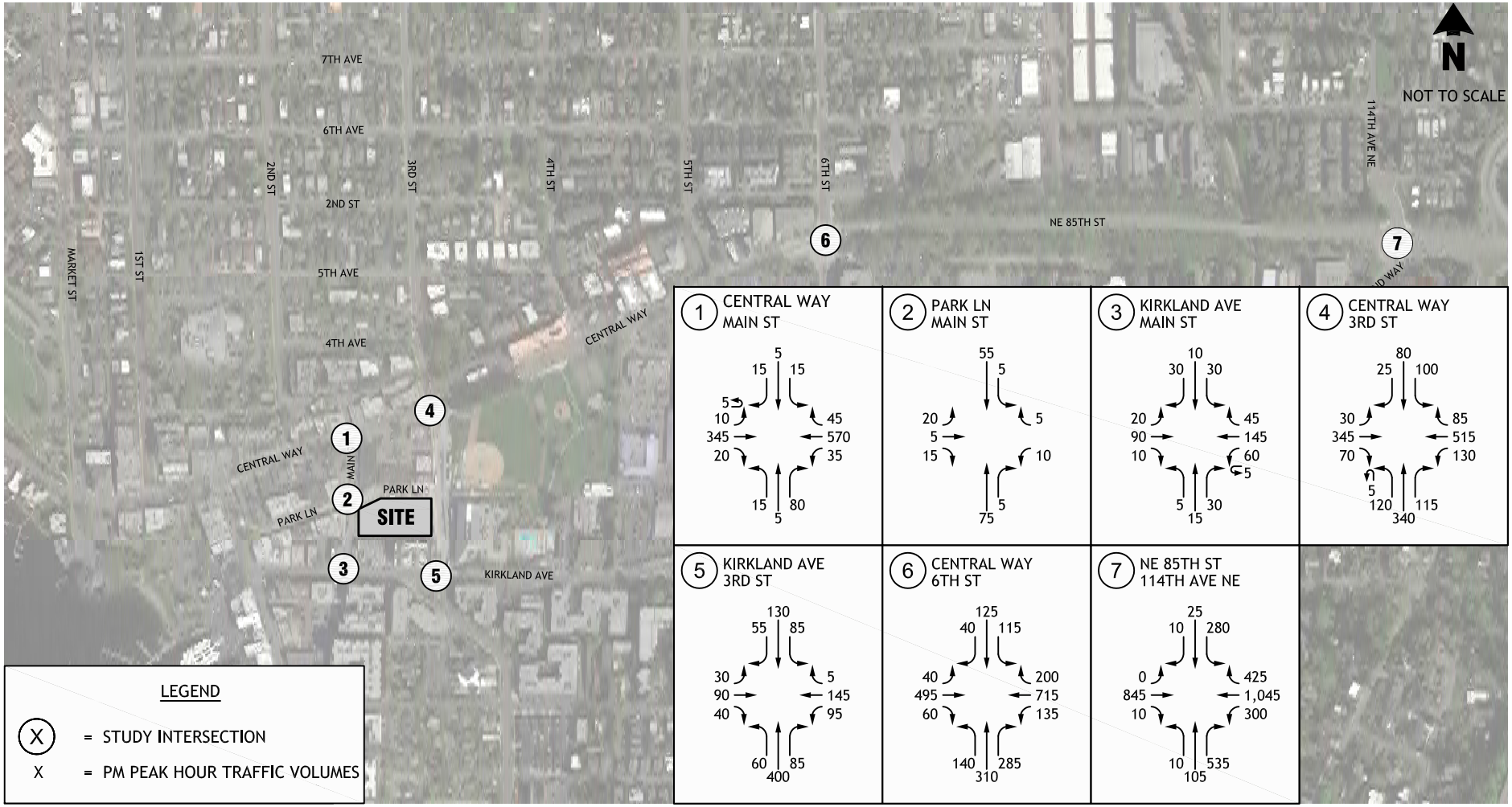
Table 3 summarizes the existing (2015) and future (2018) without-project traffic operations at the study intersections. Detailed traffic operation worksheets are provided in Appendix D

Table 3. Existing & Future Weekday PM Peak Hour Intersection LOS Summary

Intersection	Traffic Control	2015 Existing			2018 Without-Project		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. Main Street/Central Way	Unsignalized	C	20	SB	D	29	NB
2. Main Street/Park Lane	Unsignalized	A	8	NB	A	8	NB
3. Main Street/Kirkland Avenue	Unsignalized	C	21	SB	E	39	SB
4. 3rd Street/Central Way	Signalized	C	21	-	C	26	-
5. 3rd Street/Kirkland Avenue	Signalized	D	36	-	F	82	-
6. 6th Street/Central Way	Signalized	D	36	-	F	139	-
7. 114th Avenue NE/NE 85th Street	Signalized	C	27	-	D	39	-

1. Level of Service (A – F) as defined by the 2010 *Highway Capacity Manual* (HCM), Transportation Research Board.
2. Average delay per vehicle in seconds.
3. WM = Worst Movement reported for unsignalized intersections. NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.

As shown in Table 3, all intersections currently operate at LOS D or better during the weekday PM peak hour. Under future (2018) without-project conditions the Main Street/Central Way and 114th Avenue NE/NE 85th Street intersections are anticipated to degrade to LOS D, the Main Street/Kirkland Avenue is anticipated to degrade to LOS E, and the 3rd Street/Kirkland Avenue, and 6th Street/Central Way intersections are anticipated to degrade to LOS F. The Main Street/Park Lane and 3rd Street/Central Way intersections are anticipated to operate at the same LOS as under existing conditions.



Existing (2015) Weekday PM Peak Hour Traffic Volumes

FIGURE
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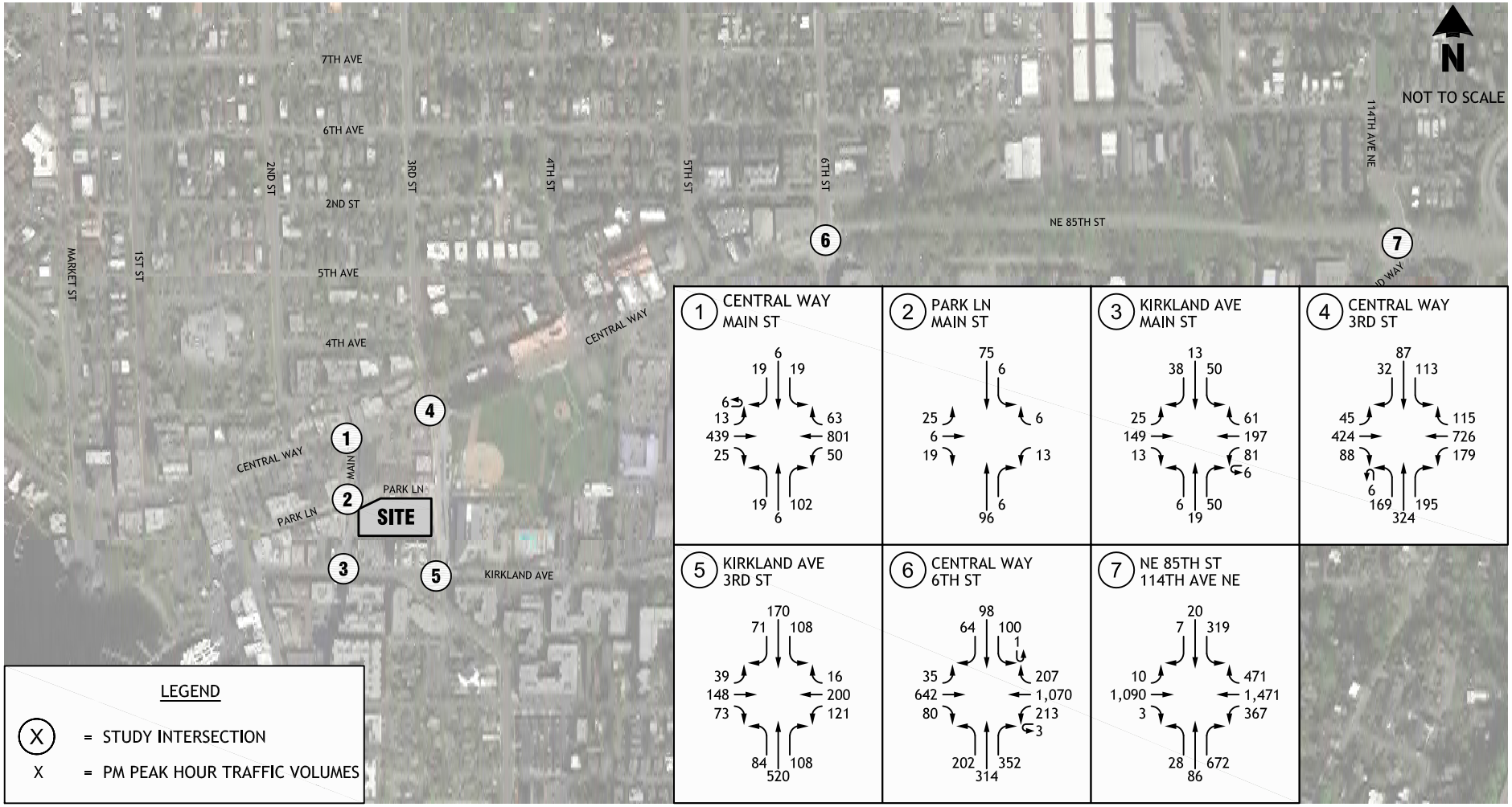

Future (2018) Without-Project Weekday PM Peak Hour Traffic Volumes

FIGURE
4

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Traffic Safety

Recent collision records were reviewed within the study area to identify existing traffic safety issues at the study intersections. The most recent three-year summary of accident data from the Washington Department of Transportation (WSDOT) is for the period between January 1, 2012 and December 31, 2014. This information is summarized in Table 4. Detailed WSDOT collision sheets are in Appendix E.

Table 4. Three Year Collision Summary

Intersection	Traffic Control	Number of Collisions			Total	Annual Average
		2012	2013	2014		
1. Main Street/Central Way	Unsignalized	0	0	2	2	0.67
2. Main Street/Park Lane	Unsignalized	0	0	0	0	0.00
3. Main Street/Kirkland Avenue	Unsignalized	0	0	0	0	0.00
4. 3rd Street/Central Way	Signalized	4	4	2	10	3.33
5. 3rd Street/Kirkland Avenue	Signalized	3	0	0	3	1.00
6. 6th Street/Central Way	Signalized	2	3	3	8	2.67
7. 114th Avenue NE (Kirkland Way)/NE 85th Street (Central Way)	Signalized	14	9	14	37	12.33

Source: WSDOT and Transpo Group, 2015

As shown in Table 4, the study intersections experienced an average of approximately 3 collisions or less with the exception of the 114th Avenue NE/NE 85th Street intersection. The 114th Avenue NE/NE 85th Street intersection had an average of approximately 12 collisions between 2012 and 2014. Of the 37 collisions no pedestrian, bicycle, or fatalities were reported.

The two collisions at the Main Street/Central Way intersection one involved a read-end type collision and the other involved a vehicle leaving the parked position. Both collisions occurred during daylight and dry conditions.

Of the 37 collisions reported at the 114th Avenue NE (Kirkland Way)/NE 85th Street (Central Way) the predominate type of collision (19 collisions) involved left-turning vehicles and vehicles going straight, 10 collisions were rear-end type collisions, 4 involved vehicles entering at an angle, 2 involved sideswipes, 1 involved improper backing, and 1 involved an overturned vehicle.

Non-Motorized Facilities

The following describes the existing and future non-motorized facilities within the study area.

Existing

Sidewalks are provided on all streets in the study area. Marked crosswalk exists at all the study intersections as well as other intersections in vicinity of the proposed project site.

Additionally, Park Lane between 3rd Street and Lake Street was recently renovated to enhance the streetscape and improve the walkability of downtown Kirkland. The street was designed to separate and reduce conflicts between drivers and walkers.

Future

No additional improvements are planned in the immediate vicinity of the proposed project.

Transit Service

The following sections describe existing and future transit service within the study area.

Existing

Bus transit service in the study area is provided by King County Metro Transit and Sound Transit. The nearest bus stop to the proposed development is located adjacent to the site along 3rd Street. Along 3rd Avenue between Central Way and Kirkland Avenue King County Metro operates 6 routes, and Sound Transit operates 1 route.

Future

No additional improvements are planned in the immediate vicinity of the proposed project.

Project Impacts

This section documents the proposed project's impacts on the surrounding street system and identifies potential mitigation measures where necessary.

Trip Generation

Weekday daily, AM, and PM peak hour trips were estimated for project-generated vehicle trips using average peak hour trip rates for both proposed uses using information published by the Institute of Transportation Engineers (ITE) in *Trip Generation* (9th Edition, 2012). The proposed development would develop 128 multi-family residential units and approximately 12,500 square feet of ground floor retail. For purposes of the trip generation analysis, Apartment was used for the multi-family residential unit use, and Shopping Center was used for the retail space use. Trip generation for the proposed development is summarized in Table 5.

Table 5. Estimated Weekday Trip Generation

		Daily		AM Peak-Hour Trips				PM Peak-Hour Trips			
Land Use	**Size**	**Rate**	**Trips**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
Proposed											
Apartment[1]	128 DU	EQN	899	EQN	13	53	66	EQN	57	31	88
Retail Space[2]	12.5 ksf	44.32	534	0.96	7	5	12	3.71	22	24	46
Total			1,433		20	58	78		79	55	134

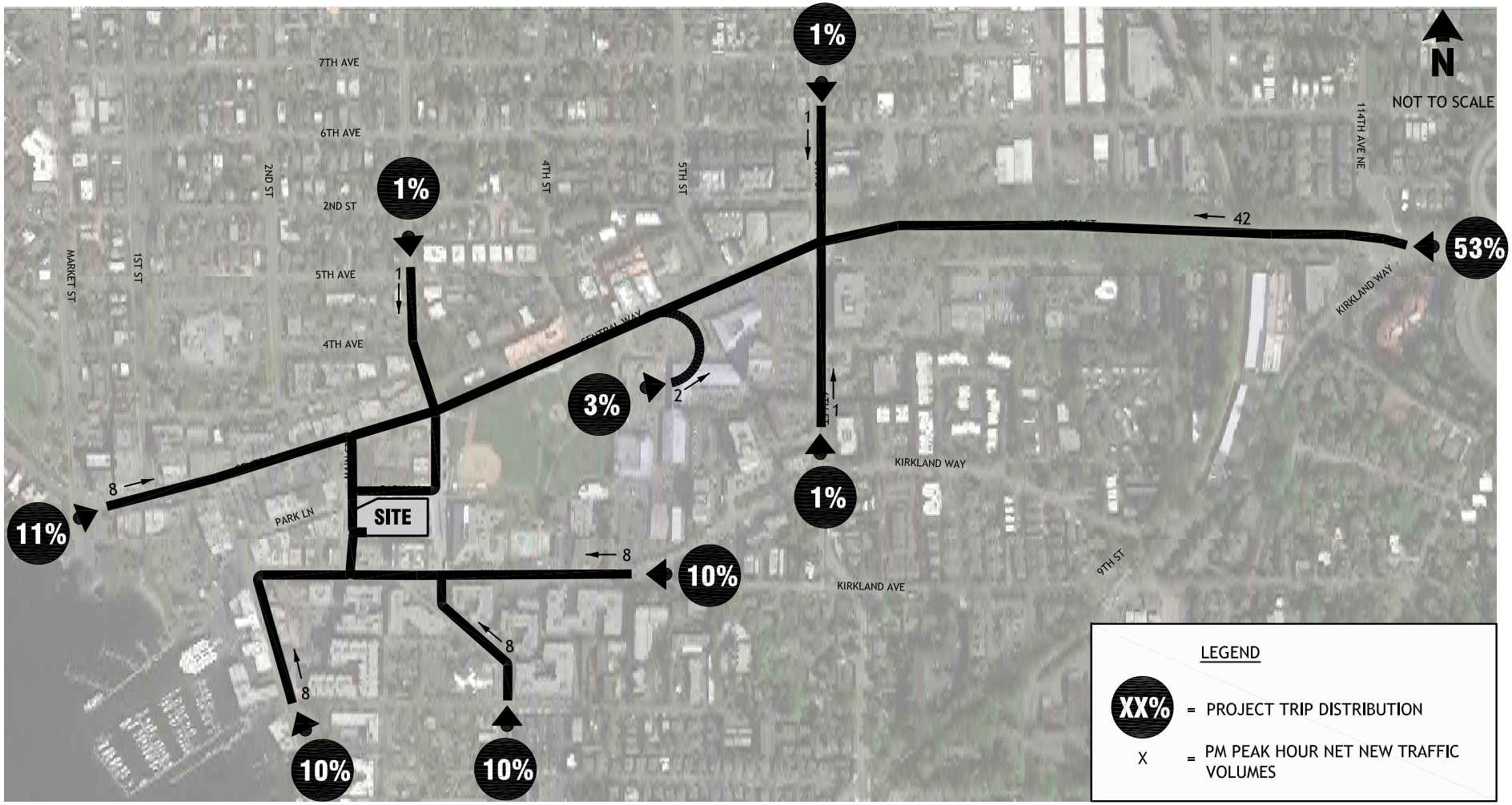
Notes: DU = dwelling units, ksf = thousand square feet.
1. Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 9th Edition, Apartment (LU #220), ITE regression equation was used to calculate the number of trips.
2. Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 9th Edition, Shopping Center (#820), ITE average rate was used to calculate the number of trips.

As shown in Table 5, the residential use of the proposed project is anticipated to generate approximately 899 daily trips with 66 trips occurring during the weekday AM peak hour and 88 during the weekday PM peak hour. The retail space development is anticipated to generate approximately 534 daily trips with 12 occurring during the weekday AM peak hour and 46 during the PM peak hour. After accounting for a 34 percent retail pass-by rate in the PM peak hour, the retail use would generate 30 net PM peak hour trips.

Trip Distribution & Assignment

Project trips were distributed and assigned to the street network based on the travel patterns provided by the City of Kirkland. Figure 5 and Figure 6 illustrate the expected project outbound and inbound vehicle trip distribution for the proposed project respectively, to the surrounding local and regional street system. The weekday PM peak hour trips were assigned to the study area based on the travel patterns and the location of the site access. The project would provide access via the Main Street.

Future (2018) with-project traffic volumes were provided by the City of Kirkland and are shown on Figure 7.



Inbound Project Trip Distribution & Assignment

FIGURE
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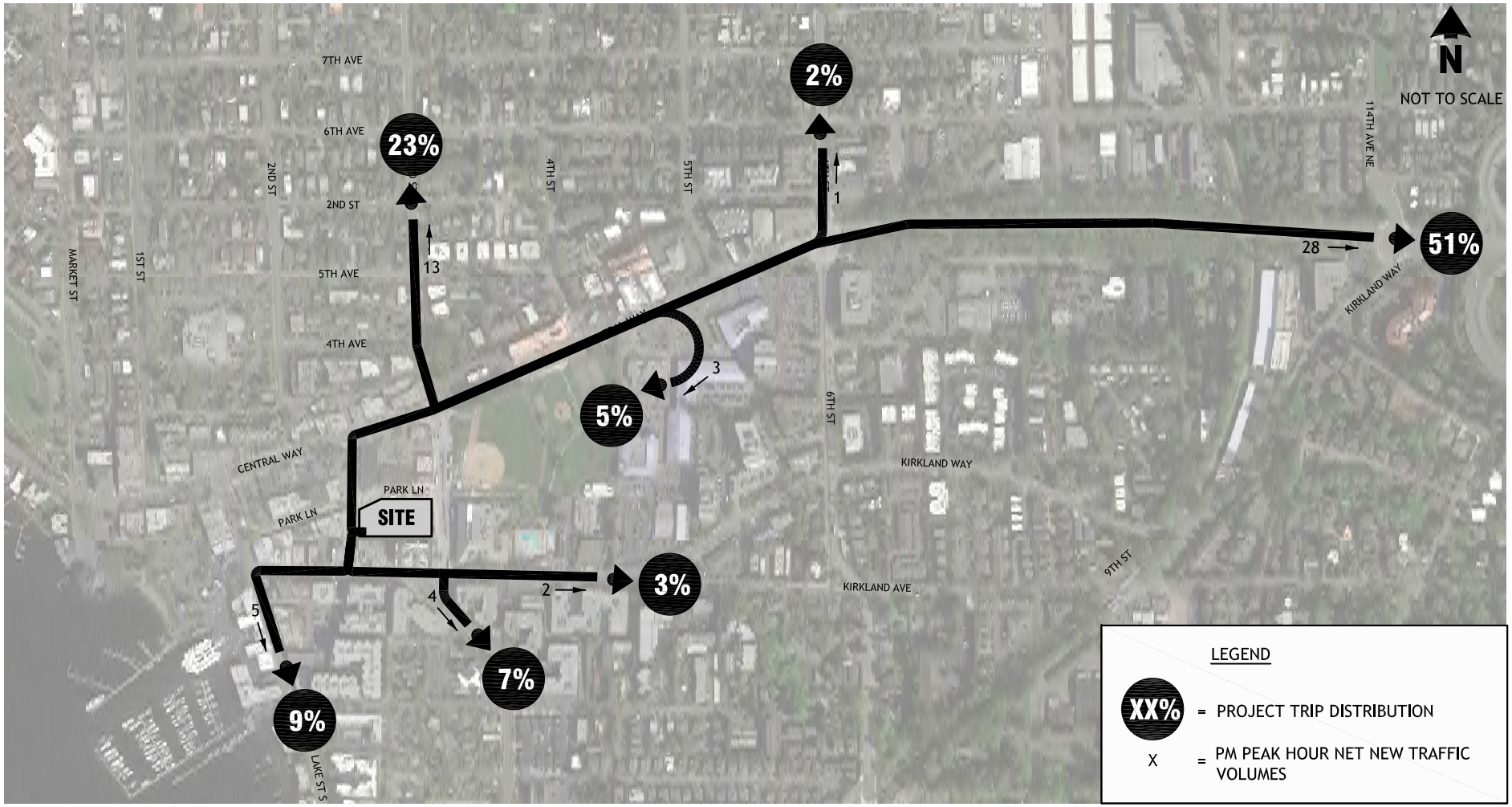

Outbound Project Trip Distribution & Assignment

Park Lane Apartments

FIGURE
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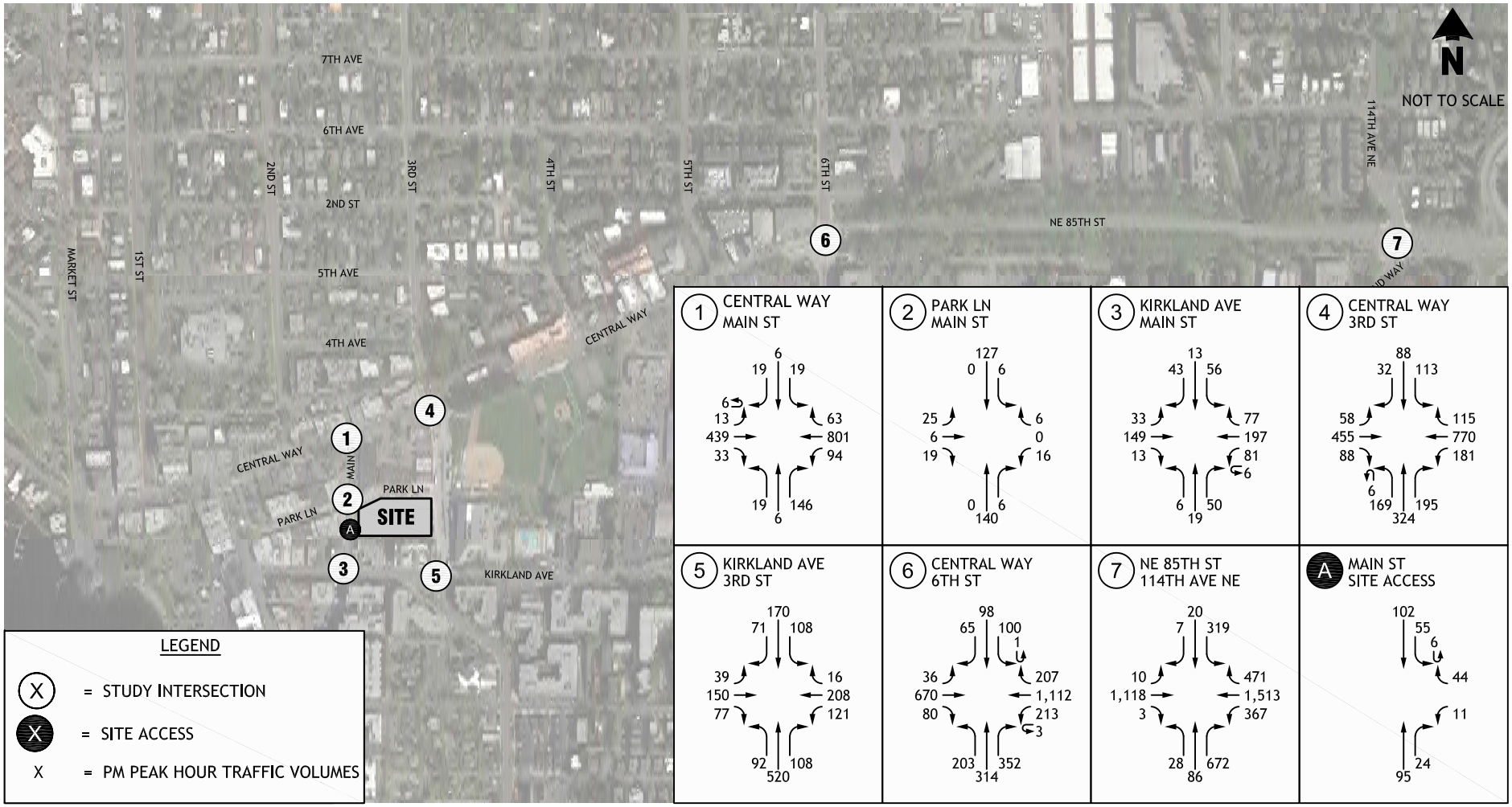

Future (2018) With-Project Weekday PM Peak Hour Traffic Volumes

FIGURE
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Traffic Operations Impact

Future with-project LOS analysis was conducted for the weekday PM peak hour to analyze traffic impacts of the proposed project. The same methods were applied as described for existing and future without-project conditions and all intersection parameters such as channelization and traffic control were consistent with those used in the evaluation of future without-project conditions. A comparison of future without and with-project weekday PM peak hour traffic operations is summarized for the project site in Table 6. Detailed LOS worksheets are provided in Appendix D.

Table 6. Future Weekday PM Peak Hour Intersection LOS Summary

Intersection	Traffic Control	2018 Without-Project PM			2018 With-Project PM		
		LOS[1]	Delay[2]	WM	LOS	Delay	WM
1. Main Street/Central Way	Unsignalized	D	29	NB	E	39	NB/SB
2. Main Street/Park Lane	Unsignalized	A	8	NB	A	9	NB
3. Main Street/Kirkland Avenue	Unsignalized	E	39	SB	E	46	SB
4. 3rd Street/Central Way	Signalized	C	26	-	C	27	-
5. 3rd Street/Kirkland Avenue	Signalized	F	82	-	F	82	-
6. 6th Street/Central Way	Signalized	F	139	-	F	140	-
7. 114th Avenue NE/NE 85th Street	Signalized	D	39	-	D	41	-
A. Main Street/Site Access	Unsignalized	-	-	-	A	10	

1. Level of Service (A – F) as defined by the 2010 *Highway Capacity Manual* (HCM), Transportation Research Board.
2. Average delay per vehicle in seconds.
3. WM = Worst Movement reported for unsignalized intersections. NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.

As indicated in Table 6, overall impacts to the study intersections would generally be minimal with little to no change in calculated delays or LOS, with the exception of the Main Street/Central Way intersection. The northbound minor approach at the unsignalized Main Street/Central Way intersection is anticipated to experience approximately a 10 second increase in delay. If an intersection is operating at LOS E, the City can require improvements to mitigate SEPA impacts when the project's intersection proportional share is greater than 15 percent, and 5 percent if the intersection operates at LOS F. The proportional share for each intersection is summarized in Table 7.

Table 7. Summary of Intersection Proportional Share Calculations

Intersection	Future (2018) Without-Project LOS	Future (2018) With-Project LOS	Baseline (2018) Volumes	Project Trips	Future (2018) With-Project Volumes	Percent Proportional Share
1. Main Street/Central Way	D	E	1,568	96	1,664	5.8%
2. Main Street/Park Lane	A	A	252	99	351	28.2%
3. Main Street/Kirkland Avenue	E	E	708	35	743	4.7%
4. 3rd Street/Central Way	C	C	2,503	91	2,594	3.5%
5. 3rd Street/Kirkland Avenue	F	F	1,658	22	1,680	1.3%
6. 6th Street/Central Way	F	F	3,381	73	3,454	2.1%
7. 114th Avenue NE/NE 85th Street	D	D	4,544	70	4,614	1.5%

As shown in Table 7, of the intersections that operate at LOS E, the project proportional share is less than 15 percent and would not require mitigation. Of the intersections that operate at LOS F, the project proportional share is less than 5 percent, and would not require mitigation.

Transportation Concurrency

The City of Kirkland requires new development to pass a concurrency test. The proposed project was tested against and passed the City of Kirkland concurrency requirements. The concurrency test results are included in Appendix F.

Sight Distance

Intersection and stopping sight distance was measured at the proposed driveway location consistent with City standards. The sight distance standards applied to the driveway reflect no grade along Main Street as measured in the field. Requirements for sight distance are outlined in Kirkland's Policies R-4 and R-13.

Stopping sight distance is the distance a driver needs to see in order to come to a complete stop after recognizing an object in the roadway. Intersection sight distance is the distance a driver needs to see in order to safely enter an intersection from a stopped position. The resulting required and measured sight distances are shown in Table 8.

Table 8. Sight Distance Requirements

Sight Distance Type	Location Relative to Driveway	Required	Measured
Stopping Sight Distance	North	150 ft	150 ft
	South	150 ft	150 ft
Intersection Sight Distance	North	150 ft	150ft
	South	150 ft	127[1] ft

1. 127 feet available due to existing angled on-street parking.

As shown in Table 8, the stopping sight distance for the driveway along Main Street was measured at approximately 150 feet looking north and south. Intersection sight distance was measured at approximately 150 feet looking north and approximately 127 feet looking south. In both cases looking north, sight distance was measured past the intersection of Main Street/Park Lane.

The intersection sight distance is meat looking north, while the 127 feet does not meet the intersection sight distance requirements looking south. Intersection sight distance is obstructed by existing angled on-street parking. Approximately 3 on-street parking stalls would have to be removed along Main Street in order to meet intersection sight distance. Alternatively, it is likely that due to the presence of on-street parking vehicles would pull further out of the parking garage in order to see further south along Main Street before entering the roadway. Appendix G shows the stopping and intersection sight distance triangles.

Parking Analysis

The following sections describe the proposed parking supply and parking code requirements.

Supply

Parking for the proposed project would be provided by a three-level garage with a total of 221 stalls. It is anticipated that shared parking would be utilized for the residential tenants, residential guests, and retail uses.

Parking Code Analysis

The City of Kirkland Municipal Code requires 1 space per 350 square-feet for retail. The residential parking requirement is 1.2 spaces per studio apartments, 1.3 spaces per 1-bedroom units, 1.6 spaces per 2-bedroom units, and 1.8 spaces per 3-bedroom or larger apartments. Additionally, 10 percent of the apartment total must be provided as guest parking. Table 9 provides a summary of the code required compared to the proposed development parking. The developer is proposing 221 shared spaces between the residential tenant, residential guest, and retail uses. Exhibit 2 shows the anticipated shared peak parking demand.

Table 9. Comparison of Code and Proposed Parking

Land Use	Size	Code Required Parking[1]		Proposed Parking	
			Required	Provided	Shared
Apartment					
1-Bedroom	112 units	1.3 spaces/unit	146		
2-Bedroom	16 units	1.6 spaces/unit	26		
Total Apartment			172	175	
Guest[2]	-	10 Percent	18		46
Retail	12,500 sf	1 space/350 sf	36		
Total			**226**	**221**	

1. Based on City of Kirkland Municipal Code for Zone CBD-1B.
2. Per KZC 105.20.3.A A minimum of 10 percent of the total number of required parking spaces shall be provided for guest parking rounded to the next highest whole number.

It is anticipated that retail and residential guest parking would be separate from the residential tenant parking. Exhibit 1 illustrates the proposed parking gate locations.

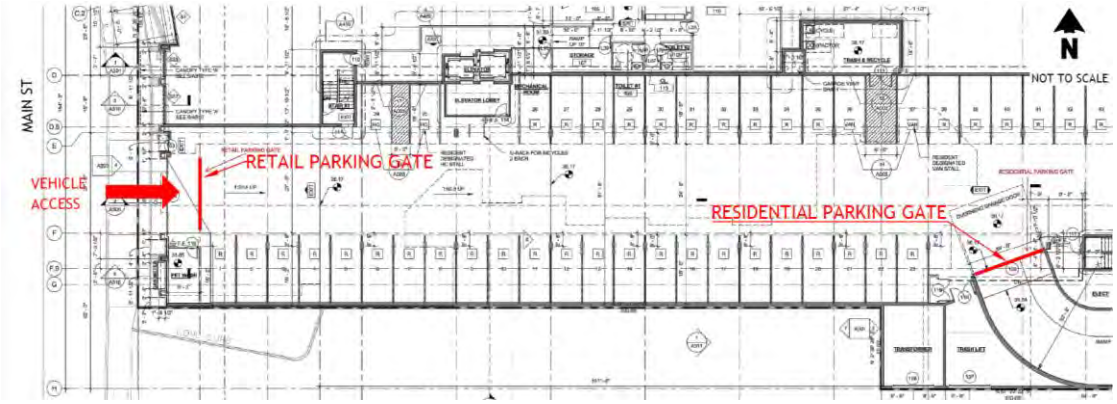


Exhibit 1 Parking Gate Locations

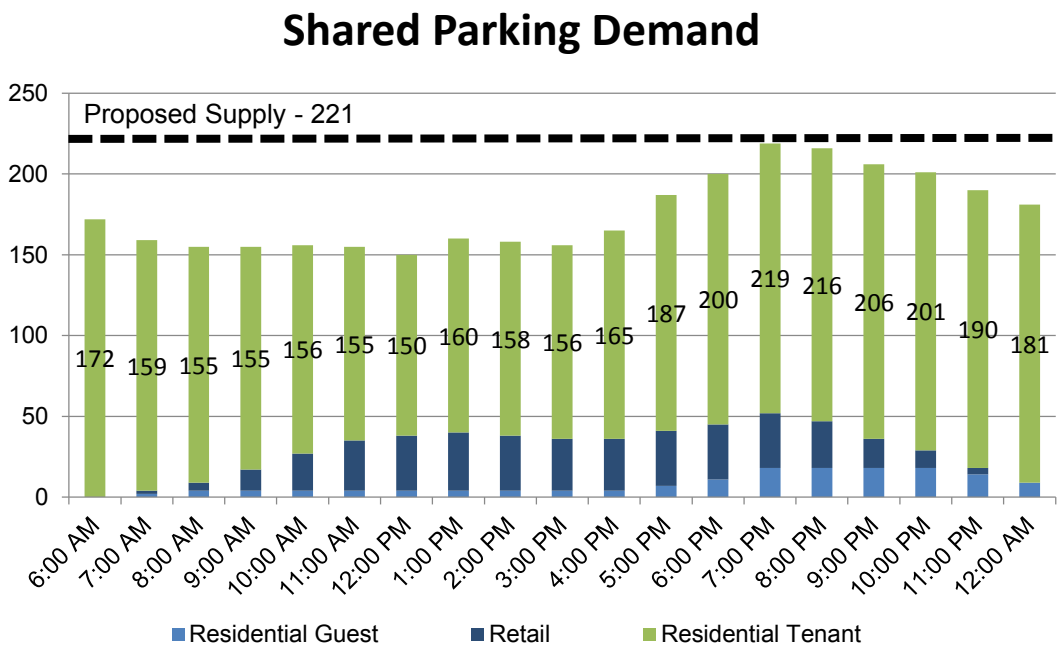


Exhibit 2 Shared Parking Demand

As shown in Exhibit 2, the shared peak parking demand between the residential tenant, residential guest, and retail uses is 219 and would be accommodated in the proposed supply of 221 spaces.

Findings and Conclusions

This TIA summarizes the transportation impacts associated with the mixed-use development located at the southeast corner of the Main Street and Parking Lane intersection. General findings and recommendations include:

- The proposed project would construct 128 residential apartment units and 12,500 square feet of retail space.
- The development is anticipated to generate 1,433 new vehicular weekday daily trips with 78 trips occurring during the weekday AM peak hour and 134 trips during the PM peak hour.
- Access to the proposed parking garage would be provided via Main Street.
- Under future (2018) without and with-project conditions the Main Street/Park Lane intersection is anticipated to operate at LOS A, the 3rd Street/Central Way intersection is anticipated to operate at LOS C, and the 114th Avenue NE/NE 85th Street intersection is anticipated to operate at LOS D. The Main Street/Central Way intersection is anticipated to operate at LOS E, and the 3rd Street/Kirkland Avenue and 6th Street/Central Way intersections are anticipated to operate at LOS F under future (2018) without and with-project conditions.
- The site access on Main Street is anticipated to operate at LOS A.
- The project meets City's transportation concurrency requirements.
- The parking supply for the proposed project is 221 vehicle parking stalls. When considering the code demand and shared management of the stalls, the proposed supply is adequate.

Appendix A:Intersection Proportional Share Worksheets

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Main St	# of Lanes*=	1
Minor Street[1]	Park Ln	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	523	573	473	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	14.5	0	29	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	6.28%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.29%
$P_3=V_1/(15{,}000 \times f_3)$ =	4.19%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.58%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	3.28%
$S_2=(P_3+P_4)/2$=	2.38%

Intersection Proportional Share = Maximum of S1 and S2 = 3.28%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Main St	# of Lanes*=	1
Minor Street[1]	Project DW	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	358.5	215	502	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	358.5	0	717	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	4.30%
$P_2=V_2/(5{,}000 \times f_2)$ =	7.17%
$P_3=V_1/(15{,}000 \times f_3)$ =	2.87%
$P_4=V_2/(2{,}500 \times f_4)$ =	14.34%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	5.74%
$S_2=(P_3+P_4)/2$=	8.60%

Intersection Proportional Share = Maximum of S1 and S2 = 8.60%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	132nd Ave	# of Lanes*=	1
Minor Street[1]	NE 80th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	3.5	7	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.04%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.03%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.06%
$S_2=(P_3+P_4)/2$=	0.08%

Intersection Proportional Share = Maximum of S1 and S2 = 0.08%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 85th St	# of Lanes*=	2
Minor Street[1]	128th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	96.5	93	100	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.97%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.64%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.48%
$S_2=(P_3+P_4)/2$=	0.32%

Intersection Proportional Share = Maximum of S1 and S2 = 0.48%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NB Off ramp	# of Lanes*=	1
Minor Street[1]	116th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	25	0	50	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10,000 \times f_1)$ =	0.30%
$P_2=V_2/(5,000 \times f_2)$ =	0.00%
$P_3=V_1/(15,000 \times f_3)$ =	0.20%
$P_4=V_2/(2,500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.15%
$S_2=(P_3+P_4)/2$=	0.10%

Intersection Proportional Share = Maximum of S1 and S2 = 0.15%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NB Off ramp	# of Lanes*=	1
Minor Street[1]	116th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	10.5	21	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	7	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.13%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.08%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.10%
$S_2=(P_3+P_4)/2$=	0.11%

Intersection Proportional Share = Maximum of S1 and S2 = 0.11%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 85th St	# of Lanes*=	2
Minor Street[1]	122nd Ave	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	111	115	107	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	1.11%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.74%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.56%
$S_2=(P_3+P_4)/2$=	0.37%

Intersection Proportional Share = Maximum of S1 and S2 = 0.56%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	124th Ave NE	# of Lanes*=	1
Minor Street[1]	NE 90th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	18	29	7	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.22%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.14%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.11%
$S_2=(P_3+P_4)/2$=	0.07%

Intersection Proportional Share = Maximum of S1 and S2 = 0.11%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	116th Ave NE	# of Lanes*=	1
Minor Street[1]	NE 70th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	14.5	0	29	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.17%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.12%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.12%
$S_2=(P_3+P_4)/2$=	0.13%

Intersection Proportional Share = Maximum of S1 and S2 = 0.13%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	132nd Ave NE	# of Lanes*=	1
Minor Street[1]	NE 70th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	0	0	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.00%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.00%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.04%
$S_2=(P_3+P_4)/2$=	0.07%

Intersection Proportional Share = Maximum of S1 and S2 = 0.07%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	124th Ave NE	# of Lanes*=	1
Minor Street[1]	NE 100th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	10.5	14	7	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.13%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.08%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.06%
$S_2=(P_3+P_4)/2$=	0.04%

Intersection Proportional Share = Maximum of S1 and S2 = 0.06%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 85th St	# of Lanes*=	2
Minor Street[1]	120th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	125	143	107	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	7	7	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	1.25%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.14%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.83%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.28%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.70%
$S_2=(P_3+P_4)/2$=	0.56%

Intersection Proportional Share = Maximum of S1 and S2 = 0.70%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 85th St	# of Lanes*=	2
Minor Street[1]	124th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	107.5	115	100	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	1.08%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.72%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.57%
$S_2=(P_3+P_4)/2$=	0.43%

Intersection Proportional Share = Maximum of S1 and S2 = 0.57%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 85th St	# of Lanes*=	2
Minor Street[1]	132nd Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	86	93	79	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.86%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.57%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.47%
$S_2=(P_3+P_4)/2$=	0.36%

Intersection Proportional Share = Maximum of S1 and S2 = 0.47%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Juanita Dr	# of Lanes*=	1
Minor Street[1]	97th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	25	21	29	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10,000 \times f_1)$ =	0.30%
$P_2=V_2/(5,000 \times f_2)$ =	0.00%
$P_3=V_1/(15,000 \times f_3)$ =	0.20%
$P_4=V_2/(2,500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.15%
$S_2=(P_3+P_4)/2$=	0.10%

Intersection Proportional Share = Maximum of S1 and S2 = 0.15%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Juanita Dr	# of Lanes*=	1
Minor Street[1]	93rd Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	28.5	21	36	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.34%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.23%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.17%
$S_2=(P_3+P_4)/2$=	0.11%

Intersection Proportional Share = Maximum of S1 and S2 = 0.17%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	98th Ave NE	# of Lanes*=	2
Minor Street[1]	NE 120th Pl	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	68	107	29	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.68%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.45%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.34%
$S_2=(P_3+P_4)/2$=	0.23%

Intersection Proportional Share = Maximum of S1 and S2 = 0.34%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Market St	# of Lanes*=	1
Minor Street[1]	Forbes Creek	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	118	172	64	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	1.42%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.94%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.71%
$S_2=(P_3+P_4)/2$=	0.47%

Intersection Proportional Share = Maximum of S1 and S2 = 0.71%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	100th Ave NE	# of Lanes*=	2
Minor Street[1]	NE 132nd St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	57	93	21	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10,000 \times f_1)$ =	0.57%
$P_2=V_2/(5,000 \times f_2)$ =	0.00%
$P_3=V_1/(15,000 \times f_3)$ =	0.38%
$P_4=V_2/(2,500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.29%
$S_2=(P_3+P_4)/2$=	0.19%

Intersection Proportional Share = Maximum of S1 and S2 = 0.29%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	100th Ave NE	# of Lanes*=	2
Minor Street[1]	NE 124th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	64	107	21	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.64%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.43%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.36%
$S_2=(P_3+P_4)/2$=	0.28%

Intersection Proportional Share = Maximum of S1 and S2 = 0.36%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	98th Ave NE	# of Lanes*=	2
Minor Street[1]	Juanita Dr	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	93.5	158	29	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	14	21	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.94%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.28%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.62%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.56%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.61%
$S_2=(P_3+P_4)/2$=	0.59%

Intersection Proportional Share = Maximum of S1 and S2 = 0.61%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	6th St	# of Lanes*=	1
Minor Street[1]	Kirkland Way	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	36	72	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	7	14	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.43%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.14%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.29%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.28%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.29%
$S_2=(P_3+P_4)/2$=	0.28%

Intersection Proportional Share = Maximum of S1 and S2 = 0.29%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	3rd Ave	# of Lanes*=	1
Minor Street[1]	Kirkland Ave	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	36	72	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	75.5	79	72	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.43%
$P_2=V_2/(5{,}000 \times f_2)$ =	1.51%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.29%
$P_4=V_2/(2{,}500 \times f_4)$ =	3.02%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.97%
$S_2=(P_3+P_4)/2$=	1.65%

Intersection Proportional Share = Maximum of S1 and S2 = 1.65%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	6th St	# of Lanes*=	1
Minor Street[1]	4th Ave	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	0	0	0	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.00%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.00%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.04%
$S_2=(P_3+P_4)/2$=	0.07%

Intersection Proportional Share = Maximum of S1 and S2 = 0.07%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 85th St	# of Lanes*=	2
Minor Street[1]	114th Ave NE	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	372.5	365	380	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	3.73%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	2.48%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.86%
$S_2=(P_3+P_4)/2$=	1.24%

Intersection Proportional Share = Maximum of S1 and S2 = 1.86%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Lake St	# of Lanes*=	1
Minor Street[1]	Kirkland Ave	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	36	72	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	32	0	64	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.43%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.64%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.29%
$P_4=V_2/(2{,}500 \times f_4)$ =	1.28%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.54%
$S_2=(P_3+P_4)/2$=	0.78%

Intersection Proportional Share = Maximum of S1 and S2 = 0.78%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Central Way	# of Lanes*=	2
Minor Street[1]	Lake St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	36	72	0	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.36%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.24%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.18%
$S_2=(P_3+P_4)/2$=	0.12%

Intersection Proportional Share = Maximum of S1 and S2 = 0.18%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Central Way	# of Lanes*=	2
Minor Street[1]	3rd St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	494.5	573	416	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	3.5	0	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	4.95%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.07%
$P_3=V_1/(15{,}000 \times f_3)$ =	3.30%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.14%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	2.51%
$S_2=(P_3+P_4)/2$=	1.72%

Intersection Proportional Share = Maximum of S1 and S2 = 2.51%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Central Way	# of Lanes*=	2
Minor Street[1]	6th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	380	380	380	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	7	7	7	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	3.80%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.14%
$P_3=V_1/(15{,}000 \times f_3)$ =	2.53%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.28%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.97%
$S_2=(P_3+P_4)/2$=	1.41%

Intersection Proportional Share = Maximum of S1 and S2 = 1.97%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	108th Ave NE	# of Lanes*=	1
Minor Street[1]	NE 68th St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	18	36	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	25	14	36	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.22%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.50%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.14%
$P_4=V_2/(2{,}500 \times f_4)$ =	1.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.36%
$S_2=(P_3+P_4)/2$=	0.57%

Intersection Proportional Share = Maximum of S1 and S2 = 0.57%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	NE 68th St	# of Lanes*=	1
Minor Street[1]	State St	# of Lanes*=	1

DATE:
8/27/2015

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	28.5	36	21	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	18	0	36	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.34%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.36%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.23%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.72%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.35%
$S_2=(P_3+P_4)/2$=	0.47%

Intersection Proportional Share = Maximum of S1 and S2 = 0.47%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Central Way	# of Lanes*=	2
Minor Street[1]	Main Street	# of Lanes*=	1

DATE:

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	236.5	72	401	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	286.5	573	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	2.37%
$P_2=V_2/(5{,}000 \times f_2)$ =	5.73%
$P_3=V_1/(15{,}000 \times f_3)$ =	1.58%
$P_4=V_2/(2{,}500 \times f_4)$ =	11.46%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	4.05%
$S_2=(P_3+P_4)/2$=	6.52%

Intersection Proportional Share = Maximum of S1 and S2 = 6.52%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	Darwin Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Park Lane Apartments		
Major Street[1]	Kirkland Way	# of Lanes*=	1
Minor Street[1]	Main Street	# of Lanes*=	1

DATE:

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	107.5	72	143	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	71.5	143	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	1.29%
$P_2=V_2/(5{,}000 \times f_2)$ =	1.43%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.86%
$P_4=V_2/(2{,}500 \times f_4)$ =	2.86%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.36%
$S_2=(P_3+P_4)/2$=	1.86%

Intersection Proportional Share = Maximum of S1 and S2 = 1.86%

Significant Intersection? **yes**

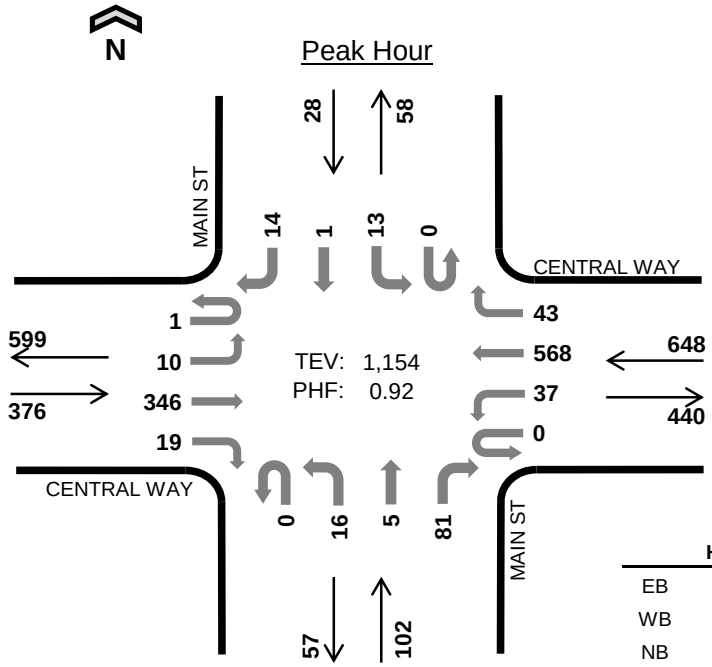
1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

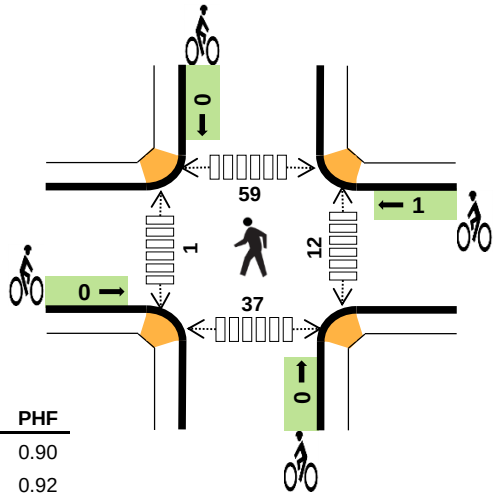
Computed By:	Darwin Li
Company:	Transpo Group

Appendix B:Traffic Counts

MAIN ST
CENTRAL WAY

Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	4.0%	0.90
WB	1.5%	0.92
NB	0.0%	0.91
SB	0.0%	0.70
TOTAL	2.2%	0.92

Two-Hour Count Summaries

Interval Start	CENTRAL WAY Eastbound				CENTRAL WAY Westbound				MAIN ST Northbound				MAIN ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	3	78	5	0	6	161	8	0	2	0	16	0	3	0	3	285	0
4:15 PM	0	2	79	7	0	6	157	5	0	5	1	17	0	0	0	0	279	0
4:30 PM	0	0	83	3	0	8	142	9	0	3	0	20	0	2	0	2	272	0
4:45 PM	0	2	75	3	0	9	123	10	0	7	2	12	0	3	1	4	251	1,087
5:00 PM	**0**	**3**	**80**	**4**	**0**	**8**	**148**	**7**	**0**	**7**	**2**	**19**	**0**	**3**	**0**	**7**	**288**	1,090
5:15 PM	**1**	**1**	**95**	**5**	**0**	**10**	**134**	**11**	**0**	**3**	**1**	**21**	**0**	**3**	**0**	**2**	**287**	1,098
5:30 PM	**0**	**4**	**96**	**5**	**0**	**10**	**149**	**17**	**0**	**5**	**1**	**21**	**0**	**3**	**0**	**3**	**314**	1,140
5:45 PM	**0**	**2**	**75**	**5**	**0**	**9**	**137**	**8**	**0**	**1**	**1**	**20**	**0**	**4**	**1**	**2**	**265**	**1,154**
Count Total	1	17	661	37	0	66	1,151	75	0	33	8	146	0	21	2	23	2,241	0
Peak Hour	**1**	**10**	**346**	**19**	**0**	**37**	**568**	**43**	**0**	**16**	**5**	**81**	**0**	**13**	**1**	**14**	**1,154**	**0**

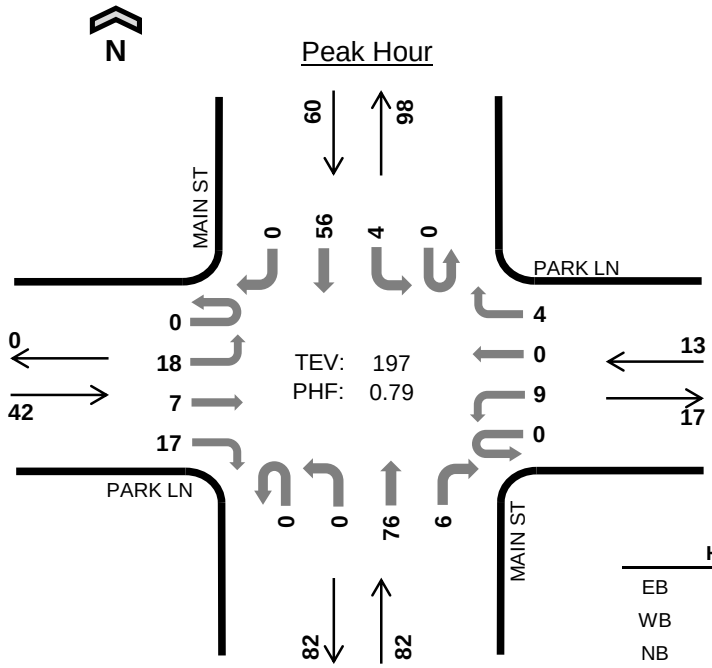
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	3	0	0	*5*	0	0	0	0	*0*	3	0	8	10	*21*
4:15 PM	5	3	0	0	*8*	0	0	0	0	*0*	0	0	6	4	*10*
4:30 PM	3	4	1	0	*8*	1	0	0	0	*1*	1	1	6	9	*17*
4:45 PM	2	0	0	0	*2*	0	0	0	0	*0*	4	1	7	13	*25*
5:00 PM	**3**	**5**	**0**	**0**	***8***	**0**	**1**	**0**	**0**	***1***	**4**	**0**	**12**	**8**	*24*
5:15 PM	**7**	**2**	**0**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**19**	**11**	*31*
5:30 PM	**3**	**2**	**0**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**17**	**12**	*34*
5:45 PM	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**11**	**6**	***20***
Count Total	27	20	1	0	*48*	1	1	0	0	*2*	20	3	86	73	*182*
Peak Hour	**15**	**10**	**0**	**0**	***25***	**0**	**1**	**0**	**0**	***1***	**12**	**1**	**59**	**37**	***109***

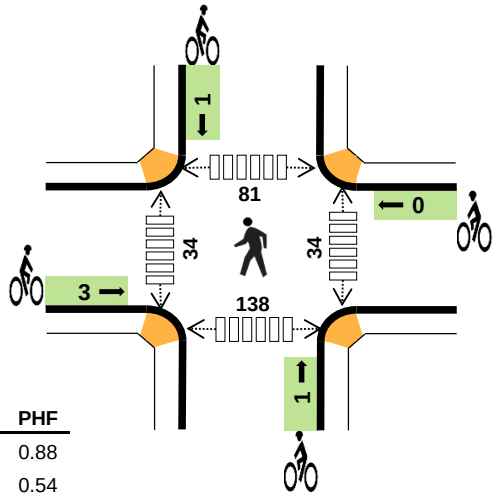
Mark Skaggs: (425) 250-0777

mark.skaggs@idaxdata.com

MAIN ST
PARK LN



Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.0%	0.88
WB	0.0%	0.54
NB	2.4%	0.79
SB	0.0%	0.68
TOTAL	1.0%	0.79

Two-Hour Count Summaries

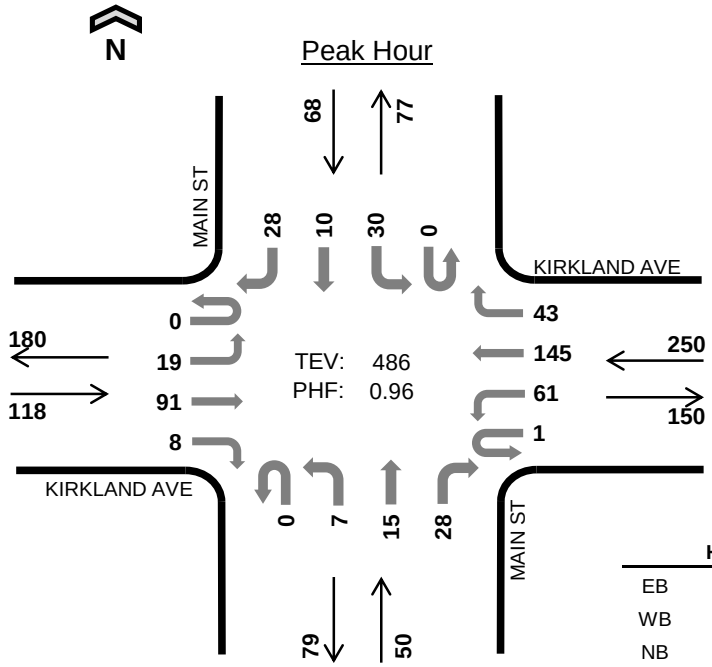
Interval Start	PARK LN Eastbound				PARK LN Westbound				MAIN ST Northbound				MAIN ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	3	1	2	0	0	0	2	0	0	12	0	0	0	8	0	28	0
4:15 PM	0	3	2	0	0	1	0	1	0	0	19	1	0	3	11	0	41	0
4:30 PM	0	3	0	0	0	1	0	1	0	0	14	5	0	0	10	0	34	0
4:45 PM	0	8	0	1	0	4	0	2	0	0	17	1	0	1	11	0	45	148
5:00 PM	**0**	**4**	**2**	**6**	**0**	**3**	**0**	**0**	**0**	**0**	**19**	**0**	**0**	**1**	**9**	**0**	**44**	164
5:15 PM	**0**	**4**	**1**	**3**	**0**	**4**	**0**	**2**	**0**	**0**	**23**	**3**	**0**	**1**	**21**	**0**	**62**	185
5:30 PM	**0**	**4**	**4**	**3**	**0**	**1**	**0**	**1**	**0**	**0**	**15**	**1**	**0**	**1**	**13**	**0**	**43**	194
5:45 PM	**0**	**6**	**0**	**5**	**0**	**1**	**0**	**1**	**0**	**0**	**19**	**2**	**0**	**1**	**13**	**0**	**48**	**197**
Count Total	0	35	10	20	0	15	0	10	0	0	138	13	0	8	96	0	345	0
Peak Hour	**0**	**18**	**7**	**17**	**0**	**9**	**0**	**4**	**0**	**0**	**76**	**6**	**0**	**4**	**56**	**0**	**197**	**0**

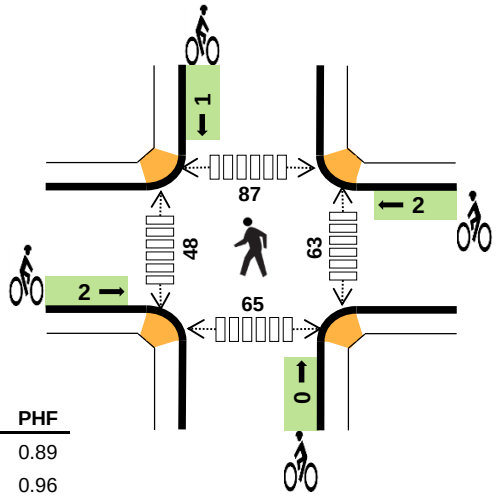
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	2	0	0	0	*2*	5	10	11	29	*55*
4:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	4	11	10	29	*54*
4:30 PM	0	0	1	1	*2*	0	0	0	0	*0*	6	6	15	22	*49*
4:45 PM	0	0	0	0	*0*	0	1	0	0	*1*	4	16	22	23	*65*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**12**	**11**	**15**	**38**	*76*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**5**	**5**	**26**	**42**	*78*
5:30 PM	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**0**	**1**	***2***	**6**	**13**	**16**	**32**	*67*
5:45 PM	**0**	**0**	**1**	**0**	***1***	**2**	**0**	**1**	**0**	***3***	**11**	**5**	**24**	**26**	***66***
Count Total	0	0	3	2	*5*	5	1	1	1	*8*	53	77	139	241	*510*
Peak Hour	**0**	**0**	**2**	**0**	***2***	**3**	**0**	**1**	**1**	***5***	**34**	**34**	**81**	**138**	***287***

MAIN ST
KIRKLAND AVE

Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.8%	0.89
WB	0.4%	0.96
NB	0.0%	0.89
SB	0.0%	0.77
TOTAL	0.4%	0.96

Two-Hour Count Summaries

Interval Start	KIRKLAND AVE Eastbound				KIRKLAND AVE Westbound				MAIN ST Northbound				MAIN ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	21	2	1	8	24	6	0	0	1	6	0	3	3	2	79	0
4:15 PM	0	4	25	2	0	10	41	20	0	3	2	9	0	7	2	5	130	0
4:30 PM	1	2	27	3	0	6	33	13	0	2	0	9	0	3	6	2	107	0
4:45 PM	**0**	**3**	**26**	**1**	**0**	**17**	**33**	**13**	**0**	**1**	**5**	**8**	**0**	**7**	**2**	**4**	**120**	436
5:00 PM	**0**	**2**	**27**	**3**	**1**	**13**	**39**	**12**	**0**	**2**	**2**	**6**	**0**	**6**	**3**	**6**	**122**	479
5:15 PM	**0**	**9**	**22**	**2**	**0**	**14**	**38**	**8**	**0**	**1**	**5**	**6**	**0**	**13**	**3**	**6**	**127**	476
5:30 PM	**0**	**5**	**16**	**2**	**0**	**17**	**35**	**10**	**0**	**3**	**3**	**8**	**0**	**4**	**2**	**12**	**117**	**486**
5:45 PM	0	3	21	3	0	12	21	17	0	0	1	9	0	6	1	5	99	465
Count Total	1	30	185	18	2	97	264	99	0	12	19	61	0	49	22	42	901	0
Peak Hour	**0**	**19**	**91**	**8**	**1**	**61**	**145**	**43**	**0**	**7**	**15**	**28**	**0**	**30**	**10**	**28**	**486**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

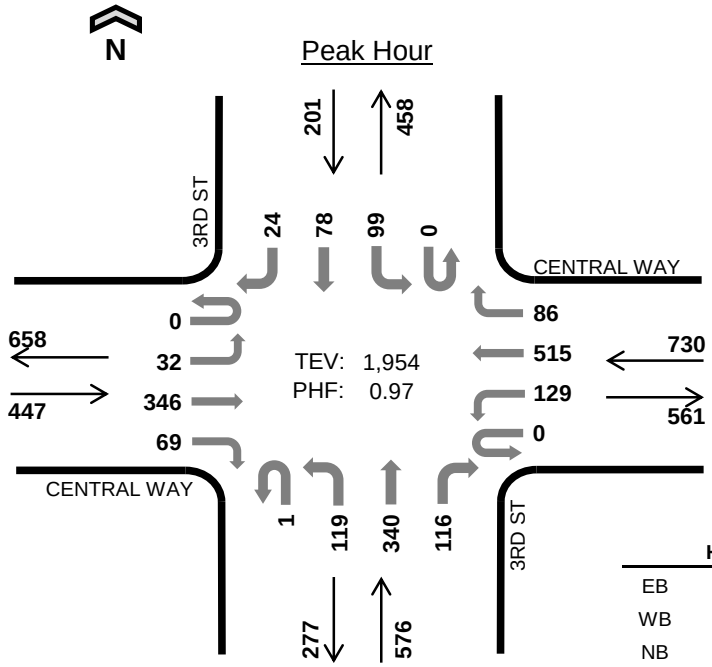
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	0	0	*1*	1	0	0	1	*2*	8	11	23	22	*64*
4:15 PM	1	1	0	0	*2*	1	1	0	0	*2*	12	5	15	17	*49*
4:30 PM	0	0	0	1	*1*	2	1	0	0	*3*	15	11	29	9	*64*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***	**14**	**11**	**18**	**9**	*52*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	***2***	**14**	**19**	**28**	**19**	*80*
5:15 PM	**1**	**0**	**0**	**0**	***1***	**1**	**0**	**0**	**0**	***1***	**20**	**9**	**15**	**19**	*63*
5:30 PM	**0**	**1**	**0**	**0**	***1***	**0**	**1**	**0**	**0**	***1***	**15**	**9**	**26**	**18**	***68***
5:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	8	11	13	28	*60*
Count Total	2	4	0	1	*7*	6	4	0	2	*12*	106	86	167	141	*500*
Peak Hour	**1**	**1**	**0**	**0**	***2***	**2**	**2**	**0**	**1**	***5***	**63**	**48**	**87**	**65**	***263***

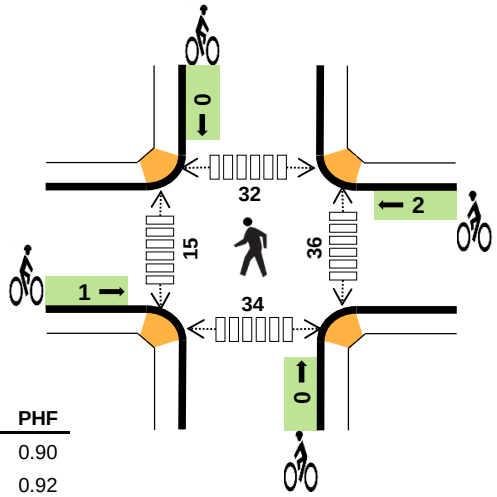
Mark Skaggs: (425) 250-0777

mark.skaggs@idaxdata.com

3RD ST
CENTRAL WAY

Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	3.8%	0.90
WB	1.4%	0.92
NB	2.4%	0.89
SB	2.0%	0.76
TOTAL	2.3%	0.97

Two-Hour Count Summaries

Interval Start	CENTRAL WAY Eastbound				CENTRAL WAY Westbound				3RD ST Northbound				3RD ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	6	85	12	0	30	135	22	0	39	45	31	0	25	14	3	447	0
4:15 PM	0	3	74	20	0	40	136	27	0	25	64	29	0	18	11	5	452	0
4:30 PM	0	7	84	20	0	24	128	26	0	33	96	22	0	23	21	1	485	0
4:45 PM	**0**	**3**	**88**	**12**	**0**	**32**	**132**	**18**	**0**	**23**	**70**	**38**	**0**	**16**	**23**	**5**	**460**	1,844
5:00 PM	**0**	**12**	**84**	**11**	**0**	**22**	**121**	**27**	**0**	**30**	**108**	**24**	**0**	**38**	**19**	**9**	**505**	1,902
5:15 PM	**0**	**11**	**89**	**24**	**0**	**33**	**124**	**23**	**1**	**37**	**89**	**27**	**0**	**22**	**12**	**6**	**498**	1,948
5:30 PM	**0**	**6**	**85**	**22**	**0**	**42**	**138**	**18**	**0**	**29**	**73**	**27**	**0**	**23**	**24**	**4**	**491**	**1,954**
5:45 PM	0	9	83	12	0	28	118	30	0	27	79	30	0	21	16	3	456	1,950
Count Total	0	57	672	133	0	251	1,032	191	1	243	624	228	0	186	140	36	3,794	0
Peak Hour	**0**	**32**	**346**	**69**	**0**	**129**	**515**	**86**	**1**	**119**	**340**	**116**	**0**	**99**	**78**	**24**	**1,954**	**0**

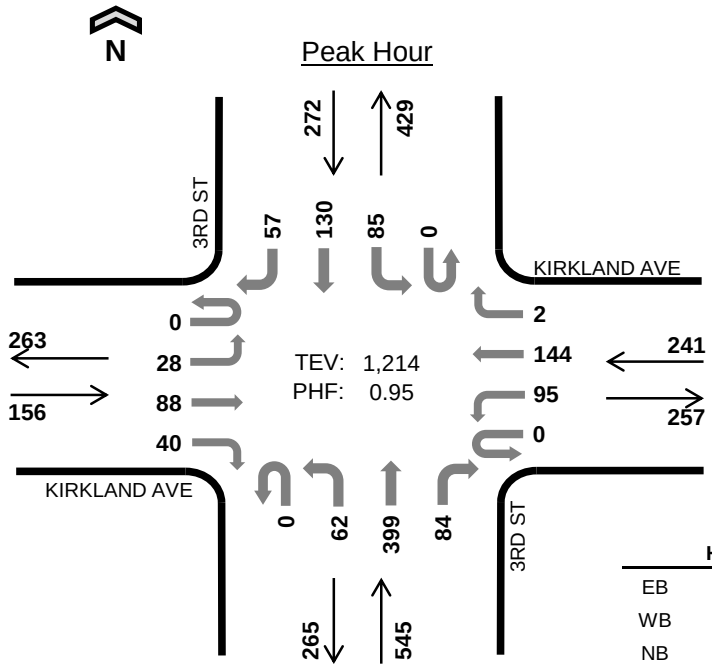
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	6	7	1	*16*	0	0	0	0	*0*	6	5	5	0	*16*
4:15 PM	4	3	6	0	*13*	0	0	1	0	*1*	6	12	3	3	*24*
4:30 PM	4	3	4	3	*14*	1	0	0	0	*1*	6	7	1	4	*18*
4:45 PM	**2**	**5**	**2**	**2**	***11***	**0**	**0**	**0**	**0**	***0***	**1**	**4**	**1**	**4**	*10*
5:00 PM	**3**	**1**	**5**	**1**	***10***	**1**	**1**	**0**	**0**	***2***	**10**	**6**	**13**	**10**	*39*
5:15 PM	**8**	**2**	**4**	**1**	***15***	**0**	**0**	**0**	**0**	***0***	**12**	**1**	**8**	**15**	*36*
5:30 PM	**4**	**2**	**3**	**0**	***9***	**0**	**1**	**0**	**0**	***1***	**13**	**4**	**10**	**5**	***32***
5:45 PM	1	2	3	1	*7*	0	0	0	0	*0*	10	10	13	6	*39*
Count Total	28	24	34	9	*95*	2	2	1	0	*5*	64	49	54	47	*214*
Peak Hour	**17**	**10**	**14**	**4**	***45***	**1**	**2**	**0**	**0**	***3***	**36**	**15**	**32**	**34**	***117***

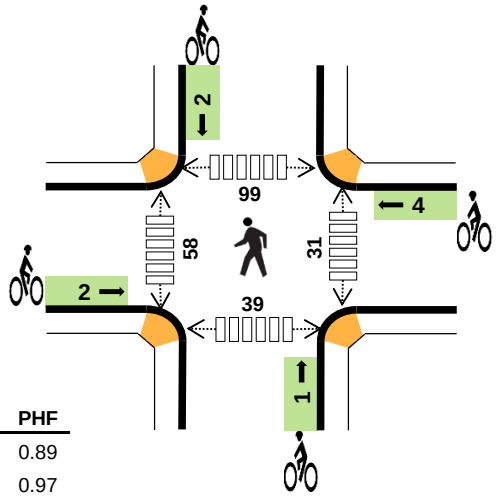
Mark Skaggs: (425) 250-0777

mark.skaggs@idaxdata.com

3RD ST
KIRKLAND AVE



Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	0.6%	0.89
WB	1.2%	0.97
NB	1.5%	0.89
SB	8.1%	0.82
TOTAL	2.8%	0.95

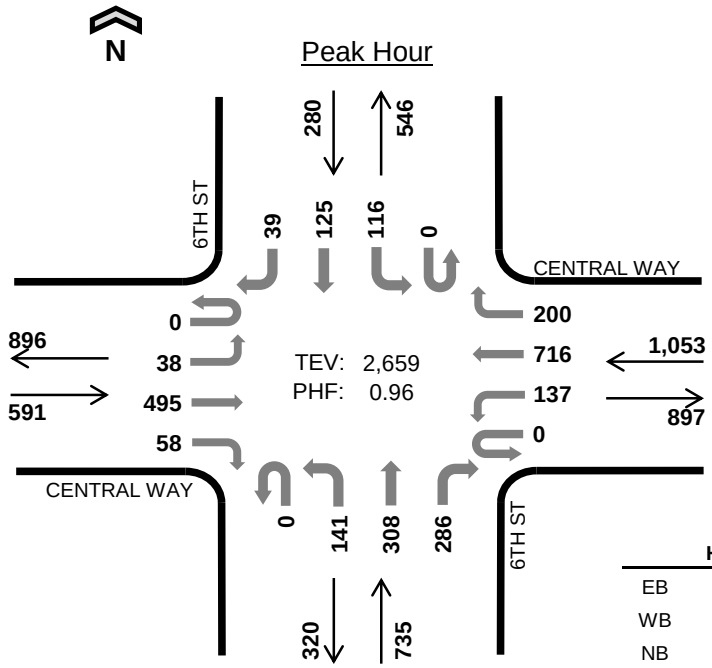
Two-Hour Count Summaries

Interval Start	KIRKLAND AVE Eastbound				KIRKLAND AVE Westbound				3RD ST Northbound				3RD ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	21	9	0	28	24	1	0	11	81	18	0	25	32	6	258	0
4:15 PM	0	7	27	10	0	23	42	1	0	19	72	28	0	19	27	21	296	0
4:30 PM	0	16	24	6	0	18	41	3	0	9	98	16	0	22	36	5	294	0
4:45 PM	**0**	**8**	**23**	**7**	**0**	**22**	**37**	**2**	**0**	**14**	**106**	**14**	**0**	**25**	**25**	**17**	**300**	1,148
5:00 PM	**0**	**7**	**28**	**9**	**0**	**24**	**38**	**0**	**0**	**16**	**86**	**20**	**0**	**19**	**26**	**10**	**283**	1,173
5:15 PM	**0**	**7**	**18**	**10**	**0**	**18**	**39**	**0**	**0**	**19**	**105**	**29**	**0**	**18**	**37**	**12**	**312**	1,189
5:30 PM	**0**	**6**	**19**	**14**	**0**	**31**	**30**	**0**	**0**	**13**	**102**	**21**	**0**	**23**	**42**	**18**	**319**	**1,214**
5:45 PM	0	7	27	9	0	34	37	0	0	13	85	20	0	9	37	11	289	1,203
Count Total	0	60	187	74	0	198	288	7	0	114	735	166	0	160	262	100	2,351	0
Peak Hour	**0**	**28**	**88**	**40**	**0**	**95**	**144**	**2**	**0**	**62**	**399**	**84**	**0**	**85**	**130**	**57**	**1,214**	**0**

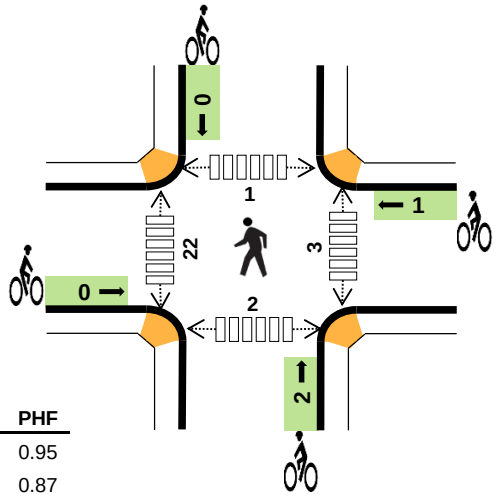
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	6	6	*13*	1	0	0	0	*1*	5	11	23	13	*52*
4:15 PM	1	2	4	6	*13*	1	1	2	0	*4*	11	8	17	11	*47*
4:30 PM	0	1	2	3	*6*	1	0	1	1	*3*	11	3	24	17	*55*
4:45 PM	**0**	**2**	**0**	**8**	***10***	**1**	**0**	**0**	**0**	***1***	**9**	**13**	**32**	**7**	*61*
5:00 PM	**0**	**1**	**4**	**4**	***9***	**1**	**1**	**0**	**1**	***3***	**8**	**15**	**22**	**11**	*56*
5:15 PM	**1**	**0**	**2**	**5**	***8***	**0**	**2**	**0**	**1**	***3***	**3**	**7**	**16**	**10**	*36*
5:30 PM	**0**	**0**	**2**	**5**	***7***	**0**	**1**	**1**	**0**	***2***	**11**	**23**	**29**	**11**	***74***
5:45 PM	0	1	0	5	*6*	0	0	0	0	*0*	10	12	11	19	*52*
Count Total	2	8	20	42	*72*	5	5	4	3	*17*	68	92	174	99	*433*
Peak Hour	**1**	**3**	**8**	**22**	***34***	**2**	**4**	**1**	**2**	***9***	**31**	**58**	**99**	**39**	***227***

6TH ST
CENTRAL WAY



Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	2.5%	0.95
WB	0.8%	0.87
NB	1.1%	0.94
SB	1.8%	0.89
TOTAL	1.4%	0.96

Two-Hour Count Summaries

Interval Start	CENTRAL WAY Eastbound				CENTRAL WAY Westbound				6TH ST Northbound				6TH ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	1	10	130	19	0	32	150	36	0	43	86	59	0	22	24	11	623	0
4:15 PM	0	5	99	20	0	34	180	52	0	35	75	60	0	23	20	12	615	0
4:30 PM	0	8	110	20	0	30	160	36	0	47	82	57	0	29	41	12	632	0
4:45 PM	**0**	**8**	**121**	**19**	**0**	**42**	**176**	**42**	**0**	**26**	**79**	**66**	**0**	**27**	**42**	**10**	**658**	2,528
5:00 PM	**0**	**8**	**131**	**16**	**0**	**28**	**169**	**56**	**0**	**32**	**77**	**86**	**0**	**28**	**24**	**9**	**664**	2,569
5:15 PM	**0**	**12**	**123**	**8**	**0**	**25**	**171**	**43**	**0**	**37**	**78**	**78**	**0**	**31**	**31**	**11**	**648**	2,602
5:30 PM	**0**	**10**	**120**	**15**	**0**	**42**	**200**	**59**	**0**	**46**	**74**	**56**	**0**	**30**	**28**	**9**	**689**	**2,659**
5:45 PM	1	13	109	13	0	34	172	55	0	35	64	70	0	22	23	16	627	2,628
Count Total	2	74	943	130	0	267	1,378	379	0	301	615	532	0	212	233	90	5,156	0
Peak Hour	**0**	**38**	**495**	**58**	**0**	**137**	**716**	**200**	**0**	**141**	**308**	**286**	**0**	**116**	**125**	**39**	**2,659**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

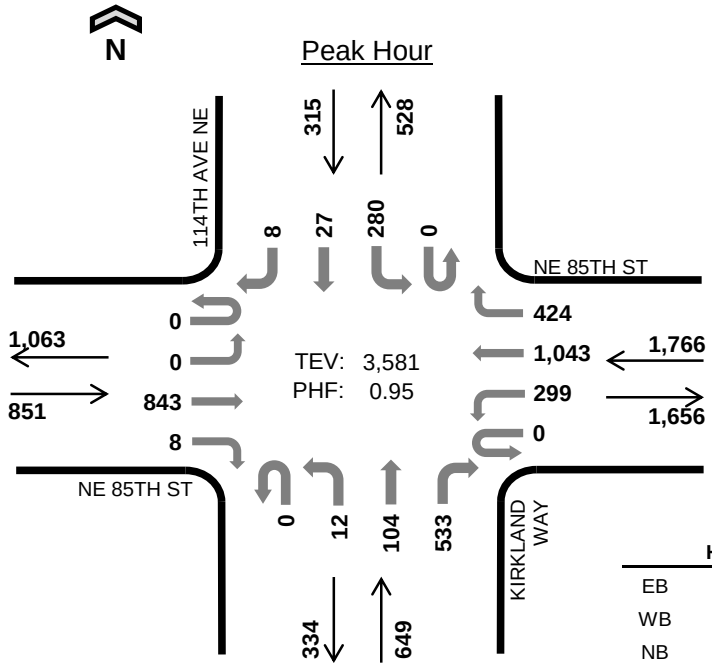
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	6	6	0	3	*15*	0	0	0	0	*0*	1	3	0	1	*5*
4:15 PM	5	2	6	1	*14*	0	0	0	0	*0*	2	2	2	1	*7*
4:30 PM	6	2	1	5	*14*	0	0	0	0	*0*	0	5	0	2	*7*
4:45 PM	**1**	**3**	**3**	**2**	***9***	**0**	**0**	**1**	**0**	***1***	**0**	**3**	**1**	**0**	*4*
5:00 PM	**2**	**2**	**2**	**0**	***6***	**0**	**1**	**1**	**0**	***2***	**0**	**4**	**0**	**0**	*4*
5:15 PM	**8**	**1**	**2**	**0**	***11***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**0**	**1**	*6*
5:30 PM	**4**	**2**	**1**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**12**	**0**	**1**	***14***
5:45 PM	1	3	3	2	*9*	0	0	0	0	*0*	1	2	0	0	*3*
Count Total	33	21	18	16	*88*	0	1	2	0	*3*	7	34	3	6	*50*
Peak Hour	**15**	**8**	**8**	**5**	***36***	**0**	**1**	**2**	**0**	***3***	**3**	**22**	**1**	**2**	***28***

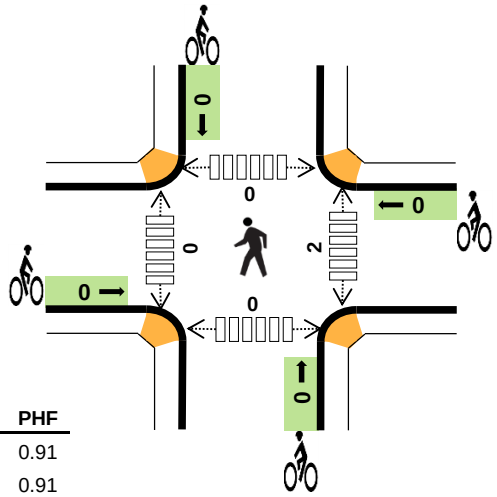
Mark Skaggs: (425) 250-0777

mark.skaggs@idaxdata.com

KIRKLAND WAY
NE 85TH ST

Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	1.3%	0.91
WB	0.7%	0.91
NB	0.6%	0.88
SB	1.3%	0.79
TOTAL	0.9%	0.95

Two-Hour Count Summaries

Interval Start	NE 85TH ST Eastbound				NE 85TH ST Westbound				KIRKLAND WAY Northbound				114TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	199	1	0	57	220	91	0	4	18	111	0	86	3	3	793	0
4:15 PM	0	0	172	6	0	83	265	100	0	7	9	93	0	72	1	4	812	0
4:30 PM	0	0	199	3	1	58	202	77	0	3	18	108	0	66	4	1	740	0
4:45 PM	0	1	198	3	0	73	257	84	0	3	18	110	0	68	8	0	823	3,168
5:00 PM	**0**	**0**	**233**	**0**	**0**	**76**	**252**	**107**	**0**	**3**	**24**	**129**	**0**	**85**	**6**	**2**	**917**	3,292
5:15 PM	**0**	**0**	**225**	**4**	**0**	**65**	**242**	**83**	**0**	**4**	**30**	**128**	**0**	**89**	**9**	**2**	**881**	3,361
5:30 PM	**0**	**0**	**208**	**1**	**0**	**78**	**290**	**118**	**0**	**3**	**35**	**147**	**0**	**59**	**5**	**1**	**945**	3,566
5:45 PM	**0**	**0**	**177**	**3**	**0**	**80**	**259**	**116**	**0**	**2**	**15**	**129**	**0**	**47**	**7**	**3**	**838**	**3,581**
Count Total	0	1	1,611	21	1	570	1,987	776	0	29	167	955	0	572	43	16	6,749	0
Peak Hour	**0**	**0**	**843**	**8**	**0**	**299**	**1,043**	**424**	**0**	**12**	**104**	**533**	**0**	**280**	**27**	**8**	**3,581**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	7	2	3	*17*	0	0	0	0	*0*	0	3	4	0	*7*
4:15 PM	9	5	1	0	*15*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	6	4	1	2	*13*	0	0	0	0	*0*	0	0	1	0	*1*
4:45 PM	4	2	0	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**1**	**3**	**2**	**2**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**6**	**4**	**0**	**2**	***12***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
5:30 PM	**3**	**2**	**1**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**1**	**3**	**1**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	35	30	8	10	*83*	0	0	0	0	*0*	2	3	5	0	*10*
Peak Hour	**11**	**12**	**4**	**4**	***31***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	***2***

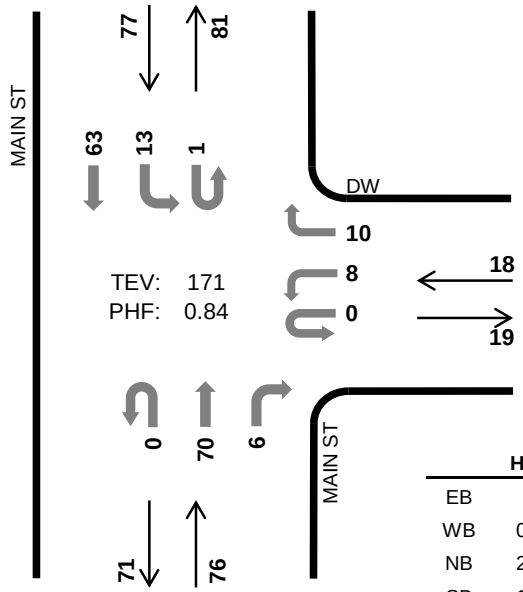
Mark Skaggs: (425) 250-0777

mark.skaggs@idaxdata.com

MAIN ST
DW

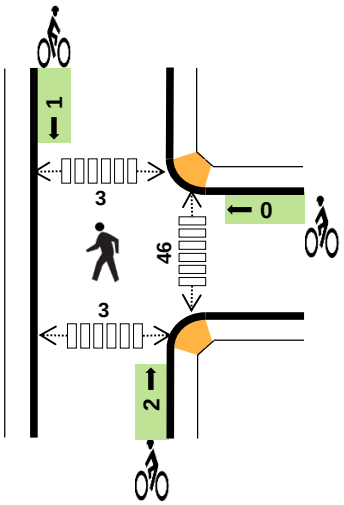
N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.75
NB	2.6%	0.86
SB	1.3%	0.71
TOTAL	1.8%	0.84

Date: Thu, Sep 10, 2015
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



Two-Hour Count Summaries

Interval Start	0				DW				MAIN ST				MAIN ST				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	2	0	0	8	0	0	3	6	0	20	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	21	1	0	1	13	0	37	0
4:30 PM	0	0	0	0	0	0	0	4	0	0	11	1	0	0	12	0	28	0
4:45 PM	0	0	0	0	0	0	0	2	0	0	15	2	0	0	17	0	36	121
5:00 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**0**	**17**	**2**	**1**	**3**	**11**	**0**	**39**	140
5:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**20**	**0**	**0**	**4**	**23**	**0**	**51**	154
5:30 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**13**	**2**	**0**	**0**	**17**	**0**	**38**	164
5:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**20**	**2**	**0**	**6**	**12**	**0**	**43**	**171**
Count Total	0	0	0	0	0	10	0	18	0	0	125	10	1	17	111	0	292	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**10**	**0**	**0**	**70**	**6**	**1**	**13**	**63**	**0**	**171**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	1	*1*	6	0	1	1	*8*
4:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	7	0	2	0	*9*
4:30 PM	0	1	0	1	*2*	0	0	0	0	*0*	4	0	0	3	*7*
4:45 PM	0	0	0	0	*0*	0	0	0	1	*1*	3	0	2	0	*5*
5:00 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**12**	**0**	**2**	**2**	*16*
5:15 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**11**	**0**	**0**	**1**	*12*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**14**	**0**	**0**	**0**	*14*
5:45 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**1**	**0**	***1***	**9**	**0**	**1**	**0**	***10***
Count Total	0	1	3	2	*6*	0	0	1	2	*3*	66	0	8	7	*81*
Peak Hr	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**1**	**0**	***1***	**46**	**0**	**3**	**3**	***52***

Appendix C:LOS Definitions

Highway Capacity Manual, 2000

Signalized intersection level of service (LOS) is defined in terms of the average total vehicle delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. Specifically, LOS criteria are stated in terms of average delay per vehicle during a specified time period (for example, the PM peak hour). Vehicle delay is a complex measure based on many variables, including signal phasing (i.e., progression of movements through the intersection), signal cycle length, and traffic volumes with respect to intersection capacity. Table 1 shows LOS criteria for signalized intersections, as described in the *Highway Capacity Manual* (Transportation Research Board, Special Report 209, 2000).

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (sec/veh)	General Description (Signalized Intersections)
A	≤10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

Source: *Highway Capacity Manual*, Transportation Research Board, Special Report 209, 2000.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way stop-controlled and two-way stop-controlled. All-way, stop-controlled intersection LOS is expressed in terms of the average vehicle delay of all of the movements, much like that of a signalized intersection. Two-way, stop-controlled intersection LOS is defined in terms of the average vehicle delay of an individual movement(s). This is because the performance of a two-way, stop-controlled intersection is more closely reflected in terms of its individual movements, rather than its performance overall. For this reason, LOS for a two-way, stop-controlled intersection is defined in terms of its individual movements. With this in mind, total average vehicle delay (i.e., average delay of all movements) for a two-way, stop-controlled intersection should be viewed with discretion. Table 2 shows LOS criteria for unsignalized intersections (both all-way and two-way, stop-controlled).

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Source: *Highway Capacity Manual*, Transportation Research Board, Special Report 209, 2000.

Highway Capacity Manual 2010

Signalized intersection level of service (LOS) is defined in terms of a weighted average control delay for the entire intersection. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control as well as provides a surrogate measure for driver discomfort and fuel consumption. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday PM peak hour). Control delay is a complex measure based on many variables, including signal phasing and coordination (i.e., progression of movements through the intersection and along the corridor), signal cycle length, and traffic volumes with respect to intersection capacity and resulting queues. Table 1 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2010* (Transportation Research Board, 2010).

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F[1]	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.
1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way stop and two-way stop control. All-way stop control intersection LOS is expressed in terms of the weighted average control delay of the overall intersection or by approach. Two-way stop-controlled intersection LOS is defined in terms of the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns. This approach is because major-street through vehicles are assumed to experience zero delay, a weighted average of all movements results in very low overall average delay, and this calculated low delay could mask deficiencies of minor movements. Table 2 shows LOS criteria for unsignalized intersections.

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F[1]	>50

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.
1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Appendix D:LOS Worksheets

Intersection	
Int Delay, s/veh	2.6

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	10	345	20	35	570	45	15	5	80	15	5	15
Future Vol, veh/h	5	10	345	20	35	570	45	15	5	80	15	5	15
Conflicting Peds, #/hr	0	60	0	38	49	0	71	38	0	49	71	0	60
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	100	-	-	25	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	2	2	2	0	0	0	0	0	0
Mvmt Flow	5	11	375	22	38	620	49	16	5	87	16	5	16

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	487	739	0	0	446	0	0	906	1283	506	1316	1269	465
Stage 1	-	-	-	-	-	-	-	457	467	-	791	791	-
Stage 2	-	-	-	-	-	-	-	449	816	-	525	478	-
Critical Hdwy	6.96	4.16	-	-	4.13	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.138	2.238	-	-	2.219	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	549	854	-	-	1112	-	-	246	167	570	126	170	550
Stage 1	-	-	-	-	-	-	-	587	565	-	353	404	-
Stage 2	-	-	-	-	-	-	-	564	393	-	540	559	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	690	690	-	-	1046	-	-	207	145	514	88	148	492
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	207	145	-	207	258	-
Stage 1	-	-	-	-	-	-	-	587	542	-	353	366	-
Stage 2	-	-	-	-	-	-	-	492	356	-	418	536	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.5	18.2	19.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	381	690	-	-	1046	-	-	286
HCM Lane V/C Ratio	0.285	0.024	-	-	0.036	-	-	0.133
HCM Control Delay (s)	18.2	10.3	-	-	8.6	-	-	19.5
HCM Lane LOS	C	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.5

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	20	5	15	0	10	0	5	0	0	75	5
Future Vol, veh/h	0	20	5	15	0	10	0	5	0	0	75	5
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	2	2	2	2
Mvmt Flow	0	25	6	19	0	13	0	6	0	0	95	6
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.4	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	67%	8%
Vol Thru, %	94%	12%	0%	92%
Vol Right, %	6%	38%	33%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	40	15	60
LT Vol	0	20	10	5
Through Vol	75	5	0	55
RT Vol	5	15	5	0
Lane Flow Rate	101	51	19	76
Geometry Grp	1	1	1	1
Degree of Util (X)	0.115	0.058	0.022	0.087
Departure Headway (Hd)	4.076	4.096	4.179	4.115
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	861	842	864
Service Time	2.128	2.184	2.276	2.172
HCM Lane V/C Ratio	0.116	0.059	0.023	0.088
HCM Control Delay	7.7	7.4	7.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.1	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	5	55	0
Future Vol, veh/h	0	5	55	0
Peak Hour Factor	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	6	70	0
Number of Lanes	0	0	1	0

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

Lane

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	20	90	10	5	60	145	45	5	15	30	30	10	30
Future Vol, veh/h	20	90	10	5	60	145	45	5	15	30	30	10	30
Conflicting Peds, #/hr	135	0	113	0	128	0	150	113	0	128	150	0	135
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	94	10	5	63	151	47	5	16	31	31	10	31

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	348	0	0	-	232	0	0	724	752	377	763	734	459
Stage 1	-	-	-	-	-	-	-	269	269	-	449	460	-
Stage 2	-	-	-	-	-	-	-	455	483	-	314	274	-
Critical Hdwy	4.11	-	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1216	-	-	-	1348	-	-	344	342	674	324	350	606
Stage 1	-	-	-	-	-	-	-	741	690	-	593	569	-
Stage 2	-	-	-	-	-	-	-	589	556	-	701	687	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1079	-	-	~ -13	~ -13	-	-	243	262	527	219	268	471
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	243	262	-	219	268	-
Stage 1	-	-	-	-	-	-	-	648	603	-	508	498	-
Stage 2	-	-	-	-	-	-	-	478	487	-	550	601	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4		16.3	21.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	1079	-	-	+	-	-	294
HCM Lane V/C Ratio	0.14	0.019	-	-	-	-	-	0.248
HCM Control Delay (s)	16.3	8.4	0	-	-	-	-	21.2
HCM Lane LOS	C	A	A	-	-	-	-	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	-	-	-	1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 Signalized Intersection Summary
4: 3rd Street & Central Way

Park Lane Apartmetns
Existing (2015) Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	30	345	70	130	515	85	5	120	340	115	100	80
Future Volume (veh/h)	30	345	70	130	515	85	5	120	340	115	100	80
Number	1	6	16	5	2	12		7	4	14	3	8
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.93	0.98		0.93		1.00		0.96	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1881	1881	1900		1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	31	356	72	134	531	88		124	351	119	103	82
Adj No. of Lanes	1	1	1	1	2	0		1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	1	1	1		2	2	2	2	2
Cap, veh/h	352	598	472	403	1119	184		160	533	436	134	364
Arrive On Green	0.04	0.33	0.33	0.08	0.37	0.37		0.09	0.29	0.29	0.08	0.27
Sat Flow, veh/h	1740	1827	1441	1792	3037	501		1774	1863	1524	1774	1342
Grp Volume(v), veh/h	31	356	72	134	311	308		124	351	119	103	0
Grp Sat Flow(s),veh/h/ln	1740	1827	1441	1792	1787	1750		1774	1863	1524	1774	0
Q Serve(g_s), s	0.8	11.3	2.4	3.2	9.2	9.3		4.7	11.5	4.2	3.9	0.0
Cycle Q Clear(g_c), s	0.8	11.3	2.4	3.2	9.2	9.3		4.7	11.5	4.2	3.9	0.0
Prop In Lane	1.00		1.00	1.00		0.29		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	352	598	472	403	659	645		160	533	436	134	0
V/C Ratio(X)	0.09	0.60	0.15	0.33	0.47	0.48		0.78	0.66	0.27	0.77	0.00
Avail Cap(c_a), veh/h	561	818	645	544	800	784		282	699	572	282	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.5	19.5	16.5	13.8	16.7	16.7		30.8	21.7	19.1	31.4	0.0
Incr Delay (d2), s/veh	0.1	1.0	0.1	0.5	0.5	0.5		7.8	1.4	0.3	8.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.8	1.0	1.6	4.6	4.5		2.7	6.1	1.8	2.2	0.0
LnGrp Delay(d),s/veh	14.6	20.4	16.6	14.3	17.2	17.3		38.6	23.2	19.5	40.3	0.0
LnGrp LOS	B	C	B	B	B	B		D	C	B	D	
Approach Vol, veh/h		459			753				594			211
Approach Delay, s/veh		19.4			16.7				25.7			29.8
Approach LOS		B			B				C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	29.5	9.2	23.8	9.5	26.7	10.2	22.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	11.0	26.0	11.0	31.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	2.8	11.3	5.9	13.5	5.2	13.3	6.7	5.3
Green Ext Time (p_c), s	0.0	4.5	0.1	2.0	0.2	4.3	0.1	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
4: 3rd Street & Central Way

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	25
Future Volume (veh/h)	25
Number	18
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.96
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	26
Adj No. of Lanes	0
Peak Hour Factor	0.97
Percent Heavy Veh, %	2
Cap, veh/h	115
Arrive On Green	0.27
Sat Flow, veh/h	425
Grp Volume(v), veh/h	108
Grp Sat Flow(s),veh/h/ln	1767
Q Serve(g_s), s	3.3
Cycle Q Clear(g_c), s	3.3
Prop In Lane	0.24
Lane Grp Cap(c), veh/h	480
V/C Ratio(X)	0.23
Avail Cap(c_a), veh/h	817
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	19.6
Incr Delay (d2), s/veh	0.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.6
LnGrp Delay(d),s/veh	19.8
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

HCM 2010 Signalized Intersection Summary
5: State Street/3rd Street & Kirkland Ave

Park Lane Apartmetns
Existing (2015) Weekday PM Peak Hour

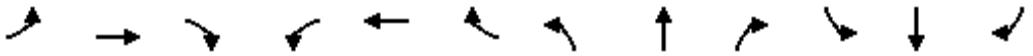
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	90	40	95	145	5	60	400	85	85	130	55
Future Volume (veh/h)	30	90	40	95	145	5	60	400	85	85	130	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.78	1.00		0.80	1.00		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1863	1863	1900	1759	1759	1900
Adj Flow Rate, veh/h	32	95	42	100	153	5	63	421	89	89	137	58
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	8	8	8
Cap, veh/h	72	273	121	137	500	16	111	442	93	123	355	150
Arrive On Green	0.04	0.24	0.24	0.08	0.28	0.28	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1792	1127	498	1792	1795	59	1774	1454	307	1675	1127	477
Grp Volume(v), veh/h	32	0	137	100	0	158	63	0	510	89	0	195
Grp Sat Flow(s),veh/h/ln	1792	0	1625	1792	0	1854	1774	0	1762	1675	0	1604
Q Serve(g_s), s	1.1	0.0	4.6	3.6	0.0	4.4	2.3	0.0	18.7	3.4	0.0	6.2
Cycle Q Clear(g_c), s	1.1	0.0	4.6	3.6	0.0	4.4	2.3	0.0	18.7	3.4	0.0	6.2
Prop In Lane	1.00		0.31	1.00		0.03	1.00		0.17	1.00		0.30
Lane Grp Cap(c), veh/h	72	0	394	137	0	516	111	0	535	123	0	505
V/C Ratio(X)	0.44	0.00	0.35	0.73	0.00	0.31	0.57	0.00	0.95	0.73	0.00	0.39
Avail Cap(c_a), veh/h	163	0	445	163	0	516	162	0	535	153	0	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.9	0.0	20.6	29.7	0.0	18.7	30.0	0.0	22.4	29.8	0.0	17.6
Incr Delay (d2), s/veh	4.2	0.0	0.5	12.6	0.0	0.3	4.5	0.0	27.4	12.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.1	2.3	0.0	2.3	1.3	0.0	13.1	2.0	0.0	2.8
LnGrp Delay(d),s/veh	35.0	0.0	21.1	42.3	0.0	19.1	34.5	0.0	49.8	42.0	0.0	18.1
LnGrp LOS	D		C	D		B	C		D	D		B
Approach Vol, veh/h		169			258			573			284	
Approach Delay, s/veh		23.8			28.1			48.1			25.6	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	25.0	10.0	21.0	9.1	25.7	7.7	23.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	20.0	6.0	18.0	6.0	20.0	6.0	18.0
Max Q Clear Time (g_c+I1), s	5.4	20.7	5.6	6.6	4.3	8.2	3.1	6.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	2.6	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

HCM Signalized Intersection Capacity Analysis
6: 6th Street & Central Way

Park Lane Apartmetns
Existing (2015) Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	495	60	135	715	200	140	310	285	115	125	40
Future Volume (vph)	40	495	60	135	715	200	140	310	285	115	125	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			-3%			0%			0%	
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.97		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1726	3387		1814	3491		1787	1881	1572	1770	1777	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1726	3387		1814	3491		1787	1881	1572	1770	1777	
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)	42	516	62	141	745	208	146	323	297	120	130	42
RTOR Reduction (vph)	0	7	0	0	19	0	0	0	228	0	9	0
Lane Group Flow (vph)	42	572	0	141	934	0	146	323	69	120	163	0
Confl. Peds. (#/hr)	1		2	2		1	22		3	3		22
Confl. Bikes (#/hr)						1			2			
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		custom	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases							7		4			
Actuated Green, G (s)	4.9	28.0		13.5	36.6		13.8	23.8	23.8	12.7	22.7	
Effective Green, g (s)	4.9	28.0		13.5	36.6		13.8	23.8	23.8	12.7	22.7	
Actuated g/C Ratio	0.05	0.27		0.13	0.36		0.14	0.23	0.23	0.12	0.22	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
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)	82	929		240	1252		241	438	366	220	395	
v/s Ratio Prot	0.02	0.17		c0.08	c0.27		c0.08	c0.17		0.07	0.09	
v/s Ratio Perm									0.04			
v/c Ratio	0.51	0.62		0.59	0.75		0.61	0.74	0.19	0.55	0.41	
Uniform Delay, d1	47.4	32.3		41.6	28.6		41.5	36.2	31.4	41.9	33.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.3	1.2		3.6	2.5		4.3	6.4	0.3	2.8	0.7	
Delay (s)	52.7	33.5		45.3	31.1		45.8	42.6	31.6	44.7	34.6	
Level of Service	D	C		D	C		D	D	C	D	C	
Approach Delay (s)		34.8			32.9			38.9			38.8	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	102.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: Kirkland Way/114th Ave NE & Central Way

Park Lane Apartmetns
Existing (2015) Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	845	10	300	1045	425	10	105	535	280	25	10
Future Volume (vph)	0	845	10	300	1045	425	10	105	535	280	25	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	12	11	10	12
Grade (%)		2%			0%			0%			0%	
Total Lost time (s)		5.5	5.5	5.5	5.5			6.2	6.2	6.0	6.0	
Lane Util. Factor		0.95	1.00	1.00	0.91			1.00	1.00	0.97	1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			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	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.96	
Flt Protected		1.00	1.00	0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3539	1583	1787	5005			1748	1589	3351	1677	
Flt Permitted		1.00	1.00	0.11	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3539	1583	200	5005			1748	1589	3351	1677	
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
Growth Factor (vph)	100%	100%	100%	100%	100%	50%	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	0	889	11	316	1100	224	11	111	563	295	26	11
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	889	11	316	1324	0	0	122	563	295	37	0
Confl. Peds. (#/hr)									2	2		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Prot	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6	6	5	2		4	4	4 5	8	8	
Permitted Phases	6			2					6			
Actuated Green, G (s)		32.2	32.2	58.0	58.0			15.4	67.9	17.0	17.0	
Effective Green, g (s)		32.2	32.2	58.0	58.0			15.4	67.9	17.0	17.0	
Actuated g/C Ratio		0.30	0.30	0.54	0.54			0.14	0.63	0.16	0.16	
Clearance Time (s)		5.5	5.5	5.5	5.5			6.2		6.0	6.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		1054	471	405	2685			249	998	526	263	
v/s Ratio Prot		c0.25	0.01	c0.15	0.26			0.07	c0.19	c0.09	0.02	
v/s Ratio Perm				0.27					0.17			
v/c Ratio		0.84	0.02	0.78	0.49			0.49	0.56	0.56	0.14	
Uniform Delay, d1		35.6	26.8	27.5	15.8			42.7	11.6	42.1	39.3	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		6.3	0.0	9.4	0.1			1.5	0.7	1.4	0.2	
Delay (s)		41.9	26.9	36.9	15.9			44.2	12.3	43.5	39.5	
Level of Service		D	C	D	B			D	B	D	D	
Approach Delay (s)		41.7			20.0			18.0			43.0	
Approach LOS		D			B			B			D	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	108.1	Sum of lost time (s)	23.2
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.5

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	6	13	439	25	50	801	63	19	6	102	19	6	19
Future Vol, veh/h	6	13	439	25	50	801	63	19	6	102	19	6	19
Conflicting Peds, #/hr	0	60	0	38	49	0	71	38	0	49	71	0	60
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	100	-	-	25	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	2	2	2	0	0	0	0	0	0
Mvmt Flow	7	14	477	27	54	871	68	21	7	111	21	7	21

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	685	1010	0	0	553	0	0	1175	1700	611	1734	1680	601
Stage 1	-	-	-	-	-	-	-	568	581	-	1085	1085	-
Stage 2	-	-	-	-	-	-	-	607	1119	-	649	595	-
Critical Hdwy	6.96	4.16	-	-	4.13	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.138	2.238	-	-	2.219	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	405	674	-	-	1015	-	-	159	93	497	63	96	448
Stage 1	-	-	-	-	-	-	-	511	503	-	235	295	-
Stage 2	-	-	-	-	-	-	-	455	285	-	462	496	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	530	530	-	-	955	-	-	129	79	449	38	82	400
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	129	79	-	170	222	-
Stage 1	-	-	-	-	-	-	-	511	482	-	235	262	-
Stage 2	-	-	-	-	-	-	-	377	253	-	323	476	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.5	29.4	24.1
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	282	530	-	-	955	-	-	236
HCM Lane V/C Ratio	0.49	0.039	-	-	0.057	-	-	0.203
HCM Control Delay (s)	29.4	12.1	-	-	9	-	-	24.1
HCM Lane LOS	D	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	2.5	0.1	-	-	0.2	-	-	0.7

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	25	6	19	0	13	0	6	0	0	96	6
Future Vol, veh/h	0	25	6	19	0	13	0	6	0	0	96	6
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	2	2	2	2
Mvmt Flow	0	32	8	24	0	16	0	8	0	0	122	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.7	7.6	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	68%	7%
Vol Thru, %	94%	12%	0%	93%
Vol Right, %	6%	38%	32%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	50	19	81
LT Vol	0	25	13	6
Through Vol	96	6	0	75
RT Vol	6	19	6	0
Lane Flow Rate	129	63	24	103
Geometry Grp	1	1	1	1
Degree of Util (X)	0.148	0.076	0.03	0.119
Departure Headway (Hd)	4.128	4.311	4.43	4.165
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	836	813	848
Service Time	2.21	2.311	2.432	2.251
HCM Lane V/C Ratio	0.151	0.075	0.03	0.121
HCM Control Delay	7.9	7.7	7.6	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.1	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	75	0
Future Vol, veh/h	0	6	75	0
Peak Hour Factor	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	8	95	0
Number of Lanes	0	0	1	0

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

Lane

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	149	13	6	81	197	61	6	19	50	50	13	38
Future Vol, veh/h	25	149	13	6	81	197	61	6	19	50	50	13	38
Conflicting Peds, #/hr	135	0	113	0	128	0	150	113	0	128	150	0	135
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	26	155	14	6	84	205	64	6	20	52	52	14	40

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	419	0	0	-	297	0	0	909	942	440	956	917	522
Stage 1	-	-	-	-	-	-	-	342	342	-	556	568	-
Stage 2	-	-	-	-	-	-	-	567	600	-	400	349	-
Critical Hdwy	4.11	-	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1145	-	-	-	1276	-	-	258	265	621	240	274	559
Stage 1	-	-	-	-	-	-	-	677	642	-	519	510	-
Stage 2	-	-	-	-	-	-	-	512	493	-	630	637	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1016	-	-	~ -15	~ -15	-	-	173	201	485	148	208	434
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	173	201	-	148	208	-
Stage 1	-	-	-	-	-	-	-	588	557	-	441	446	-
Stage 2	-	-	-	-	-	-	-	400	431	-	461	553	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2		19.7	39.1
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	323	1016	-	-	+	-	-	207
HCM Lane V/C Ratio	0.242	0.026	-	-	-	-	-	0.508
HCM Control Delay (s)	19.7	8.6	0	-	-	-	-	39.1
HCM Lane LOS	C	A	A	-	-	-	-	E
HCM 95th %tile Q(veh)	0.9	0.1	-	-	-	-	-	2.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 Signalized Intersection Summary
4: 3rd Street & Central Way

Park Lane Apartmetns
Future (2018) Without-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	45	424	88	179	726	115	6	169	324	195	113	87
Future Volume (veh/h)	45	424	88	179	726	115	6	169	324	195	113	87
Number	1	6	16	5	2	12		7	4	14	3	8
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.93	0.98		0.93		1.00		0.96	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1881	1881	1900		1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	46	437	91	185	748	119		174	334	201	116	90
Adj No. of Lanes	1	1	1	1	2	0		1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	1	1	1		2	2	2	2	2
Cap, veh/h	284	608	480	362	1147	182		212	534	437	149	322
Arrive On Green	0.05	0.33	0.33	0.09	0.38	0.38		0.12	0.29	0.29	0.08	0.25
Sat Flow, veh/h	1740	1827	1442	1792	3056	486		1774	1863	1524	1774	1284
Grp Volume(v), veh/h	46	437	91	185	437	430		174	334	201	116	0
Grp Sat Flow(s),veh/h/ln	1740	1827	1442	1792	1787	1755		1774	1863	1524	1774	0
Q Serve(g_s), s	1.3	16.3	3.5	5.0	15.8	15.8		7.5	12.1	8.4	5.0	0.0
Cycle Q Clear(g_c), s	1.3	16.3	3.5	5.0	15.8	15.8		7.5	12.1	8.4	5.0	0.0
Prop In Lane	1.00		1.00	1.00		0.28		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	284	608	480	362	671	659		212	534	437	149	0
V/C Ratio(X)	0.16	0.72	0.19	0.51	0.65	0.65		0.82	0.63	0.46	0.78	0.00
Avail Cap(c_a), veh/h	445	727	574	452	711	698		251	622	509	251	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.4	22.8	18.5	16.1	20.1	20.1		33.5	24.1	22.8	35.0	0.0
Incr Delay (d2), s/veh	0.3	2.8	0.2	1.1	2.0	2.0		16.6	1.5	0.8	8.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	8.7	1.4	2.5	8.1	8.0		4.6	6.4	3.6	2.8	0.0
LnGrp Delay(d),s/veh	16.7	25.6	18.7	17.2	22.1	22.1		50.1	25.7	23.6	43.5	0.0
LnGrp LOS	B	C	B	B	C	C		D	C	C	D	
Approach Vol, veh/h		574			1052				709			239
Approach Delay, s/veh		23.8			21.2				31.1			33.4
Approach LOS		C			C				C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	33.2	10.5	26.3	11.1	29.9	13.3	23.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	11.0	26.0	11.0	31.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.3	17.8	7.0	14.1	7.0	18.3	9.5	6.4
Green Ext Time (p_c), s	0.0	5.4	0.1	2.3	0.2	5.2	0.1	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
4: 3rd Street & Central Way

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	32
Future Volume (veh/h)	32
Number	18
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.96
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	33
Adj No. of Lanes	0
Peak Hour Factor	0.97
Percent Heavy Veh, %	2
Cap, veh/h	118
Arrive On Green	0.25
Sat Flow, veh/h	471
Grp Volume(v), veh/h	123
Grp Sat Flow(s),veh/h/ln	1755
Q Serve(g_s), s	4.4
Cycle Q Clear(g_c), s	4.4
Prop In Lane	0.27
Lane Grp Cap(c), veh/h	440
V/C Ratio(X)	0.28
Avail Cap(c_a), veh/h	721
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	23.5
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	2.2
LnGrp Delay(d),s/veh	23.8
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

HCM 2010 Signalized Intersection Summary
5: State Street/3rd Street & Kirkland Ave

Park Lane Apartmetns
Future (2018) Without-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	148	73	121	200	16	84	520	108	108	170	71
Future Volume (veh/h)	39	148	73	121	200	16	84	520	108	108	170	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.78	1.00		0.80	1.00		0.88	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1863	1863	1900	1759	1759	1900
Adj Flow Rate, veh/h	41	156	77	127	211	17	88	547	114	114	179	75
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	8	8	8
Cap, veh/h	85	260	128	157	475	38	126	427	89	142	346	145
Arrive On Green	0.05	0.24	0.24	0.09	0.28	0.28	0.07	0.29	0.29	0.09	0.31	0.31
Sat Flow, veh/h	1792	1077	531	1792	1683	136	1774	1457	304	1675	1130	473
Grp Volume(v), veh/h	41	0	233	127	0	228	88	0	661	114	0	254
Grp Sat Flow(s),veh/h/ln	1792	0	1608	1792	0	1818	1774	0	1761	1675	0	1603
Q Serve(g_s), s	1.5	0.0	8.8	4.8	0.0	7.0	3.3	0.0	20.0	4.6	0.0	8.9
Cycle Q Clear(g_c), s	1.5	0.0	8.8	4.8	0.0	7.0	3.3	0.0	20.0	4.6	0.0	8.9
Prop In Lane	1.00		0.33	1.00		0.07	1.00		0.17	1.00		0.30
Lane Grp Cap(c), veh/h	85	0	389	157	0	513	126	0	515	142	0	491
V/C Ratio(X)	0.48	0.00	0.60	0.81	0.00	0.44	0.70	0.00	1.28	0.80	0.00	0.52
Avail Cap(c_a), veh/h	157	0	424	157	0	513	156	0	515	147	0	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	23.0	30.6	0.0	20.1	31.0	0.0	24.2	30.7	0.0	19.5
Incr Delay (d2), s/veh	4.2	0.0	2.0	25.8	0.0	0.6	9.7	0.0	141.3	25.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	4.1	3.5	0.0	3.6	2.0	0.0	29.8	3.1	0.0	4.1
LnGrp Delay(d),s/veh	35.9	0.0	25.0	56.4	0.0	20.7	40.7	0.0	165.5	56.2	0.0	20.5
LnGrp LOS	D		C	E		C	D		F	E		C
Approach Vol, veh/h		274			355			749			368	
Approach Delay, s/veh		26.6			33.5			150.8			31.5	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	25.0	11.0	21.5	9.9	25.9	8.2	24.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	20.0	6.0	18.0	6.0	20.0	6.0	18.0
Max Q Clear Time (g_c+I1), s	6.6	22.0	6.8	10.8	5.3	10.9	3.5	9.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	3.1	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	82.3
HCM 2010 LOS	F

HCM Signalized Intersection Capacity Analysis
6: 6th Street & Central Way

Park Lane Apartmetns
Future (2018) Without-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	35	642	80	3	213	1070	207	202	314	352	1	100
Future Volume (vph)	35	642	80	3	213	1070	207	202	314	352	1	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%				-3%			0%			
Total Lost time (s)	6.0	6.0			6.0	6.0		6.0	6.0	6.0		6.0
Lane Util. Factor	1.00	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	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.98			1.00	0.98		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.95	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1726	3386			1812	3526		1787	1881	1570		1767
Flt Permitted	0.95	1.00			0.21	1.00		0.95	1.00	1.00		0.21
Satd. Flow (perm)	1726	3386			397	3526		1787	1881	1570		387
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)	36	669	83	3	222	1115	216	210	327	367	1	104
RTOR Reduction (vph)	0	7	0	0	0	12	0	0	0	291	0	0
Lane Group Flow (vph)	36	745	0	0	225	1319	0	210	327	76	0	105
Confl. Peds. (#/hr)	1		2		2		1	22		3		3
Confl. Bikes (#/hr)							1			2		
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	1%	2%	2%
Turn Type	Prot	NA			Prot	NA		custom	NA	Perm		Prot
Protected Phases	1	6			5	2		7	4			3
Permitted Phases								7		4		
Actuated Green, G (s)	5.3	34.0			19.2	47.9		17.2	25.0	25.0		19.2
Effective Green, g (s)	5.3	34.0			19.2	47.9		17.2	25.0	25.0		19.2
Actuated g/C Ratio	0.04	0.28			0.16	0.39		0.14	0.21	0.21		0.16
Clearance Time (s)	6.0	6.0			6.0	6.0		6.0	6.0	6.0		6.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	75	948			62	1391		253	387	323		61
v/s Ratio Prot	0.02	0.22				c0.37		0.12	c0.17			
v/s Ratio Perm					c0.57					0.05		c0.27
v/c Ratio	0.48	0.79			3.63	0.95		0.83	0.84	0.23		1.72
Uniform Delay, d1	56.7	40.3			51.1	35.6		50.7	46.3	40.2		51.1
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	4.8	4.3			1221.9	13.6		20.0	15.4	0.4		384.1
Delay (s)	61.5	44.7			1273.0	49.2		70.7	61.8	40.6		435.2
Level of Service	E	D			F	D		E	E	D		F
Approach Delay (s)		45.4				226.1			55.3			
Approach LOS		D				F			E			

Intersection Summary			
HCM 2000 Control Delay	139.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	121.4	Sum of lost time (s)	24.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: 6th Street & Central Way

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	98	64
Future Volume (vph)	98	64
Ideal Flow (vphpl)	1900	1900
Grade (%)	0%	
Total Lost time (s)	6.0	
Lane Util. Factor	1.00	
Frpb, ped/bikes	0.98	
Flpb, ped/bikes	1.00	
Frt	0.94	
Flt Protected	1.00	
Satd. Flow (prot)	1721	
Flt Permitted	1.00	
Satd. Flow (perm)	1721	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	102	67
RTOR Reduction (vph)	18	0
Lane Group Flow (vph)	151	0
Confl. Peds. (#/hr)		22
Confl. Bikes (#/hr)		
Heavy Vehicles (%)	2%	2%
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	27.0	
Effective Green, g (s)	27.0	
Actuated g/C Ratio	0.22	
Clearance Time (s)	6.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	382	
v/s Ratio Prot	0.09	
v/s Ratio Perm		
v/c Ratio	0.40	
Uniform Delay, d1	40.2	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	40.9	
Level of Service	D	
Approach Delay (s)	192.0	
Approach LOS	F	

Intersection Summary

HCM Signalized Intersection Capacity Analysis
7: Kirkland Way/114th Ave NE & Central Way

Park Lane Apartmetns
Future (2018) Without-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1090	3	367	1471	471	28	86	672	319	20	7
Future Volume (vph)	10	1090	3	367	1471	471	28	86	672	319	20	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	12	11	10	12
Grade (%)		2%			0%			0%			0%	
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5			6.2	6.2	6.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00	0.97	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			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	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1769	3539	1583	1787	5029			1735	1588	3351	1690	
Flt Permitted	0.12	1.00	1.00	0.09	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (perm)	220	3539	1583	175	5029			1735	1588	3351	1690	
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
Growth Factor (vph)	100%	100%	100%	100%	100%	50%	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	11	1147	3	386	1548	248	29	91	707	336	21	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	1147	3	386	1796	0	0	120	707	336	28	0
Confl. Peds. (#/hr)									2	2		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Prot	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6	6	5	2		4	4	4 5	8	8	
Permitted Phases	6			2					6			
Actuated Green, G (s)	37.4	37.4	37.4	62.8	62.8			16.3	73.6	18.3	18.3	
Effective Green, g (s)	37.4	37.4	37.4	62.8	62.8			16.3	73.6	18.3	18.3	
Actuated g/C Ratio	0.32	0.32	0.32	0.55	0.55			0.14	0.64	0.16	0.16	
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5			6.2		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	71	1149	514	374	2743			245	1015	532	268	
v/s Ratio Prot		0.32	0.00	c0.18	0.36			0.07	c0.22	c0.10	0.02	
v/s Ratio Perm	0.05			c0.38					0.23			
v/c Ratio	0.15	1.00	0.01	1.03	0.65			0.49	0.70	0.63	0.10	
Uniform Delay, d1	27.6	38.8	26.3	36.4	18.5			45.6	13.5	45.2	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.0	25.9	0.0	55.0	0.6			1.5	2.1	2.4	0.2	
Delay (s)	28.6	64.7	26.3	91.4	19.1			47.1	15.6	47.7	41.6	
Level of Service	C	E	C	F	B			D	B	D	D	
Approach Delay (s)		64.3			31.9			20.2			47.2	
Approach LOS		E			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	39.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	115.1	Sum of lost time (s)	23.2
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.7

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	6	13	439	33	94	801	63	19	6	146	19	6	19
Future Vol, veh/h	6	13	439	33	94	801	63	19	6	146	19	6	19
Conflicting Peds, #/hr	0	60	0	38	49	0	71	38	0	49	71	0	60
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	100	-	-	25	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	2	2	2	0	0	0	0	0	0
Mvmt Flow	7	14	477	36	102	871	68	21	7	159	21	7	21

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	685	1010	0	0	562	0	0	1275	1799	615	1857	1783	601
Stage 1	-	-	-	-	-	-	-	572	585	-	1180	1180	-
Stage 2	-	-	-	-	-	-	-	703	1214	-	677	603	-
Critical Hdwy	6.96	4.16	-	-	4.13	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.138	2.238	-	-	2.219	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	405	674	-	-	1007	-	-	135	81	495	51	83	448
Stage 1	-	-	-	-	-	-	-	509	501	-	205	266	-
Stage 2	-	-	-	-	-	-	-	399	257	-	446	492	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	530	530	-	-	947	-	-	104	65	447	25	67	400
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	104	65	-	95	155	-
Stage 1	-	-	-	-	-	-	-	509	481	-	205	223	-
Stage 2	-	-	-	-	-	-	-	311	216	-	267	472	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.9	38.8	38.6
HCM LOS			E	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	284	530	-	-	947	-	-	154
HCM Lane V/C Ratio	0.654	0.039	-	-	0.108	-	-	0.311
HCM Control Delay (s)	38.8	12.1	-	-	9.3	-	-	38.6
HCM Lane LOS	E	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	4.2	0.1	-	-	0.4	-	-	1.2

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	25	6	19	0	16	0	6	0	0	140	6
Future Vol, veh/h	0	25	6	19	0	16	0	6	0	0	140	6
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	2	2	2	2
Mvmt Flow	0	32	8	24	0	20	0	8	0	0	177	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

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

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	73%	5%
Vol Thru, %	96%	12%	0%	95%
Vol Right, %	4%	38%	27%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	146	50	22	133
LT Vol	0	25	16	6
Through Vol	140	6	0	127
RT Vol	6	19	6	0
Lane Flow Rate	185	63	28	168
Geometry Grp	1	1	1	1
Degree of Util (X)	0.221	0.081	0.037	0.202
Departure Headway (Hd)	4.301	4.588	4.743	4.318
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	837	782	756	833
Service Time	2.318	2.608	2.766	2.334
HCM Lane V/C Ratio	0.221	0.081	0.037	0.202
HCM Control Delay	8.5	8	7.9	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.1	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	127	0
Future Vol, veh/h	0	6	127	0
Peak Hour Factor	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	8	161	0
Number of Lanes	0	0	1	0

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

Lane

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	33	149	13	6	81	197	77	6	19	50	56	13	43
Future Vol, veh/h	33	149	13	6	81	197	77	6	19	50	56	13	43
Conflicting Peds, #/hr	135	0	113	0	128	0	150	113	0	128	150	0	135
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	34	155	14	6	84	205	80	6	20	52	58	14	45

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	435	0	0	-	297	0	0	937	976	440	981	943	530
Stage 1	-	-	-	-	-	-	-	359	359	-	564	577	-
Stage 2	-	-	-	-	-	-	-	578	617	-	417	366	-
Critical Hdwy	4.11	-	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1130	-	-	-	1276	-	-	247	253	621	231	265	553
Stage 1	-	-	-	-	-	-	-	663	631	-	514	505	-
Stage 2	-	-	-	-	-	-	-	505	484	-	617	626	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1003	-	-	~ -15	~ -15	-	-	162	190	485	141	199	429
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	162	190	-	141	199	-
Stage 1	-	-	-	-	-	-	-	570	543	-	433	442	-
Stage 2	-	-	-	-	-	-	-	389	424	-	447	539	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5		20.4	45.9
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	312	1003	-	-	+	-	-	199
HCM Lane V/C Ratio	0.25	0.034	-	-	-	-	-	0.586
HCM Control Delay (s)	20.4	8.7	0	-	-	-	-	45.9
HCM Lane LOS	C	A	A	-	-	-	-	E
HCM 95th %tile Q(veh)	1	0.1	-	-	-	-	-	3.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 Signalized Intersection Summary
4: 3rd Street & Central Way

Park Lane Apartmetns
Future (2018) With-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	58	455	88	181	770	115	6	169	324	195	113	88
Future Volume (veh/h)	58	455	88	181	770	115	6	169	324	195	113	88
Number	1	6	16	5	2	12		7	4	14	3	8
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.93	0.99		0.93		1.00		0.96	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1881	1881	1900		1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	469	91	187	794	119		174	334	201	116	91
Adj No. of Lanes	1	1	1	1	2	0		1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	1	1	1		2	2	2	2	2
Cap, veh/h	280	616	487	347	1153	173		212	530	434	149	321
Arrive On Green	0.06	0.34	0.34	0.09	0.37	0.37		0.12	0.28	0.28	0.08	0.25
Sat Flow, veh/h	1740	1827	1444	1792	3086	462		1774	1863	1523	1774	1288
Grp Volume(v), veh/h	60	469	91	187	460	453		174	334	201	116	0
Grp Sat Flow(s),veh/h/ln	1740	1827	1444	1792	1787	1761		1774	1863	1523	1774	0
Q Serve(g_s), s	1.7	18.1	3.5	5.2	17.2	17.2		7.6	12.4	8.6	5.1	0.0
Cycle Q Clear(g_c), s	1.7	18.1	3.5	5.2	17.2	17.2		7.6	12.4	8.6	5.1	0.0
Prop In Lane	1.00		1.00	1.00		0.26		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	280	616	487	347	668	658		212	530	434	149	0
V/C Ratio(X)	0.21	0.76	0.19	0.54	0.69	0.69		0.82	0.63	0.46	0.78	0.00
Avail Cap(c_a), veh/h	426	716	566	432	700	690		247	612	501	247	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.5	23.4	18.5	16.8	20.9	20.9		34.0	24.7	23.3	35.5	0.0
Incr Delay (d2), s/veh	0.4	4.1	0.2	1.3	2.7	2.7		17.3	1.6	0.8	8.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	9.8	1.4	2.6	8.9	8.8		4.7	6.6	3.7	2.8	0.0
LnGrp Delay(d),s/veh	16.9	27.5	18.7	18.1	23.6	23.6		51.3	26.3	24.1	44.1	0.0
LnGrp LOS	B	C	B	B	C	C		D	C	C	D	
Approach Vol, veh/h		620			1100				709			240
Approach Delay, s/veh		25.2			22.7				31.8			33.9
Approach LOS		C			C				C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	33.6	10.6	26.5	11.3	30.7	13.4	23.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	11.0	26.0	11.0	31.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.7	19.2	7.1	14.4	7.2	20.1	9.6	6.5
Green Ext Time (p_c), s	0.1	5.4	0.1	2.3	0.2	5.1	0.1	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
4: 3rd Street & Central Way

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	32
Future Volume (veh/h)	32
Number	18
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.96
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	33
Adj No. of Lanes	0
Peak Hour Factor	0.97
Percent Heavy Veh, %	2
Cap, veh/h	116
Arrive On Green	0.25
Sat Flow, veh/h	467
Grp Volume(v), veh/h	124
Grp Sat Flow(s),veh/h/ln	1755
Q Serve(g_s), s	4.5
Cycle Q Clear(g_c), s	4.5
Prop In Lane	0.27
Lane Grp Cap(c), veh/h	437
V/C Ratio(X)	0.28
Avail Cap(c_a), veh/h	710
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	24.0
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	2.2
LnGrp Delay(d),s/veh	24.4
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

HCM 2010 Signalized Intersection Summary
5: State Street/3rd Street & Kirkland Ave

Park Lane Apartmetns
Future (2018) With-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	150	77	121	208	16	92	520	108	108	170	71
Future Volume (veh/h)	39	150	77	121	208	16	92	520	108	108	170	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.78	1.00		0.80	1.00		0.88	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1863	1863	1900	1759	1759	1900
Adj Flow Rate, veh/h	41	158	81	127	219	17	97	547	114	114	179	75
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	8	8	8
Cap, veh/h	85	257	132	157	477	37	131	426	89	142	343	144
Arrive On Green	0.05	0.24	0.24	0.09	0.28	0.28	0.07	0.29	0.29	0.09	0.30	0.30
Sat Flow, veh/h	1792	1059	543	1792	1689	131	1774	1457	304	1675	1130	473
Grp Volume(v), veh/h	41	0	239	127	0	236	97	0	661	114	0	254
Grp Sat Flow(s),veh/h/ln	1792	0	1602	1792	0	1820	1774	0	1761	1675	0	1603
Q Serve(g_s), s	1.5	0.0	9.1	4.8	0.0	7.3	3.7	0.0	20.0	4.6	0.0	9.0
Cycle Q Clear(g_c), s	1.5	0.0	9.1	4.8	0.0	7.3	3.7	0.0	20.0	4.6	0.0	9.0
Prop In Lane	1.00		0.34	1.00		0.07	1.00		0.17	1.00		0.30
Lane Grp Cap(c), veh/h	85	0	388	157	0	514	131	0	515	142	0	487
V/C Ratio(X)	0.48	0.00	0.62	0.81	0.00	0.46	0.74	0.00	1.28	0.80	0.00	0.52
Avail Cap(c_a), veh/h	157	0	422	157	0	514	156	0	515	147	0	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	23.1	30.6	0.0	20.2	31.0	0.0	24.2	30.7	0.0	19.7
Incr Delay (d2), s/veh	4.2	0.0	2.4	25.9	0.0	0.6	14.3	0.0	141.6	25.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	4.2	3.5	0.0	3.8	2.3	0.0	29.9	3.1	0.0	4.1
LnGrp Delay(d),s/veh	35.9	0.0	25.4	56.5	0.0	20.9	45.3	0.0	165.8	56.2	0.0	20.7
LnGrp LOS	D		C	E		C	D		F	E		C
Approach Vol, veh/h		280			363			758			368	
Approach Delay, s/veh		27.0			33.3			150.4			31.7	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	25.0	11.0	21.6	10.0	25.8	8.2	24.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	20.0	6.0	18.0	6.0	20.0	6.0	18.0
Max Q Clear Time (g_c+I1), s	6.6	22.0	6.8	11.1	5.7	11.0	3.5	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	3.1	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	82.1
HCM 2010 LOS	F

HCM Signalized Intersection Capacity Analysis
6: 6th Street & Central Way

Park Lane Apartmetns
Future (2018) With-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	36	670	80	3	213	1112	207	203	314	352	1	100
Future Volume (vph)	36	670	80	3	213	1112	207	203	314	352	1	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%				-3%			0%			
Total Lost time (s)	6.0	6.0			6.0	6.0		6.0	6.0	6.0		6.0
Lane Util. Factor	1.00	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	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.98			1.00	0.98		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.95	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1726	3388			1812	3529		1787	1881	1570		1767
Flt Permitted	0.95	1.00			0.21	1.00		0.95	1.00	1.00		0.21
Satd. Flow (perm)	1726	3388			397	3529		1787	1881	1570		387
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)	38	698	83	3	222	1158	216	211	327	367	1	104
RTOR Reduction (vph)	0	7	0	0	0	11	0	0	0	292	0	0
Lane Group Flow (vph)	38	774	0	0	225	1363	0	211	327	75	0	105
Confl. Peds. (#/hr)	1		2		2		1	22		3		3
Confl. Bikes (#/hr)							1			2		
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	1%	2%	2%
Turn Type	Prot	NA			Prot	NA		custom	NA	Perm		Prot
Protected Phases	1	6			5	2		7	4			3
Permitted Phases								7		4		
Actuated Green, G (s)	5.4	35.1			19.2	48.9		17.3	25.1	25.1		19.2
Effective Green, g (s)	5.4	35.1			19.2	48.9		17.3	25.1	25.1		19.2
Actuated g/C Ratio	0.04	0.29			0.16	0.40		0.14	0.20	0.20		0.16
Clearance Time (s)	6.0	6.0			6.0	6.0		6.0	6.0	6.0		6.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	76	969			62	1407		252	385	321		60
v/s Ratio Prot	0.02	0.23				c0.39		0.12	c0.17			
v/s Ratio Perm					c0.57					0.05		c0.27
v/c Ratio	0.50	0.80			3.63	0.97		0.84	0.85	0.23		1.75
Uniform Delay, d1	57.3	40.5			51.7	36.1		51.3	46.9	40.7		51.7
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	5.1	4.7			1221.9	16.9		20.8	15.9	0.4		397.0
Delay (s)	62.4	45.1			1273.6	53.0		72.1	62.8	41.1		448.7
Level of Service	E	D			F	D		E	E	D		F
Approach Delay (s)		45.9				224.7			56.2			
Approach LOS		D				F			E			

Intersection Summary			
HCM 2000 Control Delay	139.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	122.6	Sum of lost time (s)	24.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: 6th Street & Central Way

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	98	65
Future Volume (vph)	98	65
Ideal Flow (vphpl)	1900	1900
Grade (%)	0%	
Total Lost time (s)	6.0	
Lane Util. Factor	1.00	
Frpb, ped/bikes	0.98	
Flpb, ped/bikes	1.00	
Frt	0.94	
Flt Protected	1.00	
Satd. Flow (prot)	1719	
Flt Permitted	1.00	
Satd. Flow (perm)	1719	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	102	68
RTOR Reduction (vph)	19	0
Lane Group Flow (vph)	151	0
Confl. Peds. (#/hr)		22
Confl. Bikes (#/hr)		
Heavy Vehicles (%)	2%	2%
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	27.0	
Effective Green, g (s)	27.0	
Actuated g/C Ratio	0.22	
Clearance Time (s)	6.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	378	
v/s Ratio Prot	0.09	
v/s Ratio Perm		
v/c Ratio	0.40	
Uniform Delay, d1	40.9	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	41.6	
Level of Service	D	
Approach Delay (s)	197.0	
Approach LOS	F	

Intersection Summary

HCM Signalized Intersection Capacity Analysis
7: Kirkland Way/114th Ave NE & Central Way

Park Lane Apartmetns
Future (2018) With-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1118	3	367	1513	471	28	86	672	319	20	7
Future Volume (vph)	10	1118	3	367	1513	471	28	86	672	319	20	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	12	11	10	12
Grade (%)		2%			0%			0%			0%	
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5			6.2	6.2	6.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00	0.97	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			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	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1769	3539	1583	1787	5032			1735	1588	3351	1690	
Flt Permitted	0.11	1.00	1.00	0.09	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (perm)	207	3539	1583	175	5032			1735	1588	3351	1690	
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
Growth Factor (vph)	100%	100%	100%	100%	100%	50%	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	11	1177	3	386	1593	248	29	91	707	336	21	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	1177	3	386	1841	0	0	120	707	336	28	0
Confl. Peds. (#/hr)									2	2		
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Prot	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6	6	5	2		4	4	4 5	8	8	
Permitted Phases	6			2					6			
Actuated Green, G (s)	37.4	37.4	37.4	62.8	62.8			16.3	73.6	18.3	18.3	
Effective Green, g (s)	37.4	37.4	37.4	62.8	62.8			16.3	73.6	18.3	18.3	
Actuated g/C Ratio	0.32	0.32	0.32	0.55	0.55			0.14	0.64	0.16	0.16	
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5			6.2		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	67	1149	514	374	2745			245	1015	532	268	
v/s Ratio Prot		0.33	0.00	c0.18	0.37			0.07	c0.22	c0.10	0.02	
v/s Ratio Perm	0.05			c0.38					0.23			
v/c Ratio	0.16	1.02	0.01	1.03	0.67			0.49	0.70	0.63	0.10	
Uniform Delay, d1	27.7	38.9	26.3	36.4	18.7			45.6	13.5	45.2	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	32.9	0.0	55.0	0.7			1.5	2.1	2.4	0.2	
Delay (s)	28.9	71.8	26.3	91.4	19.4			47.1	15.6	47.7	41.6	
Level of Service	C	E	C	F	B			D	B	D	D	
Approach Delay (s)		71.2			31.9			20.2			47.2	
Approach LOS		E			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	115.1	Sum of lost time (s)	23.2
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	11	44	95	24	6	55	102
Future Vol, veh/h	11	44	95	24	6	55	102
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	12	46	100	25	6	58	107

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	336	113	0	0	-	125	0
Stage 1	113	-	-	-	-	-	-
Stage 2	223	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-
Pot Cap-1 Maneuver	659	940	-	-	-	1462	-
Stage 1	912	-	-	-	-	-	-
Stage 2	814	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	659	940	-	-	~ -10	~ -10	-
Mov Cap-2 Maneuver	659	-	-	-	-	-	-
Stage 1	912	-	-	-	-	-	-
Stage 2	814	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	866	+	-
HCM Lane V/C Ratio	-	-	0.067	-	-
HCM Control Delay (s)	-	-	9.5	-	-
HCM Lane LOS	-	-	A	-	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Appendix E:WSDOT Collision Worksheets

Appendix A: WSDOT Collision Worksheets

OFFICER REPORTED CRASHES THAT OCCURRED ON ALL ROADS IN THE CITY OF KIRKLAND
1/1/2012 - 12/31/2014

UNDER 23 UNITED STATES CODE – SECTION 409, THIS DATA CANNOT BE USED IN DISCOVERY OR AS EVIDENCE AT TRIAL IN ANY ACTION FOR DAMAGES AGAINST THE WSDOT OR ANY JURISDICTIONS INVOLVED IN THE DATA.

JURISDICTION	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILE POST	A/B	REPORT NUMBER	Year	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	#PEDAL	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEH 1 ACTION	VEH 2 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 1 (UNIT 2)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	IMPACT LOCATION (Effective for City, County & Misc 1/1/2010, SR's indefinite)
City Street	NE 85TH ST		114TH AVE NE							E150351	2012	1/23/2012	12:30	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Wet	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	Disregard Stop and Go Light	None	East	West	North	South	Lane of Primary Trafficway
City Street	KIRKLAND WAY	11200	NE 85TH ST							E314833	2014	3/15/2014	11:45	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	Entering at angle	Changing Lanes	Going Straight Ahead	Inattention	None	Southwest	Northeast	West	East	Lane of Primary Trafficway
City Street	3RD ST		CENTRAL WAY							E249318	2013	12/21/2013	22:22	Evident Injury	1	0	1	1	0	Passenger Car		At Intersection and Related	Wet	Dark-Street Lights On	Vehicle turning left hits pedestrian	Making Left Turn		None		North	East			Intersecting Trafficway (WITH Intent to Access)
City Street	3RD ST	300	CENTRAL WAY							E192597	2012	9/17/2012	5:05	No Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Dry	Dark-Street Lights On	Curb, Raised Traffic Island or Raised Median Curb	Making Right Turn		Improper Turn		South	East			Outside Shoulder of Primary Trafficway
City Street	3RD ST		CENTRAL WAY							E148190	2012	1/13/2012	10:04	No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic	Follow Too Closely	None	North	South	North	Lane of Primary Trafficway
City Street			KIRKLAND AVE							E196160	2012	10/4/2012	12:50	No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Inattention	None	North	South	North	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY		SW	6TH ST						E187977	2012	8/23/2012	10:46	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Intersection Related but Not at Intersection	Dry	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	Driver Operating Handheld Telecommunicat	None	Southwest	Northeast	Southwest	Northeast	Lane of Primary Trafficway
City Street	NE 85TH ST	7400	114TH AVE NE							E171862	2014	11/4/2014	9:06	No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Wet	Daylight	Entering at angle	Making Right Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	South	East	West	East	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	3RD ST							E337300	2014	6/24/2014	12:09	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Driveway within Major Intersection	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	North	East	East	West	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	3RD ST							E263249	2013	9/12/2013	13:10	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped at Signal or Stop Sign	Inattention	None	West	East	Vehicle Stopped	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	3RD ST							E292068	2013	12/2/2013	17:27	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Driveway within Major Intersection	Wet	Dark-Street Lights On	Entering at angle	Merging (Entering Traffic)	Going Straight Ahead	Did Not Grant RW to Vehicle	None	North	East	East	West	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	3RD ST							E253719	2013	6/29/2013	8:40	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	Making Left Turn	None	East	West	North	East	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	3RD ST							E176199	2012	6/19/2012	12:08	No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway within Major Intersection	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	South	West	East	West	Lane of Primary Trafficway
City Street	CENTRAL WAY		3RD ST							E200476	2012	10/17/2012	19:04	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Bus or Motor Stage	At Intersection and Related	Dry	Dark-Street Lights On	Same direction – both turning left – one stopped – sideswipe	Making Left Turn	Stopped for Traffic	Improper Turn	None	East	South	East	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY		3RD ST							E325317	2014	4/26/2014	21:35	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	Entering at angle	Making Left Turn	Going Straight Ahead	Inattention	None	South	West	East	West	Lane of Primary Trafficway
City Street	CENTRAL WAY	500	6TH ST							E320038	2014	4/10/2014	10:00	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Starting in Traffic Lane	Exceeding Reas. Safe Speed	None	West	East	West	East	Lane of Primary Trafficway
City Street	CENTRAL WAY	600	6TH ST							E343998	2014	8/11/2014	9:27	No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Follow Too Closely	None	West	East	Vehicle Stopped	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY	0	6TH ST							E243048	2013	5/10/2013	14:40	Possible Injury	1	0	2	0	0	Truck (Flatbed,Van,etc)	Passenger Car	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Follow Too Closely	None	West	East	West	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY	600	6TH ST							E229669	2013	2/18/2013	1:45	Unknown	0	0	1	0	0	Passenger Car		At Intersection and Related	Dry	Dark-Street Lights On	Tree or Stump (stationary)	Making Right Turn		Other		West	South			Past the Outside Shoulder of Primary Trafficway
City Street	CENTRAL WAY		6TH ST							E162410	2012	4/2/2012	13:20	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Exceeding Reas. Safe Speed	None	West	East	West	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY		6TH ST							E222817	2013	1/24/2013	19:50	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead	Did Not Grant RW to Vehicle	None	West	East	West	East	Lane of Primary Trafficway
City Street	CENTRAL WAY	600	6TH ST							E158102	2014	9/10/2014	15:39	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	Inattention	None	South	West	North	South	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	MAIN ST							E354376	2014	9/2/2014	18:45	Possible Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Follow Too Closely	None	West	East	Vehicle Stopped	Vehicle Stopped	Lane of Primary Trafficway
City Street	CENTRAL WAY	200	MAIN ST							E357610	2014	9/12/2014	12:19	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway within Major Intersection	Dry	Daylight	One Car leaving parked position	Merging (Entering Traffic)	Going Straight Ahead	Inattention	None	West	East	West	East	Lane of Primary Trafficway
City Street	KIRKLAND AVE	200	3RD ST							E211991	2012	11/30/2012	18:50	Possible Injury	1	0	1	1	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Driveway within Major Intersection	Wet	Dark-Street Lights On	Vehicle turning left hits pedestrian	Making Left Turn		Fail to Yield Row to Pedestrian		East	South			Lane of Primary Trafficway
City Street	KIRKLAND AVE	200	3RD ST							E195458	2012	10/1/2012	14:43	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Motorcycle	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic	Follow Too Closely	None	East	West	East	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E213969	2012	12/17/2012	12:06	Evident Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E159080	2012	2/17/2012	22:57	Serious Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Under Influence of Alcohol	None	West	North	East	West	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E165944	2012	4/20/2012	9:50	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Wet	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E216329	2012	12/23/2012	15:30	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E204413	2012	11/7/2012	12:34	Evident Injury	1	0	2	0	0	Passenger Car	Motorcycle	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	Other	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E156932	2012	10/7/2012	20:14	Possible Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E245772	2013	5/23/2013	13:20	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E272794	2013	9/16/2013	5:12	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E236795	2013	3/23/2013	20:17	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E274738	2013	9/27/2013	23:16	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Taxi	At Intersection and Related	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	Under Influence of Alcohol	Driver Not Distracted	West	East	East	South	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E228537	2013	2/20/2013	18:36	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E267909	2013	9/5/2013	18:41	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Improper Turn	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	7400	114TH AVE NE							E364883	2014	12/18/2014	18:41	Evident Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	7400	KIRKLAND WAY							E360833	2014	9/28/2014	17:13	Possible Injury	2	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Improper Turn	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E342384	2014	7/18/2014	7:00	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E312461	2014	3/4/2014	19:04	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Improper Turn	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	7400	KIRKLAND WAY							E362701	2014	10/7/2014	9:17	No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E310882	2014	2/20/2014	17:42	Evident Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None	East	South	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST		114TH AVE NE		M					E159214	2012	1/10/2012	19:36	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From same direction - all others	Backing	Stopped for Traffic	Improper Backing	None	South	North	Vehicle Backing	North	Vehicle Stopped	Lane of Primary Trafficway
City Street	114TH AVE NE	400	NE 85TH ST							E166986	2012	4/30/2012	15:05	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Not Related	Dry	Daylight	From same direction - both going straight - both moving - sideswipe	Overtaking and Passing	Going Straight Ahead	Improper Passing	None	South	North	South	North	South	Lane of Primary Trafficway
City Street	114TH AVE NE		NE 85TH ST							E331370	2014	5/29/2014	16:54	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead	Other	None	East	South	North	South	Lane of Primary Trafficway
City Street	CENTRAL WAY	11300	114TH AVE NE							E173486	2012	6/4/2012	9:35	Possible Injury	2	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Inattention	None	West	East	West	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E173751	2012	6/1/2012	14:47	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Driver Interacting with Passengers, Anim	None	East	West	East	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E188890	2012	8/28/2012	12:14	Possible Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped for Traffic	Driver Interacting with Passengers, Anim	None	East	West	East	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E182513	2012	7/18/2012	9:06	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Going Straight Ahead	Driver Eating or Drinking	None	West	East	West	East	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	KIRKLAND WAY							E168576	2012	5/8/2012	15:50	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Follow Too Closely	None	West	East	West	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E264988	2013	8/19/2013	17:52	No Injury	0	0	3	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic	Follow Too Closely	None	East	West	East	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E310903	2014	2/28/2014	17:01	Possible Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Inattention	None	East	West	Vehicle Stopped	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	7400	114TH AVE NE							E368197	2014	10/26/2014	8:04	Possible Injury	1	0	2	0	0	Passenger Car	Bus or Motor Stage	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Apparently Ill	None	East	West	Vehicle Stopped	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E312460	2014	3/4/2014	18:19	No Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Wet	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Exceeding Reas. Safe Speed	None	West	East	West	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	7400	KIRKLAND WAY							E350671	2014	8/19/2014	12:53	Possible Injury	4	0	3	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic	Follow Too Closely	None	South	North	Vehicle Stopped	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST		114TH AVE NE							E263205	2013	9/11/2013	15:57	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Dry	Daylight	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Improper Turn	None	East	South	East	West	Lane of Primary Trafficway
City Street	KIRKLAND WAY	11200	NE 85TH ST							E218478	2013	1/3/2013	15:03	No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Dry	Daylight	From same direction - one right turn - one straight	Going Straight Ahead	Stopped for Traffic	Follow Too Closely	None	South	North	South	Vehicle Stopped	Lane of Primary Trafficway
City Street	NE 85TH ST	11400	114TH AVE NE							E335925	2014	6/20/2014	9:19	Evident Injury	1	0	1	0	0	Motorcycle		At Intersection and Related	Dry	Daylight	Vehicle overturned	Going Straight Ahead		Other		East	West			Lane of Primary Trafficway

Appendix F:Concurrency Test Results

2018 **Park Lane Apartments Mixed-Use**

2) Project Description: Replace the existing vacant antique store with 128 apartments and 12.5ksf commercial ground floor

3) Build-out Year: 2018 factor = 1

Gross Trips: Enter Exit Enter Exit

4) Transportation Concurrency Status: PASS

5) Transportation Concurrency Test Date: August 24, 2015

6) Transportation Concurrency Certificate Date:

7) Certificate of Occupancy Date:

SUMMARY OF TRAFFIC IMPACTS

8) Daily Trips 1,433 | **PM Peak Trips:** 134 (79 in, 55 out) | **Impacted Subarea(s):** S | **TAZ:** 256 | Case # Tran15-01576

Signalized Intersection PM Peak Traffic Impact

		Project PM Peak Turning Volumes												PM Peak	Daily Trips	Sum of	Vol.
		Eastbound			Westbound			Northbound			Southbound						
Code	Intersection	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
														0			
														0			
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Subarea No	2017 LOS Standards: A= Max. Intersection LOS	2017 LOS Standards: B=Average 2015 V/C	LOS with Project Impacts: a=No. exceeding 1.4	LOS with Project Impacts: b=Average V/C	a <= A?	b<= B?
Southwest (1xx)	1.4	0.91	0	0.81	yes	yes
Northwest (2xx)	1.4	0.96	0	0.85	yes	yes
Northeast (3xx)	1.4	0.94	0	0.79	yes	yes
East(4xx)	1.4	1.08	0	0.95	yes	yes
Annex(5xx)	1.4	n/a	0	n/a	yes	n/a

TEST RESULTS

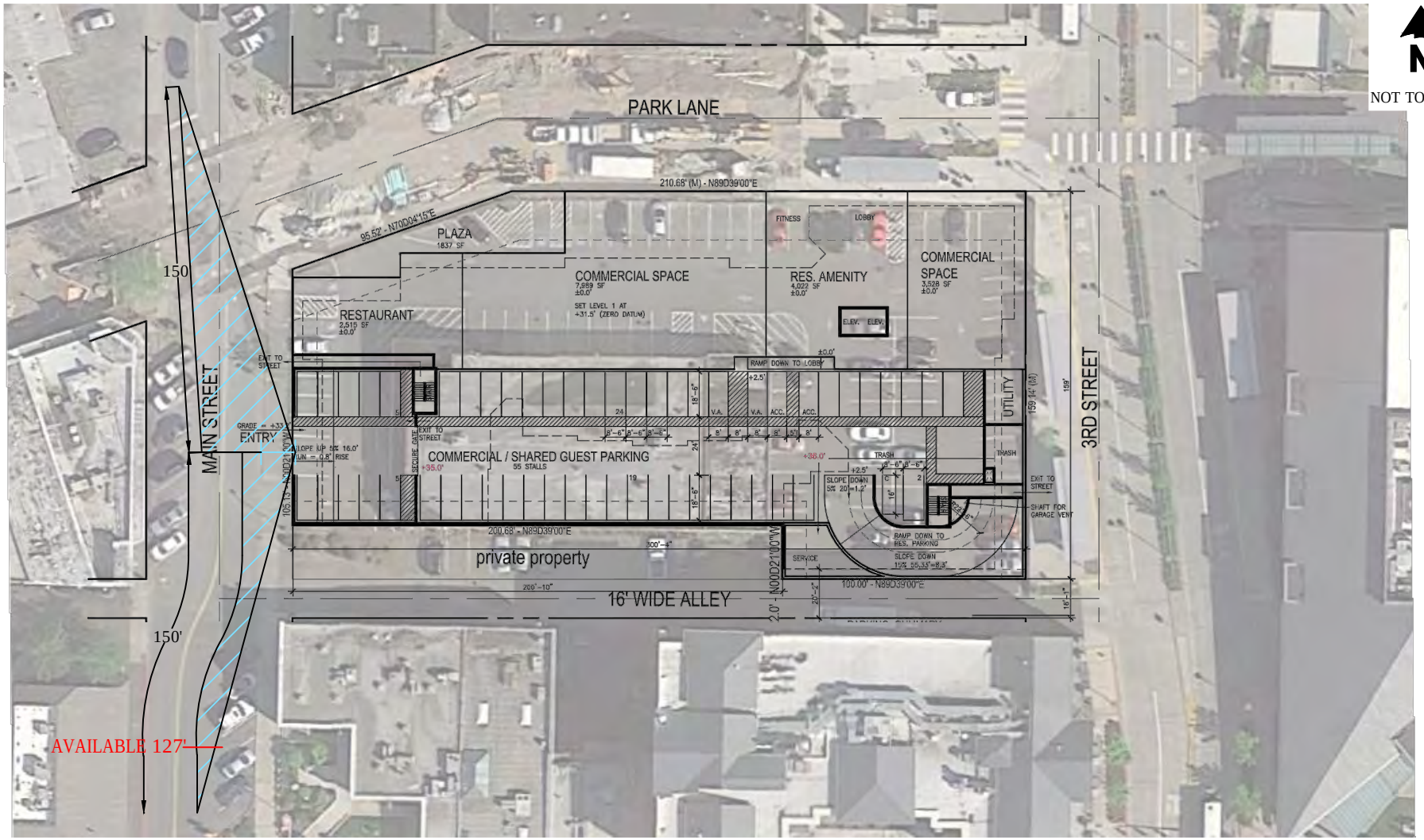
Result: **PASS**

* Based on Critical Movement, Planning Method TRC #212.

1. Number of intersection exceeding Average V/C LOS Standard

1. Sixth Year Target Average V/C ratio, see step 6, part 1 of the guidelines

Appendix G: Sight Distance Triangles



Sight Distance values (150') based on City of Kirkland Sight Distance Guidelines Table 2, Driveway Type E3 for a major street speed limit of 25 mph, and <6000 ADT.

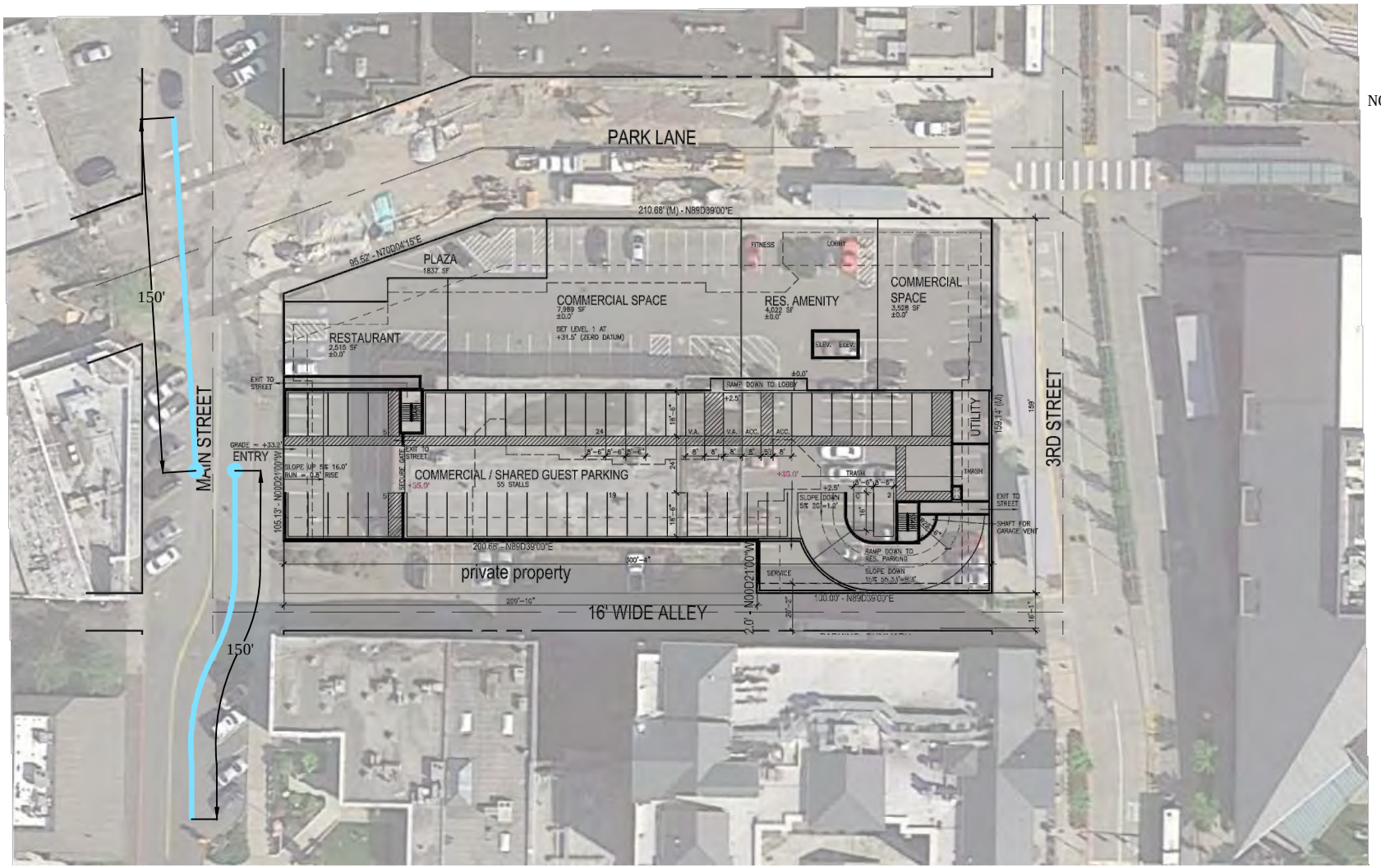
Intersetion Sight Distance

APPENDIX
G

Park Lane Apartments

transpogroup
WHAT TRANSPORTATION CAN BE.

Apr 04, 2016 - 3:59pm jessical Q:\Projects\15\15129.00 - Park Lane Apartments\Graphics\15129_Graphics.dwg Layout: entering SD



N

NOT TO SCALE

Sight Distance values based on City of Kirkland Sight Distance Guidelines Table 2, Driveway Type E3 for a major street speed limit of 25 mph, and <6000 ADT.

Stopping Sight Distance

APPENDIX **G**

Park Lane Apartments

transpogroup
WHAT TRANSPORTATION CAN BE.

Apr 04, 2016 - 3:59pm jessical Q:\Projects\15\15129.00 - Park Lane Apartments\Graphics\15129_Graphics.dwg Layout: stopping sd